Beyond the Mainstream: ***Studying North-East India***
Gender, Environment and Sustainable Development in North-East India
A Multilingual Peer Review Annual Journal
Volume: I, Issue: I, 2026

Digital Governance for Gender-Responsive Development: A Study of Panchayati Raj Institutions in Nalbari District of Assam

Ajanita Kalita

Pratiksha Bhattacharyya

Research Scholar, Gauhati University

Abstract

The Panchayati Raj Institutions (PRIs), established through the 73rd Constitutional Amendment (1992) are a crucial third tier of public administration in India, designed to function as institutions of local self-government. (Election Commission for UTs,2025). They play a crucial role in decentralized governance and rural development promoting participatory democracy. The reservation of not less than one-third of seats for women in Panchayati Raj bodies has further created new opportunities for their increased participation in local governance.

Under the Digital India programme, local governments are increasingly integrating digital technologies to enhance service delivery and administrative efficiency (Islam, 2025). These digital platforms help streamline record management, planning processes and public service access at the grassroots level. This research aims to examine the role of the Panchayat systems of selected villages in the Nalbari district of Assam in implementing e-governance initiatives, analysing how e-governance initiatives contribute to gender-responsive development through women's participation, inclusion, and access to public services, as well as identify the challenges and opportunities for strengthening gender-responsive digital governance at the grassroots level.

1. Introduction

1.1 Digital governance for Panchayati Raj Institutions

“My idea of Village Swaraj is that it is a complete republic, independent of its neighbours for its vital wants, and yet interdependent for many others in which dependence is a necessity. “ (Gadhi, Harijan,1942)

The groundwork for modern Panchayati Raj Institutions lies in the idea of the Father of the nation , Mahatma Gandhi, who envisioned Indian villages as "miniature republics" or Gram Swaraj, functioning as self-reliant, decentralized, and participatory democracies. He believed political and economic independence should start at the grassroots level, empowering communities to manage their own affairs rather than depending on a central state. (Philosophy Institute,2025)

The Panchayati Raj Institutions (PRIs) established by the 73rd constitutional amendment (2022) are recognised as a crucial third tier of public administration in India, designed to function as institutions of local self-government. (Election Commission for UTs,2025). Bridging the gap between governance and citizens, PRIs were envisioned as instruments for democratic participation and grassroots development,empowering rural communities by strengthening local self-government and encouraging citizen participation in development. (George Mathew, 1994). They are mandated to conduct regular elections, transfer of powers, and reservation of seats for historically marginalized groups, including women. James Manor (1999) emphasized that effective decentralization requires the devolution of political, administrative, and financial powers to local governments so as to enhance accountability and responsiveness. PRIs can function effectively only when they enjoy adequate functional, financial, and administrative autonomy. (Baviskar & Mathew,2009)

Assam was one of the earliest Indian states to legislate for Panchayati Raj, passing the Assam Rural Panchayat Act in 1948. This was subsequently replaced by the Assam Panchayat Act of 1959, the Assam Panchayati Raj Act of 1972, 1986, and finally, the Assam Panchayat Act of 1994. The current legislation is aligned with the 73rd Constitutional Amendment of 1992, which institutionalized a three-tier system: Gaon Panchayats at the village level, Anchalik Panchayats at the intermediate level, and Zila Parishads at the district level. (Kalita, The Assam Tribune,2025)

The Panchayati Raj structure in Assam today governs 23 subjects under 17 departments. While the structure exists to bring governance closer to the people, the quality of participation, especially by women, remains uneven.

