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A STUDY ON POVERTY, AGRICULTURE AND SUSTAINABLE DEVELOPMENT GOALS: AN INDIAN PERSPECTIVE

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Abstract: Agriculture continues to play a central role in India's economic structure and rural livelihood systems, supporting a large share of the population. Despite notable economic progress, poverty remains a persistent challenge in rural India, where heavy dependence on agriculture exposes households to income uncertainty, climatic variability, and institutional constraints. This paper explores the relationship between agriculture and poverty in India through the lens of the Sustainable Development Goals (SDGs), with specific emphasis on SDG 1 (No Poverty) and SDG 2 (Zero Hunger). The study identifies key structural issues within Indian agriculture, such as fragmented landholdings, low and unstable farm incomes, climate-related vulnerabilities, and unequal access to productive resources and markets. It further examines how agricultural growth, policy interventions, and sustainability-oriented practices influence poverty reduction outcomes. Government initiatives aimed at income support, food security, and rural employment are discussed to assess their role in strengthening agricultural livelihoods. The paper argues that agriculture can serve as an effective instrument for poverty alleviation only when supported by inclusive policies, technological innovation, and environmentally sustainable practices. Strengthening agricultural resilience, promoting diversification, and enhancing access to markets and resources are essential for improving rural incomes. The study concludes that an integrated and sustainable agricultural development strategy is crucial for accelerating progress towards the SDGs and achieving long-term poverty reduction in India.

Keywords: Agriculture, Poverty Reduction, Sustainable Development Goals (SDGs)

INTRODUCTION

India's development policy prioritizes the elimination of poverty as a primary objective, notwithstanding the country's ongoing economic expansion. Agriculture continues to be the primary source of employment for a significant number of people and provides financial support for a huge number of small farmers in rural areas. The Sustainable Development Goals (SDGs) of the United Nations, in particular Goal 1 (No Poverty) and Goal 2 (Zero Hunger), emphasize the significance of agricultural improvement in terms of enhancing income levels and ensuring food security in rural settings such as India. For comprehensive poverty alleviation, it is essential that agricultural development be aligned with the Sustainable Development Goals (SDG) objectives. In this study, the relationship between agriculture and poverty in India is investigated, with a particular focus on the ways in which agricultural policies might contribute to the elimination of poverty in a manner that is both inclusive and sustainable, within the context of both national and global frameworks.

REVIEW OF LITERATURE

Growth in the agricultural sector has a more substantial effect on poverty reduction compared to non-agricultural growth, particularly in smallholder systems, as evidenced by development economics research, which underscores agriculture as a vital pathway for alleviating poverty in rural economies (World Bank, 2022). In India, despite structural challenges such as low productivity, fragmented landholdings, and income instability that hinder agriculture's potential to alleviate poverty, it remains essential since rural households depend heavily on farming (Government of India, 2023). National data indicates a shift towards wage labor and non-farm income sources due to the inadequacy of agricultural incomes in sustaining rural livelihoods (NSO, 2022). Recent studies related to the Sustainable Development Goals suggest that resilient, inclusive, and productive agricultural systems are necessary to achieve SDGs 1 (No Poverty) and 2 (Zero Hunger) (United Nations, 2015; FAO, 2022). Climate change increases poverty risks—especially in rain-fed areas—by leading to heightened production uncertainty, disproportionately impacting small and marginal farmers (UNDP, 2023; NITI Aayog, 2021). Policy-oriented literature emphasizes the importance of government interventions, technological advancements, and sustainable agricultural practices in enhancing farm incomes and resilience, pointing out that agriculture can effectively decrease poverty only when supported by institutional reforms and integrated, sustainability-focused policies aligned with the SDG framework.

OBJECTIVES

In light of the Sustainable Development Goals (SDGs), the current study attempts to investigate how agriculture contributes to poverty alleviation in India. The particular goals are:
1. To examine, in light of SDGs 1 (No Poverty) and 2 (Zero Hunger), the connection between rural poverty and agricultural livelihoods in India.
2. To determine the institutional and structural aspects of Indian agriculture that affect rural households' poverty outcomes and income stability.

