

PART-3

Intra-state visioning

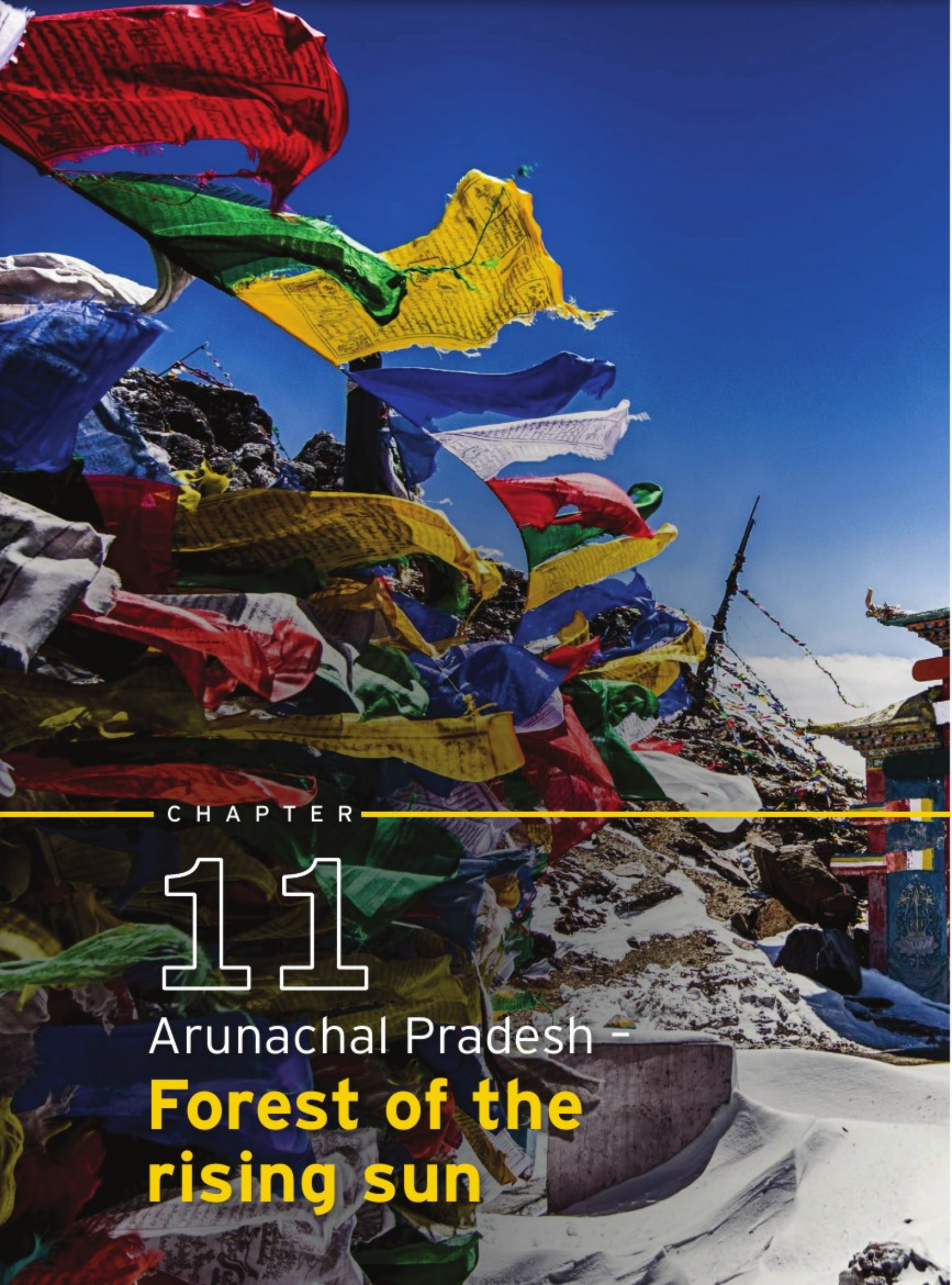
Methodology: Selection of priority areas per state

The identification and prioritization of the top 10 areas for each North Eastern state was conducted through a structured, multi-layered analytical framework:

- **Stakeholder consultations and competency mapping:** Extensive consultations were conducted with state government representatives serving on the Committee for NE Vision Plan 2047 to map micro, medium and macro competencies across states. These discussions captured sectoral prioritization, self-identified areas of competitive advantage and specific intervention requirements articulated by state stakeholders.
- **Integration of institutional knowledge and regional insights:** The analysis drew upon insights from MDoNER-led High Level Task Force reports, the North Eastern Economic Corridor Report and cross-sectoral consultations that provided both state-specific and region-wide perspectives on development priorities and implementation challenges.
- **Market and policy landscape analysis:** Comprehensive research was conducted across policy frameworks, economic indicators, business ecosystems, trade dynamics, and production capabilities to assess opportunity spaces and identify potential constraints for each state.
- **Regional integration and strategic sequencing:** The final selection and sequencing of the 10 priority areas balances state-specific advantages with regional integration potential. *Priority areas are ordered based on their relevance to cross-NER priority sectors, inherent state strengths, and capacity to integrate state USPs with broader regional themes* – enabling both individual state competitiveness and collective regional synergy.

This methodology affirms that priority recommendations are grounded in stakeholder realities, informed by institutional knowledge, validated through market analysis, and strategically aligned with the Vision Plan's regional integration objectives.





CHAPTER

11

Arunachal Pradesh -

**Forest of the
rising sun**



11.1 Socio economic profile, state USP and unique identity

Socio economic profile

Table 53: State overview (Arunachal Pradesh)

State overview ¹⁵⁶	
Area	83,743 km ²
Population (2025)	1.5 million (Estimated)
GSDP (FY25)	INR44,229 crore
Per Capita GSDP (FY25)	INR2,79,398/US\$3,111
Contribution to NER GDP	4.3%
Population density	19 people per km ²
Unemployment Rate (2024)	6.1%
Urbanization Rate (2025)	26.1% (Estimated)
State Budgeted Expenditure (FY26)	INR 39,842 Crore
Number of MSMEs (2025)	45,448
Debt to GSDP (FY25)	50.0%
Literacy	84.2%
Youth population	29.7%
Human development index	0.68
Export Preparedness Index	32 nd rank; Score: 31.4

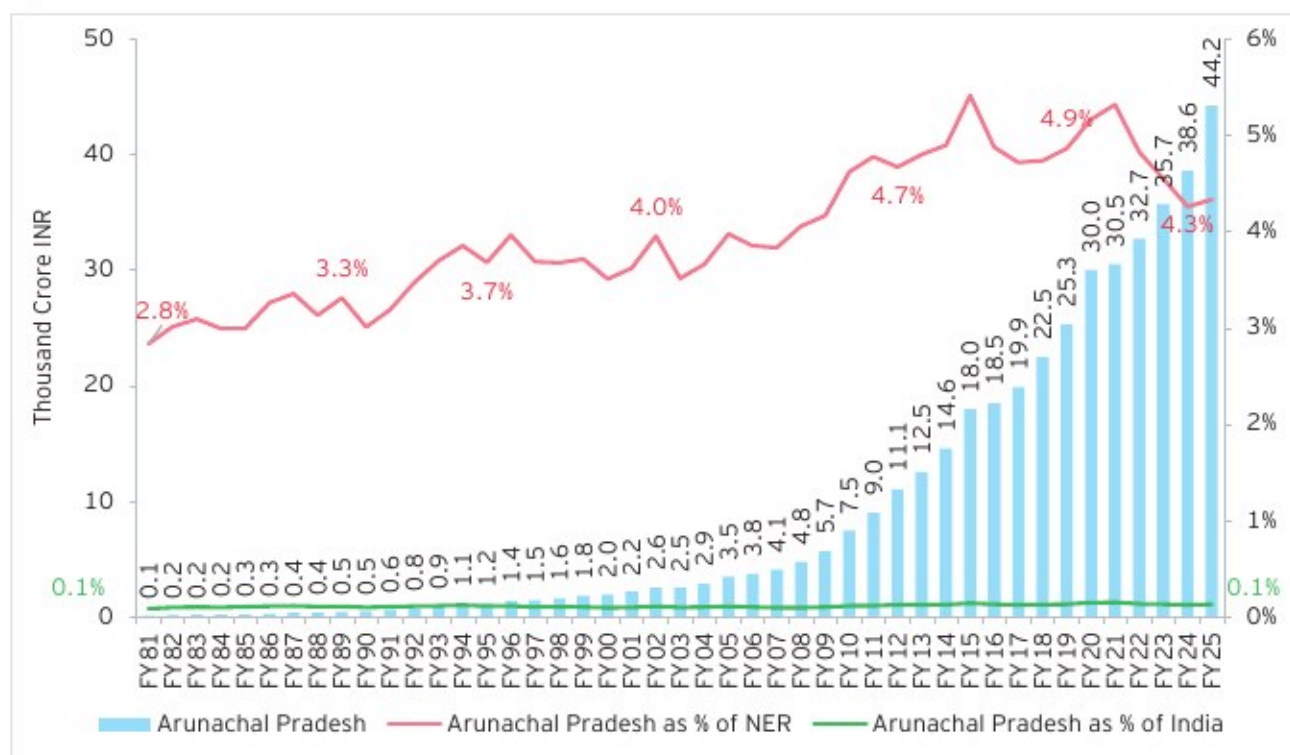
Arunachal Pradesh, positioned as India's easternmost frontier, is the largest Northeastern state by geographic area and a strategic border economy,

anchoring regional connectivity, hydropower leadership and trans-Himalayan trade corridors.

¹⁵⁶ Census of India, Arunachal Pradesh Industrial Development & Investment Policy 2025, PLFS 2023-24 NITI NCAER Macro and Fiscal Landscape of the State of Arunachal Pradesh, "NITI Aayog Export Preparedness Index 2024, Global Data Lab, "Subnational HDI (SHDI) – India (2022) Census of India, 2011, MoSPI, Government of India, National Statistical Office (NSO), Ministry of Statistics and Programme Implementation. *Youth in India 2022* (June 29, 2022). https://www.mospi.gov.in/sites/default/files/publication_reports/Youth_in_India_2022/Youth_in_India_2022.pdf Government of India, Ministry of Statistics and Programme Implementation, Lok Sabha Unstarred Question No. 5160 (Answered on 02.04.2025), "PLFS Reports," Annexure - Annual Report, Periodic Labour Force Survey (PLFS) 2023-24. https://sansad.in/getFile/loksabhaquestions/annex/184/AU5160_LZipbs.pdf?source=pqals&utm_source



Figure 39: Arunachal Pradesh GSDP

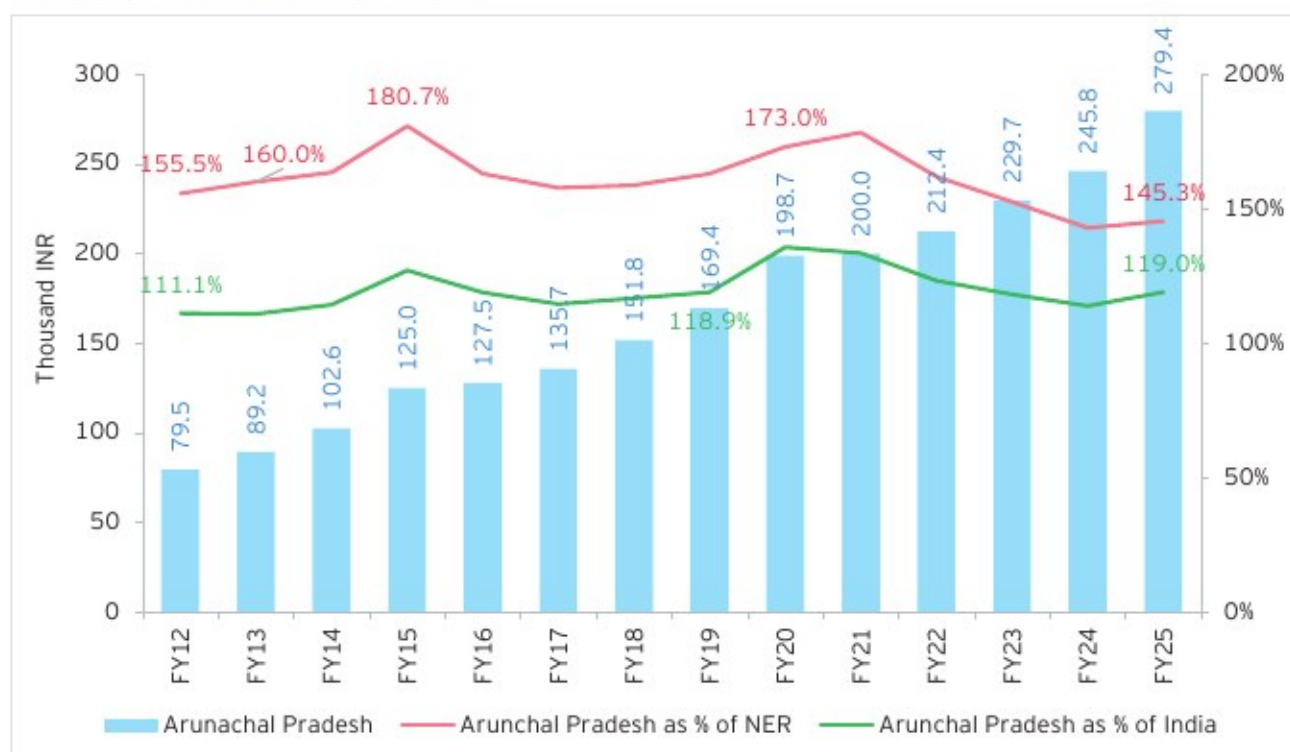


Source: MoSPI

Arunachal Pradesh has demonstrated substantial economic progression, with GDP expanding from INR201 crore in FY83 to INR44,229 crore in FY25, comprising 4.3% of NER's GDP. Per capita GDP has

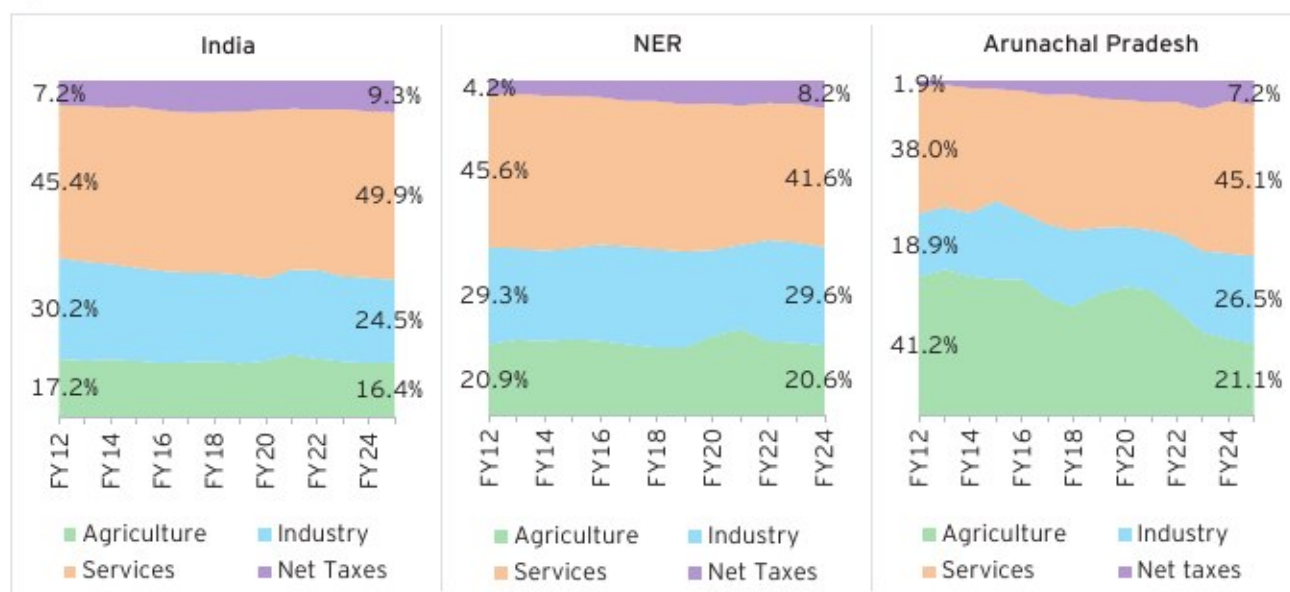
surged from ~INR80,000 in FY12 to INR2,79,398 (US\$3,111) by FY25, outpacing several NER peers, reaching 119% of national average in FY25.

Figure 40: Arunachal Pradesh per capita GSDP



Source: MoSPI

Figure 41: India vs NER vs Arunachal Pradesh sectoral shares



Source: World Bank, MoSPI

Arunachal Pradesh's agricultural sector accounts for 21.1% of GVA in FY25 – marginally higher than the NER average and moderately above the national average – indicating that productivity gains in agriculture will have significant potential to accelerate overall economic growth. While services currently constitute the largest share at 45.1%, followed by industry at 26.5%, the notable agricultural base presents a substantial leverage point for structural transformation and income growth acceleration.

In human development, Arunachal Pradesh reached a literacy rate of 84.2%¹⁵⁷ in 2024, reflecting ongoing challenges compared to the national average, marking progress from earlier decades but requiring accelerated interventions. The unemployment rate stands at 6.1% (2024),¹⁵⁸ above the national average, while the state's Human Development Index is 0.68,¹⁵⁹ reflecting challenges in healthcare availability, income generation, and access to quality services, especially in remote and rural areas. With an urbanization rate of 26.1% (2025)¹⁶⁰ and population density of 19 people per km², the state's dispersed settlement pattern necessitates innovative service delivery models to bridge development gaps across its vast 83,743 km² territory.¹⁶¹

Arunachal Pradesh ranks 32nd on the Export Preparedness Index¹⁶², constrained by infrastructure deficits, connectivity challenges, and regulatory inefficiencies. However, strategic initiatives including multi-modal connectivity upgrades through airports, ALGs, rail networks, and cross-border linkages with Myanmar and Bhutan present significant opportunities to enhance economic growth and boost exports, especially in value-added agricultural, horticultural, and Non-Timber Forest Products. The state's 44,636 MSMEs (2025)¹⁶³ and budget allocation of INR 39,842 Crore (FY26) provide foundational capacity for enterprise development and infrastructure expansion critical to unlocking trade potential.

Arunachal Pradesh's Unique Selling Proposition and unique identity

Arunachal Pradesh's economic identity is anchored in its position as India's leading kiwi-producing state. The state's agricultural competitiveness derives from low farm power costs, strong Agri-Tech adoption, and 79.3%¹⁶⁴ forest cover enabling cost-efficient organic farming. Established ODOP and GI-based processing frameworks for food, spices, and horticulture create

¹⁵⁷ NITI Aayog Macro and Fiscal Landscape of the State of Arunachal Pradesh <https://niti.gov.in/sites/default/files/2025-03/Macro-and-Fiscal-Landscape-of-the-State-of-Arunachal-Pradesh-1.pdf>

¹⁵⁸ Government of India, Ministry of Statistics and Programme Implementation, Lok Sabha Unstarred Question No. 5160 (Answered on 02.04.2025), "PLFS Reports," Annexure - Annual Report, Periodic Labour Force Survey (PLFS) 2023-24. https://sansad.in/getFile/loksabhaquestions/annex/184/AU5160_LZipbs.pdf?source=pqals&utm_source

¹⁵⁹ Subnational HDI (SHDI) - India (2022)

¹⁶⁰ Census 2011

¹⁶¹ NITI Aayog Macro and Fiscal Landscape of the State of Arunachal Pradesh <https://niti.gov.in/sites/default/files/2025-03/Macro-and-Fiscal-Landscape-of-the-State-of-Arunachal-Pradesh-1.pdf>

¹⁶² NITI Aayog Export Preparedness Index 2022

¹⁶³ Udyam Portal https://dashboard.msme.gov.in/Udyam_Statewise.aspx

¹⁶⁴ Department of Environment, Forest & Climate Change, Government of Arunachal Pradesh https://arunachalforests.gov.in/forest.html?utm_source



pathways for premium market access and value capture in specialty agricultural segments.

The state's 83,743 square km¹⁶⁵ of land area and ~58,000 MW¹⁶⁶ hydropower potential present compelling industrialization prospects. Competitive tariff structures, dedicated industrial feeders, and energy incentive schemes deliver cost and reliability advantages for power-intensive manufacturing. Strategic borders with Myanmar and Bhutan, combined with rising tourism and supportive subsidies, position Arunachal Pradesh as an emerging trade and hospitality hub in the eastern Himalayan corridor.

Multi-modal connectivity through airports, Advanced Landing Grounds (ALGs), helipads, and emerging rail infrastructure, supported by freight and air-cargo incentives, establishes efficient logistics capabilities. This framework enables cold chain development, warehousing expansion, and integrated supply chain solutions critical for perishable goods and time-sensitive sectors. A young talent pipeline strengthened by NIT-AP and NERIST, combined with local hiring and targeted skilling initiatives, enhances governance capacity and service delivery across the economy.

11.2 Arunachal Pradesh's 10 recommended priority areas

10 Priority areas for Arunachal Pradesh

1. Tourism
2. Non-Timber Forest Produce (NTFP)
3. Bamboo and Cane-based Industries
4. Power (Hydrogen and Renewable Energy)
5. Rubber and Plantation Crops
6. Cross-Border Trade and Regional Logistics
7. Education and Skill Development
8. Forest-based Eco-services (Carbon, PES)
9. Sustainable Infrastructure
10. Horticulture and High-Value Agriculture

#1 Tourism

Arunachal Pradesh's tourism sector leverages exceptional natural landscapes, cultural diversity, and adventure potential across multiple segments including homestays, adventure tourism, health and wellness tourism, eco-tourism, and MICE (Meetings, Incentives, Conferences, and Exhibitions) facilities.

The state's positioning spans 26 districts with distinct ecological zones – from snow-capped Himalayan peaks to subtropical valleys – offering year-round destination appeal for domestic and international travelers seeking authentic experiences. Fiscal support mechanisms include ~50% air freight reimbursement for hotel and resort units (maximum INR5 lakh per year for five years), reducing logistics costs for remote

properties, alongside 50% green energy subsidy (maximum INR25 lakh) incentivizing new hotel units to install solar panels for water heating, thereby lowering operational expenses while advancing sustainability commitments.

Sectoral development prioritizes infrastructure upgradation across accommodation facilities, implementation of quality certification standards, and creation of experiential tourism circuits that showcase indigenous cultures, biodiversity hotspots, and adventure sports opportunities. Critical interventions include developing trained hospitality workforce through specialized institutes, establishing tourist information systems and digital booking platforms, and creating safety protocols for adventure activities. The homestay model receives particular emphasis for generating grassroots-level income while preserving cultural authenticity, requiring capacity building in service standards, hygiene practices, and guest management among rural communities.

