

Survey-Based Assessment of Government Schemes' Impact on Rural Infrastructure and Quality of Life in Gajgola Nanak Bari, Moradabad, Uttar Pradesh

Ganesh Datt Bhatt¹; Mahesh Singh²; Parveen Kumar Jain³; Sushma Singh⁴;
Ngangkham James Singh⁵; Amit Kumar Maurya^{6*}

College of Agriculture Sciences, Teerthanker Mahaveer University, Moradabad - 244001, Uttar Pradesh, India

*Corresponding Author

Received:- 08 October 2025/ Revised:- 15 October 2025/ Accepted:- 20 October 2025/ Published: 31-10-2025

Copyright @ 2025 International Journal of Environmental and Agriculture Research

This is an Open-Access article distributed under the terms of the Creative Commons Attribution

Non-Commercial License (<https://creativecommons.org/licenses/by-nc/4.0>) which permits unrestricted

Non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

Abstract— This study uses the village of Gajgola Nanak Bari in the Moradabad district of Uttar Pradesh as a case study to examine the effects of important government flagship programs on the development of rural infrastructure and quality of life. With over 69% of its population belonging to the Scheduled Caste, the village is a socially and economically marginalized community that has benefited from targeted assistance through programs like the Deendayal Antyodaya Yojana-National Rural Livelihoods Mission (DAY-NRLM), Jal Jeevan Mission (JJM), Swachh Bharat Mission (SBM), Pradhan Mantri Gram Sadak Yojana (PMGSY), Pradhan Mantri Awas Yojana-Gramin (PMAY-G), Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), and Jal Jeevan Mission (JJM).

The study used a mixed-methods approach in accordance with the Unnat Bharat Abhiyan (UBA) framework, gathering data via focus groups, key informant interviews, structured household surveys, and triangulation with official records. According to the results, road connectivity has greatly improved under PMGSY, 92% of households now have functional tap water connections, and over 90% of households have access to toilets.

Whereas PMAY-G made it easier to build long-lasting homes that improved social dignity and protected against environmental extremes, MGNREGA gave wage employment to 260 households. There were also reports of decreased waterborne illnesses, increased school attendance, and diversification of livelihood. The study does note some implementation gaps, though, including underutilized community assets as a result of maintenance issues, delays in MGNREGA wage disbursement, and incomplete infrastructure (such as non-functional overhead water tanks). Though their involvement in planning and monitoring is still limited, women benefited greatly from time savings and less drudgery. In order to ensure long-term sustainability, the study emphasizes the significance of community ownership, improved Gram Panchayat leadership, digital monitoring tools, and scheme convergence. Thus, in India's policy landscape, Gajgola Nanak Bari is a prime example of both the transformative potential and the practical difficulties of rural development programs.

Keywords— Government Flagship Schemes, Rural Infrastructure, Gajgola Nanak Bari Village, Moradabad District, Uttar Pradesh, Rural Development, Beneficiary Perception, Scheme Implementation.

I. INTRODUCTION

The improvement of basic infrastructure and living conditions through extensive government programs has made rural development a key component of India's public policy agenda (Planning Commission, 2011, Ministry of Rural Development, 2020, Government of India, 2022, Singh & Jain, 2023). Important roles in rural transformation have been played by flagship programs like the Pradhan Mantri Gram Sadak Yojana (PMGSY), Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), Pradhan Mantri Awas Yojana-Gramin (PMAY-G), and Jal Jeevan Mission (MoRD, 2021, UP Rural Employment Society, 2023, Jal Shakti Vibhag, Moradabad, 2024, Sharma & Joshi, 2022). In Uttar Pradesh's Moradabad district, the village of Gajgola Nanak Bari provides a localized example to comprehend how these programs translate into actual advantages and difficulties at the local level (Government of Uttar Pradesh, 2023, DRDA Moradabad).

II. OVERVIEW OF GAJGOLA NANAK BARI VILLAGE AND THE REGIONAL CONTEXT OF MORADABAD

Prior to 2015, the Moradabad block of Moradabad's medium-sized agrarian village, Gajgola Nanak Bari, had few infrastructure resources (**Census of India, 2011, Government of Uttar Pradesh, 2023, District Sanitation Committee, Moradabad, 2020**).

