

Viksit Bharat 2047 and Rural Development: Transforming India's Villages through Inclusive and Sustainable Growth

Dr. Shuvajit Chakraborty

Associate Professor & Head, Department of Political Science, Nehru College, Pailapool, Cachar, Assam

Abstract

Viksit Bharat 2047 aims to make India a technologically advanced, inclusive and environmentally sustainable developed India. In this vision, rural development plays a very important role as villages are still tightly connected to agriculture and employment, food security, natural resources and to grassroots governance. This study aims to explore how rural transformation can be instrumental in realizing Viksit Bharat 2047, based on a descriptive-analytical Secondary Data Approach. The evidence has been taken from the Economic Survey 2025-26, State Performance Report 2024-25, Agricultural Statistics at a Glance 2024-25, NFHS-5, NITI Aayog Reports and other relevant peer-reviewed studies. The analysis focuses on agricultural transformation, livelihood diversification, infrastructure, human development, women's economic participation, digitalisation, local governance and environmental sustainability. The findings show that in the fields of agricultural production, rural housing, drinking-water access and mobilisation through Self-Help Groups and digital governance there has been significant progress. But small-sized land parcels, access to sanitation facilities, clean energy and employment quality, market and climate risks remain to be significant rural development factors. The study challenges the concept of isolated schemes for longer-term transformation. There is a need to bring greater convergence between agriculture, infrastructure, skills, women entrepreneurs, human development, digital inclusion, climate resilience and PRIs. Thus, sustainable and inclusive changes in the villages are integral to achieving inclusive development outcomes under the vision of Viksit Bharat 2047.

Keywords: Viksit Bharat 2047, Rural Development, Inclusive Growth, Sustainable Development, Rural Transformation, Agricultural Development, Women's Empowerment, Digital Inclusion.

Introduction

The vision of Viksit Bharat 2047 is India's goal to become a developed nation by 2047, the 100th anniversary of the country's Independence Day. The vision goes beyond aggregate economic growth and includes economic prosperity, human development, technological development, social inclusion, environmental sustainability and effective governance. In this context, the challenge of rural India transformation takes special significance as agriculture,

*Corresponding Author Email: shuvajitchakraborty7@gmail.com

Published: 31 August 2026

DOI: <https://doi.org/10.70558/IJSSR.2026.v3.i4.301283>

Copyright © 2026 The Author(s). This work is licensed under a Creative Commons Attribution 4.0 International License (CC BY 4.0).

food security, employment and natural-resource management are still very closely linked to the villages, as is local democratic institutions. Rural development is not only a welfare issue for a specific sector; rather, it is a crucial element of a balanced and inclusive national development. The past research on Viksit Bharat also relates rural transformation with agriculture, employment generation, education, healthcare, digitalization, infrastructure, and participatory governance.

The strategy of rural development in India has gradually shifted from poverty alleviation to a multidimensional approach encompassing employment security, housing, connectivity, livelihoods, social protection and skills. The mission of the Ministry of Rural Development is to promote sustainable and inclusive rural growth in a multipronged approach that includes livelihood opportunities, social safety nets and infrastructure development. There are major programmes that tackle various facets of rural deprivation and economic participation including Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), Pradhan Mantri Awaas Yojana–Gramin (PMAY-G), Pradhan Mantri Gram Sadak Yojana (PMGSY), Deendayal Antyodaya Yojana, National Rural Livelihoods Mission (DAY-NRLM) and Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY). For 2025-26, 1,90,406 crore has been allocated by the ministry of rural development, of which ₹1,87,755 crore is allocated to the department of rural development.

The importance of infrastructure as a precondition for rural transformation is still key, as it affects both quality of life and economic opportunities, as well as housing, roads, electricity, water, sanitation, and digital connectivity. For instance, PMAY-G has finished around 2.71 crore rural houses till 27 February 2025 and the programme has been extended to build two crore more houses between 2024-25 and 2028-29. That said, there are dimensions of deprivation that cannot be taken away by improvements in infrastructure. This is illustrated in NFHS-5. Nationally, 95 per cent of rural households had access to electricity, and access to sanitation and clean cooking fuel was less widespread. This clearly shows that the development of rural villages needs to be measured, not just in terms of infrastructure provided, but also in terms of the effective use of infrastructure, rural human development indicators and the reduction of rural-urban gaps in development under the Viksit Bharat agenda.

While agriculture is still the backbone of rural livelihood, productivity, diversification, sustainability, and resilience will play a crucial role in achieving agriculture's long-term contribution to Viksit Bharat. Efficient use of resources, better market linkages, allied activities, value addition and environmentally-friendly production systems are therefore needed to transform agriculture. In the natural farming initiative, NITI Aayog has focused on the integration of crop, trees and livestock; minimizing the use of synthetic inputs; enhancing soil health; protecting biodiversity and using local resources. A range of practices are introduced as ways to improve the resilience of agriculture and reduce external input needs including biomass recycling, mulching, use of locally adapted seeds, intercropping, and integrated livestock systems. The transformation to sustainable agriculture is thus an economic and an ecological need for the rural prosperous future.