Accelerated tourism growth demands coordinated action across connectivity enhancement – particularly helicopter services and road networks to remote destinations – innovative destination marketing through digital channels and participation in international travel fairs, facilitation of permits and regulatory streamlining for tourist movement, and partnerships with tour operators and online travel aggregators for market penetration. Environmental sustainability protocols, waste management systems, and carrying capacity assessments enable tourism development remains ecologically responsible. Arunachal Pradesh's unique tourism assets can position the state as a premier destination for

¹⁶⁵ NITI Aayog Macro and Fiscal Landscape of the State of Arunachal Pradesh <https://niti.gov.in/sites/default/files/2025-03/Macro-and-Fiscal-Landscape-of-the-State-of-Arunachal-Pradesh-1.pdf>

¹⁶⁶ Arunachal Pradesh State Portal <https://eodb.arunachal.gov.in/investment/hydropower.php>

experiential, adventure, and wellness tourism, generating substantial employment and revenue while serving as a cultural bridge between India's northeast and global markets.

#2 Non-timber Forest Produce

Arunachal Pradesh's Non-Timber Forest Products (NTFP) represents a critical economic lever, drawing from the state's exceptional 79.9% ¹⁶⁷ forest cover and position as one of the world's 12 mega biodiversity hotspots. This ecological wealth provides the foundation for sustainable NTFP-based industries that can generate rural livelihoods while preserving forest ecosystems.

The sector's development is supported by ~50% Common Facility Centre subsidy (maximum INR1 lakh per year, for three years) for NTFP processing infrastructure, enabling community-based value addition and market linkage development. ¹⁶⁸ Key NTFPs including medicinal plants, aromatic species, bamboo, cane, and wild edibles present opportunities for pharmaceutical collaborations, essential oil extraction, handicraft production, and specialty food processing that leverage the state's unique biodiversity capital.

Establishing integrated NTFP value chains can transform raw forest produce into standardized, market-ready products while ensuring sustainable harvesting practices and equitable benefit distribution to forest-dependent communities. Priority interventions include creating collection centers and primary processing units across forest fringe areas, developing quality certification protocols for organic and wild-harvested products, and building capacity among tribal communities in sustainable harvesting, grading, and value addition techniques. Investment focus areas encompass modern drying and storage facilities, essential oil distillation units, medicinal plant processing infrastructure, and bamboo-based manufacturing facilities.

Success requires coordinated investment in processing infrastructure, market linkage development through buyer-seller meets and e-commerce platforms, skills development in NTFP identification and sustainable harvesting practices, and strategic partnerships with pharmaceutical, cosmetic, and wellness industries to capture maximum value from Arunachal Pradesh's unparalleled biodiversity endowments while ensuring ecological conservation and community welfare.

#3 Bamboo and Cane-based Industries

Arunachal Pradesh hosts one of India's largest bamboo-bearing areas, estimated at ~18,400 sq. km, making it the second-largest bamboo-rich state nationally after Madhya Pradesh spanning over 50 species with varying industrial and commercial attributes ¹⁶⁹. The state's topography – characterized by steep slopes, high rainfall zones, and limited accessibility for mechanized agriculture – creates natural conditions where bamboo cultivation can offer both livelihood security and soil stabilization across marginal lands. Bamboo's rapid growth cycle, minimal input requirements, and compatibility with community forest management systems position it as a resource that communities already interact with through traditional crafts, construction, and subsistence use. The sector's development could enable vertical integration from raw material extraction to processing and value-added manufacturing, particularly in segments such as bamboo-based panels, furniture, handicrafts, and emerging applications in biochar or bamboo fiber textiles.

From a livelihood perspective, bamboo and cane-based industries may provide income diversification for smallholders and tribal communities who face limited opportunities in conventional agriculture due to land fragmentation and infrastructural constraints. The sector's distributed value chain – spanning collection, primary processing, artisanal production, and industrial manufacturing – can accommodate varying skill levels and capital intensities, potentially supporting both household-level enterprises and formalized industrial clusters. Given the North East Region's strategic focus on forest-based economies and the National Bamboo Mission's institutional framework, Arunachal Pradesh could leverage existing policy support, market linkages, and technology platforms to enhance productivity and market access. The state's proximity to emerging markets in Southeast Asia, combined with growing domestic demand for sustainable materials, may create favorable conditions for scaling production while maintaining ecological integrity and community participation in resource governance.

#4 Power (Hydrogen and Renewable Energy)

Arunachal Pradesh commands a formidable energy advantage with 58,676 MW hydropower potential

¹⁶⁷Department of Environment, Forest & Climate Change, Government of Arunachal Pradesh https://arunachalforests.gov.in/forest.html?utm_source

¹⁶⁸Arunachal Pradesh Industrial Development and Investment Policy (2025) <https://indiarun.gov.in/pdf/Arunachal%20Pradesh%20Industrial%20Development%20and%20Investment%20Policy,%202025.pdf>

¹⁶⁹ Forest Survey of India, Ministry of Environment, Forest and Climate Change, Government of India. *India State of Forest Report 2023, Volume I* (2023). https://fsi.nic.in/uploads/isfr2023/isfr_book_eng-vol-1_2023.pdf



against a modest installed capacity of 1,270 MW,¹⁷⁰ revealing vast untapped opportunities for power generation and industrial development. This substantial capacity gap positions the state as a potential energy surplus region capable of serving both internal industrial demand and contributing significantly to national energy security. The renewable energy ecosystem extends beyond hydropower to encompass solar and wind resources, collectively establishing a clean energy foundation for sustainable industrialization. Policy frameworks actively incentivize green technology adoption through 50% cost reimbursement (maximum INR25 lakh) for installations ranging from 10-2,000 KW,¹⁷¹ accelerating distributed generation and reducing carbon intensity across economic activities.

Competitive tariff structures and dedicated power subsidy mechanisms create favorable conditions for energy-intensive industries, directly addressing one of manufacturing's most critical input costs. The state's energy proposition aligns strategically with national decarbonization targets and railway/air connectivity enhancement plans, creating synergies between power availability and logistics infrastructure that collectively strengthen industrial competitiveness. This convergence transforms Arunachal Pradesh into an attractive destination for aluminum smelting, data centers, cold storage networks, and other power-dependent sectors seeking reliable, cost-effective, and clean energy sources.

Realizing this potential requires aggressive capacity addition through public-private partnerships, streamlined clearance mechanisms for hydro projects, and grid infrastructure modernization to evacuate generated power efficiently. Investment priorities include cascade development of river basins, pumped storage projects for grid stability, and smart grid technologies for demand management. Equally critical is developing local technical capacity through specialized training institutions, establishing equipment manufacturing facilities to reduce project costs, and creating regulatory frameworks that balance environmental conservation with development imperatives. The state's energy endowment, when fully harnessed through coordinated policy action and infrastructure investment, can catalyze comprehensive industrial transformation while generating substantial revenue through power exports to energy-deficit regions.

#5 Rubber and Plantation

Arunachal Pradesh's agro-climatic zones, particularly in the foothill and lower altitude districts such as Namsai, Changlang, and Lohit, exhibit conditions conducive to rubber cultivation, including adequate rainfall, warm temperatures, and well-drained soils. The state currently has limited but expanding rubber coverage, with potential to extend cultivation into areas that share ecological similarities with traditional rubber-growing zones in Assam and Tripura. Rubber plantations offer long-term income stability once trees reach maturity (typically 5-7 years), and the crop's compatibility with intercropping during the gestation period may allow farmers to maintain interim revenue streams through companion crops such as ginger, turmeric, or pineapple. Additionally, plantation crops like tea, coffee, and areca nut present opportunities in mid-altitude regions, where climate and soil profiles align with specialty crop requirements that command premium pricing in niche markets.

The strategic rationale for prioritizing rubber and plantation crops lies in their potential to contribute to income security, land-use optimization, and integration into regional supply chains. Rubber cultivation could position Arunachal Pradesh as a contributor to the North East's broader latex production ecosystem, reducing regional dependence on imports and supporting downstream industries such as tire manufacturing, latex products, and rubber-based industrial inputs. Plantation crops also align with sustainable land management practices, as perennial cropping systems can reduce soil erosion, enhance carbon sequestration, and provide ecological services on sloping terrains. However, realizing this potential would require addressing challenges related to market access, processing infrastructure, and technical extension services, alongside careful planning to ensure that land conversion does not compromise food security or displace existing livelihood systems. The sector's development trajectory will likely depend on public investment in farmer training, quality planting material, and value chain infrastructure that connects producers to processing facilities and end markets.

#6 Cross-border trade and regional logistics hub

Arunachal Pradesh's strategic positioning along international borders with Myanmar and Bhutan establishes the state as a natural gateway for cross-border commerce and regional economic integration

¹⁷⁰ Arunachal Pradesh State Portal <https://eodb.arunachal.gov.in/investment/hydropower.php>

¹⁷¹ Arunachal Pradesh Industrial Development and Investment Policy (2025) <https://indarun.gov.in/pdf/Arunachal%20Pradesh%20Industrial%20Development%20and%20Investment%20Policy,%202025.pdf>

within ASEAN-facing land-connectivity corridors. This geographical advantage remains significantly underutilized, constrained by inadequate Integrated Check Post (ICP) infrastructure, limited cross-border road capacity, and weak formal export-import throughput mechanisms. The logistics ecosystem requires comprehensive strengthening to transform latent locational advantages into active trade facilitation capabilities, encompassing border infrastructure modernization, customs processing efficiency, and multimodal connectivity integration that enables seamless movement of goods across international boundaries.

Development priorities center on repositioning Arunachal Pradesh as the primary gateway for Myanmar and ASEAN-facing trade, necessitating strategic investments in ICP commissioning at key border points, last-mile road upgrades connecting production centers with border crossings, and establishment of integrated logistics hubs offering warehousing, cold storage, customs clearance, and value-added services under unified facilities. Current constraints are around underutilized border trade infrastructure translate into missed revenue opportunities and limited participation in regional value chains, particularly for agricultural products, processed foods, and handicrafts where the state possesses comparative advantages but lacks efficient export channels.

Transforming border trade potential into scalable revenue engines demands coordinated action across infrastructure development, regulatory streamlining, and private sector engagement. Critical interventions include expediting ICP operationalization with modern scanning equipment and digital customs systems, negotiating bilateral trade agreements, expanding permissible commodity lists and simplifying documentation requirements, developing border haats and trade marts facilitating small-scale cross-border commerce, and creating freight aggregation mechanisms consolidating shipments to achieve economies of scale. Capacity building among traders regarding export procedures, quality standards, and market intelligence strengthens participation, while establishing banking and payment infrastructure at border points facilitates formal transactions. Strategic marketing of Arunachal Pradesh's border gateway position to national exporters seeking ASEAN market access can generate transit trade revenues.

#7 Education and skill development

The state's young demographic profile – with youth comprising a significant population segment – combined with 84.2%¹⁷² literacy rate necessitates accelerated skill formation to match emerging employment opportunities across manufacturing, services, and technology sectors. Arunachal Pradesh's education and skill development ecosystem thus must address critical human capital requirements through integrated interventions spanning vocational training, digital learning platforms, and technical education infrastructure.

Arunachal Pradesh has 50 colleges and key higher education institutions including Rajiv Gandhi University (the state's central university), NIT Arunachal Pradesh, and NERIST (deemed university). The state supplements local capacity by sponsoring students to pursue medical, engineering, and specialized programs at premier institutions outside Arunachal Pradesh.¹⁷³ Financial support mechanisms provide ~6%-8% Capital Interest Subvention (five years, maximum INR10-25 lakh) for training service providers, reducing operational costs and encouraging private sector participation in skill development infrastructure.

Current initiatives emphasize vocational and digital e-learning modalities that overcome geographical barriers inherent to the state's dispersed settlement patterns and remote locations. Focus areas include aligning training curricula with industry requirements across priority sectors – hospitality, construction, renewable energy, healthcare, and digital services – while establishing partnerships between educational institutions and employers for apprenticeship programs and placement linkages. The interest subvention mechanism specifically targets training service providers, enabling them to establish centers, procure equipment, and deliver quality programs without prohibitive financing costs during expansion phases.

Scaling education and skill development outcomes requires systematic action across multiple fronts: upgrading infrastructure in existing polytechnics and ITIs with modern equipment and digital learning tools, expanding course offerings aligned with emerging sectors including drone technology, renewable energy systems, and digital marketing, developing trainer capacity through faculty development programs and industry exposure, and creating robust placement cells

¹⁷² Arunachal Pradesh Industrial Development and Investment Policy (2025) <https://indarun.gov.in/pdf/Arunachal%20Pradesh%20Industrial%20Development%20and%20Investment%20Policy,%202025.pdf>

¹⁷³ Directorate of Economics & Statistics, Government of Arunachal Pradesh. (2020). Development Statistics Atlas of Arunachal Pradesh - 2020 [PDF]. <https://ecostatistics.arunachal.gov.in/State%20Publications/4.pdf>



connecting trained candidates with employment opportunities. Equally critical is establishing recognition frameworks for prior learning and informal skills, integrating soft skills and entrepreneurship training into technical curricula, and leveraging digital platforms for reaching remote populations through online and hybrid learning models. Public-private partnerships with corporations for sector-specific skill centers can accelerate capability building while ensuring market relevance.

#8 Forest-based Eco-services (Carbon, PES)

Arunachal Pradesh's forest cover extends across ~79% of its geographic area¹⁷⁴, making it one of India's most densely forested states and a critical component of the Eastern Himalayan biodiversity hotspot. These forests provide a range of ecosystem services, including carbon sequestration, watershed regulation, soil conservation, and habitat preservation for endemic and endangered species. The state's forests are predominantly under community management or reserved forest status, creating governance structures that could facilitate participation in emerging mechanisms such as carbon credit markets, payments for ecosystem services (PES), and biodiversity offset programs. As global and domestic frameworks for valuing natural capital mature – including initiatives under the Paris Agreement, voluntary carbon markets, and national schemes like CAMPA (Compensatory Afforestation Fund Management and Planning Authority) – Arunachal Pradesh's forest assets may offer opportunities to monetize ecosystem services while reinforcing conservation objectives and supporting community stewardship.

The strategic case for forest-based eco-services rests on their potential to generate non-extractive revenue streams that align financial incentives with ecological sustainability. Unlike timber harvesting or land conversion, ecosystem service markets can enable communities and state institutions to benefit from standing forests, potentially reducing pressure on forest resources while providing supplementary income to forest-dependent populations. Within the North East Region, where forest degradation and competing land-use pressures persist, Arunachal Pradesh's relatively intact forest cover positions it as a candidate for pioneering PES models, carbon offset projects, and nature-based solutions that attract both public funding and private sector investment.

However, the development of this sector would require robust measurement, reporting, and verification (MRV) systems, institutional capacity for project design and implementation, and equitable benefit-sharing mechanisms that ensure local communities receive tangible returns. The sector's viability will also depend on policy clarity, transaction cost reduction, and integration with broader landscape management strategies that balance conservation with livelihood needs.

#9 Sustainable infrastructure

Arunachal Pradesh's sustainable infrastructure development framework emphasizes green technology adoption and electric mobility enablement through targeted fiscal incentives that reduce capital expenditure barriers while aligning with national decarbonization objectives. The EV charging infrastructure receives strategic support through Services Unit provisions offering 10% e-load carrier subsidy (maximum INR50,000 per unit), accelerating the deployment of charging networks essential for electric vehicle adoption across urban centers and highway corridors. Complementing this, the 50% green energy subsidy for solar installation (maximum INR25 lakh) catalyzes renewable energy integration across commercial and industrial establishments, reducing grid dependency and operational energy costs while contributing to the state's clean energy transition.¹⁷⁵

Infrastructure investments focus on establishing charging station networks at strategic locations including district headquarters, tourist destinations, and transportation hubs, alongside rooftop solar deployment across government buildings, educational institutions, and commercial complexes. The 99% VAT exemption for seven years¹⁷⁶ substantially enhances project viability by minimizing tax liabilities during critical establishment phases, encouraging private sector participation in green infrastructure development. This policy architecture creates enabling conditions for entrepreneurs, facility operators, and institutional buyers to invest in sustainable technologies without prohibitive upfront financial burdens.

Sectoral maturity requires systematic implementation across multiple dimensions: developing standardized technical specifications for EV charging equipment ensuring interoperability, creating awareness campaigns promoting electric mobility benefits among consumers and fleet operators, training technical

¹⁷⁴ Department of Environment, Forest & Climate Change, Government of Arunachal Pradesh https://arunachalforests.gov.in/forest.html?utm_source

¹⁷⁵ Arunachal Pradesh Industrial Development and Investment Policy (2025) <https://indarun.gov.in/pdf/Arunachal%20Pradesh%20Industrial%20Development%20and%20Investment%20Policy,%202025.pdf>

¹⁷⁶ Ease of Doing Business, Government of Arunachal Pradesh. (n.d.). Investment brochure. https://eodba.arunachal.gov.in/investment/pdf/Investment_Brochure.pdf



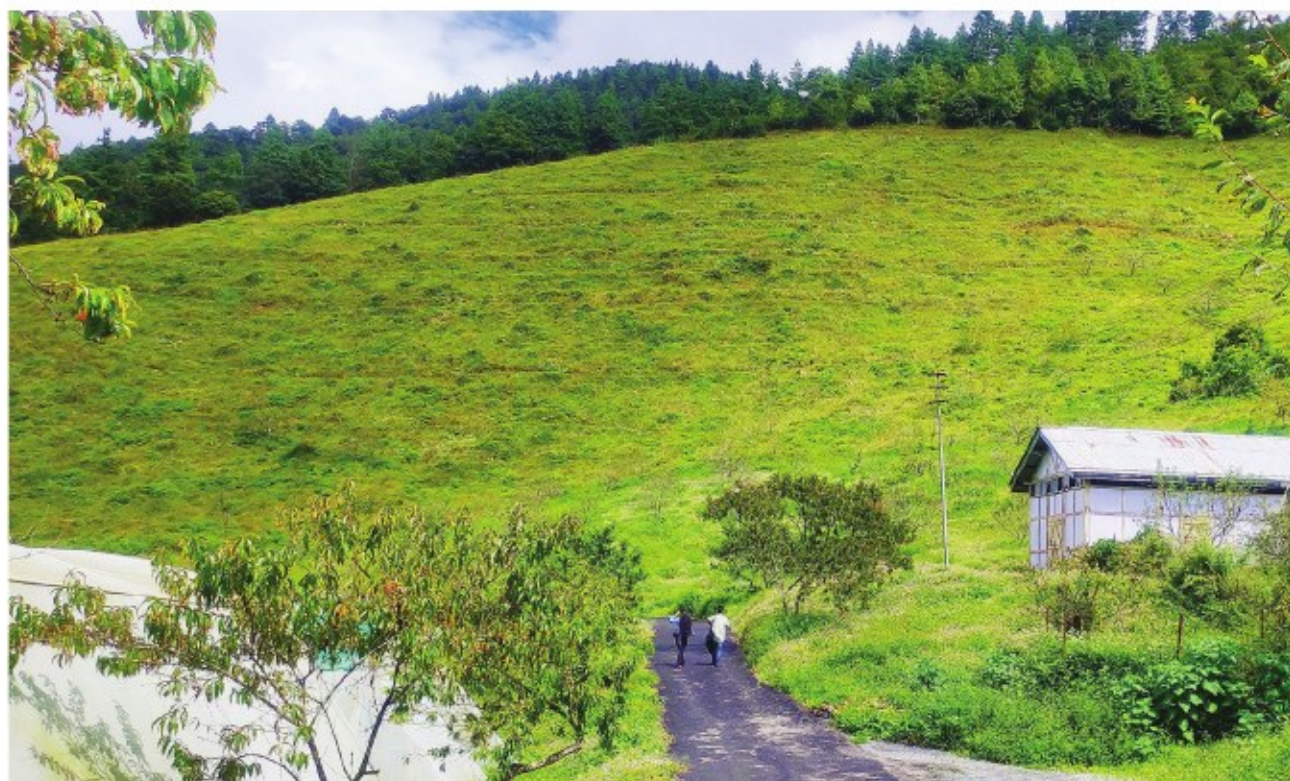
personnel in installation and maintenance of solar systems and charging infrastructure, and establishing monitoring mechanisms for subsidy utilization and impact assessment. Public-private partnerships can accelerate deployment scale, while integration with smart grid technologies and energy storage solutions enhances system efficiency. The convergence of fiscal incentives, regulatory support, and infrastructure planning positions Arunachal Pradesh to build climate-resilient, energy-efficient infrastructure that serves immediate developmental needs while establishing foundations for long-term environmental sustainability and reduced carbon emissions across economic sectors.

#10 Horticulture and High-Value Agriculture

Arunachal Pradesh's varied topography and altitudinal gradients create diverse micro-climatic zones that support a wide array of horticultural crops, including temperate fruits (apples, kiwi, plums), subtropical fruits (oranges, pineapples, bananas), vegetables, and high-value cash crops such as ginger, turmeric, and large cardamom. The state's low population density, limited industrial pollution, and minimal use of chemical inputs in traditional farming systems provide a foundation for positioning produce as organic or naturally grown, potentially accessing premium market segments that value traceability and environmental credentials. Horticultural production can also be adapted to the state's terrain constraints, with crops

like kiwi, passion fruit, and dragon fruit suitable for hillside cultivation and requiring lower capital intensity compared to paddy or other plains-oriented crops. The sector's value chains – spanning production, post-harvest handling, processing, and marketing – offer entry points for smallholder engagement and enterprise development across rural areas.

From an economic perspective, horticulture and high-value agriculture may contribute to income enhancement, nutritional security, and employment generation, particularly for women and youth who often participate in activities such as harvesting, grading, and value addition. The sector's alignment with organic farming practices could allow Arunachal Pradesh to differentiate its products in domestic and international markets, leveraging certifications and branding strategies that emphasize provenance and sustainability. Within the North East Region, the state's horticultural potential complements efforts to reduce dependency on food imports and build resilient local food systems. However, challenges related to perishability, transportation costs, limited cold chain infrastructure, and market fragmentation would need to be addressed through targeted investments in logistics, processing facilities, and producer collectives. The sector's growth trajectory may also benefit from technological interventions in precision agriculture, post-harvest management, and digital market linkages that reduce wastage and improve price realization for farmers.



11.3 Integration with regional value chains

Kiwi

Arunachal Pradesh is India's largest kiwi producer, accounting for over half of national output and home to the first certified organic kiwi crop in the country¹⁷⁷. Despite this advantage, most fruit is sold unpackaged and unprocessed with limited value addition, and production remains small relative to global import volumes. Expanding kiwi farming in select high-potential areas can improve scale and tap seasonal price premiums. Regional cold storage and processing hubs can reduce losses and enhance off-season market access to capture higher incomes.

In FY24, the state produced 7.05 thousand metric tonnes¹⁷⁸ of kiwi, underlining its national leadership, while productivity levels of approximately ₹2 lakh per hectare¹⁷⁹ demonstrate strong economic returns at the farm level – indicating clear capacity to deepen the kiwi value chain through scale, aggregation, and downstream processing.