The Census of India (2011) states that Gajgola Nanak Bari is a rural village in Uttar Pradesh's Moradabad district, home to about 1,183 people. There are 609 men and 574 women among them, indicating a nearly equal gender distribution. The high percentage of Scheduled Caste (SC) people in the village is a noteworthy aspect of its demographic profile. 817 people, 414 of whom are male and 403 of whom are female, fall into the SC category out of the total population.

This indicates a socially and economically marginalized community that needs special attention in development planning and implementation, as Scheduled Castes make up nearly 69.1% of the village's total population. The village's high SC representation highlights how crucial government flagship programs are to expanding access to public services, housing, work opportunities, and basic infrastructure. Because of these demographic traits, Gajgola Nanak Bari is a vital location for assessing how such programs affect rural infrastructure and quality of life, particularly for historically underserved populations.

Historically, issues with rural poverty, underemployment, inadequate infrastructure, and seasonal migration have plagued the larger Moradabad district in western Uttar Pradesh. Following the implementation of flagship programs, rural households in Moradabad have benefited from better access to roads, sanitation, and welfare services, according to the Uttar Pradesh Human Development Report (2023). Successful implementation has been made possible in large part by the district administration's attempts to incorporate different central programs with regional Gram Panchayat plans (**Government of Uttar Pradesh, 2023**).

III. METHODOLOGY

The current study was carried out in Gajgola Nanak Bari village, Moradabad, Uttar Pradesh, using the Unnat Bharat Abhiyan (UBA) framework to evaluate the effects of flagship government programs on rural infrastructure and quality of life. The approach used was inclusive, participatory, and organized as follows:

3.1 Selection of Participants:

The study was open to interested faculty and students at **Teerthanker Mahaveer University's College of Agriculture Sciences in Moradabad, Uttar Pradesh**. The team was composed of people with a strong interest in rural development and a variety of academic backgrounds thanks to a selection process.

3.2 Orientation Program:

All chosen members attended an orientation program prior to field trips. In-depth instruction on the Unnat Bharat Abhiyan's goals, the main flagship programs that will be evaluated (including PMGSY, MGNREGA, JJM, PMAY-G, and SBM), and survey procedures for gathering data at the village and household levels were the main goals of the session.

3.3 Administrative Communication:

The Gram Pradhan (Village Head) of Gajgola Gajgola Nanak Bari received official letters from the University and the District Magistrate (DM). By formally informing the village administration about the study and planned data collection activities, these communications ensured community participation and seamless coordination.

3.4 Field Visits and Data Collection (5th-17th July 2025):

Between **July 5 and July 17, 2025**, field visits were conducted. In Gajgola Nanakwadi village, the research team carried out participatory observations and structured surveys. Among the data gathered were:

- 1) **Village-level Data:** Details about public assets developed under different government programs, infrastructure, and the state of scheme implementation.
- 2) **Household-level Survey:** A semi-structured questionnaire was used to survey about 80% of the village households in order to collect information on employment, housing, sanitation, water supply, livelihood impact, and access to basic services (**Figure 1**).



