

From Informal Labour to Digital Platforms: The Sustainability of Assam's Emerging Gig Economy

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Abstract

The rapid expansion of digital labour platforms across India has transformed traditional employment frameworks, triggering a significant rise in platform-based work within Assam (Baruah, 2021). This paper critically examines the opportunities and structural challenges characterising the gig economy in Assam, a region traditionally dominated by agriculture and informal labour. Drawing upon secondary literature and national policy reports (NITI Aayog, 2022), the analysis reveals that gig work provides vital avenues for income generation, operational flexibility, and economic inclusion, particularly for urban youth and women navigating limited formal job markets (Saxena, 2021). However, these opportunities are counterbalanced by severe precarity. In Assam, the growth of gig work is hampered by persistent challenges, including inadequate digital infrastructure in semi-urban and rural areas (Bezbarua, 2020), earnings volatility, lack of social safety nets, and algorithmic control by platform aggregators (Joshi, 2022; Saxena, 2021). Furthermore, the absence of localised regulatory oversight leaves gig workers excluded from standard labour protections, such as health insurance, minimum wage guarantees, and grievance redressal mechanisms (Baruah, 2021). This paper argues that for the gig economy to serve as a sustainable vehicle for regional development, Assam must adopt targeted policy interventions namely, expanding rural digital infrastructure, integrating platform workers into the localised frameworks of the Code on Social Security (Ministry of Labour and Employment, 2020), and fostering institutional skill development (NITI Aayog, 2022).

Keywords: Gig economy, Assam, Platform labour, Precarity, Digital infrastructure, Social security, Labour policy.

Introduction

Assam, the gateway to Northeast India, is currently witnessing a profound transformation in its labour market structure amid the expansion of the gig economy, a trend characterised by short-term, flexible work mediated by digital platforms. For decades, Assam's economy has been engaged in agriculture, tea plantations, oil, manufacturing, and public sector employment, with a sizable share of its workforce engaged in informal or casual labour. However, in alignment with pan-Indian and global trends, Assam is experiencing a surge in gig and platform-based work, leading to a new ecosystem of economic activities that is redrawing conventional employer-employee relations and redefining livelihoods (NITI Ayog, 2025). The present study interrogates this transition by asking: What are the distinctive features of Assam's gig economy? Which sectors and groups are most affected? How is gig work impacting income security, social

protection, and traditional employment models? And what strategies are needed to build an inclusive gig ecosystem sensitive to the state's socio-economic realities? Using a multidisciplinary lens, the study situates Assam's gig economy within broader debates on labour market flexibility, digital inclusion, welfare, and regulatory innovation (Dristiias,2024).

Literature Review

Global and Indian Context

The gig economy refers to labour arrangements based on short-term or project-specific work, commonly coordinated via digital platforms or apps. Globally, the sector encompasses billions of tasks annually, across ride-hailing, delivery, freelancing, digital content, and home and personal services. Key features include flexibility, autonomy, low entry barriers, and the absence of traditional job security or benefits.

In India, the gig economy has grown at a compound annual rate of 17% and is expected to contribute \$455 billion by 2024, employing up to 23.5 million workers by 2030 (NITI Aayog,2022). The demographic of gig workers is predominantly young (median age 27), with a large proportion from lower- and middle-income households, seeking supplemental or primary income (Vajiram,2024). Scholarly analyses (Das, 2024; NITI Aayog, 2022) suggest that the rise is largely a response to the “double failure” of the state and market to provide inclusive, stable, or formally protected employment, especially as traditional sectors (agriculture, industry) shrink in economic relevance relative to services and the digital economy.

The Gig Economy in Assam and the Northeast

While gig work was initially slow to penetrate less urbanised, infrastructurally weaker states like Assam, recent years have seen a sharp uptick. According to data published by The Economic Times in 2022, key drivers include rural-urban migration, the spread of smartphones and digital payment platforms, and the arrival of national and local gig platforms (such as Uber, Swiggy, Zomato, Baayu, and QuickGhy). Homegrown startups and state initiatives (such as ASTC's Baayu electric bike taxis) show Assamese entrepreneurship and public sector enthusiasm for gig-enabled economic growth (“Assam Launches Baayu,” 2024).