Bamboo

Arunachal Pradesh's superior bamboo resources and diversity warrants processing infrastructure at scale. This opportunity is underpinned by a bamboo-bearing area of 18,424 sq km (FY23)¹⁸⁰ – among the largest in the country and an annual bamboo output of approximately 115,273 units (FY23-24)¹⁸¹, together indicating sufficient resource depth to support commercially viable processing, aggregation, and downstream manufacturing at the state level. The state should prioritize localized processing hubs for value-addition to capture higher margins, leveraging indigenous harvesting for inclusive rural growth while navigating infrastructure constraints.

Tea

Arunachal Pradesh's Eastern Himalayan agro-climatic conditions support the production of premium orthodox teas with export potential. In FY24, the state produced 14.1 thousand metric tonnes of tea¹⁸², supported by 3,556 registered tea growers¹⁸³, indicating a sufficiently broad production base to justify focused investments in aggregation, quality certification, and market-linked processing to deepen the value chain.

However, the sector remains small and constrained by scale, logistics, and limited market access. Targeting East Asian markets through Act East trade corridors offers an opportunity to improve price realisation. Expanding community-based cultivation models can raise farmer incomes, provided infrastructure and supply-chain bottlenecks are progressively addressed.

Minerals

Arunachal Pradesh's reserves of coal, graphite, and mica provide scope for higher-value processing, supported by relatively strong access to mineral resources. In FY23, the state recorded a mineral production value of approximately ₹56 crore¹⁸⁴, underscoring an existing commercial base, while auction premiums peaking at 237%¹⁸⁵ for critical mineral blocks signal strong investor confidence – notably, 5 of the 8 critical mineral blocks auctioned under Tranche IV¹⁸⁶ are located in Arunachal Pradesh, together indicating significant headroom to scale value capture through downstream processing and formal industrial development. However, revenue realisation remains constrained by limited local beneficiation and the prevalence of informal mining practices. Developing processing hubs in proximity to hydropower assets can improve energy efficiency and industrial viability. Addressing infrastructure gaps and transitioning traditional mining into formal enterprises will be critical to unlocking sustained revenue growth.

¹⁷⁷ Press Information Bureau, Government of India. (2025, October 9). *GST cuts empower farmers, artisans & MSMEs in Arunachal Pradesh* [Press release]. <https://www.pib.gov.in/PressReleasePage.aspx?PRID=2176656®=3&lang=2>

¹⁷⁸ North Eastern Development Finance Corporation Ltd. (NEDFi). NEDFi Databank. <https://databank.nedfi.com/>

¹⁷⁹ North Eastern Development Finance Corporation Ltd. (NEDFi). NEDFi Databank. <https://databank.nedfi.com/>

¹⁸⁰ Forest Survey of India. (2023). *India state of forest report 2023 (Vol. 1)*. Ministry of Environment, Forest and Climate Change, Government of India. https://fsi.nic.in/uploads/isfr2023/isfr_book_eng-vol-1_2023.pdf

¹⁸¹ North Eastern Development Finance Corporation Ltd. (NEDFi). NEDFi Databank. <https://databank.nedfi.com/>

¹⁸² North Eastern Development Finance Corporation Ltd. (NEDFi). NEDFi Databank. <https://databank.nedfi.com/>

¹⁸³ North Eastern Development Finance Corporation Ltd. (NEDFi). NEDFi Databank. <https://databank.nedfi.com/>

¹⁸⁴ North Eastern Development Finance Corporation Ltd. (NEDFi). NEDFi Databank. <https://databank.nedfi.com/>

¹⁸⁵ Press Information Bureau, Government of India. (2024, November 7). *Successful auction of strategic mineral blocks in Tranche IV: A major milestone for AtmaNirbhar Bharat in mineral sector* [Press release]. <https://www.pib.gov.in/PressReleasePage.aspx?PRID=2071441®=3&lang=2>

¹⁸⁶ Press Information Bureau, Government of India. (2024, November 7). *Successful auction of strategic mineral blocks in Tranche IV: A major milestone for AtmaNirbhar Bharat in mineral sector* [Press release]. <https://www.pib.gov.in/PressReleasePage.aspx?PRID=2071441®=3&lang=2>

11.4 Comparative advantage analysis

Arunachal Pradesh's comparative positioning is defined by a combination of hydropower dominance, biodiversity wealth, strategic border location, and untapped land potential. These advantages operate across three layers: state level within the NER, regional level within India, and international level relative to South East Asia and global markets.

State advantage versus NER

Hydropower dominance and energy surplus

Arunachal Pradesh has hydropower potential of around 58,000 MW¹⁸⁷ (about 40% of India), with 1,270 MW already installed – much higher headroom than Assam. This positions the state as an energy surplus region within the NER, enabling power export revenues while ensuring uninterrupted industrial power supply. Enabling power availability at competitive rates, with gas-based generation being more economical on diesel, lowers operating costs for energy intensive industries.

Horticulture leadership

Arunachal Pradesh is India's leading kiwi producer (over 50% share, ~4,492 MT and ~INR67 crore value¹⁸⁸); strong apple and cardamom clusters compared with Assam's tea focus. This concentration creates scale for anchoring and developing mass for high-value horticulture processing and export industries. Domestic raw material availability enhances supply chain security and reduces vulnerability for local industries.

Eco-adventure tourism hub

Arunachal Pradesh has 79.9%¹⁸⁹ forest cover and rich wildlife, making it an adventure eco-leader versus Kaziranga-centric Assam; cross-border trails with Bhutan and Myanmar add unique positioning. Over 5,192 plant¹⁹⁰ species and Himalayan landscapes give rich biodiversity versus Thai beach tourism; can position as a sustainable alternative to Indonesia's over-tourism.

Regional advantage versus rest of India

Low-cost power for agri-processing

Cheap hydro power, at about INR3.35 per unit, makes agri processing far cheaper than coal-based peninsular states in India; high yields from food parks and biodiversity-rich farming. This enables competitive pricing advantages for processed foods and creates opportunities for establishing large-scale cold storage, processing units, and export-oriented food manufacturing clusters.

Renewable energy manufacturing base

Around 58,000 MW¹⁹¹ of hydropower potential provides reliable green power and reduces intermittency risk for IT/ITeS loads. Green-tech initiatives get 50% subsidy versus non-NER states; large forest biomass and low land cost support scale projects. This positions Arunachal Pradesh as an attractive destination for data centers, renewable equipment manufacturing, and other power-intensive industries seeking stable electricity supply.

Pharma manufacturing cost advantage

Same low-cost green power (~INR3.35/unit) underpins pharma R&D; 79.9% forests provide sustainable raw-material sourcing unlike coal-heavy states. With 500+ medicinal plants such as *Rauwolfia* supporting herbal pharma/biotech clusters, the state offers both input availability and processing cost advantages. Rare plant-based inputs with better ESG profile than Vietnam's deforested areas; herbal-based products can substitute Thai synthetic ingredients.

International advantage versus SE Asia and global markets

Organic premium positioning

GI-tagged organic produce such as kiwi and high-altitude, large cardamom competes with more chemical-intensive Vietnamese produce and other Thai imports. Arunachal Pradesh's organic certification and high forest cover enable premium market positioning for specialty crops that command higher prices in

¹⁸⁷ Arunachal Pradesh State Portal <https://eodb.arunachal.gov.in/investment/hydropower.php>

¹⁸⁸ Government of India, Press Information Bureau, "GST Cuts Empower Farmers, Artisans & MSMEs in Arunachal Pradesh"

https://www.pib.gov.in/PressReleaseDetail.aspx?PRID=2176656&utm_reg=3&lang=2

¹⁸⁹ Department of Environment, Forest & Climate Change, Government of Arunachal Pradesh https://arunachalforests.gov.in/forest.html?utm_source

¹⁹⁰ Government of Arunachal Pradesh, *Arunachal Pradesh State Biodiversity Strategy and Action Plan (SBSAP) 2025-2035*, Arunachal Pradesh State Biodiversity Board – documents over 5,192 angiosperm species and 678 orchid species, confirming the state's Eastern Himalayan biodiversity richness.

<https://apbb.in/wp-content/uploads/2025/04/APSBSAP-main-2025-2035.pdf>

¹⁹¹ Arunachal Pradesh State Portal <https://eodb.arunachal.gov.in/investment/hydropower.php>



international markets, particularly in health-conscious consumer segments.

Eco-certified forest products

NTFPs such as rare orchids and medicinal plants contrast with those with lower ESG profile due to Indonesia's deforestation, thus positioning Arunachal as an eco-certified herbal supplier globally. Strong forest-solar hybrid plus firm hydropower makes it an ESG-friendly energy leader versus South-east Asia's more intermittent renewable mix. This sustainability credential enhances export appeal to environmentally conscious markets in Europe and North America.

Artisan craft differentiation

Tribal patterns and designs and GI-protected handicrafts offer differentiated premium alternatives to global competitors' mass-market and generic output. Traditional weaving techniques, bamboo craftsmanship, and indigenous designs provide authenticity and cultural narratives that resonate with global consumers seeking ethically sourced, handcrafted products with unique provenance stories.



11.5 State economic analysis

Structure of Arunachal Pradesh's economy

Arunachal Pradesh's economy shows a dramatic structural transition with services surging to

dominance while agriculture collapses from its historically leading position. Industry's stagnation at modest levels underscores persistent structural constraints, while rising net taxes reflect gradual fiscal strengthening.

Figure 42: Arunachal Pradesh's sectoral composition of GSDP

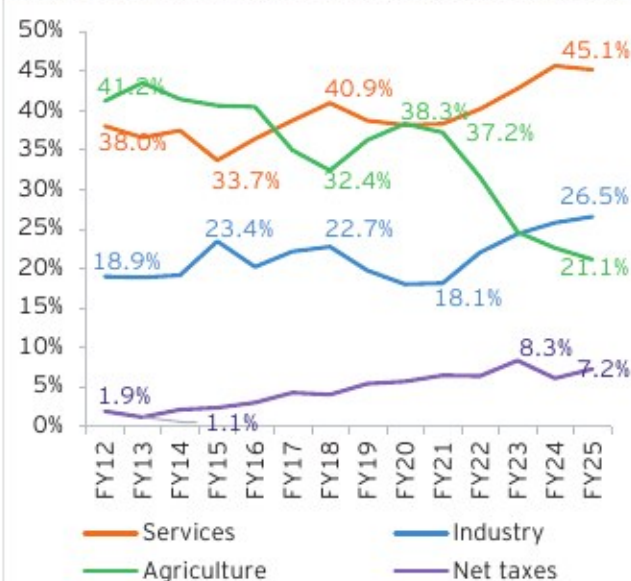
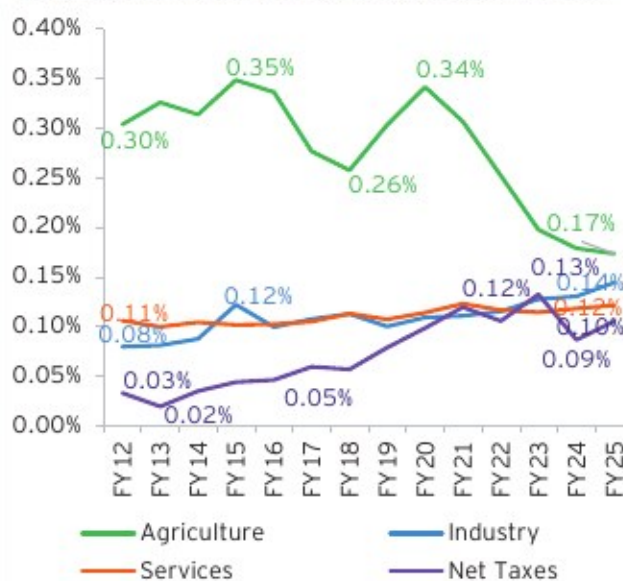


Figure 43: Arunachal Pradesh's contribution to India's GDP



Centre for Monitoring Indian Economy Pvt. Ltd. (n.d.). States of India [Database]. <https://statesofindia.cmie.com>

Source: MoSPI, EY Analysis

Arunachal Pradesh's national comparative advantage has shifted decisively away from agriculture, which is rapidly losing its national share despite once being relatively strong. Services and industry remain significantly under-represented in India's economy, signaling need for strategic interventions to scale efficiencies and drive competitiveness.

Agriculture: Collapsing national share

Agriculture's share of Arunachal Pradesh's GSDP fell from 41.2% in FY12 to 21.1% in FY25, reflecting a dramatic structural shift away from the primary sector, and the state's share of India's agricultural GDP plummeted from 0.30% in FY12 to 0.17% in FY25 despite peaking at 0.35% in FY15. This decline is significant, especially given the state's geographic and economic base, and highlights a loss of comparative advantage in agriculture relative to the national landscape.

Industry: Persistently weak but gradually expanding contribution

Industry has expanded from 18.9% of GSDP in FY12 to 26.5% in FY25, showing some structural development,

and its national contribution remains negligible rising from 0.08% to 0.14% after peaking at 0.12% in FY15, highlighting a persistent manufacturing and industrial gap relative to India's 25%-30% benchmark.

Services: Surging to dominance with limited national scale

Services surged from 38.0% of GSDP in FY12 to 45.1% in FY25, becoming the dominant sector and reflecting a rapid tertiarization of the economy – and Arunachal Pradesh's share of India's services GDP rose modestly from 0.11% to 0.12%, indicating expansion but limited scale against major hubs.

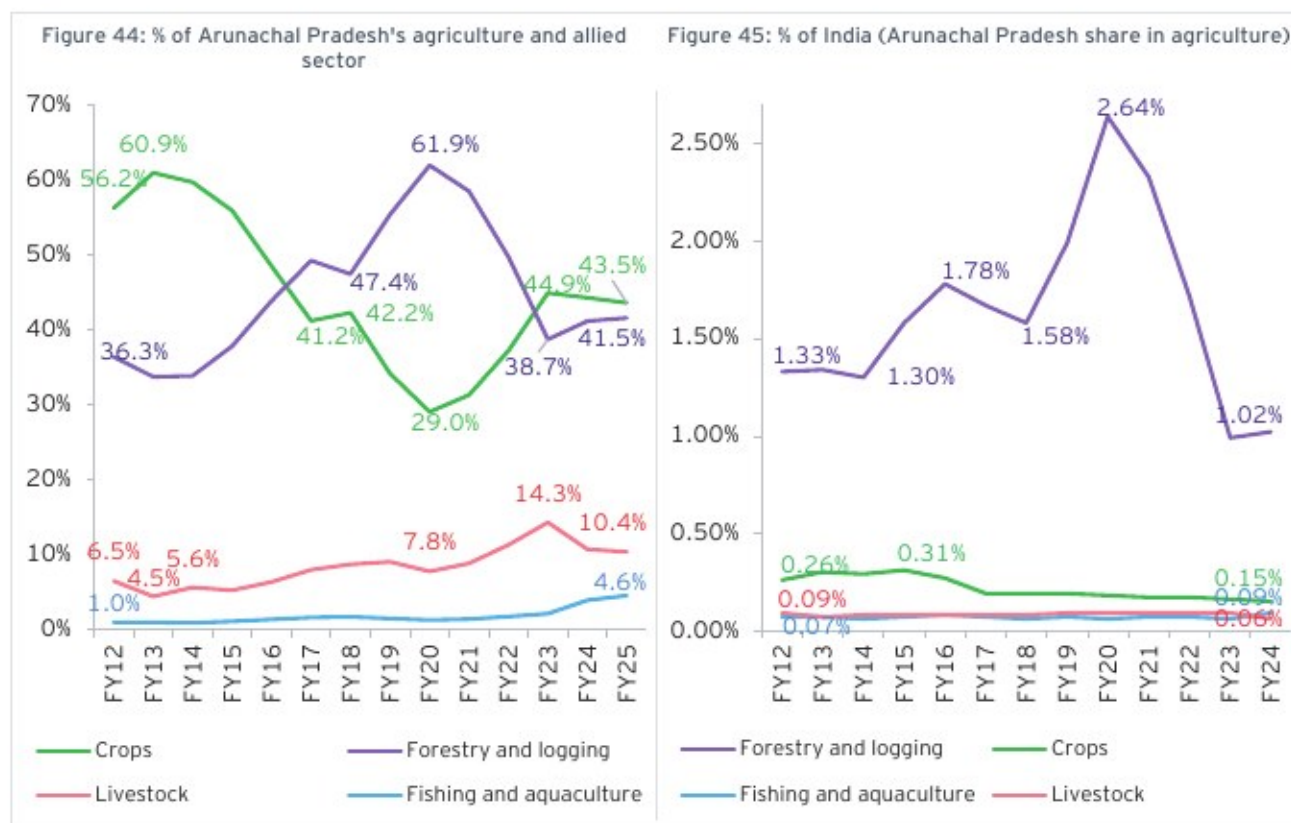
Net taxes: Small but substantially increasing contribution

Net tax revenue climbed from 1.9% of GSDP in FY12 to 7.2% in FY25, signaling stronger fiscal capacity, and its contribution to India's net tax pool rose significantly from 0.03% to 0.10%, marking substantial gains in national fiscal participation.



11.6 Sectoral structure of Arunachal Pradesh's economy

Agriculture and Allied Sector



Centre for Monitoring Indian Economy Pvt. Ltd. (n.d.). States of India [Database]. <https://statesofindia.cmie.com>
Source: MoSPI, EY Analysis

Internal structure of Agriculture and Allied Activities

Forestry and logging and Crops alternate dominance in Arunachal Pradesh's agriculture sector, with Crops leading at 56.2% in FY12, yielding to Forestry which peaked at 61.9% in FY20, before both converging around 41%-44% by FY25.

Crops have seen a volatile trajectory declining from 56.2% in FY12 to 29.0% in FY20, though recovering to 43.5% in FY25, reflecting fluctuations likely tied to Arunachal Pradesh's challenging terrain and shifting agricultural priorities.

Livestock contribution gradually increased from 6.5% in FY12 to 10.4% in FY25, overtaking Fishing and Aquaculture in FY18.

Fishing and aquaculture showed modest growth from 1.0% in FY12 to 4.6% in FY25, highlighting gradual development but remaining the smallest component of the agriculture sector.

Arunachal Pradesh's share in India's agriculture

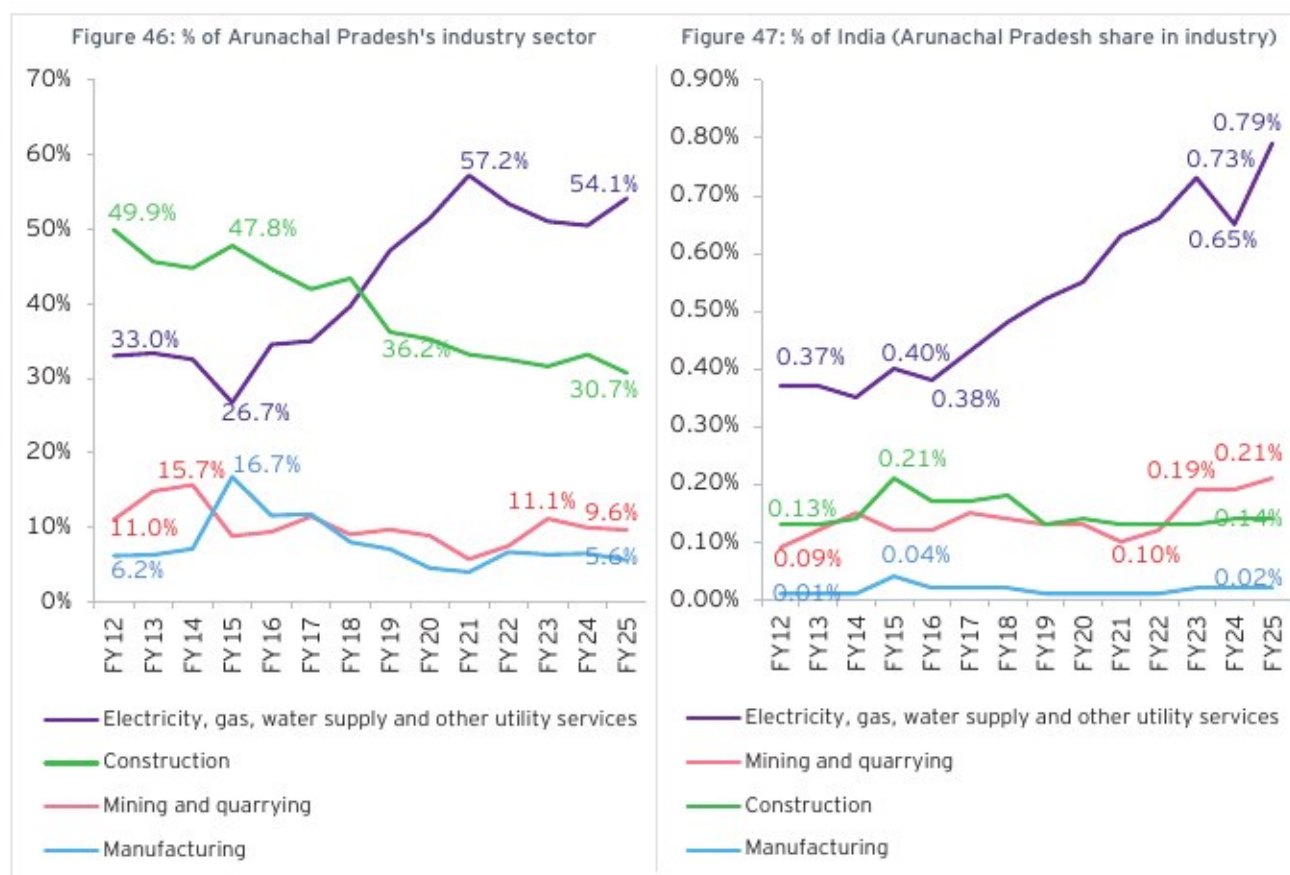
Forestry and logging national share declined from 1.33% in FY12 to 1.02% in FY24, though peaking dramatically at 2.64% in FY20, indicating fluctuating comparative advantage with its natural resources.

Crops share in India remained minimal, declining from 0.26% in FY12 to 0.15% in FY24, showing weakening comparative presence.

Livestock contribution to India declined from 0.09% in FY12 to 0.06% in FY24, showing diminishing scale.

Fishing and aquaculture had marginal presence, rising slightly from 0.07% in FY12 to 0.09% in FY24, showing very limited gains.

Industry sector



Centre for Monitoring Indian Economy Pvt. Ltd. (n.d.). States of India [Database]. <https://statesofindia.cmie.com>
Source: MoSPI, EY Analysis

Internal structure of Industry

Electricity, gas, water supply and other utility services emerged as the dominant sub-sector, rising sharply from 33.0% in FY12 to 57.2% in FY20, and stabilizing at 54.1% by FY25. This reflects Arunachal Pradesh's reliance on hydropower and utility-based industries, particularly given its vast hydroelectric potential.