Another component of inclusive growth is the need to increase women's and rural households' involvement in productive economic ventures. In this regard, DAY-NRLM is one of the most

important institutional arrangements. As per the data as on 31st Jan 2025, 10.05 crore women have been mobilized in over 90.90 lakh SHGs and a total bank loan disbursed to them of ₹10.14 lakh crore. Further evidence of a policy shift toward diversified rural economies is the growing importance of non-farm enterprises, formal credit, entrepreneurship, market access, skills and online and offline marketing. This diversification is necessary because sustainable rural development is not limited to agriculture, but must also provide opportunities in services, micro-enterprises, processing, skill-based employment and locally based enterprises.

Keeping this in mind the present study examines the rural development as an integrated path for Viksit Bharat 2047 instead of the isolated schemes. It aims to examine the importance of rural transformation as a key to the vision of India's long-term development. Specifically, the study aims to examine the role of women, SHGs, skills and entrepreneurship in inclusive growth, analyse the structural and implementation gaps that exist in agriculture and rural livelihoods, analyse the role of environmental sustainability and climate-resilient development, evaluate the contribution of digitalisation and grassroots institutions, identify structural and implementation gaps and gaps, and develop a policy-oriented framework for sustainable village transformation. This holistic approach link economic development, social equity, environmental sustainability and effective local governance within a common analytical framework.

Accordingly, the study addresses four interrelated research questions: (1) How does rural transformation contribute to the achievement of Viksit Bharat 2047, and what progress and constraints are evident across agriculture, livelihoods, infrastructure and human development? (2) To what extent do SHGs, skills, entrepreneurship and digital technologies promote inclusive rural growth? (3) How can environmentally sustainable agriculture, climate resilience, Panchayati Raj Institutions and community participation strengthen long-term village development? (4) What integrated policy pathway can support economically productive, socially inclusive, digitally empowered and environmentally sustainable villages by 2047? These questions provide the analytical basis for assessing whether current rural-development approaches can generate equitable and meaningful transformation at the grassroots level.

Literature Review

Current rural development theories have transcended the classical definition of development as production and the alleviation of poverty to a multidimensional perspective that includes structural changes, human capacities, social integration, technological innovation and ecological sustainability. The multidimensional poverty framework developed by Alkire and Foster (2011) shows that income is not sufficient to measure poverty, and Kabeer's (1999) resources–agency–achievements approach makes it clear that the use of economic resources must lead to meaningful capabilities and agency. The above views are particularly significant in the context of Viksit Bharat 2047 since the transformation of the rural areas should go beyond increasing production and income to issues of health, education, gender equality, basic services and institutional participation.

Rural transformation, through agriculture, is still essential. The productivity and poverty reduction impacts of investments in agriculture research and rural roads was found by Fan et

al (2000) for India, and the rise in the importance of non-farm employment for rural poverty reduction, was shown by Lanjouw and Murgai (2009). Newer structural-transformation literature extends this association to assets, institutions, market integration, value chains, and rural non-farm economies (Deininger et al., 2022; de Janvry & Sadoulet, 2022). The district level study conducted by Kumar and Yadav (2026a) focuses on agricultural development in Etawah, where they identified shifts in cropping patterns, along with the necessity for irrigation and agricultural inputs, and ongoing limitations including small land holdings, inconsistent rainfall, and market price volatility. Their analysis thus supports the main literature and shows that the process of structural change is geographically uneven, and should, therefore, be addressed by locally differential measures.

Water management is a highly related determinant of agricultural resilience. Yadav and Kumar (2026) have conducted a SWOT analysis of Pradhan Mantri Krishi Sinchai Yojana, and their findings indicate that irrigation expansion and micro-irrigation offer opportunities for increased productivity and water-use efficiency, whilst administrative delays, farmer-awareness gaps, financial barriers and coordination issues continue to hinder implementation. Kumar and Yadav (2026b) specifically take household-level adaptation into the regional rural-development discourse, when considering water scarcity in Etawah, a semi-arid region. These studies build on the productivity-focused approaches by demonstrating that water security encompasses governance, adaptation capability, and local vulnerability.

Environmental sustainability adds to the traditional intensification of agriculture an important qualification. The need to scale agroecological practices depends on farmer organisations and knowledge exchange and collective mobilisation, as Khadse et al. (2018) demonstrate, while Smith et al. (2020) warn of nutrient and yield limitations in natural-farming systems under specific conditions of farming. The variations in the results indicate that the concept of sustainable agriculture needs to be assessed on a context-specific basis and not as a technological package that is to be sold everywhere.