Nonetheless, research such as Bezbarua (2020) and policy reviews highlight the partial and uneven nature of digitalisation and the persistence of traditional work preferences, especially outside metropolitan Guwahati or among underprivileged groups (SITA, 2020). Digital divides, driven by infrastructure and literacy, remain acute, compounded by gender disparities, as women are often relegated to lower-paid or more precarious gig work (Bansal & De, 2024).

Studies also flag concerns such as unstable incomes, long and excessive work hours, lack of upward mobility, and insufficient access to social protection or welfare benefits (Chitlangia, 2024). The gig economy, while a route out of unemployment and informality for many, can perpetuate or even accentuate insecurity and inequality if left unchecked by appropriate regulation, organisation, and welfare integration.

Methodology

This article adopts a qualitative, interdisciplinary research design, drawing on both primary and secondary sources. Key methods include:

- **Desk Review of Academic Literature:** Synthesis of peer-reviewed articles on Indian and Assamese labour market trends, gig economy conceptual frameworks, and empirical studies on platform work.

- **Analysis of Official Reports and Data:** Review of recent reports from NITI Aayog, the Ministry of Labour & Employment, Assam's Economic Survey, and data from the e-Shram portal, as well as statistics from local government and industry associations.
- **Case Study Analysis:** Examination of regional gig platforms (e.g., Baayu, QuickGhy) and their operational impact.
- **Media and Web Source Review:** Inclusion of recent journalistic coverage, startup reports, digital news articles, and regional commentary, ensuring contemporary and web-based perspectives (2023-2025 sources).
- **Comparative and Thematic Synthesis:** Integration of findings into key thematic areas (drivers, sectoral composition, demographic profile, welfare, policy, digital infrastructure).

Findings

Overview of Assam's Labour Market Structure

According to the Economic Survey of Assam, 2021-22, Assam's labour market has traditionally been shaped by agriculture (including tea), industry (oil, manufacturing), public sector employment, and more recently, services and small businesses. As of 2023, approximately 48.8% of Assam's working population was still concentrated in agriculture, forestry, and fishing, with another 27.7% in construction, 18.5% in services, and only 4.7% in manufacturing (NITI Aayog, 2025). The state's urbanisation rate remains relatively low (15.6%), and the dependency ratio and poverty levels are high compared to Indian national averages. Urban Guwahati is the primary economic engine and the epicentre of gig and platform work. Despite these structural continuities, the overall share of agricultural and public sector jobs is gradually shrinking due to structural economic transformation, automation, and shifts toward services. Unemployment, especially among youth and educated groups, remains a pressing concern. The female labour force participation rate is very low (20.3%, 2022-23) and well below the national average (NITI Aayog, 2025).

The COVID-19 pandemic further emphasised risks, prompting job losses, wage cuts, and a rise in precarious and casualised work arrangements, including a spike in gig work, especially in urban hubs.

Conceptual Framework of the Gig Economy

The gig economy in Assam, as in the rest of India, encompasses a broad spectrum of work outside traditional, long-term, employer-employee relationships. The Code on Social Security (2020) defines a "gig worker" as an individual participating in work arrangements outside the traditional employment framework, most often via digital platforms (Kumar, 2024).

Gig work in Assam can be classified as:

1. **Platform-based (Digital/on-app work):** Coordinated by platforms such as Uber, Swiggy, Zomato, Baayu, QuickGhy, where tasks are allocated and remunerated via digital apps;
2. **Non-platform gig work:** Informal, casualised, or seasonal work (own-account, contract, etc.) that remains outside the purview of digital platforms but shares features of short-term and loosely governed engagement.

The chief characteristics of Assam's emerging gig economy include work autonomy/flexibility, low entry barriers, task-based or outcome-based remuneration, limited contractual benefits, and a dependence on digital or app-based task allocation. Often, gig work overlaps with informal sector activities in terms of precarity, lack of formal contracts, and limited or non-existent social protection (Kumar, 2024).