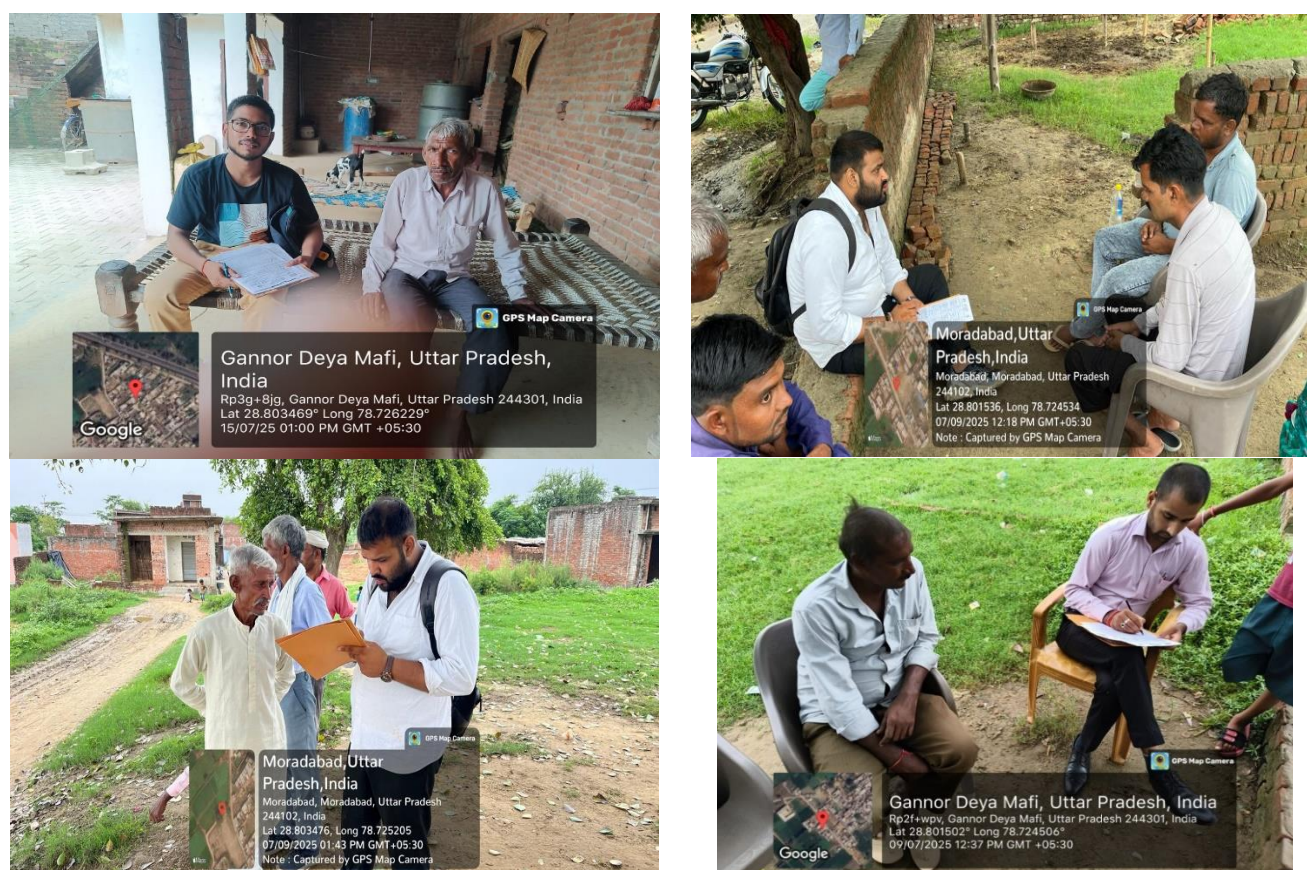


FIGURE 1: Geo-tagged photographs were taken during the survey of the village Gajgola Nanak Bari

3.5 Qualitative Interactions:

Along with quantitative surveys, Focused Group Discussions (FGDs), informal beneficiary interviews, and contacts with local officials, teachers, and ASHAs were used to gather qualitative information. These contributions aided in the interpretation of ground-level impacts and the contextualization of the results.

3.6 Data Analysis and Triangulation:

Official records from Jal Shakti mission, the District Rural Development Agency (DRDA), and other government sources were used to compile, validate, and triangulate the data that was gathered. This guaranteed the validity and dependability of the research findings.

IV. MAJOR GOVERNMENT FLAGSHIP SCHEMES AND THEIR IMPACT

4.1 Pradhan Mantri Gram Sadak Yojana (PMGSY):

In order to improve access to markets, educational institutions, and medical facilities, PMGSY was started in 2000 with the goal of constructing all-weather roads connecting rural communities. A 3.5 km all-weather road was built in Gajgola Nanak Bari in 2019 as part of PMGSY Phase-II, connecting the village to Moradabad and other important cities. This decreased maternal health emergencies, made school commutes easier, and enhanced the logistics of transporting agricultural products (Ministry of Rural Development, 2020).

Between 2016 and 2023, more than 350 km of rural roads in the Moradabad district were built as part of PMGSY, linking isolated villages to major cities like Sambhal and Moradabad city. In rural areas like Dilari and Bilari, the enhanced road connectivity has helped to lower transportation costs by almost 30% and increase access to agricultural markets by 25% (**Rural Development Directorate, UP, 2023, Planning Commission, 2011, Singh & Jain, 2023**).