Digitalisation and institutional development are further aspects of change. Despite the heterogeneous impact on farm level income and prices, the expansion of ICTs generally had a positive impact on agricultural market functioning, as found by Nakasone et al. (2014), suggesting that connectivity does not necessarily lead to economic inclusion. Likewise, research on Indian Self-Help Groups suggests that collective institutions can enhance the credit, livelihood resources and decision-making power of women, but not necessarily reduce the underlying inequalities between women and men in the economy (Kumar et al., 2021). Research on governance also suggests that decentralisation has the potential to increase responsiveness if local institutions have the capacity and accountability for it (Faguet, 2014).

Overall, the literature establishes the importance of agriculture and irrigation, livelihood diversification, digitalisation, gender inclusion and decentralised governance, but these dimensions are often examined separately. Recent studies from Etawah help localise debates on agricultural change and water management; however, district-level evidence alone cannot capture the multidimensional transformation required across India's diverse rural regions. The principal research gap is therefore the absence of an integrated framework that brings together agricultural productivity, livelihood diversification, human development, infrastructure, digital

inclusion, women's agency, environmental resilience and grassroots governance within the Viksit Bharat 2047 agenda. The present study addresses this gap by examining these dimensions as interdependent components of inclusive and sustainable village transformation.

Research Methodology

This study adopts a descriptive-analytical secondary-data design to assess rural development within the Viksit Bharat 2047 framework. The evidence base consists primarily of the Economic Survey 2025-26, State Performance Report 2024-25, Agricultural Statistics at a Glance 2024-25, NFHS-5, relevant NITI Aayog reports and peer-reviewed literature cited in the study. Indicators were selected because they correspond directly to the study's analytical dimensions: agriculture and livelihoods, infrastructure and human development, women's economic participation, digital transformation, governance and environmental sustainability. The analysis combines descriptive comparison of national indicators, examination of available time-series evidence where comparable annual data are reported, thematic synthesis of policy and scholarly sources, and source triangulation across official reports and peer-reviewed studies. Because the study relies on secondary data produced for different years and purposes, indicators are interpreted according to their stated reference periods; for example, NFHS-5 is used as a 2019-21 baseline rather than as a measure of 2025-26 programme coverage. The study does not claim causal effects from programme expansion and is limited by differences in indicator definitions, reporting periods and the availability of comparable national-level data.

Analysis and Discussion

Rural transformation is central to the Viksit Bharat 2047 agenda because India's rural landscape comprises about 6.65 lakh villages and 2.68 lakh Gram Panchayats and Rural Local Bodies. The Economic Survey 2025-26 places rural development at the core of inclusive growth and emphasises infrastructure, credit, agriculture, traditional industries and community participation as mutually reinforcing components of transformation (Ministry of Finance, 2026). The evidence reviewed here shows substantial progress in agricultural production, housing, drinking-water access, women's collective institutions and digital governance. At the same time, gaps in sanitation, clean cooking, smallholder viability, employment quality and climate resilience show that programme expansion alone cannot be equated with comprehensive rural development.

Table 1. Selected National Indicators of Rural Transformation

Dimension / Indicator	National Value	Official Source
Rural landscape	6.65 lakh villages; 2.68 lakh GPs/Rural Local Bodies	Economic Survey 2025-26
Foodgrain production	357.73 million tonnes	Agricultural Statistics at a Glance 2024-25