Drivers of Gig Economy Growth in Assam

Several interlinked drivers support gig economy growth in Assam:

1. **Digital Infrastructure and Smartphone Penetration:** Mobile internet users in rural Assam grew significantly between 2015 and 2025, reflecting broader Indian trends (Parekh, 2024). Government schemes (Digital India, Assam digital initiatives) and private telecom investment have improved connectivity, particularly in cities and large towns, although rural digital divides persist (Boruah & Borah, 2024).
2. **Urbanisation and Rural-Urban Migration:** With urban Assam relatively better connected and offering higher income possibilities, inter-district and rural-urban migration have channelled surplus rural labour into gig jobs in cities, especially Guwahati (NITI Ayog, 2025).
3. **Entrepreneurship and Platformisation:** The proliferation of digital platforms and homegrown startups (e.g., Baayu, QuickGhy) has created new business models suited to Assamese contexts and consumer needs ("Assam Launches Baayu," 2024).
4. **Changing Aspirations and Work Preferences:** Assam's youth demonstrate rising preferences for flexible, self-driven work that gig platforms offer. For some, gig work is a supplement; for others, it is an indispensable primary income.
5. **Pandemic and Labour Market Disruptions:** The COVID-19 crisis accelerated transformation, as job losses in traditional sectors nudged workers toward gig roles, especially in delivery, transport, and home services (Jain & Nag, 2021).
6. **Platform Incentives and Access to Finance:** Some platforms have begun offering limited access to credit, insurance, and training, thus attracting workers underserved by conventional banking or formal sector employment ("Assam Launches Baayu," 2024).

Sectoral Composition of Assam's Gig Economy

The sectoral composition of Assam's gig economy closely mirrors national patterns but is distinguished by a strong service-industry focus:

- **Urban Mobility and Ride-Hailing:** Platforms like Uber, Ola, and local platforms such as Baayu are major employers, especially for youth and rural migrants in urban Assam. Baayu, India's first app-based electric bike taxi service launched by the Assam Government, aims to generate 5,000 livelihoods for driver partners, facilitating not just employment but also the transition to greener, low-carbon mobility solutions ("Minister Launches Baayu," 2024).
- **Food Delivery and Logistics:** Zomato, Swiggy, and similar services have expanded in Guwahati and other urban areas, employing delivery workers, many of whom work full-time with little job security.
- **Home and Personal Services:** Startups like QuickGhy offer digitalised home and personal care services (plumbing, cleaning, beauty, etc.) and have helped informal or blue-collar workers access new markets.
- **Retail, E-Commerce, and Micro-Entrepreneurship:** Small traders, especially in urban Assam, are increasingly using digital platforms for sales, logistics, and cashless payments, blurring the lines between gig, casual, and micro-entrepreneurial activity.

Recent years have seen initial gig activity begin to spread to peri-urban and even rural areas, although the critical mass and ecosystem for such work remain concentrated in urban hubs due to infrastructure and demand constraints (Doloi, 2025).

Demographic Profile of Gig Workers in Assam

Gig workers in Assam primarily comprise:

- **Urban Youth:** The majority are aged 18-45, often male, with secondary or higher secondary education. Many are first-time workers from rural backgrounds, attracted by the promise of autonomy and cash income (Vajiram, 2024).
- **Internal Migrants and Rural Workers:** Migrants displaced from agriculture or shrinking traditional employment (including tea estate labourers and casual construction workers) are turning to gig work, pressed by rural distress and unemployment (Jain & Nag, 2021).
- **Women and Marginalised Groups:** Women's participation in gig work is rising but remains limited by societal norms, safety concerns, and access to technology. Those who do participate are typically concentrated in lower-paying, care-work, or home-based gigs, worsening existing gender inequities.
- **Persons with Disabilities (PwDs):** Digital gig work is seen as an opportunity for inclusion, but uptake is low without proactive skilling and accessible platform policies.

A regionally specific concern is the low digital and English literacy rates in rural Assam, which restrict gig economy access for certain population segments.