Construction started high at 49.9% in FY12, but has since declined dramatically to 30.7% in FY25, indicating a slowdown in infrastructure-driven growth relative to utilities.

Mining and quarrying increased from 11.0% in FY12 to peak at 15.7% in FY14, before declining and stabilizing around 9.6% in FY25, showing modest but declining contribution from extraction-based activities.

Manufacturing remained relatively marginal, moving between 5% and 17%, peaking at 16.7% in FY15 before declining to 5.6% in FY25, suggesting weak industrialization and limited value-addition within the state.

Arunachal Pradesh's share in India's industry

Electricity, gas, water and utilities emerged as the most prominent contributor, with Arunachal Pradesh's national share growing strongly from 0.37% in FY12 to 0.79% in FY24. This marks the state's strongest comparative advantage within industry.

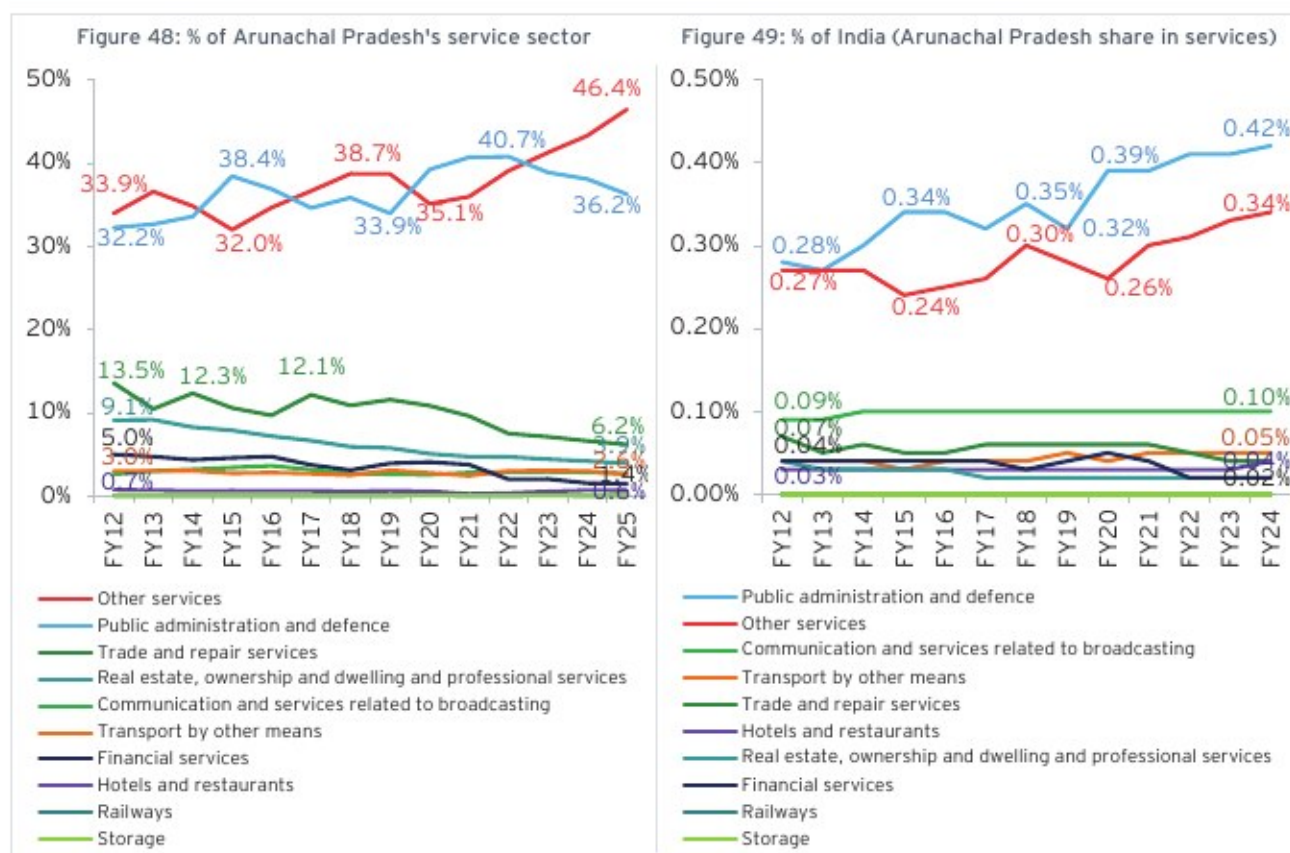
Mining and quarrying share grew from 0.09% in FY12 to 0.21% in FY24, highlighting modest but improving comparative advantage.

Construction share increased marginally from 0.13% in FY12 to 0.14% in FY24, showing minimal but steady presence at the national level.

Manufacturing share remained almost negligible, at 0.01% in FY12 rising marginally to 0.02% in FY24, confirming structural weakness in industrial production and very limited competitive scale.



Services sector



Centre for Monitoring Indian Economy Pvt. Ltd. (n.d.). States of India [Database]. <https://statesofindia.cmie.com>

Source: MoSPI, EY Analysis

Internal structure of services

Other services (education, health, social) saw a dramatic surge, rising from 33.9% in FY12 to 46.4% in FY25, becoming the largest sub-sector within services.

Public administration and defence is a key driver, growing substantially over time: from 32.2% in FY12 to 36.2% in FY25, reflecting sustained proportional dependence and a significant share in the service economy.

Trade and repair services have declined from 13.5% in FY12 to 6.2% in FY25, showing a weakening role in Arunachal Pradesh's service economy.

Real estate and professional services declined from 9.1% in FY12 to 3.9% in FY25, showing reduced contribution over the period.

Financial services declined from 5.0% in FY12 to 1.4% in FY25, indicating reduced penetration of banking, insurance and financial inclusion.

Transport by other means stayed steady, from 3.0% in FY12 to 2.6% in FY25.

Railways and storage remain very small contributors, each below 2% throughout the period.

Arunachal Pradesh's share in India's services

Public administration and defence showed a notable presence, contributing 0.28% in FY12, rising steadily to 0.42% in FY24, representing the highest contributor for Arunachal Pradesh in services.

Other services' share rose from 0.27% in FY12 to 0.34% in FY24, showing gradual strengthening.

Communication and services related to broadcasting share rose from 0.09% in FY12 to 0.10% in FY24, showing marginal improvement.

Transport by other means maintained small presence, reaching 0.05% in FY24.

Trade and repair services share remained very low, declining from 0.07% in FY12 to 0.04% in FY24, showing weakening presence.

Real estate and professional services remained weak, declining from 0.04% in FY12 to 0.02% in FY24.

Financial services contribution was marginal, decreasing from 0.04% in FY12 to 0.02% in FY24.

Railways and Storage showed very limited contribution, almost negligible (<0.1%).

11.7 SWOT analysis

Arunachal Pradesh's strategic outlook is shaped by exceptional hydropower potential and geo-strategic positioning, counterbalanced by terrain challenges and structural constraints. The SWOT assessment provides a consolidated, strategy-led view to inform prioritization under the state's vision framework.

Strengths

- Hydropower potential of 58K MW (40% of India) with 1,270 MW currently installed.¹⁹²
- Biodiversity richness with 6,000+ plant species, 500+ medicinals, and 60% of India's orchids.¹⁹³
- Kiwi production dominance accounting for over 50% of India's production (4,492¹⁹⁴ MT).

Weaknesses

- Remote terrain, limited roads/airports constrain connectivity and market access.
- Low FDI inflows despite UNNATI and regional policy frameworks.
- Landlocked geography and Siliguri corridor dependence increase logistics costs.

Opportunities

- INR10,000 crore FDI pipeline targeting 2030 hydro/pharma development via UNNATI/PLI.¹⁹⁵
- Cross-border export corridors to Bhutan/Myanmar for NTFP products and high-value herbs.
- Biotech clusters leveraging 500+ medicinal plants with R&D support and 50% subsidies.

Threats

- Climate hazards including landslides/floods threaten hydro/agri infrastructure and livelihoods.
- Deforestation pressure from NTFP over-extraction threatens long-term sustainability.
- Youth migration driven by limited job opportunities undermines efforts to retain the talent pool.



¹⁹² Arunachal Pradesh State Portal <https://eodb.arunachal.gov.in/investment/hydropower.php>

¹⁹³ Government of Arunachal Pradesh, *Arunachal Pradesh State Biodiversity Strategy and Action Plan (SBSAP) 2025-2035*, Arunachal Pradesh State Biodiversity Board – documents over 5,192 angiosperm species and 678 orchid species, confirming the state's Eastern Himalayan biodiversity richness.

<https://apbb.in/wp-content/uploads/2025/04/APSBSAP-main-2025-2035.pdf>

¹⁹⁴ Arunachal Pradesh State Portal <https://eodb.arunachal.gov.in/investment/hydropower.php>

¹⁹⁵ Government of India, Press Information Bureau, "Cabinet approves Uttar Poorva Transformative Industrialization Scheme (UNNATI), 2024", detailing the ₹10,037 crore total outlay for industrial development incentives under the scheme. (<https://pib.gov.in/PressReleaseSelfFramePage.aspx?PRID=2012362®=3&lang=2>)



11.8 Strategic recommendations

Despite its challenging terrain and low population density, Arunachal Pradesh has transformative potential to emerge as the NER's renewable energy powerhouse and biodiversity hub, leveraging its

unparalleled hydropower capacity, rich natural resources, and strategic border positioning to drive sustainable and inclusive growth across multiple high-value sectors.

Key challenges and strategic approach

Table 54: Key challenges and strategic approach (Arunachal Pradesh)

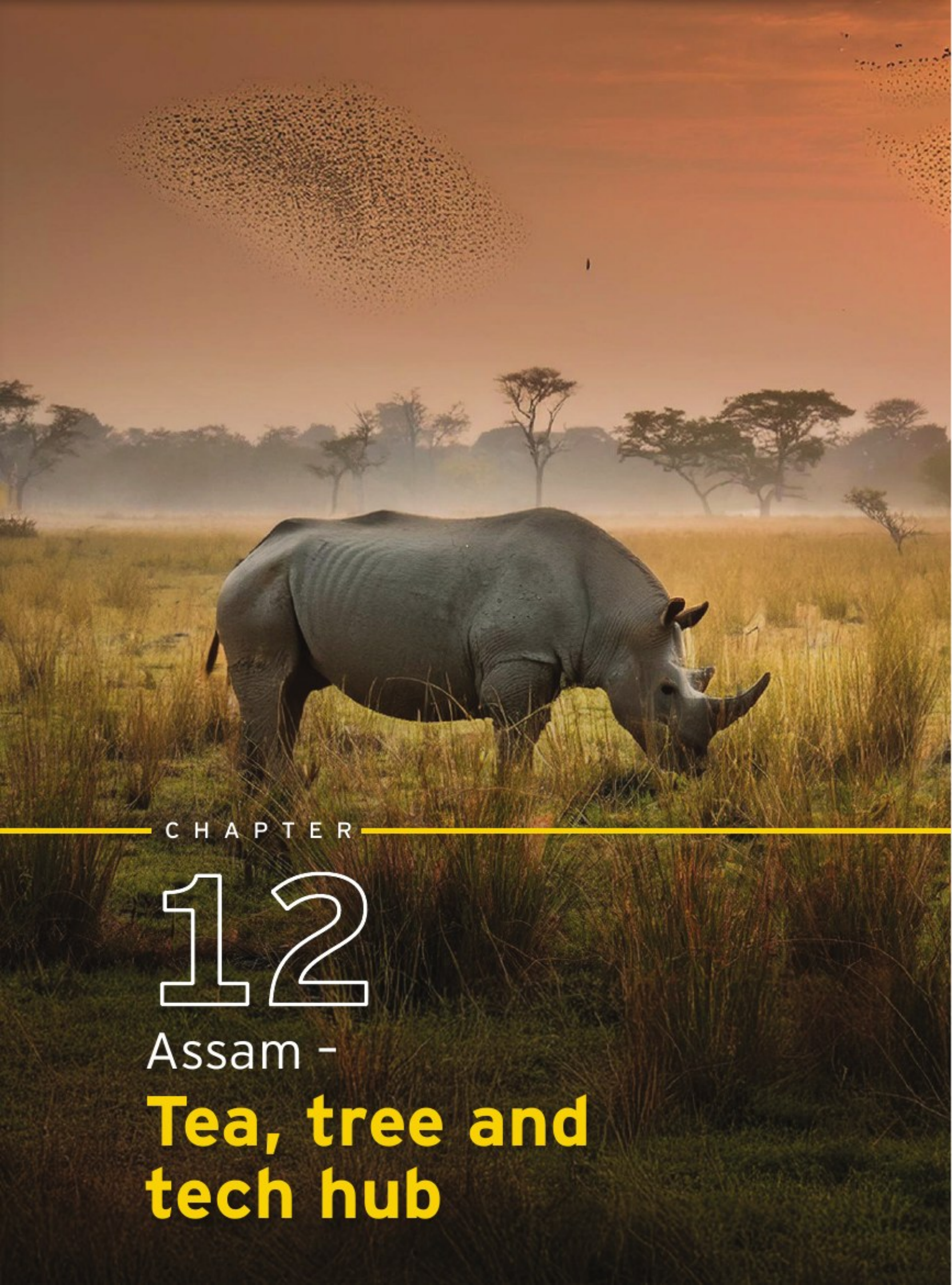
Key Challenge	Context	Strategic Approach
Untapped hydropower potential	State holds 40% of India's total hydropower potential across 8 major river basins including Siang/Dihang, with installed capacity remaining limited due to delays in mega-project clearances.	Prioritize mega-dam clusters over small hydro dispersion to achieve basin-level evacuation.
Railway network expansion	Projects like Lekhapani-Deban via Nampong and Dangri-Roing in gateway districts remain unsanctioned due to financial unviability assessments.	Advance rail alignments through industrial corridors rather than dispersed lines.
Low petroleum and gas monetization	Crude oil and natural gas reserves in Changlang-Namsai belt remain under-monetized, constrained by inadequate upstream infrastructure.	Target gas-based clusters near borders over standalone oil extraction.
Industrial cluster development	Hydropower, tea, and mining nodes in districts like Upper Siang and Namsai lack policy-defined corridors for value addition.	Promote sector-specific clusters versus broad spatial industrial spread.
Limited border trade infrastructure	Extensive international borders with Bhutan, China, and Myanmar exist, yet formal trade points like Nampong lack integrated customs and logistics facilities.	Focus export-oriented trade nodes on Myanmar-Bhutan interfaces versus domestic markets.
Road connectivity	Steep upper catchment geography along Siang/Dihang basins results in limited surfaced state roads, hampering access to hydropower sites and border districts.	Emphasize strategic border roads over intra-valley links for industrial evacuation.

NITI Aayog, *Macro and Fiscal Landscape of the State of Arunachal Pradesh*, Government of Arunachal Pradesh, *Arunachal Pradesh Industrial Development and Investment Policy 2025*, Government of Arunachal Pradesh, *Ease of Doing Business: Hydropower Investment – Arunachal Pradesh*, Press Information Bureau, Government of India

Strategies for Arunachal Pradesh

- Hydropower-led industrial development that strengthens India's clean energy base:** The state holds close to 58,000 MW of hydropower potential, accounting for nearly 40% of the country's total potential. Competitive renewable power from Arunachal Pradesh enables energy-intensive industries to locate in the region and creates scope for power transmission into national demand centers, supporting stronger fiscal capacity and regional economic resilience.
- High-altitude horticulture expanded into premium value chains with regional market links:** Production leadership in kiwi and strength in cardamom, apples and ginger can transition into certified processing for domestic urban consumption and neighboring country markets, improving farmer income security. Enhanced cold-chain connectivity and logistics integration with the Northeast reinforce wider regional value-chain participation.
- Bio-economy and natural-products industries advanced as a second engine of diversification:** A diverse base of medicinal and aromatic plants, combined with renewable power advantages, supports development of regulated wellness and natural-product manufacturing. This expands organized employment and positions the state as a contributor to India's broader bio-economy growth while deepening inter-state industrial linkages.
- Eco-adventure tourism developed as a stable services platform within the Northeast:** Destinations including Namdapha National Park and Tawang generate sustained visitor interest and can drive employment through formal hospitality and travel services. Stronger transport and tourism connectivity across Assam and the wider Northeast allows Arunachal Pradesh to operate as a complementary anchor in the region's services economy.



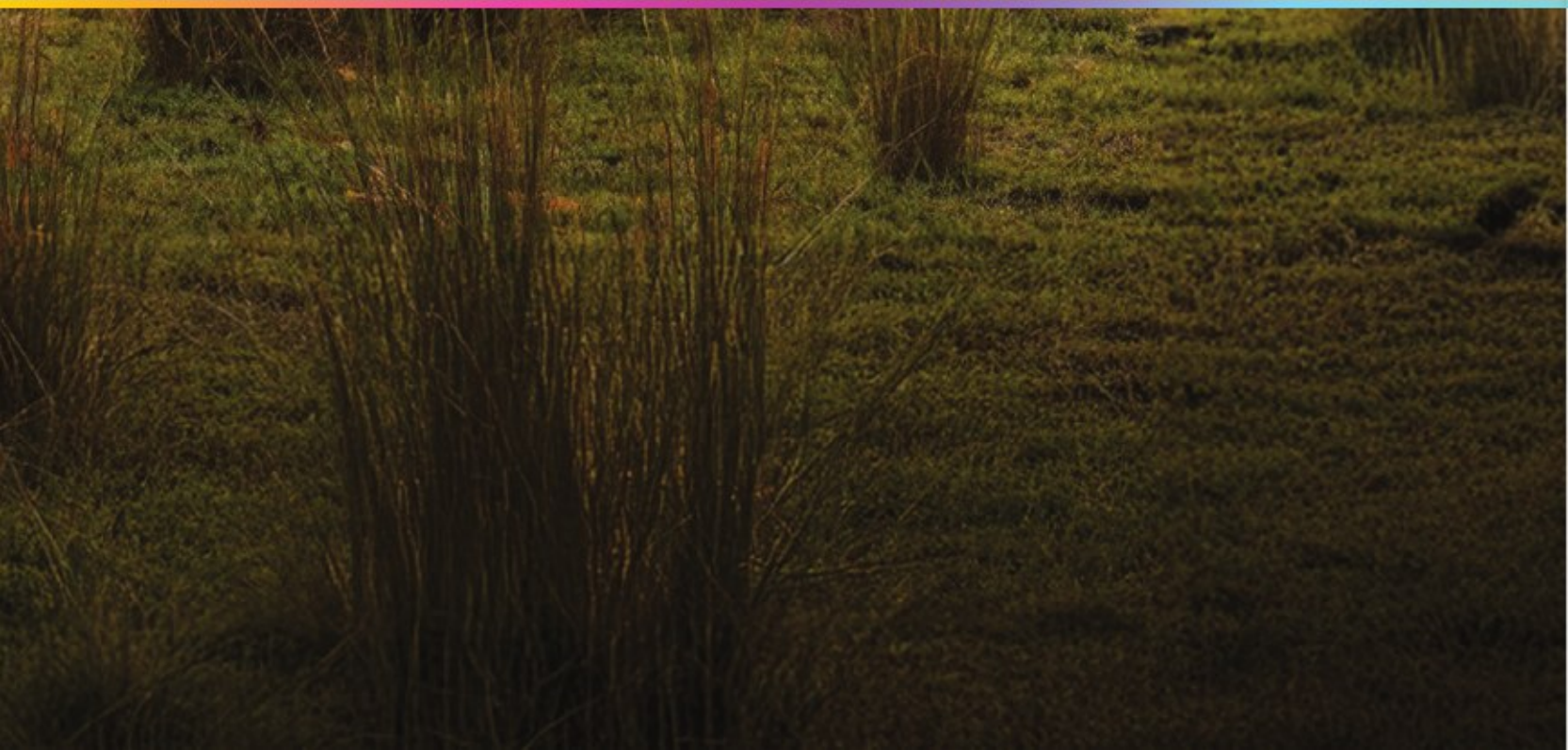
A full-page background image showing a rhinoceros standing in a savanna landscape. The rhino is in the center, facing right, with its head lowered slightly. The landscape is filled with tall, golden-brown grass. In the background, there are several acacia trees and a hazy horizon under a warm, orange-tinted sky. A large, faint, circular pattern of small dots is visible in the upper left corner of the sky.

CHAPTER

12

Assam -

**Tea, tree and
tech hub**



12.1 Socio-economic profile and unique identity

Socio economic profile

Table 55: State overview (Assam)

State overview ¹⁹⁶	
Area	78,438 km ²
Population (2025)	36.4 million
GSDP (FY25)	INR 6,43,667 crore
Per Capita GSDP (FY25)	INR1,77,602/US\$ 1,953
Contribution to NER GDP	62.7%
Population Density	447 people per km ²
Unemployment Rate (2024)	4.3%
Urbanization Rate (2025)	15.9%
State Budgeted Expenditure (FY26)	INR2,62,914 crore
Number of MSMEs (FY25)	13,63,374
Debt to GSDP (FY25)	25.2%
Literacy	87.0%
Youth Population	28.2%
Human Development Index	0.66
Export Preparedness Index	24 th rank; Score: 42.4

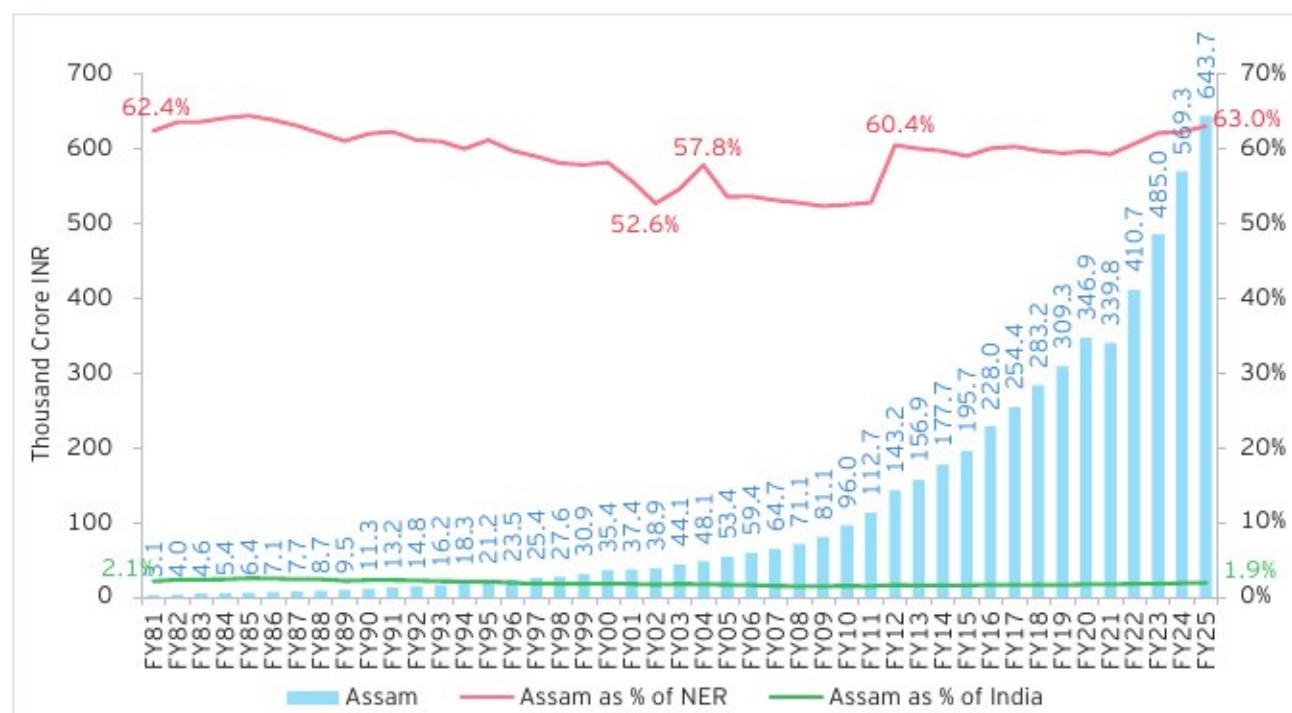
Assam, located in the western part of NER, is the largest state in the region by population and GSDP, functioning as its economic and administrative hub. With an area of 78,438 sq. km and a population of 36.4 million (2025), the state has a population density

of 447 persons per sq. km, underscoring significant demographic concentration. This positioning reinforces Assam's role as the gateway to NER, anchoring regional economic activity, inter-state connectivity, and administrative coordination.