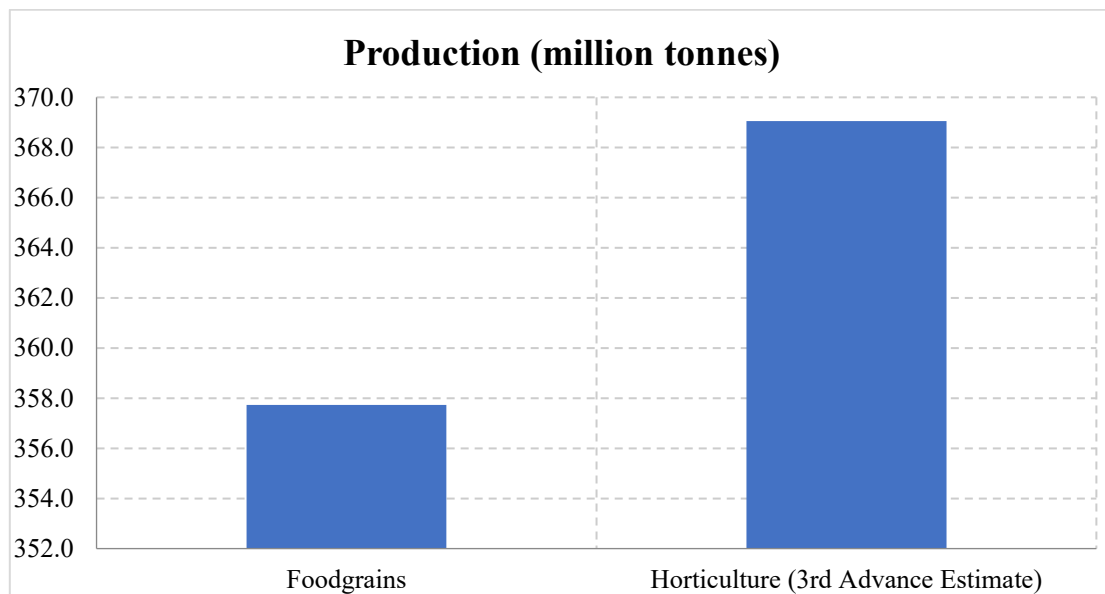
Dimension / Indicator	National Value	Official Source
Horticulture production	369.05 million tonnes	Agricultural Statistics at a Glance 2024-25
Agriculture & allied share in total GVA	18.0%	Agricultural Statistics at a Glance 2024-25
Marginal operational holdings	68.45% of holdings	Agricultural Census, reproduced in Agricultural Statistics
Women mobilised under DAY-NRLM	10.05 crore	State Performance Report 2024-25
SHGs under DAY-NRLM	More than 90.90 lakh	State Performance Report 2024-25
Bank loans disbursed to SHGs	Rs 10.14 lakh crore	State Performance Report 2024-25
PMAY-G houses completed	2.71 crore	State Performance Report 2024-25
Rural homes with tap-water access	More than 15.76 crore; over 81%	Economic Survey 2025-26
Rural unemployment rate	2.5%	Economic Survey 2025-26
Available rural Records of Rights digitized	99.8%	Economic Survey 2025-26

Source: Compiled from Government of India, Agricultural Statistics at a Glance 2024-25; Ministry of Rural Development, State Performance Report 2024-25; and Economic Survey 2025-26.

Agricultural Transformation and the Rural Economy

Agriculture remains a major foundation of rural livelihoods, but the data show that transformation must be judged by productivity, diversification and resilience rather than output growth alone. Agricultural Statistics at a Glance 2024-25 reports foodgrain production of 357.73 million tonnes and horticulture production of 369.05 million tonnes (third advance estimate) in 2024-25. Agriculture and allied activities accounted for 18.0 per cent of total GVA at current prices, while the sector recorded 4.6 per cent GVA growth at constant prices in 2024-25 (Ministry of Agriculture and Farmers Welfare, 2025). The scale of output confirms agriculture's continued economic importance, while the larger horticultural figure points to increasing scope for higher-value crops, processing, storage and market-linked diversification.

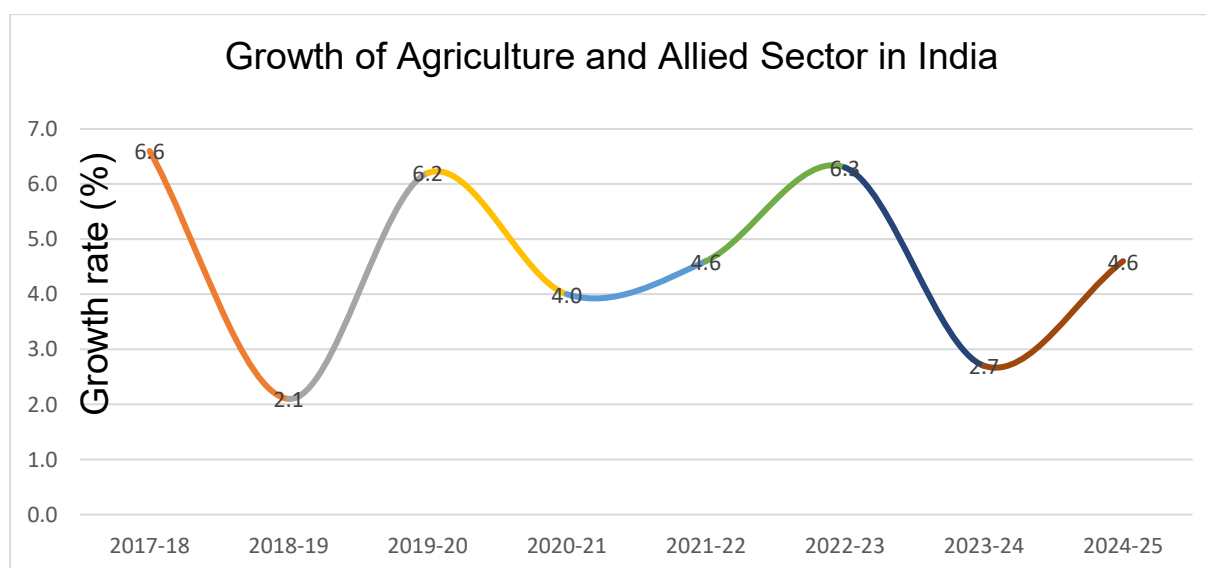
Figure 1. Agricultural Production in India, 2024-25



Source: Agricultural Statistics at a Glance 2024-25. Horticulture is the third advance estimate.