Income and Livelihood Patterns

Earnings in the gig economy are highly variable. While platforms market “flexibility” and “unlimited income,” research reveals that most gig workers in Assam earn at or slightly above the revised minimum wage for skilled and semi-skilled workers, frequently falling short of a stable monthly income. Gigs are characterised by:

- *Earnings volatility:* incomes are linked to the amount of work completed, with a “feast or famine” dynamic; a shortage of gigs means zero income on some days.
- *Absence of guarantees/benefits:* workers do not receive paid sick days, pensions, or health coverage. Long hours and unsafe conditions are commonplace, with many ride-hailing and delivery workers regularly exceeding 8–12-hour shifts.
- *Role of asset ownership and debt:* Many gig workers (e.g., drivers, delivery partners) must independently purchase equipment or vehicles, often via loans, leaving them vulnerable if platforms change payment terms or “decommission” workers based on ratings or algorithmic criteria.
- *Gender gap:* Women gig workers are further marginalised with fewer gig opportunities, lower pay, and a higher risk of discrimination or harassment than men.

Social Protection and Welfare Provisions

India's Code on Social Security (2020) is a landmark in formally recognising gig and platform workers and extending social security, accident insurance, and maternity and pension benefits in principle. Assam, through its state rules and engagement with the e-Shram portal, has begun registering gig workers for welfare delivery and legal recognition.

However, practical gaps remain:

- **Low registration and awareness:** The proportion of Assam's gig workers enrolled in welfare schemes (e.g., e-Shram, Ayushman Bharat, PM-JAY) is modest, as many are unaware or unable to complete digital registration.
- **Irregular implementation:** Benefits and funds remain contingent on both gig worker and aggregator contributions; implementation is piecemeal, with weak enforcement and undefined minimum income

support.

- **Insufficient portability:** Workers moving across platforms or locations cannot yet easily transfer or accumulate benefits; concerns remain over portability and continuity of health or accident coverage.

Recent interventions, such as providing health insurance under PM-JAY, launching unique identity cards for gig workers (e.g., e-Shram), and pilot programmes for aggregator co-contributions, are steps in the right direction, but they cover only a minority of total gig workers and often exclude women and the rural poor.

Impact on Traditional Employment and Labour Regulation:

The gig economy is both a complement and competitor to traditional employment. While it has absorbed surplus and underemployed labour, especially the youth, it is also associated with a decline in stable, long-term jobs in both the service and industrial sectors—fuelled by automation, downsizing, and restructuring post-pandemic.

Labour regulations have not kept pace with the gig economy's rise. Central laws and Assam's labour codes classify most gig workers as “independent contractors,” denying them workplace protections and collective bargaining rights accorded to formal employees. State amendments and the implementation of social security rules provide some leeway for local action but remain legally ambiguous and inconsistently enforced. International best practices such as minimum income guarantees (UK), mandatory aggregator contributions (Singapore, Oman, Thailand), and portable social security (Indonesia)—suggest roadmaps for inclusive reform.

Digital Infrastructure and Connectivity in Assam:

Assam's digital landscape has improved, especially with the spread of affordable smartphones and the expansion of 4G/5G networks. However, profound rural-urban divides persist:

- Urban penetration is high (80–90%), while only about 37% of rural Assamese have internet access, many relying on limited or poor-quality connections.
- Affordability challenges, weak digital literacy, and “fear of making mistakes” hinder meaningful participation among the rural and older population segments.
- Women, the elderly, and the less educated are disproportionately left out of gig-work access due to infrastructural and cultural constraints, highlighting the need for targeted digital literacy and inclusion initiatives.

Case Studies of Gig Platforms in Assam

Baayu Electric Bike Taxi

The Baayu initiative by Assam State Transport Corporation represents an eco-friendly, digitally coordinated gig platform with state and private sector collaboration. It aims for 5,000 livelihoods, climate mitigation (by saving 29,000 tons of CO₂ annually), and entrepreneurship, combining asset support, digital onboarding, and skill training under Assam's Aggregator Rules.

QuickGhy Home Service Platform

QuickGhy, a Guwahati-based home service startup, exemplifies local gig entrepreneurship—organising plumbers, electricians, beauticians, and others as platform-based workers, improving their access to clients, digital payments, and welfare schemes. Its impact is seen both in worker incomes and in consumer perceptions of efficiency, reliability, and quality.