¹⁹⁶ Census of India; NITI NCAER Macro and Fiscal Landscape of the State of Assam, *NITI Aayog Export Preparedness Index 2024, Global Data Lab, "Subnational HDI (SHDI) – India (2022) * Census of India, 2011, MoSPI, Government of India, National Statistical Office (NSO), Ministry of Statistics and Programme Implementation. *Youth in India 2022* (June 29, 2022). https://www.mospi.gov.in/sites/default/files/publication_reports/Youth_in_India_2022/Youth_in_India_2022.pdf



Figure 50: Assam GSDP

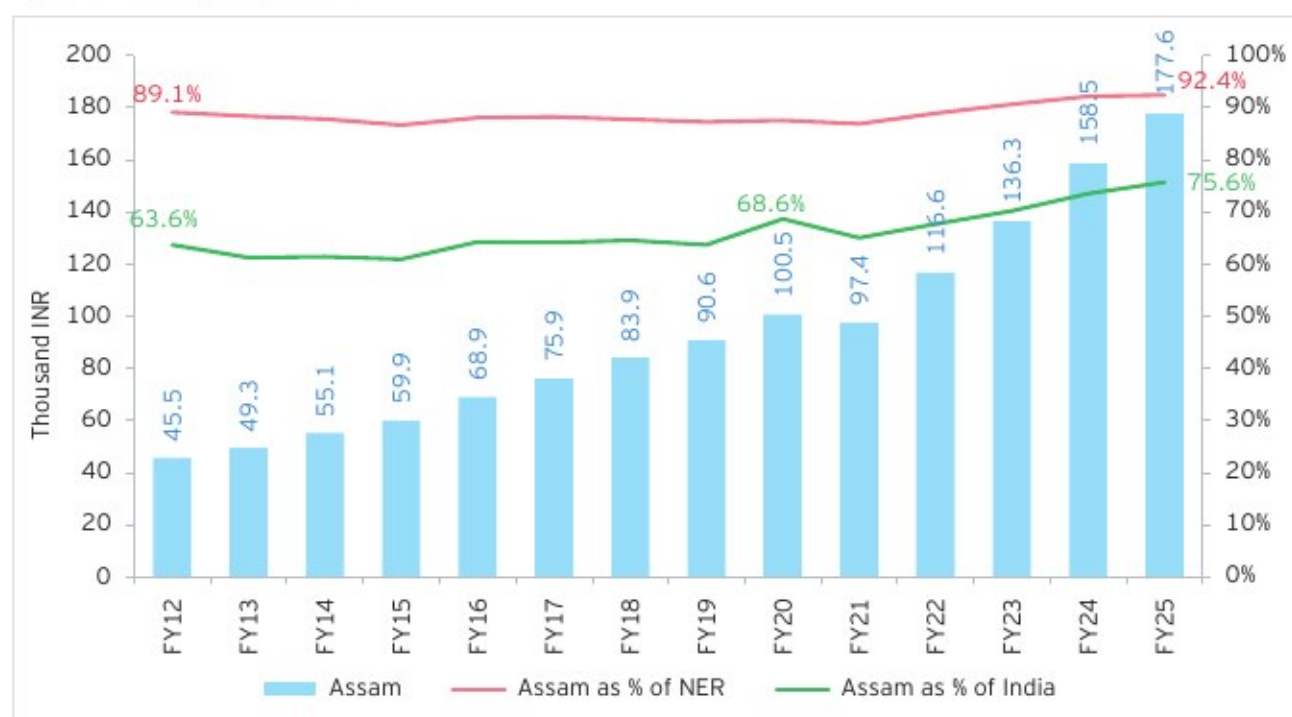


Source: MoSPI

Assam has shown steady economic growth, with its GDP increasing from INR4,553 crore in FY83 to INR6,43,667 Cr in FY25, accounting for 63.0% of the Northeast region's (NER) GDP in FY25. Per capita GDP has risen from INR1,77,602 in FY25, reaching 75.6%

of the national average. While Assam's share in India's GDP remains modest at 1.9% in FY25, the state continues to be the largest contributor within the NER.¹⁹⁷

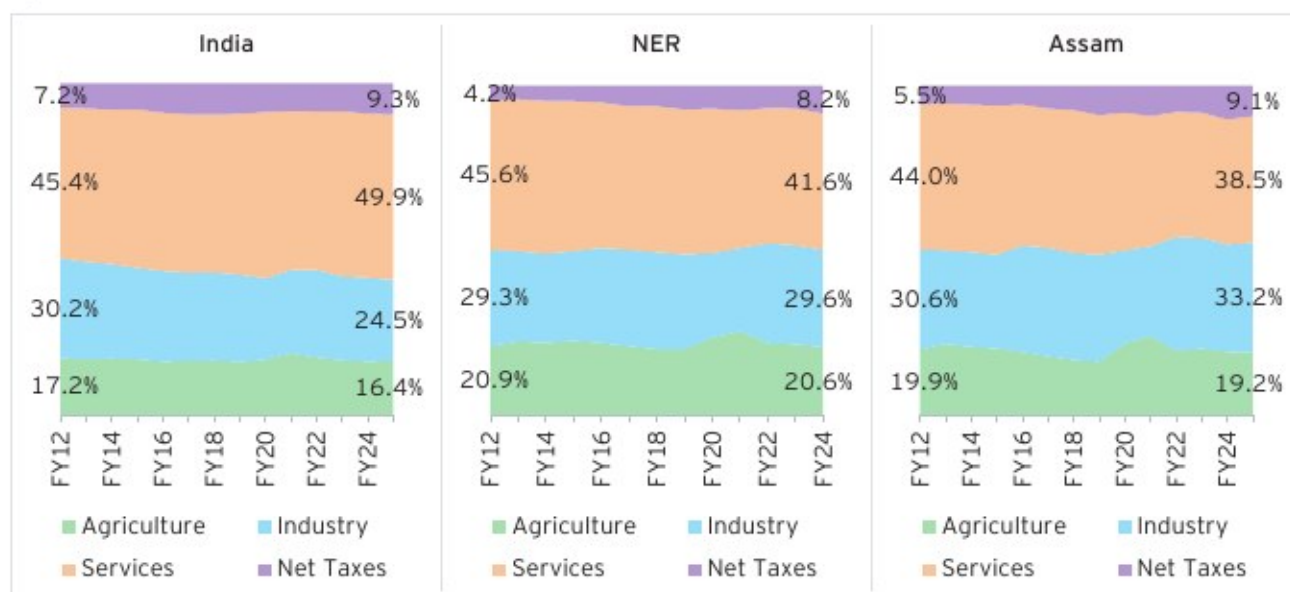
Figure 51: Assam per capita GSDP



Source: MoSPI

¹⁹⁷ MoSPI, Ministry of Statistics and Programme Implementation

Figure 52: India vs NER vs Assam sectoral shares



Source: World Bank, MoSPI

The state economy at INR6,43,667 crore (FY25) represents 63.0% of NER GDP, with per capita GSDP at INR1,77,602 (FY25) reflecting economic scale alongside persistent development gaps. Aggregate receipts of INR2,62,914 crore (FY26) signal fiscal capacity for infrastructure and diversification investments. The presence of 1.3 million MSMEs (FY25) represents a broad entrepreneurial base, with outcomes contingent on finance access, technology adoption, and market linkages.

Human development metrics show literacy at 87.0% and HDI at 0.66, indicating suboptimal health, education, and living standards. While the youth constituting 28.2% of population (15-29 years) represent significant demographic dividend potential, unemployment at 4.3% (FY25) and underemployment remain a concern, as they limit actualization of the demographic dividend. Urbanization at 15.9% (2025)

presents a momentum to build on to accelerate integrated and sustainable urbanization in the state.

Competitiveness indicators position Assam 24th nationally in Export Preparedness Index reflecting moderate regulatory reform progress, Export Index score at 42.45 indicates global integration operating below capacity, pointing to opportunities in logistics and competitiveness optimization. Debt-to-GDP ratio at 25.2% maintains fiscal headroom for strategic investments.¹⁹⁸

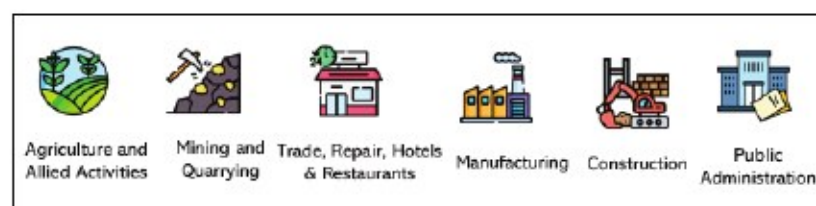
Assam's positioning as NER's economic anchor, combined with demographic scale, sectoral diversity, and connectivity advantage, positions it at the center of regional development outcomes, with growth trajectories dependent on converting scale and strategic location into sustained competitiveness and inclusive socio-economic advancement across NER.

¹⁹⁸ Administrative Division Map of Assam, Census of India; NITI NCAER Macro and Fiscal Landscape of the State of Assam, *NITI Aayog Export Preparedness Index 2022, Global Data Lab, "Subnational HDI (SHDI) – India (2022) * Census of India, 2011



Assam's Unique Selling Proposition and unique identity

Assam's sectoral composition shows agriculture and allied activities at 21.7% GVA, mining and quarrying 14.0%, trade-repair-hotels-restaurants 11.9%, manufacturing 10.1%, construction 9.9%, and public administration 6.9%. These shares collectively indicate patterns in employment distribution, investment allocation, and growth dynamics: agriculture sustains rural livelihoods while supplying inputs for agro-processing; mining provides raw materials for construction, energy, and manufacturing sectors; services enable commerce and hospitality activities; manufacturing spans food processing, petroleum refining, tea processing, and electronics; construction activity correlates with infrastructure investment levels; and public administration's prominence reflects Assam's role as NER's administrative hub with significant public sector presence.¹⁹⁹



This sectoral distribution reveals an economy where primary (agriculture, mining) and tertiary (services, public administration) activities dominate, while manufacturing remains comparatively underdeveloped – a pattern common across NER but particularly significant in Assam given its scale advantages, infrastructure base, and strategic location. This modest industrial share, despite relatively favorable enabling conditions, points to substantial unrealized potential in processing, value addition, and export-oriented manufacturing – sectors capable of driving productivity growth, generating formal employment, and expanding fiscal revenues. The structural transformation opportunity lies precisely in this gap: leveraging Assam's resource endowments and connectivity to move up manufacturing value chains.

Distinctive economic assets

Assam's economic profile is further distinguished by sector-specific leadership positions that create non-replicable competitive advantages. Competitive distinctiveness extends through an extensive portfolio of GI-tagged products that institutionalize Assam's cultural-economic identity: Muga Silk, Assam Orthodox Tea, Karbi Anglong Ginger, Tezpur Litchi, Joha Rice, Boka Chaul, Kaji Nemu, Chokuwa Rice, Judima, Gamosa, and Bell Metal Crafts of Sarthebari. These geographical indications function as more than quality certifications – they establish legal frameworks for provenance, authenticate non-substitutable regional products, and enable premium pricing in domestic and international markets. The strategic value lies in converting cultural assets into protected economic advantages that command brand premiums and resist commodification, particularly relevant as NER seeks to differentiate itself in competitive national and ASEAN markets.

Forest cover at 34.2% spanning 26,832 sq. km²⁰⁰ supports rich biodiversity underpinning eco-tourism, carbon sequestration, and ecosystem services. The one-horned rhinoceros conservation and globally recognized wildlife habitats differentiate Assam as custodian of irreplaceable natural capital. These factors position Assam for nature-based tourism, biodiversity conservation leadership, participation in emerging carbon markets and ecosystem services mechanisms.

Tea excellence establishes Assam as India's largest tea-growing region producing globally recognized "Assam Tea" with significant export contribution and premium international market positioning. Assam Tea covers the complete value chain within the state – cultivation, processing, branding, distribution – with additional pathways through specialty teas, organic certifications, tea tourism, and downstream beverage-wellness processing, reinforced by the Tea Auction System.

In sericulture, Assam holds unparalleled dominance, producing all four commercial silk varieties – Muga, Eri, Mulberry, and Tussar – with near-monopoly positions in two: 95.0% of India's Muga silk and 65.0%²⁰¹ of Eri silk originate in Assam. Muga silk represents a unique economic asset: its golden-hued natural fiber is endemic to Assam (the silkworm feeds exclusively on som and soalu trees found in the region)

¹⁹⁹ NITI Aayog ICED Portal

²⁰⁰ Assam State Portal <https://forest.assam.gov.in/information-services/forest-types-in-assam#:~:text=Recorded%20Forest%20Area,and%20Sub%20Tropical%20Pine%20Forests>

²⁰¹ Assam State Portal <https://forest.assam.gov.in/information-services/forest-types-in-assam#:~:text=Recorded%20Forest%20Area,and%20Sub%20Tropical%20Pine%20Forests>

and cannot be commercially replicated elsewhere, creating premium positioning in luxury textile value chains while preserving artisanal traditions and cultural heritage.

UNESCO heritage assets – Kaziranga National Park, Manas Tiger Reserve – combined with Brahmaputra River system and cultural diversity create multi-faceted tourism proposition driving high-value experiential tourism and employment across hospitality, guiding, and cultural programming. These are deepened by Bihu festival traditions, Majuli River Island, and Brahmaputra River Safari anchoring tourism in living heritage and unique riverine geography.

Energy and industrial base anchored by Digboi – where Asia's first refinery was commissioned in 1901, still operating today – provides strong petroleum sector and natural gas resources through an

established refining ecosystem. The state accounts for about 15.0% of Indian crude oil output, with oil wells at Digboi, Duliajan, and Sibsagar also producing natural gas contributing to about 50.0% of India's total onshore production²⁰². This positions Assam as NE's energy hub with potential for petrochemical downstream industries, gas-based manufacturing, and energy-intensive processing leveraging industrial townships and skilled workforces.

Mineral resources – coal, limestone, sillimanite, iron ore, glass sand – and emerging rare-earth and critical-mineral zones at Jashora-Samchampi provide raw material base for mining, metallurgy, cement, glass, and advanced materials industries; anchoring resource-based industrialization creating employment, fiscal revenues, and downstream manufacturing inputs, with critical minerals adding geopolitical significance.

12.2 Assam's 10 recommended priority areas

10 Priority areas for Assam:

1. Bamboo, Rubber, Tea and Plantation Items
2. Tourism and Creative Economy
3. Agriculture and Food Processing
4. Infrastructure and Connectivity (NER Value Hub)
5. Cross-Border Trade and Regional Logistics
6. Sustainability and Urban Development
7. Education and Skills
8. IT, Digital and Digital Governance
9. Renewable Energy and Climate Resilience
10. Industrial Diversification (Mining, Quarrying, Pharma)

1. Bamboo, rubber, tea, and plantation items

Assam's plantation economy is anchored in tea, its flagship crop, which supports rural incomes, employment, and brand value. Under the *Tea Development & Promotion Scheme (TDPS)*, Assam received targeted support between 2021-22 and 2025-26, with over INR150 crore utilized for

replantation, capacity building, formation of SHGs and FPOs/FPCs, and mini tea factories. These measures have strengthened productivity, market access, and global competitiveness, contributing to India's tea exports rising from US\$751.07 million in 2021-22 to US\$923.89 million in 2024-25²⁰³.

Bamboo plays an important socio-economic role in Assam, supporting rural livelihoods, handicrafts, furniture, and value-added products. Programs under the *National Bamboo Mission (NBM)* and NERAMAC initiatives promote structured bamboo value chains, nursery development, and product diversification, including innovations like "Tea in Bamboo Trunk," where premium tea and bamboo craft traditions are combined for sustainable, experiential offerings.

Rubber and other plantation crops such as jute, medicinal and aromatic plants, sericulture species (Som and Sualu trees for Muga silk), and agroforestry trees are emerging as key contributors to Assam's agribusiness landscape. Central and state support for FPO formation, marketing infrastructure, and value-chain integration is helping these crops expand, improve productivity, and enhance rural income opportunities²⁰⁴.

²⁰² Assam Industrial Development Corporation. *Mineral-based industries - Assam*.

<https://aidcild.assam.gov.in/information-services/detail/mineral-based>

²⁰³ Press Information Bureau, Government of India. (2025, December 2). *Tea Board promotes Assam's tea industry with productivity and producer empowerment efforts* [Press release]. Ministry of Commerce & Industry. Retrieved [Date], from <https://www.pib.gov.in/PressReleasePage.aspx?PRID=2197657&lang=1&req=3>

²⁰⁴ Press Information Bureau, Government of India. (2025, September 29). *GST Reforms 2025: How Assam's Economy Will Gain Across Sectors*. Ministry of Finance & Corporate Affairs. <https://www.pib.gov.in/PressReleasePage.aspx?PRID=2172651&req=3&lang=2>



2. Tourism and creative economy

Assam's tourism sector is developing with support from central schemes aimed at infrastructure and sustainable tourism growth. The Ministry of Tourism's Swadesh Darshan 2.0 and related initiatives (including Challenge Based Destination Development and PRASHAD (Pilgrimage Rejuvenation and Spiritual Heritage Augmentation Drive). These schemes support infrastructure development and amenities at prominent pilgrimage and spiritual sites and provide financial assistance to states to identify, develop and promote tourism destinations and circuits. These projects are implemented by the state governments and regularly reviewed by the Ministry to improve facilities and economic benefits²⁰⁵.

Tourist arrivals in Assam have shown a notable trend over recent years. In the Assam State Assembly, the Tourism Minister reported that nearly 2.4 crore tourists (domestic and foreign combined) visited the state from 2021-22 up to 2024-25, with 70.4 lakh domestic visitors and 26,129 foreign tourists specifically in 2023-24 – underscoring growing interest in Assam's natural and cultural attractions such as Kaziranga National Park, Manas National Park, and the recently inscribed UNESCO World Heritage Site Charaideo Moidams²⁰⁶.

In addition to tourism inflows, Government of India schemes target capacity building and service quality enhancement for the tourism and hospitality industry. Under the Capacity Building for Service Providers (CBSP) scheme, hospitality training and certification programs are being supported to improve service delivery and boost employability within the sector.²⁰⁷

Assam's creative economy – including concerts & music, handloom, handicrafts and silk production – holds strong cultural and economic significance. According to a recent PIB release on NABARD support for Assam's handloom sector, the state has 12.8 lakh weavers and 12.5 lakh handlooms as per the Handloom Census 2019-20, with a substantial majority of weavers being women. Initiatives like the Swanirbhar Naari platform have registered 5.6 lakh weavers and supported the marketing of over 11 lakh products, demonstrating how state and central efforts are enhancing market access, product value and livelihoods in the handloom ecosystem²⁰⁸.

3. Agriculture and Food Processing

Agriculture and allied activities continue to anchor rural livelihoods and economic stability in Assam, contributing a substantial portion of the state's value added while sustaining a large share of employment. As of FY25, agriculture accounted for 19.2% of Assam's GSVA²⁰⁹ – above the average of many states and reflective of the sector's resilience and structural importance within the regional economy. While official estimates vary slightly by year and methodology, agriculture remains a core source of livelihood for well over half of Assam's workforce, with many rural households dependent on farming and allied activities for income and food security. Yield and productivity gaps persist, particularly in rice, pulses, and horticulture, due to limited irrigation coverage, soil health challenges, and incomplete adoption of improved seed and agronomic practices – underscoring clear opportunities for intensification rather than expansion.

From a strategic perspective, agriculture and food processing offer disproportionate leverage for inclusive growth, given the sector's widespread employment base and linkage effects. Assam already holds latent comparative advantages in key commodities: it remains India's largest producer of tea, contributing roughly half of national output (649.8 million kg in 2024)²¹⁰, a unique asset for value-added beverages and specialty markets. Other sub-sectors including horticulture, spices, dairy, and fisheries possess strong growth potential as source materials for processing and value addition. Strengthening organized value chains – notably through cold storage, grading, and processing hubs – can shift growth from volume-centric to margin-driven expansion, raising rural incomes and supporting allied employment in peri-urban and processing clusters.

The transition pathway lies in commercialization, integration, and institutional support rather than piecemeal intervention. Priority actions include accelerating productivity gains through climate-smart practices (improved seed, precision irrigation, soil health management), deployed via digital advisory and market information systems that directly serve farmers. Strengthening collective agencies is critical: as of August 2024, Assam has established 649 Farmer

²⁰⁵ Press Information Bureau, Government of India, *Tourism Circuits for North Eastern States* (Press Release ID 2205888), 18 December 2025, Ministry of Tourism, Government of India, https://www.pib.gov.in/PressReleasePage.aspx?PRID=2205888&utm_source=&utm_medium=&utm_campaign=

²⁰⁶ Assam Tourism Development Corporation Ltd. *Arrival of tourists*. <https://tourismcorporation.assam.gov.in/about-us/detail/arrival-of-tourists>

²⁰⁷ Press Information Bureau, Government of India. (2025, December 8). *Scheme for promotion of sustainable and inclusive tourism* [Press release].