4.2 Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA):

MGNREGA was put into place to improve livelihood security by ensuring 100 days of wage work annually. It also helped build rural roads, farm ponds, and water harvesting structures. 260 households, with an average of 87 workdays per household,

registered under MGNREGA in Gajgola Nanak Bari in 2022-2023. A village pond and kachcha drainage systems are among the assets produced, which tangentially enhance agriculture and sanitation (Sharma & Joshi, 2022).

In 2022-2023, more than 3.8 lakh households in the larger Moradabad district benefited from MGNREGA. Bund construction, canal desilting, and community infrastructure development are among the projects carried out in Moradabad as part of the plan. In blocks like Kundarki and Bhagatpur, MGNREGA participation increased food security and decreased seasonal migration by 18%, according to a study by the (UP Rural Employment Society 2023, Government of India, 2022; Singh & Jain, 2023).

4.3 Land Development Program Gajgola Nanak Bari in Moradabad Village:

A land development program in the Moradabad district's Gajgola Nanak Bari villages has increased agricultural productivity and soil health. In rainfed areas such as Gajgola Nanak Bari, the Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) has provided support for water conservation structures, check dams, and bunding (MoAFW, 2020).

Land leveling, pond construction, and plantations on both public and private lands have been made possible by the MGNREGA scheme, providing jobs and restoring land at the same time (MoRD, 2021).

Through, nutrient management and scientific soil testing, the Soil Health Card Scheme has assisted farmers in implementing better land-use practices (DACFW, 2017). Furthermore, in a few Moradabad blocks, the Integrated Watershed Management Program (IWMP) has encouraged participatory land treatment (NRAA, 2016).

Afforestation and plantation operations have been actively encouraged in the Moradabad district under a number of land development programs in order to improve soil fertility, reduce erosion, and expand green cover. Plantations are being established on agricultural field bunds, roadside areas, school grounds, temple surroundings, and residential vicinities in villages such as Gajgola Nanak Bari. Eucalyptus (*Eucalyptus* spp.), Jamun (*Syzygium cumini*), Teak (*Tectona grandis*), Shisham (*Dalbergia sissoo*), and Bael (*Aegle marmelos*) are among the species that are frequently planted. These initiatives seek to enhance the microclimate, support livelihoods through fruit and timber production, and advance the region's overall environmental sustainability (MoRD, 2021).

4.4 Jal Jeevan Mission (JJM):

By 2024, the Jal Jeevan Mission, which was started in 2019, hopes to connect household taps to supply safe and sufficient drinking water. 92% of Gajgola Nanak Bari households had operational tap connections as of April 2024, up from 12% in 2019. This has significantly decreased the incidence of waterborne illnesses, enhanced hygiene, and lessened the burden on women (Development Management Institute, 2023).

As of March 2024, more than 3.5 lakh households in the Moradabad district had access to tap water, according to district data from the Jal Shakti Ministry. In Moradabad, the JJM project has received praise for integrating water quality monitoring with digital dashboards and attaining 45% functional household tap connections (Jal Shakti Vibhag, Moradabad, 2024, MoRD, 2021, Government of Uttar Pradesh, 2023).

In villages like Gajgola Nanak Bari, work has been done to upgrade the rural water supply infrastructure under the Jal Jeevan Mission (JJM). Despite the installation of the pipeline network throughout the village, the system is still not operational because the overhead water storage tank has not been finished. Regular and safe drinking water delivery to households has been delayed due to this infrastructure gap, underscoring the necessity of prompt implementation and convergence of mission components (Ministry of Jal Shakti, 2021).

4.5 Pradhan Mantri AwasYojana - Gramin (PMAY-G):

The goal of PMAY-G is "*Housing for All*" by offering financial support for the construction of cement homes with essential features. In Gajgola Nanak Bari, more than ten houses were approved between 2016 and 2023, and the beneficiaries of each received an installment payment of Rs. 1.2 lakh. According to household interviews, safe housing leads to better educational results, increased dignity, and protection from harsh weather conditions (Bajpai & Singh, 2021).

Over 28,000 rural homes were built in Moradabad between 2016 and 2022 as a result of PMAY-G. For direct benefit transfers, the District Rural Development Agency (DRDA) worked with banks and made sure that the Swachh Bharat Mission's toilet

schemes converged. Higher school enrollment and better mental health were mentioned in beneficiary feedback from Shahpur and Katghar blocks (**DRDA Moradabad, 2023, Government of India, 2022, Singh & Jain, 2023**).