1.2 Digital governance and gender responsive development

The rapid advancement of digital technologies has transformed governance to a great extent by making public administration more accessible, transparent and efficient. By reducing scope of bureaucratic delays and ensuring greater transparency, it has strengthened the trust between government and public. (Heeks, 2006)

Under the Digital India programme, initiatives such as the e-Panchayat Mission Mode Project, local governments are increasingly integrating digital technologies. The Ministry of Panchayati Raj has launched eGramSwaraj on 24th April,2020 ,which is a user-friendly work-based accounting application to address various aspects of Panchayat functioning — planning, accounting, budgeting including online payments through eGramSwaraj-PFMS Interface for

services delivered. As of the Financial Year 2025-26, over 2.5 lakh Panchayati Raj Institutions across the country have been onboarded on the application(PIB,2025).

The Ministry has also launched various other tools ranging from artificial intelligence (AI) meeting summariser (SabhaSaar) to digital land mapping and property rights platform (SVAMITVA),geo-spatial planning (Gram Manchitra) , and citizen-facing mobile apps(Meri Panchayat mobile app). Digital technologies facilitate participatory decision-making, improve financial accountability, and enhance communication between citizens and Panchayats. (Kumar & Chaudhary, 2025) Together these initiatives have revolutionised the way people participate in local governance.

Most importantly, digital governance also contributes to gender responsive development by expanding women's access to information, financial inclusion and welfare schemes. Especially in rural areas, digitisation of governance has become a catalyst for empowering women, enhancing their participation in local governance while promoting inclusive development. Reservations for women have substantially increased their numerical representation in local government, thereby creating opportunities for political participation. (Buch,2001)

The recognition of the importance of women's political inclusion by reserving not less than one-third of seats for women in Panchayati Raj bodies has created opportunities for their increased participation in local governance. Assam mandates a 50% reservation for women in PRIs through the Assam Panchayat (Amendment) Act, 2011, . This resulted in over 26,000 elected women representatives (EWRs) leading local bodies. (Kalita, The Assam Tribune,2025)

This representation is not merely quantitative but extends beyond it as it also reflects women empowerment and the shift from the traditional gender roles. (Konwar,2026) It is not just about achieving gender responsive development but also enhances their autonomy, decision making abilities and influence over political affairs. As women actively engage in governance and policymaking, they challenge traditional gender roles and societal norms that have historically

confined them to the household chores. Their participation helps redefine perceptions of leadership by showcasing that women are equally capable of contributing to political decision-making and public administration.

Furthermore, women leaders also bring diverse perspectives and lived experiences to the policymaking process. Thus, issues such as healthcare, education, social welfare, gender equality, and child development receive significant attention. Their involvement not only strengthens democratic institutions by ensuring broader representation but also promotes policies that address the needs and interests of marginalized and underrepresented groups. Therefore, women's political representation should be understood as both a measure of democratic inclusion and a catalyst for women's empowerment, social justice and the transformation of traditional gender relations.

Despite the rapid adoption of e governance, challenges such as inadequate infrastructure, uneven technological adoption , digital illiteracy (Kamble et al., 2025) as well as socio-cultural challenges continue to affect effective implementation of e-governance in rural Panchayats.

In Assam there are over 26,000 elected representatives serving in Panchayati Raj Institutions (PRIs), with women accounting for more than half of these positions. Despite this significant level of representation, meaningful participation in decision-making remains limited. Many elected women representatives (EWRs) continue to play a marginal role in governance, often being overshadowed by male family members or influential local power brokers.

While the primary aim of the framework is to make governance more accessible and encourage participation, women's engagement within it remains unequal and inconsistent. (CSAP,2025). Bina Agarwal (2001) asserted that numerical representation alone does not ensure meaningful participation, as patriarchal social norms, proxy leadership, limited administrative experience, and inadequate institutional support continue to limit women's decision-making authority. Research conducted in Assam reinforces these observations. Konwar (2026), in a study of Jorhat

district, found that constitutional reservations have improved women's representation in Panchayati Raj Institutions but that effective participation remains constrained by socio-cultural barriers, inadequate training, and limited decision-making authority. Similarly, Kakati (2022; 2023), in studies on Tiwa tribal women in Assam, concluded that while reservations have expanded opportunities for political inclusion, they have not automatically translated into substantive empowerment because of persistent patriarchal norms and institutional constraints.