Ministry of Tourism. https://www.pib.gov.in/PressReleasePage.aspx?PRID=2200325&utm_source=&utm_medium=&utm_campaign=

²⁰⁸ Press Information Bureau, Government of India. (2025, August 7). *NABARD empowers over 8,000 handloom weavers in Assam through livelihood and sectoral development initiatives*. Ministry of Finance (PIB Guwahati).

https://www.pib.gov.in/PressReleasePage.aspx?PRID=2153663&lang=2&utm_source=

²⁰⁹ NITI NCAER Macro and Fiscal Landscape of the State of Assam

²¹⁰ Jadhav, R., & Baum, B. (2025, February 6). *India's 2024 tea output drops 7.8%, lifts average prices*. Reuters.

<https://www.reuters.com/markets/commodities/indias-2024-tea-output-drops-78-lifts-average-prices-2025-02-06/>



Producer Organisations (FPOs/FPCs)²¹¹, offering platforms for input aggregation, collective marketing, and improved access to credit and quality inputs.

Developing integrated agro-processing clusters – linking production zones with cold chains, quality testing, packaging, and logistics – can materially improve value capture and widen market reach. Assam's geographic position as the gateway to the Northeast presents a competitive advantage in serving both domestic and export markets, enabling it to function as a regional agrifood processing hub for NER produce. Coordinated investment in rural infrastructure, institutional strengthening in research and extension, expansion of agricultural credit, and targeted skills training for the processing sector are essential complements.

4. Infrastructure and connectivity: Value addition hub for the NER

Assam's emergence as a scale-driven value-addition hub for the Northeast hinges on resolving connectivity and infrastructure frictions that affect logistics efficiency, market access, and industrial competitiveness. Recognized under the Act East Policy, Assam is strategically positioned to integrate regional supply chains with South and Southeast Asia, making multimodal infrastructure development a national priority. Central and state investments across roads, railways, inland waterways, airports, and power networks are aimed at lowering transaction costs, improving reliability, and facilitating industrial clustering rather than merely expanding physical assets.

Transport infrastructure underpins this value-addition objective. The Brahmaputra National Waterway-2 (NW-2), connecting Sadiya to the Bangladesh border, is being modernized to enable year-round navigability, multimodal cargo terminals, and cross-border trade. Operational inland waterways in the Northeast have increased by 767%, with cargo volumes rising by 635%, highlighting the growing role of river transport in reducing logistics costs and integrating Assam into regional and international trade corridors²¹². Simultaneously, road and railway networks are being upgraded through Bharatmala and rail modernization projects, improving inter-state connectivity and last-mile access for industrial clusters and agricultural supply chains.

Power infrastructure complements transport improvements, enabling reliable industrial operations and attracting high-value investments. Under the Revamped Distribution Sector Scheme (RDSS), around INR37,000 crore in central grants has been released to strengthen Assam's distribution network, reduce losses, and improve supply quality. National targets show AT&C losses reduced from 21.9% in FY 2021 to about 16.2% in FY 2025^{213 214}, underscoring progress in modernizing power networks essential for industrial and technological clusters. Together, these multimodal transport and power infrastructure initiatives position Assam not only as a transit corridor but as a logistics-led industrial and processing hub for the Northeast, supporting value addition, regional integration, and high-tech industrialization.

5. Cross-border trade and regional logistics

Assam functions as the primary logistics gateway to the North East Region (NER), with all surface connectivity to Meghalaya, Manipur, Nagaland, Mizoram, and Tripura transiting through the state. Key national corridors – NH-27, NH-37, and NH-715 – anchor east-west and north-south freight movement, while the Brahmaputra river system provides an inland waterway backbone for bulk cargo. Assam hosts established border trade points at Sutarkandi (Bangladesh) and Darranga (Bhutan), and emerging multimodal infrastructure, including the Jogighopa multimodal logistics park, strengthens its role as a consolidation and transit node under the PM Gati Shakti framework.

Economically, this positioning enables Assam to act as a collection, aggregation, and distribution hub for regional produce and light manufacturing – particularly tea, horticulture, bamboo products, and MSME goods – reducing logistics costs and transit time for NER-origin cargo. Improved multimodal capacity supports both inward movement of industrial inputs and outward flow to mainland India and neighboring countries, with scope for warehousing and freight services leveraging Assam's relatively lower land costs. The sector's upside is contingent on targeted upgrades in border infrastructure, customs processing, and cold-chain capacity, rather than large-scale corridor expansion.

²¹¹ Government of Assam. (2024). *About the FPC Conclave 2024 - Assam Agribusiness & Rural Transformation Project (APART)*. <https://fpcapart.assam.gov.in/fpcconclave2024/aboutus>

²¹² Press Information Bureau, Government of India, "Revamped Inland Waterways to Power Northeast's Growth, Boost Petroleum Exports from Assam: Shri Sarbananda Sonowal" (Press Release ID 2192320), 20 November 2025, Ministry of Ports, Shipping and Waterways, Government of India, https://www.pib.gov.in/PressReleasePage.aspx?PRID=2192320&utm_source=req=3&lang=2

²¹³ Press Information Bureau, Government of India, *Key Initiatives to Bring Down AT&C Losses of Power Distribution Utilities*, 8 December 2025, Ministry of Power, Government of India, https://www.pib.gov.in/PressReleasePage.aspx?PRID=2200450&utm_source=req=3&lang=2

²¹⁴ Press Information Bureau, Government of India, *Rs 37,000 Crore Released Under the Revamped Distribution Sector Scheme; No Claim from any State Regarding Distribution Infrastructure Works Pending with Ministry of Power* (Press Release ID 2198782), 4 December 2025, Ministry of Power, Government of India, https://www.pib.gov.in/PressReleasePage.aspx?PRID=2198782&lang=1&req=3&utm_source



6. Sustainability and urban development

Assam's urbanization remains at ~16% in 2025, setting a foundation for increased integrated urbanization. While integrated urbanization would attract a host of positive externalities, unplanned urbanization can create pressures on infrastructure, services, land use, and flood resilience. Thus, integrated, planned and sustainable urbanization is an imperative for both actualizing the positive externalities and benefits of urbanization, and also for mitigating the potential pressures of unplanned urbanization.

Guwahati, the largest urban agglomeration in the Northeast, serves as the region's economic and administrative hub, while other significant cities include Silchar (172,709), Dibrugarh (138,661), and Nagaon (116,355)²¹⁵. The capital city's centrality underscores the need for integrated urban planning, linking housing, transport, utilities, and economic clusters to optimize scale advantages while minimizing service bottlenecks.

Sustainability is being embedded across agriculture, forestry, and urban systems to complement urbanization pressures. Climate-smart agriculture initiatives, such as development of climate-resilient rice varieties by Assam Agricultural University, demonstrate how rural-urban linkages can strengthen food security and livelihoods²¹⁶. Forest stewardship remains critical, with Assam's recorded forest area at 26,832 sq km (34.2% of geographical area) and total forest plus tree cover at 36.1%, though a loss of 83.9 sq km between 2021 and 2023 highlights the urgency of conservation. The state aims to increase forest cover to 38% over five years, integrating robust monitoring, reporting, and verification (MRV) systems with benefit-sharing mechanisms for forest-dependent communities^{217 218}.

Urban development strategies emphasize resilient and low-carbon growth. Systems integration spans water supply, sanitation, multimodal transport, digital governance, waste management, green building standards, and climate adaptation measures addressing Assam's vulnerability to floods and changing rainfall patterns. By converging urban

planning with environmental stewardship and social inclusion, Guwahati and other urban centers can serve as drivers of economic growth while balancing ecological sustainability, transforming Assam's urbanization into a model for integrated, climate-resilient development in the Northeast.

7. Education and skills

Assam's literacy rate of 87.0%²¹⁹ reflects progress in education, yet gaps remain in higher education participation, learning outcomes, and alignment with labor-market needs. Strengthening education and skills is critical for harnessing the state's youth potential and enabling inclusive structural transformation.

The Samagra Shiksha scheme, via the National Skills Qualifications Framework (NSQF), integrates vocational training into school curricula, covering trades in IT/ITeS, retail, agriculture, tourism, healthcare, and automotive. ICT-enabled classrooms, skill labs, and school-to-work pathways link education with practical competencies, enhancing employability and preparing students for emerging sectors.

Emerging industries like semiconductors, exemplified by Jagir Road facility, intensify demand for specialized skills in testing, quality, process engineering, and operations. Strategic collaborations with institutions such as NIELIT and IIT Guwahati develop industry-specific curricula, positioning Assam's human capital to meet high-tech and knowledge-intensive sector needs. This integrated education-skills approach strengthens workforce readiness, fosters entrepreneurship, and transforms human capital into a competitive advantage.

8. IT, digital, and digital governance

Assam has made substantial progress in digital governance, with a unified citizen services platform that has achieved complete integration of state e-services on the Sewa Setu portal, enabling citizens to access services and documents in a paperless, interoperable manner through platforms like DigiLocker. At a national conference on DigiLocker, Assam was recognized among the states with

²¹⁵ Directorate of Town and Country Planning, Government of Assam, *General Urbanization* (Information & Services), <https://tcp.assam.gov.in/information-services/general-urbanization>.

²¹⁶ Barua, P.; Dutta, P.; Konwar, M. J.; & Chetia, S. K., eds., *Climate Smart Agricultural Interventions in Assam: Challenges, Experiences and Success Stories* (AAU-ARRI / SM Press, Jorhat, 2023), https://www.researchgate.net/publication/377387421_Climate_Smart_Agricultural_Interventions_in_Assam_Challenges_Experiences_and_Success_Stories

²¹⁷ Principal Chief Conservator of Forest & Head of Forest Force, Government of Assam, *Forest Types in Assam*, Environment, Forest and Climate Change Department, Government of Assam, available at <https://forest.assam.gov.in/information-services/forest-types-in-assam>

²¹⁸ Forest Survey of India, *India State of Forest Report 2023, Volume I* (Dehradun: Forest Survey of India, Ministry of Environment, Forest and Climate Change, Government of India, 2023), available at https://fsi.nic.in/uploads/isfr2023/isfr_book_eng-vol-1_2023.pdf

²¹⁹ PLFS Report 2023-24



largescale integration, reflecting secure, accountable digital service delivery across sectors.

The National Informatics Centre (NIC) Assam State Centre continues to serve as the ICT backbone for government offices, supporting e-governance services, integrated service delivery frameworks, and digital administration functions across departments and districts. NIC's systems such as e-Office, e-Procurement, and performance dashboards form the core infrastructure for online governance and data flow across the state.

To deepen digital infrastructure, the National Data Centre – North East Region (NDCNER) has been established to provide high performance cloud and data services, bridging regional digital divides and strengthening socioeconomic digital capabilities. State programs are expanding the reach of digital public infrastructure, with increasing broadband connectivity under central schemes and ongoing efforts to digitize welfare delivery through integrated beneficiary registries and direct benefit transfer mechanisms that reduce intermediaries, improve transparency, and accelerate disbursements (as seen in systems like the Digital Infrastructure for Direct Benefit Transfer platform implemented by the state government).

Building on this foundation, the Assam Budget 2025-26 includes several ambitious IT and technology initiatives. These initiatives, while officially announced and budgeted, are mostly in planning or early stages and are not yet fully operational. Examples include:

- Assam Tech Valley – AI and Green Innovation Hub: Proposed as a center for AI and green technology innovation.
- AI-driven, blockchain-based tea auction system: Planned to be developed with industry partners, aimed at modernizing the state's tea trade.
- India's first AI-based lab for police: For deepfake detection and cyber surveillance, announced as a future project.
- ASSAMSAT satellite: Intended for launch in collaboration with ISRO/IN-SPACe, currently in planning.²²⁰
- Assam is emerging as a significant node in India's semiconductor manufacturing ecosystem, anchored by Semiconductor Assembly and Test

(TSAT) facility at Jagiroad (Morigaon district). Approved under the Government of India's semiconductor policy and driven by the India Semiconductor Mission, the project represents a landmark industrial initiative in the Northeast. The facility is being established with an investment outlay of ₹27,000 crore and is designed as one of the nation's premier semiconductor assembly and test units, serving both domestic and global markets²²¹.

Despite progress, Assam must strengthen data interoperability, analytics capabilities, and unified data governance frameworks to fully leverage digital transformation for policy design and service optimization. Scaling digital platforms like Sewa Setu beyond service integration to advanced analytics and evidence-based governance will support faster, more inclusive decision making. Enhanced cybersecurity frameworks expanded digital literacy programs, and ecosystem support for startups are also needed to translate digital governance gains into economic and innovation outcomes, positioning Assam as a regional digital hub.

9. Renewable energy and climate resilience

Assam confronts significant climate vulnerabilities, especially from recurrent flooding that affects millions and exacerbates socioeconomic losses. The Ministry of Jal Shakti (Government of India) acknowledges that Assam is affected by floods every year, with factors such as embankment breaches, encroachments, deforestation and poor drainage compounding the impacts of monsoon rainfall and riverine inundation.

Climate resilience is being strengthened through integrated disaster mitigation and infrastructure planning. The Union Home Minister-chaired High-Level Committee under the Ministry of Home Affairs approved INR692.0 crore for restoration and rejuvenation of wetlands across 9 Assam districts, enhancing natural water retention and flood resilience while promoting economic gains through fisheries and ecological services²²². The same committee also approved the Urban Flood Risk Management Programme (UFRMP) Phase-2, which includes cities like Guwahati, to strengthen flood management infrastructure and urban resilience under the National

²²⁰ Finance Department, Government of Assam. (2025). *Assam Budget 2025-26: Budget Speech (English)*. <https://finance.assam.gov.in/portlets/assam-budget-2025-26>

²²¹ Press Information Bureau, Government of India, *Nation's First Indigenous Semiconductor Assembly & Test Facility in Assam to Serve Global Customers* (Press Release ID 2198056), 3 December 2025, Ministry of Information & Broadcasting, Government of India, available at: https://www.pib.gov.in/PressReleasePage.aspx?PRID=2198056&utm_source=®=3&lang=2

²²² Press Information Bureau, Government of India, *A High-Level Committee (HLC) under the chairmanship of Union Home Minister Shri Amit Shah approves mitigation, recovery & reconstruction projects for 9 states with total outlay of Rs 4,645.60 crore* (Press Release ID 2173811), 1 October 2025, Ministry of Home Affairs, Government of India, https://www.pib.gov.in/PressReleasePage.aspx?PRID=2173811&utm_source=®=3&lang=2



Disaster Mitigation Fund. Such investments demonstrate a shift toward structural and nature-based solutions that link climate adaptation with sustainable development in Assam's energy and urban systems.

The state's exposure to such disasters highlights the need to align energy transition strategies with climate resilience planning. To support a transition toward clean and resilient energy systems, Assam has been among the first states to notify a comprehensive Integrated Clean Energy Policy, aiming to promote renewable energy deployment across solar, small hydro, biomass and emerging technologies. This policy reflects the government's intent to tap the Northeast's vast renewable potential, accelerate energy security, and foster a low carbon growth pathway consistent with national goals²²³.

10. Industrial diversification: Mining, quarrying, and pharmaceuticals

Assam's economic diversification beyond tea and oil is crucial for structural upgrading. Mining and quarrying form a significant component of the state's industrial sector, contributing 38.5 % of Assam's Industry GVA in FY25²²⁴. This sector underpins downstream industries such as cement, metallurgy, glass, and construction. The state hosts substantial mineral resources, including limestone reserves exceeding

1,490 million tons in Dima Hasao district and iron ore deposits in Dhubri, providing a natural base for industrial expansion²²⁵.

Assam's strategic mineral potential extends to rare-earth elements (REEs) in alkaline complexes like Jashora and Samchampi, indicating opportunities for high-value sectors such as electronics and advanced materials. Responsible utilization of these resources can strengthen India's self-reliance in critical minerals while supporting power, cement, metallurgy, and glass industries. Environmental safeguards, modern monitoring, and rehabilitation frameworks enable resource development aligns with sustainability objectives²²⁶.

Pharmaceuticals are an emerging diversification pathway, supported by the establishment of a Pharmaceutical Park in Kamrup district. This initiative aims to attract investment, promote manufacturing clusters, and leverage Assam's rich biodiversity. About 300 types of medicinal herbs and plants are known to exist in abundance in the state. However, only about 5%-10% of the plants and herbs are commercially cultivated for extraction purposes²²⁷. This highlights the sector's potential to generate high-value employment, strengthen regional supply chains, and foster innovation in pharmaceuticals.

12.3 Integration with regional value chains

Assam occupies a structurally distinctive role within the North East as the region's economic integrator, combining scale, connectivity, and processing depth in a manner that enables cross-regional value creation. Its central geography and multimodal logistics network – spanning road, rail, inland waterways, and air – allow dispersed production systems across the region to aggregate efficiently, lowering transaction costs and improving reliability of market access. The concentration of processing, storage, and distribution infrastructure in Assam creates spillover benefits that extend beyond state boundaries, enabling value chains to function at commercially viable scale without requiring each state to replicate high-capital assets.

This hub function also strengthens investment outcomes. Platforms anchored in Assam are likely to achieve utilisation thresholds quickly, support a wider catchment of producers and enterprises, and generate measurable cross-regional returns. By serving as a common interface between regional supply bases and national or external markets, Assam provides a coherent backbone for integrated value-chain development across the North East, improving fiscal efficiency, reducing fragmentation, and creating the conditions for sustained, region-wide economic scaling.

²²³ Press Information Bureau, Government of India, "Union Minister Shri Pralhad Joshi Chairs Regional Workshop on Renewable Energy Transition in the North Eastern Region," Ministry of New and Renewable Energy, October 31, 2025, <https://www.pib.gov.in/PressReleasePage.aspx?PRID=2184911>

²²⁴ MoSPI

²²⁵ Directorate of Economics & Statistics, Government of Assam. (2023). *Economic Survey, Assam 2023-24*.

https://des.assam.gov.in/sites/default/files/swf_utility_folder/departments/ecostat_medhassu_in_0id_3/this_comm/es_2023-24.pdf

²²⁶ Ministry of Mines, Government of India. (2025). *Geological: A Handbook on Potential of North East India*.

https://mines.gov.in/admin/storage/ckeditor/Handbook_PDF_21_1751282675.pdf

²²⁷ Assam Industrial Development Corporation. *Herbal medicine - Sector overview*. <https://aidcltd.assam.gov.in/information-services/detail/herbal-medicine>

Value Chain wise resource availability and processing infrastructure²²⁸

Table 56: Value Chain wise resource availability and processing infrastructure (Assam)

Value Chain	Resource availability	Processing and industrial infrastructure
Bamboo	Large bamboo stock in homesteads and forests; bamboo-bearing area: 11,246 sq km ; key supplier for scaffolding and primary uses	Bamboo Technology Park (Chaygaon); planned Bamboo Industrial Park (Dima Hasao); active furniture and handicraft clusters
Rubber	~46,500 MT production , with rapidly expanding plantation area, mainly in Barak Valley	Emerging satellite processing; Model Smokehouse in Goalpara; no large dedicated rubber processing estates
Pineapple	Largest producer (~3 lakh MT) ; GI-tagged <i>Assam Jatika</i> pineapple	Small juice, jam and RTE units; limited cold storage; FPO-led aggregation clusters
Tea	~676 million kg (FY24) ; dominant producer with large estates and lakhs of small growers across Brahmaputra and Cachar valleys	800+ factories (estate + BLF); Guwahati and Jorhat auctions; CTC and orthodox hubs in Jorhat and Dibrugarh
Rice	~5.54 million tonnes (FY23) ; Brahmaputra valley dominance under mixed smallholder systems	Hundreds of rice mills incl. 4-8 TPH modern units (Barpeta, Nagaon, Jorhat); procurement and drying gaps persist
Spices	Moderate turmeric and ginger; widespread chilli; total spice production: 324.1 ('000 MT)	Basic cleaning and drying; limited modern spice processing (powders, oleoresins)
Kiwi	Not a commercial kiwi state; only small experimental pockets due to agro-climatic limits	Regional hub for aggregation and cold-chain; Guwahati-based multi-fruit ecosystem; Mega Food Park (Nalbari) with CPC
Fisheries	Largest inland fish producer in NER: 4.43 lakh tonnes , across beels, ponds, and capture fisheries	Ice plants and small processing units; major cold-chain gaps; new processing projects emerging in Moran
Textiles	Largest Muga/Eri silk base; 1,269,506 handloom households (highest in India)	Eri spinning plant, Kharuajan (450 kg/day); Sualkuchi cluster; textile parks emerging
Pharmaceuticals	Modest aromatic & medicinal crop output (~170 MT); biodiversity-linked raw material base	25 pharma units ; NER's first API plant (Guwahati); biotech hubs; NEIGRIHMS-linked clinical and translational research
Food Processing	Major producer of rice, tea, fish, citrus, banana, spices; ~13,956 ('000 MT) agri output ; aggregation hub for NER	1,569 processing units; 1.14 LMT capacity ; North-East Mega Food Park (Nathkuchi-Tihu); CPC + 6 PPCs + 19 collection centres
High-mix Manufacturing	Strong industrial talent base; logistics gateway to South-East Asia; 1,458,241 MSMEs (largest in NER)	TSAT facility at Jagiroad (₹27,000 crore OSAT; ~48M chips/day, 2026); Guwahati EMS labs; proposed UAV/MRO integration
Digital / IT Hubs	Largest startup ecosystem in NER; IIT Guwahati-anchored academic innovation base	The Nest Incubator; STPI Guwahati; research park and startup mission; 1,000+ incubator applications processed
Tourism	Wildlife (Kaziranga), river islands (Majuli), Kamakhya temple; ~7.6 million tourists	International airport; safari circuits; resorts and hospitality clusters along key wildlife zones
Minerals	Coal, petroleum, natural gas, limestone, clay, glass sand, sillimanite; mineral output ~₹81 crore	Oil & gas belts (Dibrugarh-Naharkatia-Moran); refineries; gas processing; scope for cement and chemicals

²²⁸ North Eastern Development Finance Corporation Ltd. (NEDFi). NEDFi Databank. <https://databank.nedfi.com/>



12.4 Comparative advantage analysis

Assam's competitive positioning operates across three interconnected dimensions: its strategic advantage within the Northeast Region, its differentiated positioning within the broader Indian economic landscape, and its international relevance in Southeast Asian and global value chains. Each layer reveals distinct capabilities that can be leveraged for targeted sectoral growth.

State advantage versus NER

Tea and Specialty Silk production leadership

Assam accounts for approximately 50% to 55% of India's total tea output, establishing unmatched scale advantage in a globally traded commodity. This is complemented by near-complete dominance in Muga and Eri silk production, representing 97.0 % of national output. The combination of volume leadership in tea and monopoly positioning in specialty silk creates a dual foundation in high-value agricultural commodities with strong geographical indication potential and premium pricing power that remains unavailable elsewhere in the region.²²⁹

Advanced electronics manufacturing capability

The state's upcoming facility produces OSAT semiconductor components at a scale of INR27,000 crore, generating approximately 27,000 jobs and targeting production of 48 million chips per day by 2026.²³⁰ This represents sectoral capability with no equivalent across the Northeast, positioning Assam as the region's sole advanced electronics manufacturing hub. Combined with Guwahati's role as the region's largest urban center, this creates concentration of population, services, and institutional capacity that enables coordination of regional supply chains at a scale exceeding other northeastern capitals.