Food Delivery, E-Commerce, and Freelance Gigs

National platforms like Zomato and Swiggy have created full-time deliveries and micro-entrepreneurship opportunities in urban Assam, while newer e-commerce and freelance assignments (education, marketing, IT) are beginning to create digital gig work for youth, students, and “T-shaped” professionals—though lower digital literacy slows uptake in smaller towns and villages.

Discussion:

Assam’s gig economy offers a dynamic illustration of the region’s broader structural, demographic, and technological transformations. Its key impacts and policy implications are summarised and discussed below:

Labour Market Flexibility vs. Security

The gig economy absorbs underemployed and surplus labour, supports women’s work (albeit unevenly), and offers multiple income streams. However, it does so at the expense of reliability, social protection, and occupational health—risks borne disproportionately by workers. The absence of wage guarantees, insurance, sick leave, and pension schemes perpetuates insecurity, especially in times of crisis (e.g., pandemics, platform shutdowns).

In Assam, with its large informal sector, the gig economy performs a “buffer” function, but its long-term sustainability is questionable without a robust social security net and proactive skill development policies.

Digital Inclusion and Rural-Urban Divides

Urban Assam stands at the forefront of digital gig adaptation; rural Assam lags due to infrastructural constraints, digital illiteracy, and social conservatism. There is need for coordinated state and private investment in affordable broadband, device access, digital skills (especially for women and the marginalised), and digital content in regional languages.

Gender and Social Inclusion

Assamese women have limited but growing participation in gig work, typically in lower-paid tasks and care work. Cultural norms, lack of digital skills, gender-based discrimination, and safety concerns restrict their advancement. Inclusive policies mandating gender-sensitive platform design, anti-discrimination measures, and targeted reskilling are necessary to close this gap.

Regulation and Social Protection

India’s Code on Social Security (2020), along with Assam’s state rules and e-Shram initiatives, are foundational steps towards gig worker recognition and welfare. Yet, regulatory gaps abound. To avoid a “race to the bottom,” Assam needs enforceable aggregator contributions, mandated minimum incomes or working conditions, worker-centric grievance redressal forums, and hybrid, portable welfare systems that function across platforms and geographies.

The ongoing tension between maximising flexibility and ensuring security will require legal clarity, industrial policy creativity, and collaborative governance.

Ecosystem Development and Entrepreneurship

Local platforms such as Baayu and QuickGhy demonstrate the potential for indigenous innovation, tailored to Assamese needs and contexts. The state’s logistics, e-commerce, and service hubs (e.g., multi-modal logistics park at Jogighopa) provide opportunities to foster an inclusive gig ecosystem if these initiatives are closely aligned with skill policy, credit access, and digital adoption for the rural and urban poor.

Conclusion

The gig economy has become a transformative force in Assam's labour market, triggering both new opportunities and complex challenges. It enhances flexibility and job creation, especially for youth, women, and rural migrants. Yet, it exposes workers to persistent insecurity, social protection gaps, and new forms of digital exclusion that, if unaddressed, may accentuate old inequalities. Assam's unique socio-economic context—marked by rural dominance, infrastructural lags, and emerging digital entrepreneurship—demands innovative, context-sensitive responses.

Harnessing the gig economy's potential in Assam will require:

- Investment in digital infrastructure and affordable broadband for rural and underserved populations;
- Expansion of digital literacy and inclusion programmes, with particular focus on women and marginalised groups;
- Acceleration of social protection reforms to ensure all gig workers regardless of platform or sector—are covered under health, accident, pension, and welfare schemes, with meaningful aggregator participation;
- Promotion of indigenous gig startups and entrepreneurship, leveraging public-private collaboration and targeted funding;
- Development of inclusive regulatory frameworks to bridge the gap between informality and formalisation, with attentive consideration to local realities, platform-worker relations, occupational safety, and minimum wage guarantees;
- Ongoing monitoring, data collection, and policy experimentation to ensure Assam's gig economy works for all.

Ultimately, the gig economy in Assam should not merely replicate the vulnerabilities of informal labour but offer new routes to prosperity, equity, and sustainable livelihoods.

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