4.6 Swachh Bharat Mission (SBM) and Other Schemes:

By 2022, more than 90% of households had toilets thanks to the SBM, greatly lowering the rate of open defecation and enhancing public health. The village's general cleanliness, energy efficiency, and health outcomes were further enhanced by complementary programs like the Ujjwala Yojana's LPG connections and UJALA's LED distribution (**MoHUA, 2021**).

In 2019, the district of Moradabad became Open Defecation Free (ODF). In rural blocks, more than 1.4 lakh restrooms were built. Following a Community-Led Total Sanitation (CLTS) strategy, SBM was implemented in Gajgola Nanak Bari, enabling local women's organizations and school teachers to spearhead awareness campaigns (**District Sanitation Committee, Moradabad, 2020, Government of Uttar Pradesh, 2023, Singh & Jain, 2023**).

4.7 National Rural Livelihoods Mission (NRLM):

Significant efforts have been made to support women-led economic empowerment and self-employment in Moradabad's rural areas under the Deendayal Antyodaya Yojana-National Rural Livelihoods Mission (DAY-NRLM). Self-Help Groups (SHGs) have been organized in villages like Gajgola Nanak Bari to promote income-generating activities like tailoring, goat rearing, and agro-based businesses, as well as to make it easier for people to obtain credit and build capacity. In an effort to raise household incomes and lessen rural poverty, the mission has specifically targeted underprivileged groups, such as Scheduled Castes. Local livelihoods have been strengthened and socioeconomic resilience has increased thanks to regular training, financial literacy workshops, and market connections (**MoRD, 2021**).

4.8 ODF (Open Defecation Free) program and Rural Resource Centre (RRC):

Following extensive awareness campaigns, community mobilization, and the construction of toilets at the household level, the village of Gajgola Nanak Bari in the Moradabad district has been declared Open Defecation Free (ODF) as part of the Swachh Bharat Mission-Gramin (SBM-G). Initiatives for behavioral change were crucial in maintaining the ODF status, with particular focus on underprivileged communities, women's organizations, and schoolchildren. Furthermore, at the village/cluster level, a Rural Resource Center (RRC) was created to act as a focal point for information, education, and communication (IEC) initiatives, training, and sanitation awareness. The RRC supported solid and liquid waste management, sanitation facility monitoring, and the development of swachhagrahis' (sanitation volunteers') capacity (**Ministry of Jal Shakti, 2021**).

V. QUALITATIVE INSIGHTS FROM GAJGOLA NANAK BARI

According to interviews with local officials and residents, the programs improved social dignity, decreased the incidence of disease, increased school attendance, and improved income opportunities (**Development Management Institute, 2023, DRDA Moradabad, 2023, Sharma & Joshi, 2022, Singh & Jain, 2023, UP Rural Employment Society, 2023**). Because of the MGNREGA's job opportunities and water supply, women especially benefited from less drudgery. However, issues with grievance redress, seasonal employment gaps, and maintenance still exist.

VI. CHALLENGES AND GAPS IN IMPLEMENTATION

Even with overall success, problems like poor monitoring, lack of skilled labor, fund leaks, and bureaucratic delays impact asset quality. For instance, water pipelines under JJM are occasionally non-functional due to technical issues or inappropriate use, and roads constructed under PMGSY frequently wear out and need to be reworked.

Nearly 12% of rural roads in Moradabad had subpar drainage design, according to audits conducted by the Rural Engineering Department in 2023. Additionally, MGNREGA assets were underutilized due to a lack of maintenance procedures. District officials stated that women workers dropped out as a result of MGNREGA wage payment delays.

VII. RECOMMENDATIONS

- Boost planning and monitoring under the direction of the Gram Panchayat.
- Assure scheme convergence for comprehensive results.
- Encourage community ownership and upkeep of facilities.
- Perform social audits and feedback loops on a regular basis.

- Boost digital asset and payment disbursement tracking.
- Increase the ability of young people and local SHGs to test water and maintain assets.