Regional advantage versus rest of India

Demographic dividend and cost competitiveness

Assam has a relatively young population, with a significant share under the age of 25, contrasting with aging profiles in several southern states and offering sustained supply of lower-cost labor suited to business process management and light manufacturing operations. Factor costs for land and labor remain materially below those in major urban agglomerations,

creating viability for healthcare foreign direct investment integrated with tea and silk-based nutraceutical value chains that leverage local biomass and traditional knowledge systems.

Strategic connectivity to ASEAN markets

Geographic proximity to ASEAN markets, enhanced by Act East rail and road links to Myanmar, reduces effective distance to Southeast Asian markets relative to peninsular India. This connectivity advantage, combined with English language proficiency, supports engagement with regional value chains and cross-border commercial activity. Logistics infrastructure improvements, supported by central and state incentives, have enabled the Northeast to contribute significantly to state GDP growth, addressing historical peripherality constraints.

International advantage versus SE Asia and global markets

Differentiated natural product positioning

Assam as the global leader in Muga silk production, competes with Vietnamese and Thai synthetic fiber industries with premium pricing in geographical indication markets. Forest cover of approximately 34.2% provides access to herbal and botanical raw materials, enabling low-cost pharmaceutical and nutraceutical input supply with margin advantages over Thai pharmaceutical manufacturing and Swiss-dominated generics markets in specific herbal and natural product segments. This represents structural endowment advantage in bio-resources that cannot be easily replicated.²³¹

Non-ASEAN rubber sourcing alternative

With Southeast Asia accounting for approximately 80.0% of global rubber supply, international buyers face increasing supply chain risks related to traceability compliance requirements such as EUDR, climate disruptions, and labor constraints. Assam offers a non-ASEAN sourcing alternative supported by domestic rubber production capacity. Proximity to India's automotive market – the fourth largest globally – provides stable domestic demand anchor while preserving export optionality, positioning the state strategically within supply-constrained global rubber markets.

²²⁹ Assam State Portal https://assam.gov.in/citizen/425?utm_source

Directorate of Economics & Statistics, Government of Assam – *Economic Survey of Assam 2023-24* https://des.assam.gov.in/sites/default/files/swf_utility_folder/departments/ecostat_medhassu_in_oid_3/this_comm/es_2023-24.pdf?

²³⁰ Press Information Bureau, Government of India, *Assam's Semiconductor Plant: A Game-Changer for India's Semiconductor Ecosystem*, Ministry of Electronics & IT, November 17, 2024, press release, <https://www.pib.gov.in/PressReleaseIframePage.aspx?PRID=2074074>

²³¹ Forest Assam Portal https://forest.assam.gov.in/information-services/forest-types-in-assam?utm_source

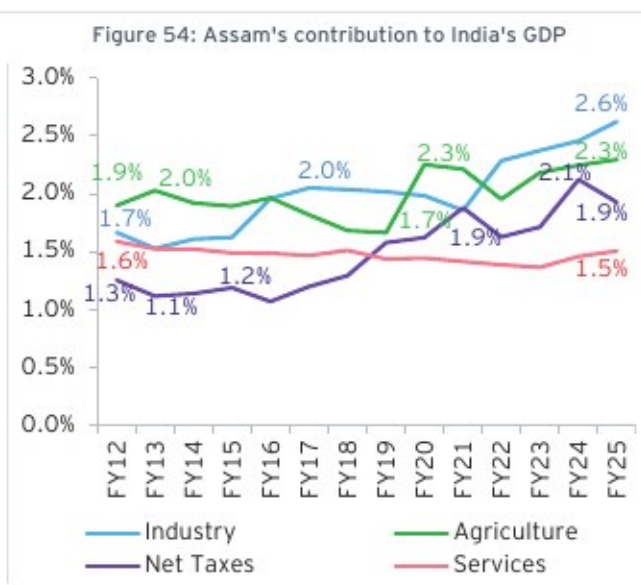
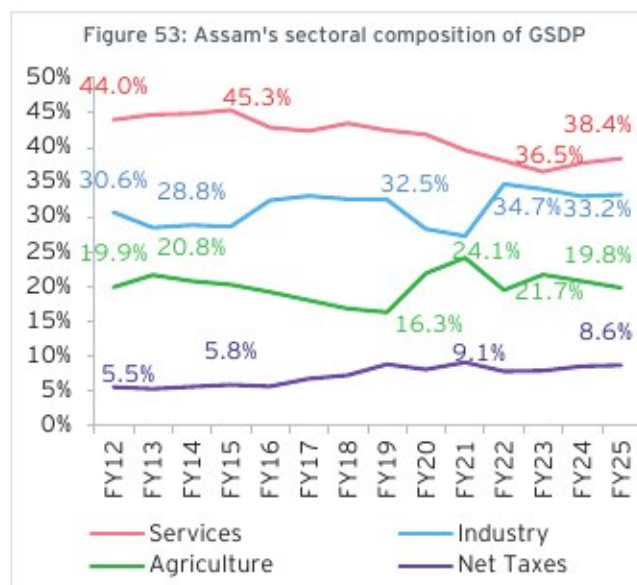


12.5 State economic analysis

Structure of Assam's economy

Assam's economy remains anchored in services, providing stability while gradually making space for diversification. Recent gains in industry signal emerging momentum, supported by improving connectivity and policy focus, though scale-up remains the next strategic frontier. Agriculture continues to

play a stabilizing role, reinforcing livelihoods while offering scope for productivity enhancement and value addition. Rising net taxes reflect incremental fiscal strengthening, improving the state's capacity to reinvest in growth enablers. Taken together, these trends point to a constructive, opportunity-led transition, where targeted industrial deepening and agri-value chains can unlock more balanced growth.



Centre for Monitoring Indian Economy Pvt. Ltd. (n.d.). States of India [Database]. <https://statesofindia.cmie.com>
Source: MoSPI, EY Analysis

Agriculture's share in Assam's GSDP has remained broadly stable, fluctuating around the high-teens to low-twenties, settling at 19.2% in FY25 after a post-pandemic uptick. While this does not signal a structural shift toward agriculture, Assam's share in India's agricultural GDP has increased from 1.9% to 2.3%, reflecting steady productivity gains and scale advantages relative to other NER states. This positions agriculture as a reliable anchor sector, with scope for value-chain upgrading rather than volume-led expansion.

Industry: Cyclical gains with emerging national presence

Industry's share of GSDP has strengthened from ~28%-29% in the mid-2010s to 33.2% in FY25, following a sharp rebound after FY20, indicating renewed momentum in manufacturing and allied activities. Importantly, Assam's contribution to India's industrial GDP has risen from 1.6%-1.7% to 2.6%, signaling improving national relevance. While still short of a manufacturing-led transformation, this trend suggests early success in converting connectivity and policy investments into industrial output.

Services: Dominant but moderating as diversification advances

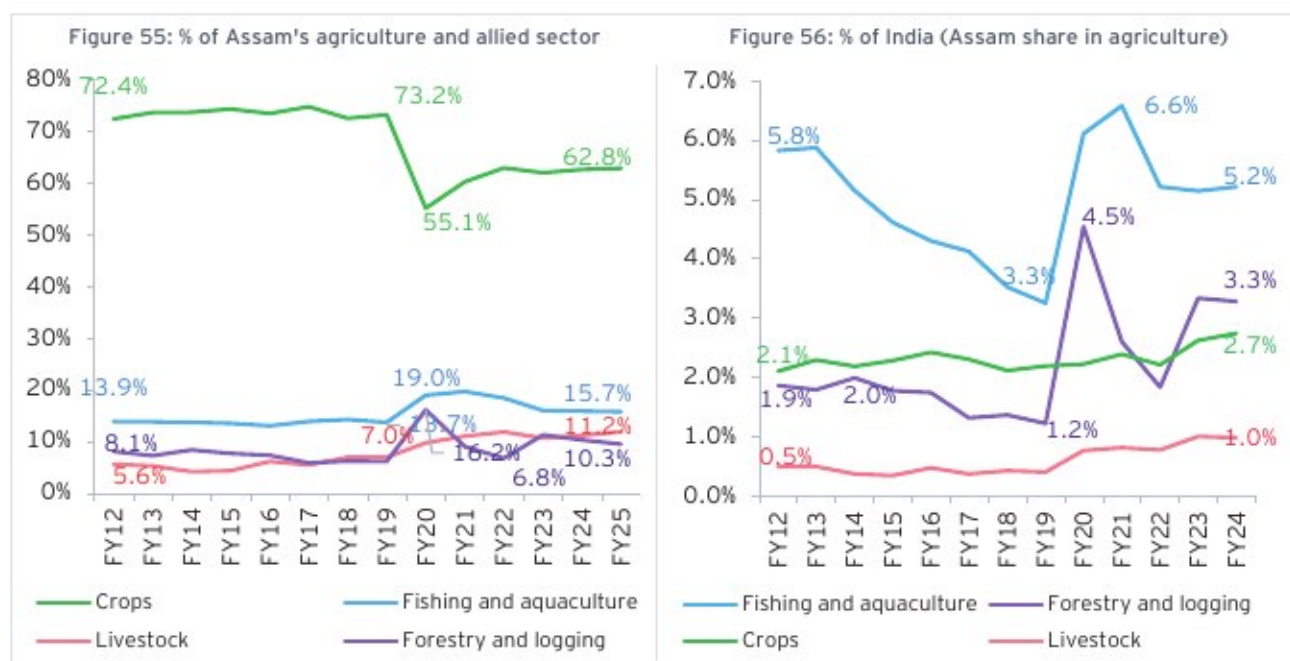
Services remain Assam's largest sector, though its share has moderated from 45% in FY15 to 38.5% in FY25, reflecting diversification rather than contraction. Assam's national services GDP share has remained broadly stable around 1.4%-1.5%, indicating resilience but limited scale acceleration. This underscores the need to move services up the value curve, particularly in logistics, trade, and knowledge-linked services aligned with Assam's gateway role.

Net taxes: Gradual fiscal strengthening

Net taxes have increased modestly from 5.5% of GSDP in FY12 to 9.1% in FY25, pointing to improving fiscal mobilization and formalization. Assam's share in India's net tax pool has risen from 1.3% to 1.9%, marking steady gains in national fiscal participation. While still incremental, this trend strengthens the state's capacity to reinvest in growth-enabling infrastructure and institutional capacity.



Sectoral structure of Assam's economy



Centre for Monitoring Indian Economy Pvt. Ltd. (n.d.). States of India [Database]. <https://statesofindia.cmie.com>

Source: MoSPI, EY Analysis

Agriculture and Allied Sector

Internal structure of Agriculture and Allied Activities

Crops dominate Assam's agriculture and allied sector, accounting for ~63%-75% of agriculture GVA over FY12-FY25, though their share moderated post-FY19 before stabilizing at 62.8% in FY25, reflecting diversification rather than erosion.

Fishing and aquaculture form a consistently significant sub-sector, rising from 13.9% in FY12 to a peak of 19.0% in FY20, before easing to 15.7% in FY25, indicating strong potential tempered by market and productivity constraints.

Livestock has expanded steadily from 5.6% in FY12 to 11.2% in FY25, signaling gradual structural deepening and diversification within rural livelihoods.

Forestry and logging, while smaller in share, have shown episodic spikes, notably around FY20, before settling near 10.3% in FY25, reflecting both regulatory sensitivity and resource-linked volatility.

Assam's share in India's agriculture

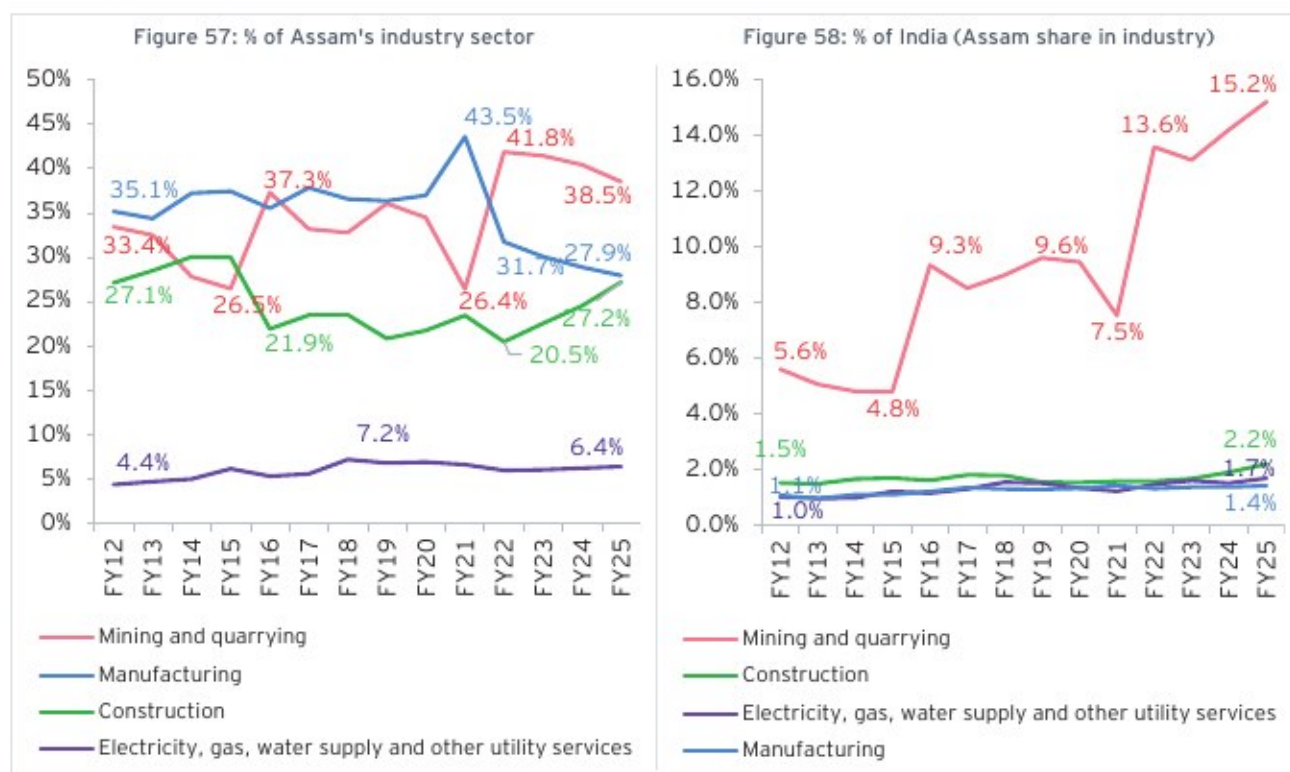
Fishing and aquaculture represent Assam's strongest national positioning, with its share in India's output rising from 5.8% in FY12 to a peak of 6.6% in FY21, before stabilizing at ~5.2% in FY24, underscoring Assam's comparative advantage in inland fisheries.

Forestry and logging show pronounced volatility at the national level, spiking to 4.5% in FY20 before moderating to 3.3% in FY24, reflecting episodic extraction and regulatory dynamics rather than steady scaling.

Crops exhibit a gradual strengthening of national presence, with Assam's share rising from 2.1% in FY12 to 2.7% in FY24, pointing to incremental productivity and scale gains.

Livestock remains a relatively small contributor nationally, increasing modestly from 0.5% in FY12 to 1.0% in FY24, indicating early-stage growth with scope for structured expansion.

Industry sector



Centre for Monitoring Indian Economy Pvt. Ltd. (n.d.). States of India [Database]. <https://statesofindia.cmie.com>

Source: MoSPI, EY Analysis

Internal structure of industry

Mining and quarrying forms a foundational pillar of Assam's industrial economy, maintaining a substantial share and stabilizing at 38.5% in FY25. This reflects the state's established strength in hydrocarbons and extractive industries, providing a stable base to anchor downstream industrial development.

Manufacturing has demonstrated capacity for scale during upswings, rising from 35.1% in FY12 to a peak of 43.5% in FY21, before normalizing to 27.9% in FY25. This pattern highlights latent manufacturing capability that can be strengthened through cluster-based and value-chain integration.

Construction has remained resilient and responsive to investment cycles, recovering to 27.2% in FY25 after a mid-decade dip, underscoring its role as a conduit for infrastructure-led growth.

Electricity, gas, water supply and other utilities, though a smaller component, have expanded steadily from 4.4% in FY12 to 6.4% in FY25, strengthening the enabling ecosystem for industrial activity.

Assam's share in India's industry

Mining and quarrying represents Assam's strongest national industrial footprint, with its share in India's output rising from 5.6% in FY12 to 15.2% in FY25, positioning the state as a strategic contributor to India's mineral and energy security.

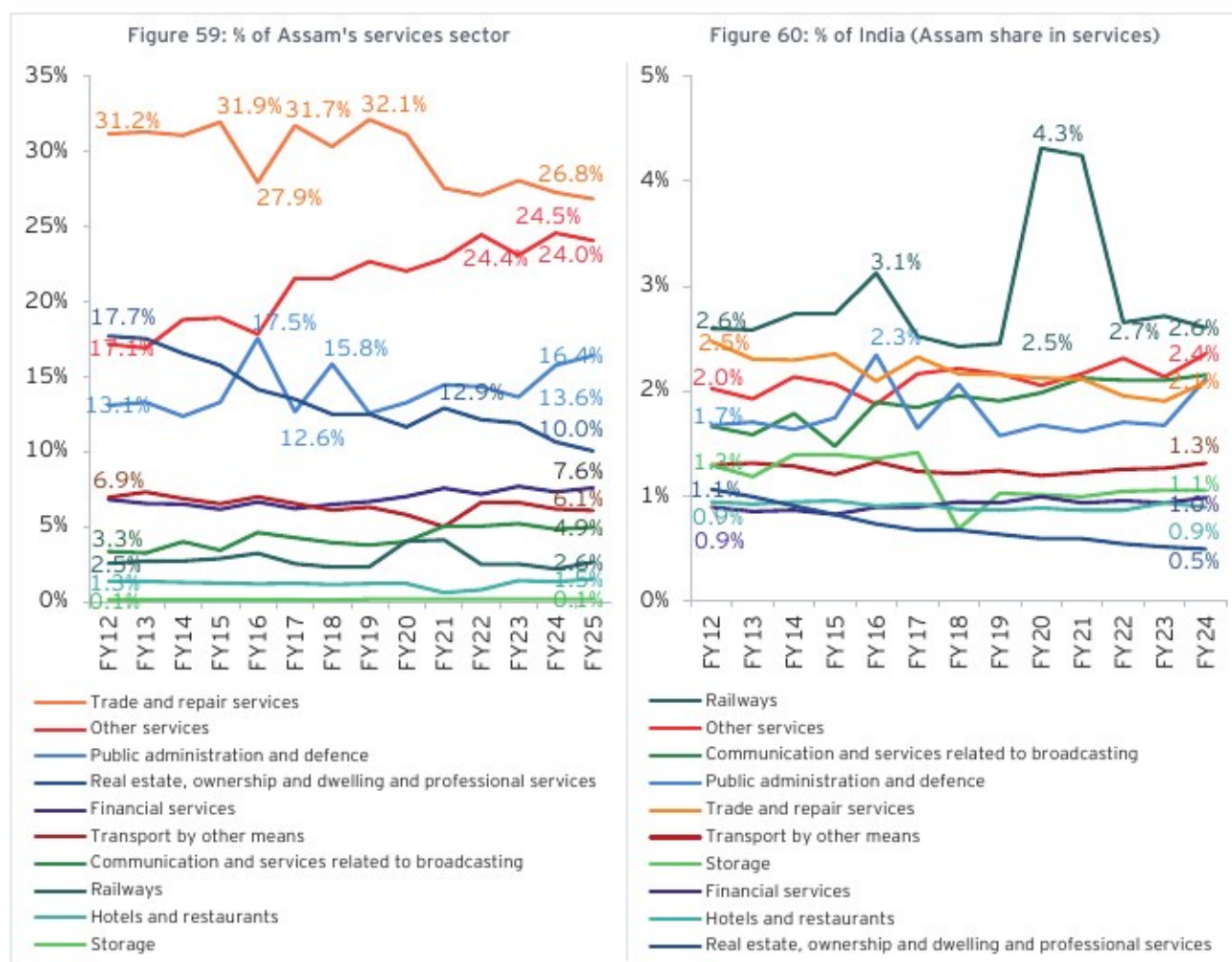
Construction's national share has increased from 1.5% to 2.2%, reflecting Assam's growing role in infrastructure creation within eastern and northeastern India.

Electricity, gas, water and utility services have inched up nationally from 1.0% to 1.7%, signaling gradual strengthening of industrial support systems.

Manufacturing, while still modest at 1.4% of India's output in FY25, presents a clear opportunity space for Assam to translate its resource base, connectivity gains, and policy focus into higher value-added production.



Services sector



Centre for Monitoring Indian Economy Pvt. Ltd. (n.d.). States of India [Database]. <https://statesofindia.cmie.com>

Source: MoSPI, EY Analysis

Internal structure of services

Public administration and defense remains a core anchor of Assam's services economy, though its share has moderated from 31.2% in FY12 to 26.8% in FY25, reflecting gradual diversification while continuing to provide stability and demand support.

Trade and repair services have expanded steadily, rising from 17.7% in FY12 to 24.0% in FY25, underscoring Assam's role as a regional trading hub and gateway economy within the Northeast.

Other services (including education, health, and social services) have maintained a consistent and meaningful presence, stabilizing around 10.0% in FY25, indicating steady institutional and human-capital-linked demand.

Real estate, ownership of dwellings and professional services have seen a moderation in share, declining from 13.1% in FY12 to 10.0% in FY25, reflecting scope for deeper formalization and higher-value service activity.

Financial services have strengthened gradually, increasing from 5.3% in FY12 to 7.6% in FY25, signaling improving financial penetration and inclusion.

Transport by other means has remained broadly stable, edging up from 6.9% in FY12 to 7.1% in FY25, aligned with logistics and mobility needs.

Railways, storage, hotels and restaurants, and communication services continue to be small but persistent components, each below 3%, representing latent opportunities linked to tourism, logistics, and digital services.

Assam's Share in India's Service Sector

Trade and repair services represent Assam's strongest national services linkage, with its share in India's output remaining stable ~2.4-2.6% by FY24, reinforcing its role as a regional commercial center.

Public administration & defense contributes 2.1% of India's total, reflecting both Assam's institutional and

strategic importance within the eastern and northeastern region, and large public sector.

Other services maintain a steady national presence near 1.3%, indicating consistent scale in social and community-oriented services.

Financial services, while smaller, have grown incrementally from 1.1% to 1.3%, pointing to expanding formal financial activity.

Transport by other means has remained modest but stable at around 1.1%, aligned with gradual logistics expansion.