The structural constraint is the predominance of small farms. The 2015-16 Agricultural Census recorded 68.45 per cent of operational holdings as marginal (up to one hectare) and a further 17.62 per cent as small (one to two hectares), implying that more than 86 per cent of holdings were below two hectares. This limits economies of scale and heightens the importance of irrigation efficiency, farmer aggregation, cooperatives and FPOs, access to institutional credit, storage, logistics and value addition. The Economic Survey 2025-26 also identifies small landholdings, productivity gaps, weak market integration and climate risks as continuing constraints. Thus, the policy challenge is not simply to increase production, but to raise income per unit of land and labour while reducing exposure to market and environmental shocks.

Figure 2. Growth of Agriculture and Allied Sector in India



Source: Economic Survey 2025-26, based on National Accounts Statistics, MoSPI. Values are annual growth rates for 2017-18 to 2024-25.

The year-to-year growth series also shows volatility: agriculture and allied sector growth ranged from 2.1 per cent in 2018-19 to 6.6 per cent in 2017-18, and stood at 4.6 per cent in 2024-25. Such variation reinforces the need for a resilient rural economy in which farm incomes are supported by allied sectors, non-farm enterprises and improved risk management. The long-term Viksit Bharat objective therefore requires agricultural growth to be connected with rural industrialisation, food processing, services and market infrastructure rather than treated as an isolated production system.

Livelihoods, Employment and Women-Led Inclusion

Rural livelihood policy increasingly combines wage employment with community institutions, skills and enterprise development. MGNREGS remains a major social-protection instrument: in FY 2024-25, 5.78 crore households and 7.88 crore individuals worked under the programme, women accounted for 58.1 per cent of person-days, and average employment provided was 50.21 days per participating household (Ministry of Rural Development, 2025). The Economic Survey 2025-26 notes that MGNREGS person-days declined from the pandemic peak of 389.09 crore in FY 2020-21 to about 183.77 crore in FY 2025-26 up to 31 December 2025, while rural unemployment declined from 3.3 per cent in 2020-21 to 2.5 per cent in 2023-24 (Ministry of Finance, 2026). These trends may be consistent with greater access to alternative work, but they should not be interpreted as conclusive evidence of universal livelihood improvement because employment quality, wages, underemployment and programme demand conditions also matter.

DAY-NRLM provides a stronger institutional basis for inclusive livelihood transformation. As of 31 January 2025, 10.05 crore women had been mobilised into more than 90.90 lakh Self-Help Groups, and Rs 10.14 lakh crore in bank loans had been disbursed to SHGs (Ministry of Rural Development, 2025). This scale demonstrates that SHGs have moved beyond savings and credit to become platforms for livelihood diversification, enterprise, financial inclusion and collective action. The critical next step is to improve enterprise survival, product quality, market access and value-chain participation so that mobilisation translates into sustained income growth and greater economic agency for rural women.

Table 2. National Rural Household Basic-Service Indicators, NFHS-5

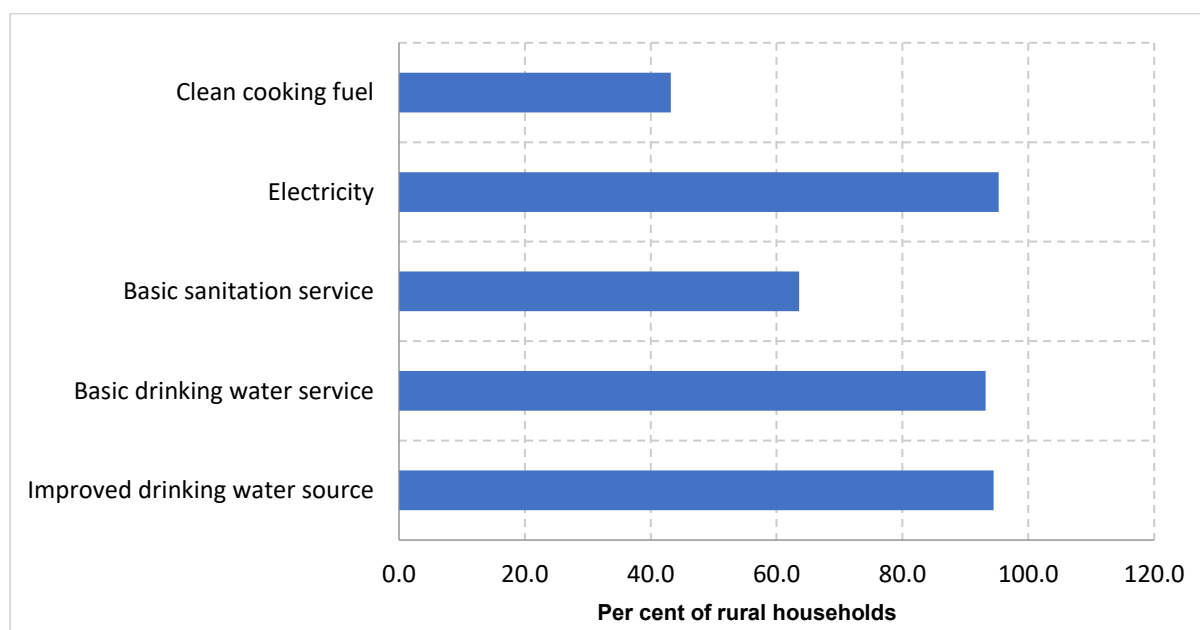
Indicator	Rural India, 2019-21
Improved source of drinking water	94.5%
Basic drinking water service	93.2%
Basic sanitation service (improved, not shared)	63.6%
Open defecation / no facility	25.9%
Electricity	95.3%
Clean fuel for cooking	43.2%