Gender-responsive development extends beyond political representation to encompass equitable access to public services, education, healthcare, livelihood opportunities, digital inclusion, and social protection. UN Women (2021) argues that digital governance can promote gender equality by improving women's access to information, strengthening transparency in welfare delivery, facilitating grievance redressal, and enhancing participation in local planning and decision-making. While, the OECD (2020) emphasizes that digital technologies are not gender neutral. Hence, digital technologies be it AI, online platforms or even educational technologies can amplify or reinforce gender inequalities as they reflect the social, political and economic structures in which they are created. Thus, digital technologies

can support more inclusive governance only when governments adopt gender-sensitive digital policies and actively reduce barriers to women's digital participation. Both organizations highlight the persistence of the gender digital divide, particularly in rural areas where women often have lower levels of internet access, digital literacy, and ownership of digital devices.

1.3 Research gap

Although considerable research exists on women's participation in Panchayati Raj Institutions and on digital governance separately, very few studies integrate these two dimensions. Existing literature rarely investigates how digital governance influences women's participation in local decision-making, access to development programmes, institutional accountability towards gender concerns, or gender-responsive service delivery at the Gram Panchayat level. Furthermore,

district-specific empirical evidence from Assam remains limited, and almost no comprehensive study has examined the relationship between digital governance and gender-responsive development in the Panchayati Raj Institutions of Nalbari district. This research seeks to bridge this very gap.

2. Objectives

1. To explore the adoption of digital governance adoption in selected Panchayati Raj Institutions of Nalbari District, with particular reference to digital infrastructure, e-governance platforms, and technology-enabled service delivery.

2. To examine the influence of digital governance practices on gender-responsive development, particularly women's participation in local governance, including decision-making processes, and access to public services.

3. To identify the institutional, technological, and socio-cultural challenges affecting the implementation of gender-responsive digital governance at the grassroots level and to suggest measures for strengthening its effectiveness.

3. Methodology

This study adopted a qualitative approach. Primary data were gathered using the interview method. Various secretaries of Panchayat across the district of Nalbari, and members of Self-help groups were interviewed. Secondary data comprised of information collected from government websites, newspapers, articles and journals as well as social media platforms including facebook and twitter.

4. Findings and Discussion

4.1.1 Digital Technologies Used in the Panchayat

The findings reveal that the various Panchayati Raj Institutions in Nalbari district have adopted a wide range of digital governance platforms to facilitate administrative functions and public service delivery. Participants reported using applications such as eGramSwaraj, AuditOnline, the Public Financial Management System (PFMS), AwaasSoft (PMAY-G), the MGNREGA Management Information System (MIS), the Swachh Bharat Mission (SBM) Portal, the NREGA Mobile Monitoring System (NMMS), the Beneficiary Satyapan Application, National Social Assistance Programme (NSAP), Note Cam, email, and WhatsApp for official communication. These platforms support financial management, beneficiary verification, scheme monitoring, record maintenance, and communication with higher administrative authorities.

5.1.2: Impact of Digital Governance on Panchayat Functioning

Most participants reported that digital governance has significantly improved the efficiency of Panchayat administration. A Panchayat Secretary explained that digital governance had "reduced paperwork and made procedures less time-consuming," adding that communication with Block Development Offices is now largely conducted through digital platforms such as WhatsApp and eGramSwaraj instead of requiring physical visits.

Respondents also noted that digital technologies have simplified record management, improved transparency, facilitated faster processing of government schemes, enabled real-time monitoring of development programmes, and improved the tracking of funds and official reports.

5.1.3: Availability and Use of Digital Infrastructure

The availability of computers, internet connectivity, and online governance portals has enabled officials to manage records electronically, monitor schemes more effectively, and deliver public services in a timely manner. However, some respondents indicated that the effectiveness of these platforms depends on reliable internet connectivity and adequate technical infrastructure. Poor internet connections, portal downtime are some of the issues reported by respondents.