VIII. CONCLUSION

The effects of government flagship programs on the village of Gajgola Nanak Bari highlight the revolutionary potential of focused rural interventions. Even though quality of life metrics have increased and infrastructure has unquestionably improved, sustainability and inclusivity are still crucial. Convergence, monitoring, and community involvement are clearly the cornerstones of sustainable rural development when viewed in the larger context of the Moradabad district. A model for comparable villages throughout India can be found in the lessons learned from Gajgola Nanak Bari and its regional parallels.

ACKNOWLEDGEMENT

The authors express their sincere gratitude to Prof. (Dr.) M.P. Singh, Dean of Student Welfare, for his invaluable advice and assistance throughout the Unnat Bharat Abhiyan (UBA) orientation program. Sincere gratitude is also given to Prof. (Dr.) Balraj Singh for his assistance with transportation and logistics. The Gram Pradhan of Gajgola Nanak Bari village is also acknowledged by the authors for the assistance and support provided during field trips and data collection in the village areas.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

REFERENCES

- [1] Bajpai R. Singh. 2021. Housing for the Rural Poor: Implementation of PMAY-G in Uttar Pradesh. *J. Rural Stud.* 38(2): 55.
- [2] Census of India. 2011. *Village and Town Wise Primary Census Abstract: Moradabad District*. Registrar General and Census Commissioner, India.
- [3] DACFW (Department of Agriculture, Cooperation & Farmers Welfare). 2017. *Operational Guidelines for Soil Health Card Scheme*.
- [4] Development Management Institute. 2023. *Jal Jeevan Mission Progress Report: Uttar Pradesh*. Government of India.
- [5] District Sanitation Committee, Moradabad. 2020. *Swachh Bharat Mission Implementation Report*. Government of Uttar Pradesh.
- [6] DRDA Moradabad. 2023. *Annual Beneficiary Report on PMAY-G and SBM*. District Rural Development Agency, Moradabad.
- [7] Government of India. 2022. *Transforming Rural India: Flagship Schemes and Achievements*. Ministry of Rural Development.
- [8] Government of Uttar Pradesh. 2023. *Human Development Report: Moradabad Division*. State Planning Department.
- [9] Jal Shakti Vibhag, Moradabad. 2024. *JJM District Dashboard and Performance Audit Report*. Ministry of Jal Shakti, Government of India.
- [10] Ministry of Agriculture and Farmers Welfare (MoAFW). 2020. *PMKSY Annual Report 2019–20*.
- [11] Ministry of Housing and Urban Affairs (MoHUA). 2021. *Swachh Bharat Mission (Gramin) Phase-II Report*. Government of India.
- [12] Ministry of Jal Shakti. 2021a. *Jal Jeevan Mission Annual Progress Report 2020–21*. Government of India. <https://jaljeevanmission.gov.in>
- [13] Ministry of Jal Shakti. 2021b. *Swachh Bharat Mission (Gramin) Annual Report 2020–21*. Department of Drinking Water and Sanitation, Government of India. <https://swachhbharatmission.gov.in>
- [14] Ministry of Rural Development (MoRD). 2020. *Annual Report on PMGSY Implementation*. Government of India.
- [15] Ministry of Rural Development (MoRD). 2021a. *Annual Report 2020–21: Deendayal Antyodaya Yojana–National Rural Livelihoods Mission (DAY-NRLM)*. Government of India. <https://aajeevika.gov.in>
- [16] Ministry of Rural Development (MoRD). 2021b. *MGNREGA Annual Report 2020–21*. Government of India. <https://nrega.nic.in>
- [17] National Rainfed Area Authority (NRAA). 2016. *Common Guidelines for Watershed Development Projects (Revised 2011)*.
- [18] Sharma, P. and Joshi, K. 2022. MGNREGA and Rural Asset Creation: Case Studies from Western Uttar Pradesh., *Indian J. Labour Econ.* pp 59(4): 78.
- [19] Singh, P. and Jain, S. 2023. Rural Development and Government Interventions in India, *Indian J Public Adm*, pp 69(1): 1–45.
- [20] Planning Commission. 2011. *Faster, Sustainable and More Inclusive Growth: An Approach to the Twelfth Five Year Plan (2012–17)*. Government of India.
- [21] Uttar Pradesh Rural Development Directorate. 2023. *PMGSY District-wise Road Connectivity Report*. Government of Uttar Pradesh.