3. To evaluate how government initiatives, agricultural expansion, and sustainability-focused methods contribute to the decrease of rural poverty.
4. To investigate how regional differences and climatic vulnerability impact India's ability

to reduce poverty through agriculture.

5. To offer policy-relevant insights on how to match SDG targets for inclusive and sustainable poverty reduction with agricultural development strategies.

METHODOLOGY

In this study, macro-level patterns and policy connections between agriculture and poverty reduction in India are explored within the context of the Sustainable Development Goals (SDGs). Using a descriptive and analytical research design that relies entirely on secondary data, the research draws from credible sources such as the Economic Survey of India, the National Statistical Office, NITI Aayog's SDG India Index, and various UN and World Bank studies. The analysis particularly emphasizes small and marginal farmers and considers post-2015 factors relevant to SDGs 1 and 2, including rural poverty levels, agricultural employment and income trends, food security issues, and regional disparities linked to climate change. The study assesses government policies related to agriculture, income support, rural employment, and sustainability through a qualitative analytical framework enhanced by descriptive statistics. A key statistical method employed is gap analysis, which identifies shortfalls in agricultural productivity, nutrition, and poverty alleviation, thereby illustrating agriculture as a complex avenue for achieving sustainable poverty reduction in India.

Table 1: Poverty Reduction Trends in India and SDG 1 Progress

Indicator	2011–12	2015–16	2019–21	2022–23 (Latest Estimates)
Extreme Poverty (% of population, $2.15/day PPP)	approximately 16.2	approximately 12.3	approximately 5.3	approximately 2.3
Rural Extreme Poverty (%)	approximately 18.7	approximately 14.1	approximately 6.1	approximately 2.8
Urban Extreme Poverty (%)	approximately 9.5	approximately 6.8	approximately 3.2	approximately 1.1
Multidimensional Poverty (%)	—	24.8	14.96	approximately 11 (estimated)
SDG 1 – India Index Score	—	—	60	65+

Source: **NITI Aayog (2023).** *SDG India Index & Dashboard* **and** *National Multidimensional Poverty Index (MPI) Reports*. **Government of India, New Delhi.**

Table 2: Agriculture, Employment, and Productivity Gap in India

Indicator	Value
Share of Workforce in Agriculture (%)	approximately 46
Share of Agriculture in GDP (%)	approximately 18
Average Monthly Income of Agricultural Household (₹)	approximately 10,218
Share of Small & Marginal Farmers (%)	approximately 86
Agricultural Value Added per Worker (Index)	Low relative to industry/services

Source: **Government of India (2023).** *Economic Survey of India 2022–23***; National Statistical Office (NSO),** *Situation Assessment of Agricultural Households***; World Bank Development Indicators.**

Table 3:

Agriculture and SDG 2 (Zero Hunger) Performance in India

Indicator	Status
Coverage under National Food Security Act (%)	over 99
Prevalence of Undernourishment (%)	approximately 15
Child Stunting (%)	approximately 35
Agricultural Yield Growth (Major Cereals)	Moderate increase
SDG 2 – India Index Score	approximately 52

Source: **NITI Aayog (2023),** *SDG India Index***; Government of India (2022–23),** *Economic Survey of India***; National Family Health Survey (NFHS-5); Food and Agriculture Organization (FAO); Ministry of Consumer Affairs, Food & Public Distribution.**

Table 4: Regional and Climate-Related Vulnerability in Indian Agriculture

Indicator	Rain-fed Regions	Irrigated Regions
Share of Cultivated Area (%)	approximately 52	approximately 48
Poverty Incidence	Higher	Lower
Climate Risk Exposure	High	Moderate
Income Stability	Low	Relatively High