5.2 Women's participation and decision-making

The findings indicate that digital governance has contributed positively to women's participation in Panchayati Raj Institutions. It has improved access to information and increased awareness of government programmes. Respondents reported that women now receive timely information regarding Panchayat activities because "information reaches them through mobile phones" , resulting in greater participation in Gram Sabha meetings and other local governance processes.

A respondent highlighted the significant role of Jeevika Sakhis, village-level community resource persons under the National Rural Livelihood Mission (DAY-NRLM), in facilitating access to government services and strengthening digital and financial inclusion in rural communities. Jeevika Sakhis mobilize women into Self-Help Groups (SHGs), promote self-employment opportunities, and support rural households in becoming financially self-reliant. They also provide training on sustainable livelihood practices, bookkeeping, and micro-enterprise development, while facilitating access to bank accounts, credit, and government welfare schemes. In doing so, they address barriers associated with digital illiteracy and financial independence. Beyond facilitating access, respondents emphasized that Jeevika Sakhis play an important role in helping individuals understand eligibility criteria, navigate application procedures, and complete digital registration processes for various government initiatives. One respondent specifically noted their contribution to supporting community members in registering for and participating in the Amrit Brikshya Andolan which leverages women frontline workers to promote afforestation and community engagement.

Furthermore, the Kanaklata Mahila Sabalikaran Asoni launched on 1st April, 2018 with the objective of empowering State's women SHGs provides Rs 25000 to each SHGs in intensive blocks & Rs.1000 in non intensive blocks contributing in gender responsive development. The Indira Gandhi National Widow Pension Scheme under National Social Assistance Programme(NSAP) that provides monthly money for widows 40-79 years of age also has contributed positively to the lives of women who were previously financially dependent on their husbands.

The study also found that digital governance has strengthened women's involvement in decision-making. Improved access to information on government schemes and digital training has enhanced the confidence of elected women representatives to participate in discussions and administrative processes. Although women's representation in Panchayats has increased due to reservation policies, respondents observed that effective participation in decision-making is still affected by varying levels of digital literacy.

Digital governance has further improved women's access to government schemes and public services. Online applications, digital beneficiary verification, and Direct Benefit Transfer (DBT) have enabled women to access welfare programmes more efficiently while improving transparency and reducing administrative delays. Respondents noted that women are now able to monitor the status of scheme applications and receive financial benefits directly into their bank accounts.

The findings also reveal that Digital banking and online payment systems have supported the functioning of Self-Help Groups (SHGs), contributing to greater economic independence. Similarly, online access to schemes such as PMAY-G has enabled women beneficiaries to monitor application progress and access government services more effectively.

Another notable role played by SHGs is mobilizing rural women; for instance, more than 32 lakh SHG members across rural Assam frequently participate in simultaneous village-level yoga sessions to promote physical as well as mental fitness. The Panchayat and Rural Development (P&RD) Department, alongside the Assam State Rural Livelihoods Mission (ASRLM) and

Ayush, actively organizes mass yoga sessions. The online registration and formalities are often guided by the Jeevika Sakhis. Members connect via state-hosted yoga sessions which are led by the sakhis.

This year, participants, including local Self-Help Group (SHG) members and community members, gathered at block offices and halls across different locations including Niztapa, Adattari, Doulasai, Mukalmua,Arangmow, Khalihamari,Samarkuchi, Kaldi and Barkhetri.

Despite these positive developments, respondents identified several barriers that continue to limit women's effective participation in digital governance. Limited digital literacy, inadequate access to smartphones and internet services, and prevailing socio-cultural norms continue to restrict the ability of many women to fully utilize digital platforms. Although digital governance has created new opportunities for women's participation and empowerment, its benefits remain uneven across different sections of the rural population. Thus, technology alone cannot guarantee empowerment without complementary social and institutional support.