Source: International Institute for Population Sciences (IIPS) and ICF, National Family Health Survey (NFHS-5), 2019-21: India, Volume I.

Infrastructure and Human Development

Infrastructure expansion is one of the most visible dimensions of rural transformation. Under PMAY-G, 2.71 crore houses had been completed by 27 February 2025, and the scheme was extended to construct an additional two crore rural houses during 2024-25 to 2028-29 (Ministry of Rural Development, 2025). The Jal Jeevan Mission had provided tap-water access to more than 15.76 crore rural homes, covering over 81 per cent of rural households as of 1 December 2025 (Ministry of Finance, 2026). These programmes potentially improve health, time use, safety and economic participation, but the developmental effect depends on reliable service quality, affordability and maintenance rather than physical coverage alone.

Figure 3. Selected Basic-Service Indicators in Rural India, NFHS-5 (2019-21)



Source: IIPS and ICF, NFHS-5 (2019-21), India Report, Volume I. The chart reports rural household values and should be read as a 2019-21 baseline, not as current 2025-26 coverage.

NFHS-5 provides an important national rural baseline for assessing this distinction. In 2019-21, 94.5 per cent of rural households used an improved drinking-water source and 93.2 per cent had a basic drinking-water service, while 95.3 per cent had electricity. By contrast, only 63.6 per cent used an improved, non-shared sanitation facility, 25.9 per cent reported open defecation or no facility, and 43.2 per cent used clean cooking fuel (IIPS & ICF, 2021). These indicators demonstrate that rural development is multidimensional: high access in one service does not imply comparable progress across sanitation, energy or health-related conditions. Because NFHS-5 predates the 2025 programme indicators, it should be used as a benchmark rather than directly equated with current scheme coverage.

Digital Transformation and Grassroots Governance

Digitalisation is increasingly embedded in rural governance and service delivery. The Economic Survey 2025-26 reports that 99.8 per cent of available rural Records of Rights had been digitised, 95.73 per cent of Sub-Registration Offices had been computerised, and

ULPIN/Bhu-Aadhaar had been assigned to 36.67 crore land parcels. Under SVAMITVA, drone surveys had been completed in 3.28 lakh villages by December 2025 and 2.76 crore property cards had been prepared for nearly 1.82 lakh villages (Ministry of Finance, 2026). These initiatives can strengthen tenure clarity, reduce transaction costs and improve access to formal services, but digital availability is not identical to digital inclusion. Connectivity, affordability, literacy, language accessibility, data quality and institutional support remain necessary for effective use.

The governance dimension is equally important. The Panchayat Advancement Index assesses the development and performance of more than 2.5 lakh Gram Panchayats through a multi-domain framework aligned with Localised Sustainable Development Goals. Its use of 435 unique local indicators mapped to 566 data points reflects a shift towards evidence-based decentralised planning (Ministry of Finance, 2026). However, data systems can improve local governance only when Panchayats possess adequate administrative capacity, financial resources and community participation. For Viksit Bharat 2047, digital governance should therefore strengthen - rather than substitute for - local institutions and deliberative processes.

Table 3. Scale and Development Role of Selected Rural Programmes

Programme / System	National Scale	Development Role
MGNREGS	5.78 crore households worked; 58.1% of person-days by women	Employment security, asset creation and inclusion
PMAY-G	2.71 crore houses completed	Rural housing and basic living conditions
DAY-NRLM	10.05 crore women in >90.90 lakh SHGs	Women-led livelihoods, finance and enterprise
Jal Jeevan Mission	>15.76 crore rural homes; >81% coverage	Household tap-water access
DILRMP	99.8% of available rural RoRs digitised	Land governance and service efficiency
Panchayat Advancement Index	>2.5 lakh Gram Panchayats assessed	Local SDG monitoring and evidence-based planning

Source: Ministry of Rural Development, State Performance Report 2024-25; Ministry of Finance, Economic Survey 2025-26.