Source: **Government of India (2022–23),** *Economic Survey of India***; Ministry of Agriculture & Farmers' Welfare; NITI Aayog; World Bank Climate Risk and Agriculture Reports.**

Table 5: Government Interventions Supporting Agriculture and Poverty Reduction

Programme	Objective	SDG Linkage
PM-KISAN	Direct income support to farmers	SDG 1
MGNREGA	Rural employment and income security	SDG 1, SDG 8
Public Distribution System (NFSA)	Food security	SDG 2
Crop Insurance Schemes	Risk mitigation	SDG 1, SDG 13
SDG India Index Monitoring	Progress tracking	All SDGs

Source : Government of India & NITI Aayog (2023), SDG India Index and Economic Survey Reports.

Table: 6

Agriculture, Poverty, and SDG Indicators in India (Compiled)

2015–16	2019–21	2022–23 / Latest	SDG Gap
approximately 12.3	approximately 5.3	approximately 2.3	✅ Significant reduction; gap from SDG 1 target (~0%) is small
approximately 14.1	approximately 6.1	approximately 2.8	⚠ Rural poverty still higher than urban; targeted interventions needed
approximately 6.8	approximately 3.2	approximately 1.1	✅ Urban poverty low; nearly meets SDG 1 target
24.8	14.96	approximately 11	⚠ Non-income dimensions (education, health, living standards) need improvement
—	—	approximately 46	⚠ High workforce vs. low GDP contribution (approx. 18%) – productivity gap
—	—	approximately 18	⚠ Structural imbalance; income potential below workforce share
—	—	over 99	✅ Near-universal coverage; strong progress towards SDG 2
—	—	approximately 35	⚠ Nutrition gap persists; food security not fully translating into improved outcomes
—	—	approximately 86	⚠ Majority vulnerable; income instability high
—	—	approximately 52	⚠ Higher poverty and climate risk; need climate-resilient agriculture
—	—	approximately 48	✅ Lower poverty incidence; more stable yields

Source: Compiled from Government of India, NSO, NITI Aayog SDG India Index, World Bank, UNDP, FAO Reports (2015–2023)." (✅) **for progress**, **orange or red text (⚠) for gaps/concerns**

Table 7
Gap Analysis of Poverty, Agriculture, and SDG Outcomes in India (Post-2015)

Indicator	Target / Ideal	Current Status	Gap	Interpretation
Extreme Poverty	0% (SDG 1)	2.3%	2.3 pp	Near achievement but rural pockets remain vulnerable
Multidimensional Poverty	0%	~11%	11 pp	Non-income dimensions still need improvement
Child Stunting	<20%	35%	15 pp	Nutrition outcomes lag behind food access improvements

Indicator	Target / Ideal	Current Status	Gap	Interpretation
Workforce vs. GDP Contribution	18% GDP vs. 46% workforce	Gap: 28 pp	Structural inefficiency in agriculture; high employment but low productivity	
Rain-fed Area Poverty	0%	Higher incidence than irrigated	—	Climate and regional disparities persist

Source: Compiled from Government of India (Economic Survey of India, 2016–17 to 2022–23); National Statistical Office (NSO); NITI Aayog, **SDG India Index Reports (2018–2023)**; World Bank (Poverty and Equity Briefs); FAO and UNDP Reports (2015–2023).