5.3 Challenges in digital governance

The implementation of digital governance in Panchayati Raj Institutions is affected by a combination of institutional, technological as well as socio-cultural challenges. Respondents consistently identified poor internet connectivity in rural areas as a major obstacle, as it disrupts access to online portals like e-KYC, NREGA, NSAP, DLC etc., and delays the delivery of government services. Frequent electricity interruptions, limited availability of computers and digital equipment, and technical glitches in e-governance platforms further reduce the efficiency of digital administration. Although digital governance has streamlined many administrative processes, its effectiveness remains dependent on the availability of reliable infrastructure and technical support.

Another significant challenge identified by respondents is the limited level of digital literacy among citizens, which affects their ability to access online services independently. Many

beneficiaries continue to require assistance in completing online applications and navigating digital platforms. This indicates that the success of digital governance depends not only on the provision of technology but also on the digital capabilities of users.

The study further reveals that women's effective participation in digital governance continues to be constrained by several socio-cultural factors. Respondents reported that limited digital literacy, restricted access to smartphones and internet facilities, household responsibilities, and traditional social norms reduce women's ability to participate fully in digital governance initiatives. Moreover, limited awareness of government services prevents many women from taking advantage of available digital platforms and welfare schemes.

5.4 Recommendations for Strengthening Digital Governance

Respondents recommended several measures to improve the effectiveness and inclusiveness of digital governance in Panchayati Raj Institutions. A key recommendation was the provision of regular digital literacy and capacity-building programmes for both Panchayat representatives and community members to enhance their ability to use digital platforms effectively. The need for targeted training programmes for elected women representatives to strengthen their participation in governance and decision-making processes was also emphasised.

Improving digital infrastructure emerged as another important recommendation. Participants highlighted the need for reliable internet connectivity, adequate digital equipment, and dedicated technical support at the Panchayat level to ensure the smooth functioning of e-governance platforms. They also suggested developing more user-friendly government portals, ensuring timely software updates, and establishing effective grievance redressal mechanisms to improve the accessibility and efficiency of digital services.

Furthermore, the importance of awareness campaigns specifically targeting women to increase their knowledge of digital governance initiatives and government welfare schemes was stressed. They believed that gender-responsive digital literacy programmes and continuous awareness

initiatives would help address existing barriers to women's participation, thereby promoting more inclusive and effective local governance.

5. Conclusion

Findings conclude that the scenario of Panchayat in Nalbari district, Assam is a mix of commendable progress and persistent challenges. The adoption of digital governance initiatives, including platforms such as eGramSwaraj, PFMS, AuditOnline, and other digital service delivery systems, has significantly improved the efficiency, transparency, and accountability of Panchayat administration. Digital technologies have simplified record management, accelerated the implementation of welfare schemes, enhanced financial management, and strengthened communication between Panchayats and higher administrative authorities.

The study further reveals that digital governance has created new opportunities for women's participation in local governance. Improved access to information through digital platforms, greater awareness of government schemes, and the use of Direct Benefit Transfer (DBT) systems have contributed to increased participation of women in Gram Sabha meetings, improved access to public services, and enhanced involvement in development programmes. Initiatives supported by Self-Help Groups and Jeevika Sakhis have also played an important role in strengthening women's digital and financial inclusion at the grassroots level.

While the participation of women has increased drastically following the reservation and introduction of e-governance, it must be noted that participation alone does not equate to empowerment. There persists a gap that is felt between representation and empowerment. Because empowerment also means the ability to make decisions, influence outcomes, and shape one’s own life and community. For women in Panchayati Raj, this involves not only being elected but being heard, respected, and supported.

Therefore, it can be concluded that although digital governance has considerable potential to strengthen gender-responsive local governance in Nalbari district of Assam, its success depends largely on creating an enabling environment that empowers women to participate meaningfully rather than symbolically. This is where capacity building initiatives come into play. Furthermore,

strengthening digital infrastructure, expanding digital literacy programmes, providing targeted leadership for elected women representatives, and promoting gender-sensitive governance practices are necessary for realizing the full benefits of digital transformation. Leadership training, awareness campaigns, and mentorship programs can also be considered as prerequisites to build confidence and competence in women representatives.