Environmental Sustainability and Climate Resilience

Environmental sustainability is a core condition for durable rural growth because agriculture, water, common lands and household livelihoods are highly exposed to climate

variability. The Economic Survey 2025-26 identifies erratic weather, rising temperatures, extreme events and water scarcity as significant threats to agricultural sustainability and recommends region-specific interventions, efficient irrigation, crop diversification and climate-resilient technologies (Ministry of Finance, 2026). It also emphasises the continuing importance of village commons for fodder, fuel, water, biodiversity, soil retention and livelihood support. The implication is that ecological assets should be treated as productive rural infrastructure rather than as residual land resources.

This perspective also qualifies a purely growth-centred understanding of Viksit Bharat. Higher production achieved through resource depletion would weaken long-term rural resilience. Sustainable transformation therefore requires improvements in water-use efficiency, soil health, local resource management, crop and livelihood diversification, renewable energy and risk management. Such measures are especially important for small and marginal farmers who have limited capacity to absorb climatic and market shocks.

Integrated Discussion: Pathway to Viksit Bharat 2047

Taken together, the national evidence points to a rural economy undergoing substantial but incomplete transformation. Agricultural output and horticultural diversification have expanded; women-centred SHG institutions have reached a very large scale; rural housing and household tap-water coverage have grown; and digital land and Panchayat systems are becoming increasingly sophisticated. Yet the same evidence reveals structural constraints, including fragmented landholdings, incomplete sanitation and clean-energy access, uncertain employment quality, market-integration gaps and growing climate risks. This combination of progress and persistent vulnerability means that rural development cannot be assessed through a single scheme, output or infrastructure indicator.

The most credible pathway to Viksit Bharat 2047 is therefore one of convergence: basic infrastructure must enable human capability; human capability must support productive employment and enterprise; agriculture must become more productive, diversified and resource-efficient; women's collectives must gain stronger market and enterprise linkages; digital systems must become genuinely accessible; and Panchayats must possess the capacity to coordinate development according to local conditions. In conceptual terms, the progression can be expressed as: basic infrastructure -> human development -> productive agriculture and diversified livelihoods -> women's economic agency -> digital inclusion -> climate resilience -> effective local governance -> resilient rural economies. The success of Viksit Bharat 2047 will depend less on the number of programmes operating in villages than on how effectively these interventions combine to raise productivity, incomes, quality of life, social inclusion and ecological resilience.

Conclusion

Rural transformation is fundamental to the achievement of Viksit Bharat 2047. The evidence reviewed in this study shows that rural development can no longer be understood primarily through agriculture or poverty alleviation; it must be approached through the interaction of productive livelihoods, infrastructure, human development, women's economic participation, digital inclusion, environmental sustainability and capable local governance. Progress across

these dimensions is substantial but uneven, and the persistence of structural constraints means that programme coverage alone cannot be treated as evidence of complete rural transformation.

Agriculture will remain a major foundation of rural livelihoods, but its long-term contribution depends increasingly on productivity, diversification, value addition, efficient irrigation, farmer organisation, storage, market access and resilience to climatic and price shocks. The predominance of small and marginal holdings makes these complementary institutions especially important. At the same time, rural development requires stronger non-farm livelihoods, skills and enterprise opportunities so that household economic security is not dependent on agricultural production alone.

Women-centred Self-Help Groups, rural infrastructure and digital systems provide important institutional platforms for inclusive development, but their developmental impact depends on quality and effective use. Mobilisation must translate into durable enterprises and greater economic agency; infrastructure must provide reliable services; and digitalisation must be supported by connectivity, affordability, literacy and accessible institutions. Similarly, Panchayat-level data systems can strengthen evidence-based planning only when local governments have adequate administrative capacity, financial resources and meaningful community participation.

Environmental sustainability is equally central to this transformation. Water-use efficiency, soil health, crop and livelihood diversification, renewable energy, protection of common resources and climate-resilient practices are necessary to ensure that short-term production gains do not undermine long-term rural resilience. These requirements are particularly important for smallholders and vulnerable households with limited capacity to absorb market and environmental shocks.

The central contribution of the study is therefore an integrated pathway in which basic infrastructure supports human development; human capabilities enable productive agriculture and diversified livelihoods; women's economic agency and digital inclusion widen participation; climate resilience protects productive assets; and effective local governance coordinates these elements according to local conditions. Achieving Viksit Bharat 2047 will depend less on the number of programmes operating in villages than on the extent to which these interventions converge to improve productivity, incomes, quality of life, social inclusion and sustainable resource use.