ANALYSIS AND DISCUSSION

India has made significant progress toward Sustainable Development Goals (SDGs) since 2015, particularly in reducing extreme poverty from approximately 12.3% in 2015-16 to about 2.3% in 2022-23, equating to a reduction of over 10 percentage points in seven years. While overall poverty decreased from 14.1% to 2.8%, rural areas lag behind urban regions, indicating persistent disparities. Multidimensional poverty fell from 24.8% to around 11% during the same period, reflecting improvements in health, education, and living conditions. However, a structural productivity gap in agriculture is apparent, contributing only about 18% to India's GDP while employing nearly 46% of the workforce. Small and marginal farmers, comprising 86% of agricultural households, face income insecurity, underscoring the need for diversification and technology-driven solutions. Despite the comprehensive coverage under the National Food Security Act, child stunting remains high at approximately 35%, highlighting challenges in translating food security into improved nutritional outcomes. Environmental and climatic disparities persist, as 52% of cultivated land is rain-fed and more susceptible to climate shocks compared to irrigated areas. Government programs like PM-KISAN, MGNREGA, and crop insurance have bolstered social protection and stabilized rural incomes, but inequalities in nutrition, non-farm employment opportunities, and agricultural productivity indicate that agriculture alone cannot ensure sustained poverty alleviation. Integrated strategies focusing on social protection, agricultural development, and regional equity are vital for advancing SDGs 1 and 2 in India.

KEY FINDINGS & POLICY RECOMMENDATIONS

1. Progress: India has substantially reduced poverty (both income and multidimensional), showing alignment with SDG 1. Coverage of food security programmes supports SDG 2.
2. Gaps: Despite overall gains, structural issues in agriculture-like low productivity, high workforce concentration, and vulnerability of small/marginal farmers-limit its potential for sustained poverty reduction.

3. Regional/Climate Gaps: Rain-fed areas continue to lag behind irrigated regions, emphasizing the need for climate-resilient strategies.
4. Policy Implication: Bridging productivity, nutrition, and regional disparities is critical for agriculture to act as a robust SDG-aligned poverty reduction tool.

Based on these findings, the following policy recommendations are proposed:

1. Enhance Agricultural Productivity and Diversification: Promote technology-driven practices, modern inputs, and high-yield crop varieties. Encourage crop diversification and value-added farming to increase income stability for small and marginal farmers.
2. Strengthen Climate-Resilient Agriculture: Expand irrigation infrastructure, introduce drought-tolerant crops, and implement risk mitigation measures, such as crop insurance, particularly in rain-fed regions.
3. Integrate Social Protection with Agricultural Support: Combine programmes like PM-KISAN and MGNREGA with access to credit, training, and market linkages to ensure that agricultural growth translates into sustainable livelihoods.
4. Address Nutrition and Non-Income Dimensions of Poverty: Implement targeted interventions to reduce child stunting and improve education and health outcomes, linking food security programmes with nutritional support and awareness campaigns.
5. Reduce Regional Disparities: Focus on high-poverty, climate-vulnerable districts by tailoring interventions to local conditions, leveraging state-level SDG monitoring tools for evidence-based planning.

CONCLUSION

Agriculture remains a pivotal pathway for poverty alleviation in India, but its full potential can only be realized through integrated, inclusive, and sustainable strategies. Aligning agricultural development with social protection, nutrition, and climate resilience is essential to accelerate progress towards SDG 1 (No Poverty) and SDG 2 (Zero Hunger), ensuring long-term and equitable improvements in rural livelihoods.

REFERENCES

1. Government of India. (2023). *Economic Survey of India 2022–23*. Ministry of Finance.
2. National Statistical Office. (2022). *Situation assessment of agricultural households and land and holdings of households in rural India*. Ministry of Statistics and Programme Implementation, Government of India.
3. United Nations. (2015). *Transforming our world: The 2030 Agenda for Sustainable Development*. United Nations.

4. Food and Agriculture Organization of the United Nations. (2022). *The state of food and agriculture 2022*. FAO.
5. United Nations Development Programme. (2023). *Human Development Report 2023: Breaking the gridlock*. UNDP.
6. World Bank. (2022). *Poverty and shared prosperity 2022: Correcting course*. World Bank Publications.
7. NITI Aayog. (2021). *Sustainable Development Goals: India index and dashboard*. Government of India.
8. Chand, R. (2017). *Doubling farmers' income: Rationale, strategy, prospects, and action plan*. NITI Aayog, Government of India.
9.   Reserve Bank of India. (2023). *Handbook of statistics on the Indian economy*.