Finally, empowering women within Panchayati Raj is not just about achieving gender equality; it is essential for the overall development and democratisation of rural Assam. Bridging the gap between representation and empowerment is the key to ensuring that decentralised governance truly reflects the aspirations and needs of all citizens.

References

1. Agarwal, B. (2001). Participatory exclusions, community forestry, and gender: An analysis for South Asia and a conceptual framework. *World Development, 29*(10), 1623–1648. https://doi.org/10.1016/S0305-750X(01)00066-3
2. Assam panchayat elections: A deeper look at women's role! (2025, April 30). *CSAP IAS Academy*. https://csap.co.in/assam-panchayat-elections/
3. Buch, N. (2013). *From oppression to assertion: Women and panchayats in India*. Routledge. https://doi.org/10.4324/9780203085356
4. Heeks, R. (2006). *Understanding and measuring eGovernment: International benchmarking studies*. Institute for Development Policy and Management, University of Manchester.
5. Islam, M. K., Ya, C., & Sultana, S. (2025). E-government impact on Sustainable Development Goals (SDGs): A bibliometric insights. *Social Sciences & Humanities Open, 12*, 101743. https://doi.org/10.1016/j.ssaho.2025.101743
6. Kakati, B. K. (2022). Gaon panchayat, tribal women and their participation: A case of Tiwas of Assam. *Indian Journal of Public Administration, 68*(2), 285–298.
7. Kalita, A. J. (2025). Panchayat's poll and women's role. *The Assam Tribune*.

8. Kamble, S. (2026, April 4). *Exploring political empowerment and governance of Scheduled Caste representatives in Maharashtra panchayats*. SSRN. https://doi.org/10.2139/ssrn.6688959
9. Konwar, R. (2026). Political participation of women in Panchayati Raj Institutions: A study of Jorhat district, Assam. *International Journal of Science and Social Science Research, 4*, 100–104. https://doi.org/10.63671/ijsssr.v4i1.594
10. Kumar, R., & Chaudhary, A. (2025, November). *Digital governance and citizen empowerment: Evaluating e-government initiatives in India*. International Journal for Innovative Research in Multidisciplinary Field. https://www.ijirmf.com/wp-content/uploads/IJIRMF202511013-min.pdf
11. Kumar, S. (2010). B. S. Baviskar and George Mathew (eds.), *Inclusion and exclusion in local governance: Field notes from rural India*, New Delhi: Sage Publications, 2009, 453 pp. *The Journal of Entrepreneurship, 19*(2), 235–240.
12. Manor, J. (2002). Democratic decentralisation in two Indian states: Past and present. *The Indian Journal of Political Science, 63*(1), 51–71. https://www.jstor.org/stable/42743574
13. OECD. (2023). *Toolkit for mainstreaming and implementing gender equality 2023*. OECD Publishing. https://doi.org/10.1787/3ddef555-en
14. Pattenden, J. (2011). B. S. Baviskar and George Mathew (eds.), 2009. *Inclusion and exclusion in local governance: Field studies from rural India*. New Delhi, Thousand Oaks, London, and Singapore: Sage. 453 pp. *Journal of South Asian Development, 6*(2), 233–236. https://doi.org/10.1177/097317411100600205
15. Promoting women's peace and security in the digital world. (n.d.). *UN Women – Asia-Pacific*. https://asiapacific.unwomen.org/en/what-we-do/peace-and-security/promoting-womens-peace-and-security-in-the-digital-world
16. Year end review 2025: Ministry of Panchayati Raj. (n.d.). *Press Information Bureau*. https://www.pib.gov.in/PressReleasePage.aspx?PRID=2209532&reg=48&lang=2