References

- Alkire, S., & Foster, J. (2011). Counting and multidimensional poverty measurement. *Journal of Public Economics*, 95(7–8), 476–487. <https://doi.org/10.1016/j.jpubeco.2010.11.006>
- Chattopadhyay, R., & Duflo, E. (2004). Women as policy makers: Evidence from a randomized policy experiment in India. *Econometrica*, 72(5), 1409–1443. <https://doi.org/10.1111/j.1468-0262.2004.00539.x>
- de Janvry, A., & Sadoulet, E. (2022). Agriculture for development: Analytics and action. *Annual Review of Resource Economics*, 14, 1–16. <https://doi.org/10.1146/annurev-resource-090921-045011>

- Deininger, K., Jin, S., & Ma, M. (2022). Structural transformation of the agricultural sector in low- and middle-income economies. *Annual Review of Resource Economics*, 14, 221–241. <https://doi.org/10.1146/annurev-resource-111820-033252>
- Fabregas, R., Kremer, M., & Schilbach, F. (2019). Realizing the potential of digital development: The case of agricultural advice. *Science*, 366(6471), eaay3038. <https://doi.org/10.1126/science.aay3038>
- Faguet, J.-P. (2014). Decentralization and governance. *World Development*, 53, 2–13. <https://doi.org/10.1016/j.worlddev.2013.01.002>
- Fan, S., Hazell, P., & Thorat, S. (2000). Government spending, growth and poverty in rural India. *American Journal of Agricultural Economics*, 82(4), 1038–1051. <https://doi.org/10.1111/0002-9092.00101>
- International Institute for Population Sciences (IIPS) & ICF. (2021). *National Family Health Survey (NFHS-5), 2019–21: India (Vol. I)*. IIPS.
- Kabeer, N. (1999). Resources, agency, achievements: Reflections on the measurement of women's empowerment. *Development and Change*, 30(3), 435–464. <https://doi.org/10.1111/1467-7660.00125>
- Khadse, A., Rosset, P. M., Morales, H., & Ferguson, B. G. (2018). Taking agroecology to scale: The Zero Budget Natural Farming peasant movement in Karnataka, India. *The Journal of Peasant Studies*, 45(1), 192–219. <https://doi.org/10.1080/03066150.2016.1276450>
- Kumar, N., Raghunathan, K., Arrieta, A., Jilani, A., & Pandey, S. (2021). The power of the collective empowers women: Evidence from self-help groups in India. *World Development*, 146, 105579. <https://doi.org/10.1016/j.worlddev.2021.105579>
- Kumar, P., & Yadav, R. P. (2026a). Agricultural development in Etawah District of Uttar Pradesh: Trends, challenges, and opportunities. *International Journal of Social Science Research (IJSSR)*, 3(1), 707–715. <https://doi.org/10.70558/IJSSR.2026.v3.i1.30886>
- Kumar, P., & Yadav, R. P. (2026b). Water scarcity and household adaptation strategies in semi-arid regions of Etawah District of Uttar Pradesh, India. *Cosmos: A Journal of Geography*, 3(2), 107–117. <https://doi.org/10.70558/COSMOS.2026.v3.i2.25460>
- Lanjouw, P., & Murgai, R. (2009). Poverty decline, agricultural wages, and nonfarm employment in rural India: 1983–2004. *Agricultural Economics*, 40(2), 243–263. <https://doi.org/10.1111/j.1574-0862.2009.00373.x>
- Ministry of Agriculture and Farmers Welfare, Government of India. (2025). *Agricultural statistics at a glance 2024–25*.
- Ministry of Finance, Government of India. (2026). *Economic Survey 2025–26*.
- Ministry of Rural Development, Government of India. (2025). *State performance report 2024–25*.

- Nakasone, E., Torero, M., & Minten, B. (2014). The power of information: The ICT revolution in agricultural development. *Annual Review of Resource Economics*, 6, 533–550. <https://doi.org/10.1146/annurev-resource-100913-012714>
- Pandey, V., & Gupta, A. (2022). Can multi-sectoral development interventions boost livelihoods and women's labor supply? Evidence from NRLM in India. *Feminist Economics*, 28(2), 217–246. <https://doi.org/10.1080/13545701.2022.2037684>
- Smith, J., Yeluripati, J., Smith, P., & Nayak, D. R. (2020). Potential yield challenges to scale-up of zero budget natural farming. *Nature Sustainability*, 3, 247–252. <https://doi.org/10.1038/s41893-019-0469-x>
- Spielman, D. J., Lecoutere, E., Makhija, S., & Van Campenhout, B. (2021). Information and communications technology (ICT) and agricultural extension in developing countries. *Annual Review of Resource Economics*, 13, 177–201. <https://doi.org/10.1146/annurev-resource-101520-080657>
- Yadav, R. P., & Kumar, P. (2026). Enhancing agricultural productivity through Pradhan Mantri Krishi Sinchai Yojana: A SWOT analysis. *Indian Journal of Multidisciplinary Research and Studies*, 2(1), 85–93. <https://doi.org/10.70558/IJMRS.2026.v2.i1.301110>