Real estate and professional services show a limited national footprint, declining to 0.5%, highlighting a clear opportunity for higher-value service sector development.

Railways, storage, and communication services remain marginal at the national level, underscoring untapped potential tied to connectivity, multimodal logistics, and digital infrastructure.

12.6 SWOT Analysis

Assam's strategic position as Northeast India's primary integration hub is anchored in its infrastructure scale, natural resource endowments, and institutional capacity. This is counterbalanced by structural constraints in industrial diversification, climate vulnerability, and capability gaps. The SWOT assessment provides a consolidated view to inform prioritization under the state's development framework.

Strengths

- **Gateway infrastructure:** 4,077 km highways, 2,435 km rail, 15 waterways, and Guwahati Airport handling 90.0% of Northeast cargo²³²
- **Tea and silk dominance:** 50-55% of India's tea production; 97.0% of Muga silk and 65.0% of Eri silk output²³³
- **Semiconductor manufacturing:** ₹27,000 Cr OSAT/ATMP facility targeting 48M chips/day by 2026²³⁴

Weaknesses

- **Industry concentration:** Economy heavily dependent on tea and petrochemicals with limited manufacturing diversification
- **Power supply constraints:** Renewable energy targets unmet; generation capacity trails industrial demand growth

- **Implementation capacity:** Regulatory delays, land acquisition challenges, and weak execution risk stalling infrastructure projects

Opportunities

- **Value chain upgrading:** Scale processing in tea, silk, food, pharmaceuticals, minerals leveraging existing resource base
- **Digital services scaling:** Position Guwahati as Northeast's fintech and IT/BPM center capitalizing on connectivity and costs
- **Cross-border manufacturing:** Leverage Act East connectivity for export-oriented electronics and pharmaceutical production

Threats

- **Commodity price volatility:** Dependence on tea, oil, and gas exposes economy to external market fluctuations
- **Non-tariff barriers:** Trade restrictions and certification requirements limit market access for regional products
- **Climate and seismic risks:** Floods, soil erosion, and earthquake vulnerability threaten long-term investment confidence

²³² Government of India, Invest India. *State Assam – Invest in Assam: Explore Investment Opportunities*. <https://www.investindia.gov.in/state/assam>, Government of India, Ministry of Ports, Shipping and Waterways. *Rajya Sabha Unstarred Question No. 309: Inland Waterways in Assam*, Answered December 5, 2023. <https://sansad.in/getFile/annex/262/AU309.pdf?source=pgars>

²³³ Government of Assam. *Tea Industries – Ease of Doing Business (EoDB), Assam*. https://eodb.assam.gov.in/site/tea_industries, Government of India, Invest India. *State Assam – Invest in Assam: Explore Investment Opportunities*. <https://www.investindia.gov.in/state/assam>

²³⁴ Press Information Bureau, Government of India, *Nation's First Indigenous Semiconductor Assembly & Test Facility in Assam to Serve Global Customers* (Press Release ID 2198056), 3 December 2025, Ministry of Information & Broadcasting, Government of India, available at: https://www.pib.gov.in/PressReleasePage.aspx?PRID=2198056&utm_source®=3&lang=2



12.7 Strategic recommendations

With its expansive geography and resource endowments, Assam occupies a pivotal position in the Northeast's GVA acceleration trajectory, with critical mass in population, natural capital, and economic activity across agriculture, energy, and logistics;

however, structural constraints related to flood vulnerability, infrastructure gaps, and sectoral concentration continue to moderate the translation of scale advantages into sustained productivity-led growth.

Key challenges and strategic approach

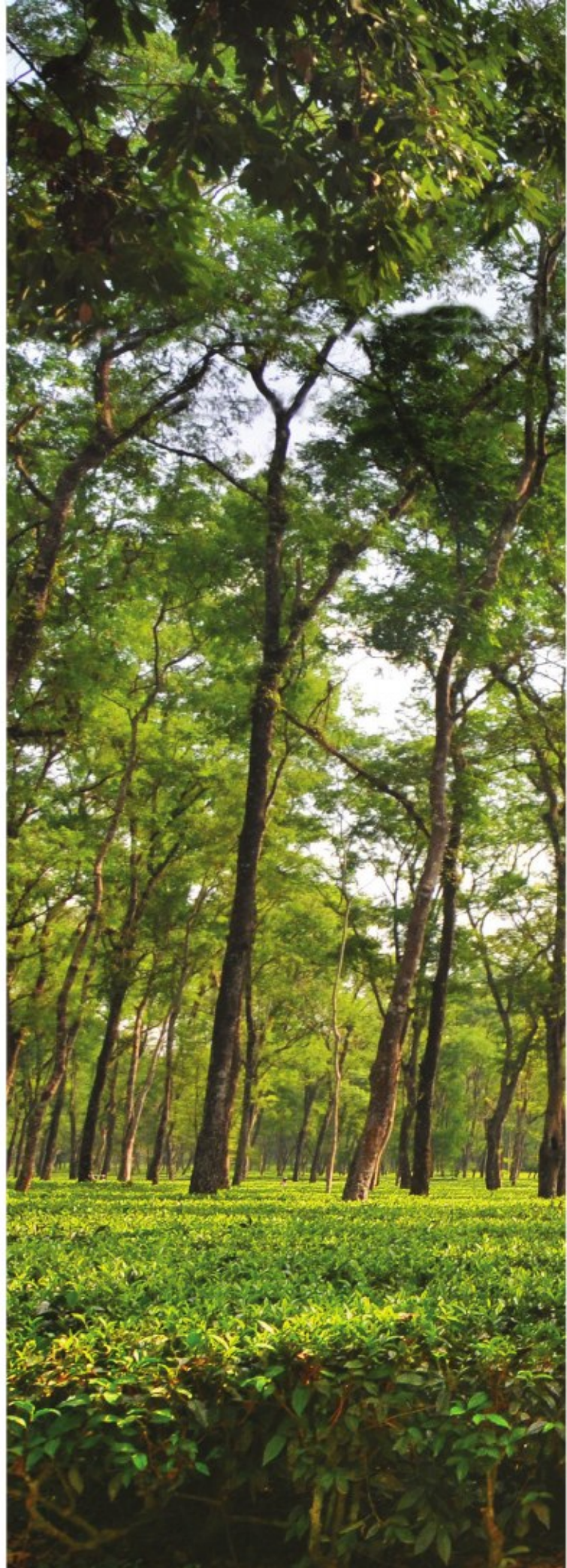
Table 57: Key challenges and strategic approach (Assam)

Key Challenge	Context	Strategic Approach
Industrial Node Development	Industrial activity is currently oriented around emerging urban centres such as Itanagar-Naharlagun and Pasighat, with early-stage presence in agro-processing, bamboo-based activities, and traditional manufacturing.	Development along the Trans-Arunachal Highway, positioning Hollongi-Itanagar-Naharlagun as the primary industrial gateway. Support this transition through reliable power supply, improved last-mile connectivity to rail and highways, and PPP-led anchor investments in agro-processing value chains.
Inadequate rail/road density and logistics efficiency	Road density of 210.69 km/100 sq km and only 3,883 km of national highways constrain freight movement to Bangladesh and other gateways; limited rail connectivity and absence of dedicated freight corridors force heavy reliance on road transport	Develop dedicated rail freight corridors and multimodal logistics for bulk commodities like petroleum and tea.
Recurrent flooding from the Brahmaputra river system	Flooding affects 39.6% of Assam's area with 1,340.4 mm annual rainfall, disrupting agriculture, settlements, and infrastructure in districts like Dhubri and Goalpara.	Build permanent flood infrastructure – embankments, river training, scientific dredging – to enable stable year-round economic activity.
Low irrigation coverage	Only 205.16 thousand hectares irrigated against 2,749 thousand hectares sown area, making rice cultivation (2,307 thousand hectares) monsoon dependent.	Expand canal and surface irrigation aligned to floodplain hydrology to increase cropping intensity and yield stability.
Limited value addition in tea sector	Tea covers 232 thousand hectares; large estates produce 202 million kg annually while 125 thousand small growers face yield volatility and price fluctuations.	Transition from volume to value-added processing and branding through cluster manufacturing and auction hubs near Guwahati.
Petroleum production stagnation	Crude oil at 3.119 million tonnes and natural gas at 2,474 MCM (2022-23) signal mature Upper Assam fields with limited growth potential.	Focus on refinery modernization and downstream integration rather than upstream exploration to sustain revenues.
Limited power availability	Peak demand of 2,426 MW exceeds generation of 2,213 MW, causing 2.84% shortage that impacts tea processing and industrial zones.	Accelerate Brahmaputra basin hydroelectric projects with grid modernization to eliminate fuel dependencies.
High educated unemployment	1.8 million educated unemployed, including 1.37 million youth (2022), reflects mismatch between education and sectoral demand.	Create sector-specific skill clusters for tea value chains, agro-processing, and resource-based industries.

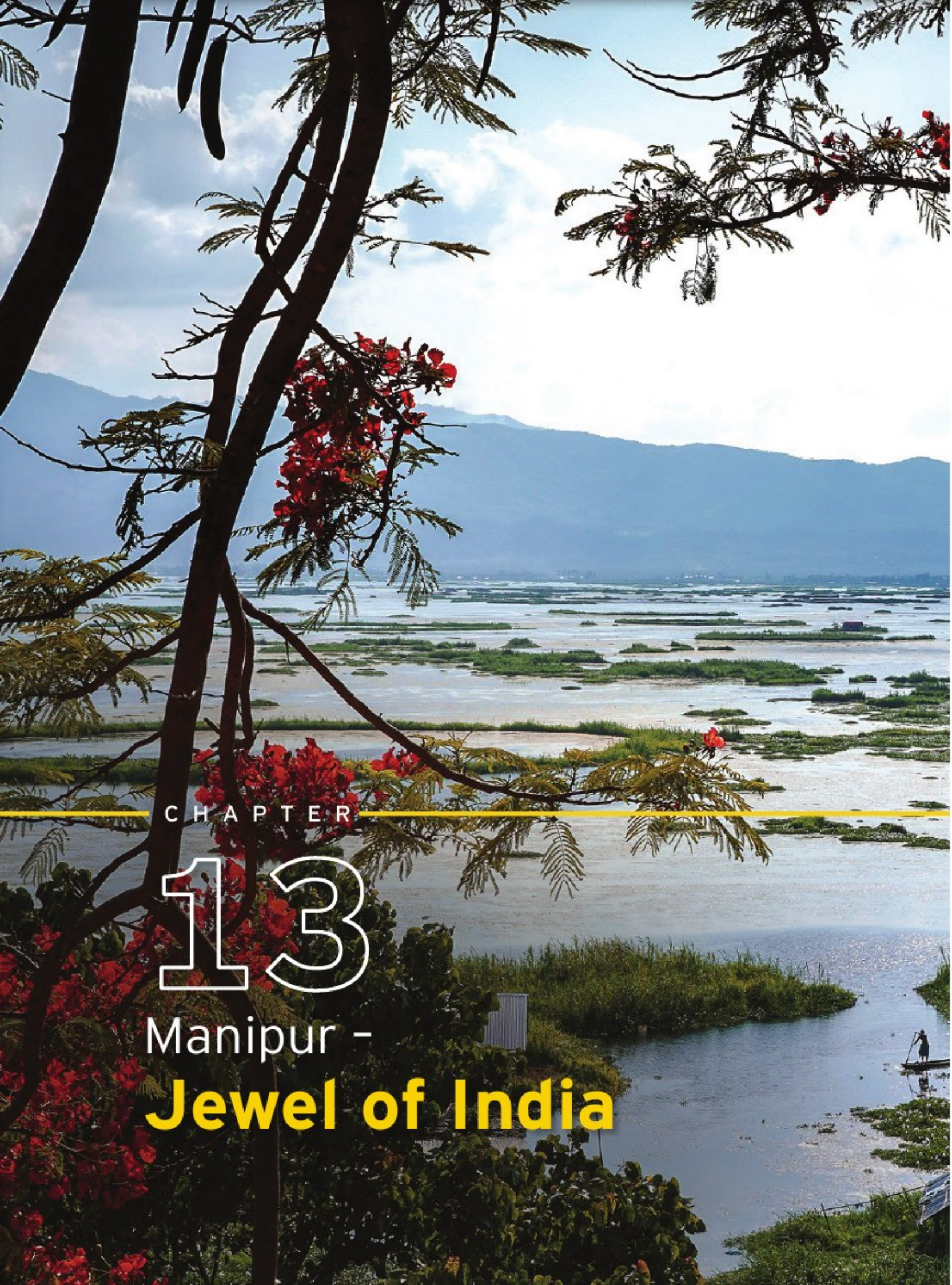
Assam at a Glance – 2024, Directorate of Economics and Statistics, Assam

Strategies for Assam

- **Guwahati as an urban hub:** Guwahati, the largest city in Northeast India, anchors concentrated urban growth and regional service integration. By concentrating population, healthcare, education, financial services, and governance functions, and linking them with high-quality infrastructure and efficient air-rail connectivity, the city generates employment density and institutional capacity to support broader manufacturing, services, and logistics development across the Northeast.
- **Assam as a value-addition hub:** Assam's premium tea, Muga silk, downstream petrochemicals, electronics manufacturing, and bamboo/forest-based products create a pathway to shift from primary production to high-value, export-oriented manufacturing. GI branding, processing clusters, cold-chain infrastructure, and urban-adjacent aggregation enable upstream value capture and position Assam as the primary value-addition hub of Northeast India.
- **Logistics and connectivity center of NER:** Assam's strategic location enables it to serve as the logistics and trade gateway for the Northeast. Multi-Modal Logistics Parks, integrated road-rail-air-water connectivity, and links to BBIN and Act East corridors reduce transport costs, improve market access for landlocked states, and facilitate exports to Bangladesh, Myanmar, and Southeast Asia.
- **Tourism and cultural economy:** Assam's globally recognized heritage and biodiversity assets – Kaziranga, Manas, Majuli – can support high-value tourism. Strategic investments in connectivity, regulated homestays, and community-led enterprises integrate rural and urban economies, create stable rural employment, and position Assam as the anchor tourism node of the Northeast.
- **Green and sustainable industrialization:** Assam's extensive forests and herbal biodiversity provide the basis for low-impact, high-value industrialization. Clusters for nutraceuticals, ayurvedic formulations, botanical extracts, and bamboo-based materials, connected to urban processing and logistics hubs can reinforce Assam as a sustainable green value-addition center while preserving ecological assets.





A scenic view of a flooded landscape in Manipur, India. In the foreground, a large tree with dark, gnarled branches and vibrant red flowers frames the left side of the image. The middle ground shows a vast, shallow body of water, likely a flooded field or wetland, with numerous small, green, vegetated islands scattered across the surface. In the background, a range of blue mountains stretches across the horizon under a sky with soft, white clouds. The overall atmosphere is peaceful and natural.

CHAPTER

13

Manipur -

Jewel of India



13.1 Socio economic profile, state USP and unique identity

Socio economic profile

Table 58: State overview (Manipur)

State overview ²³⁵	
Area	22,327 km ²
Population (2025)	3.2 million
GSDP (FY25)	INR47,917 crore
Per Capita GSDP (FY25)	INR1,45,998/US\$ 1,605
Contribution to NER GDP	4.7%
Population density	168 people per km ²
Unemployment Rate (2024)	6.1%
Urbanization Rate (2025)	32.9%
State Budgeted Expenditure (FY26)	INR3,654 crore
Number of MSMEs (2025)	1,66,105
Debt to GSDP (FY25)	47.0%
Literacy	92.0%
Youth population	29.4%
Human development index	0.75
Export Preparedness Index	35 th rank; Score: 28.3

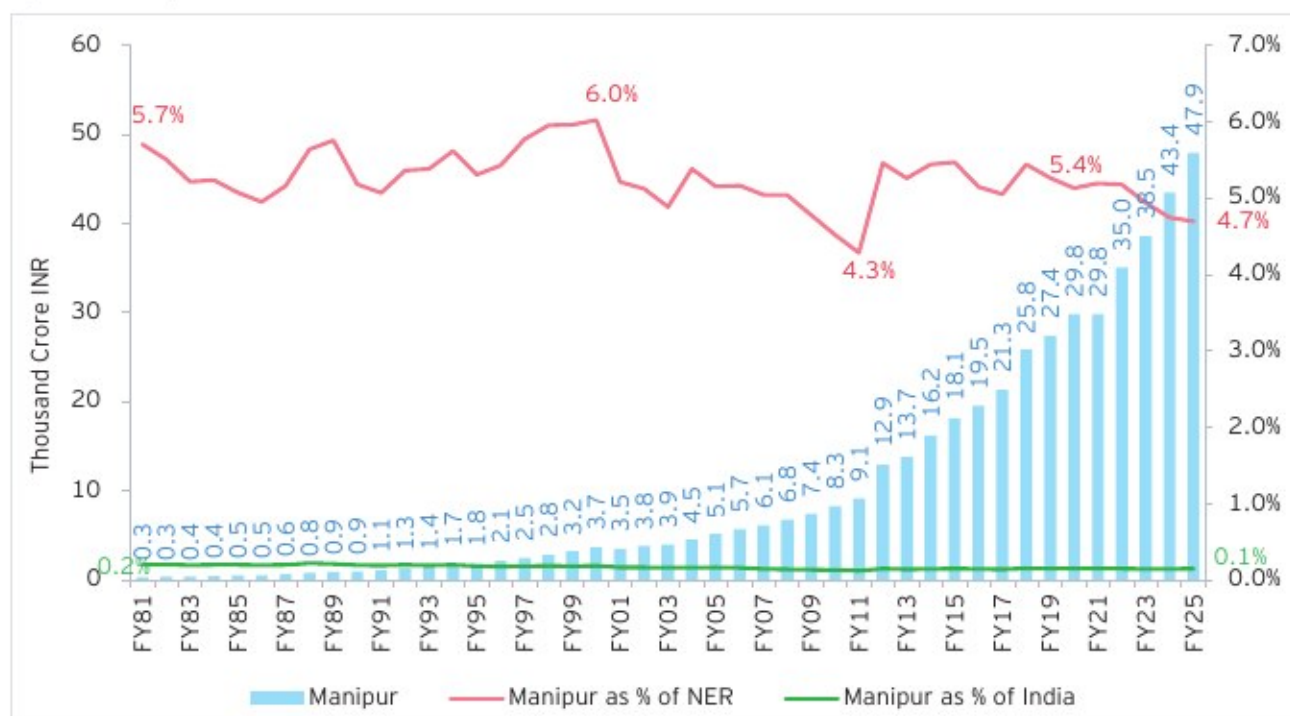
Manipur, located in the central part of Northeast India, covers an area of ~22,327 sq. km, with predominantly hilly terrain and dispersed settlement pattern. While smaller in demographic and economic scale compared

to other NER states, Manipur plays a critical role in India's Act East Policy, serving as a gateway for cross-border trade, cultural exchange, and regional connectivity with Southeast Asia.

²³⁵ Census 2011, PRS India, NITI Aayog Macro and Fiscal Landscape of the State of Manipur, Udyam Portal, Manipur Industrial Policy 2022 PLFS 2023-24, MoSPI, NITI Aayog Export Preparedness Index 2024, Global Data Lab, Subnational HDI (SHDI) – India (2022), Ministry of Statistics and Programme Implementation. Youth in India 2022 (June 29, 2022). https://www.mospi.gov.in/sites/default/files/publication_reports/Youth_in_India_2022/Youth_in_India_2022.pdf



Figure 61: Manipur GSDP

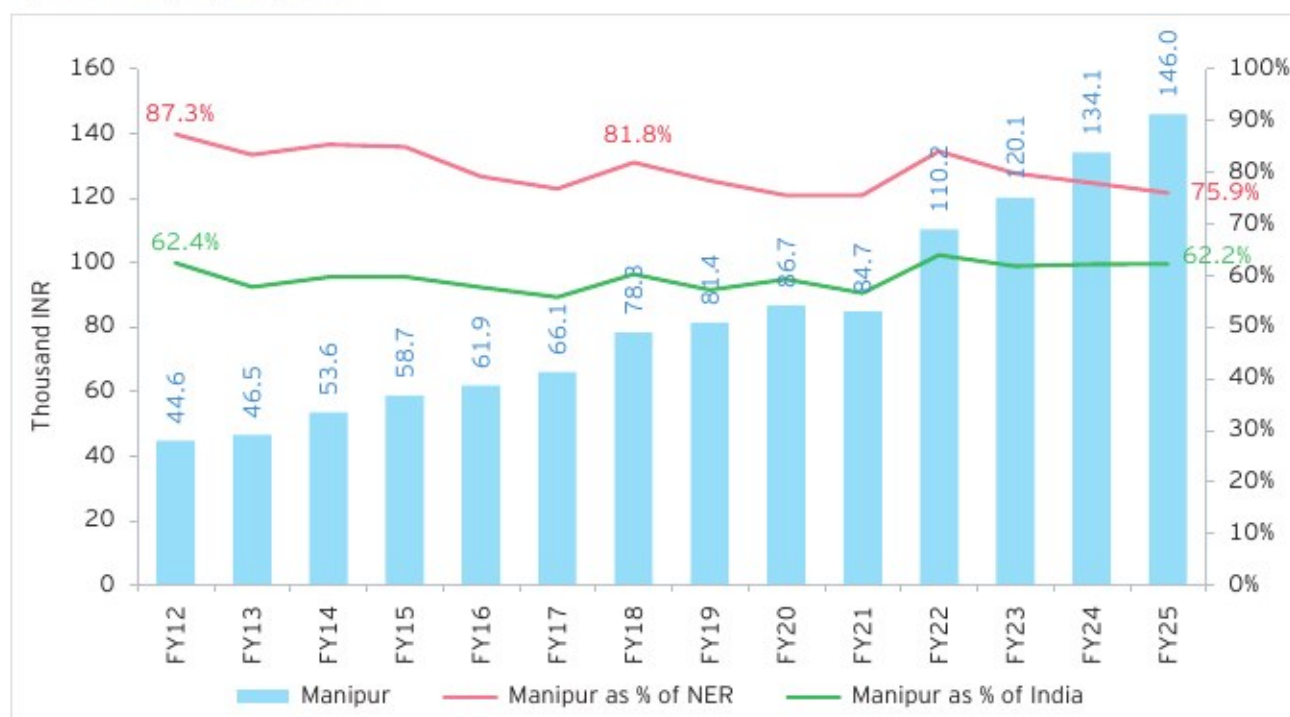


Source: MoSPI

Manipur has recorded steady long-term growth from a low base, with GSDP expanding from under INR373 crore in FY83 to about INR47,917 crore by FY24, accounting for roughly 4.7% of NER's GDP. Per capita GDP has risen consistently from INR44,600 in FY12 to

INR1,30,000 by FY24, reflecting improving average incomes, though it remains at about 62% of the national average, underscoring the need for faster productivity and value addition-led growth to achieve regional convergence.

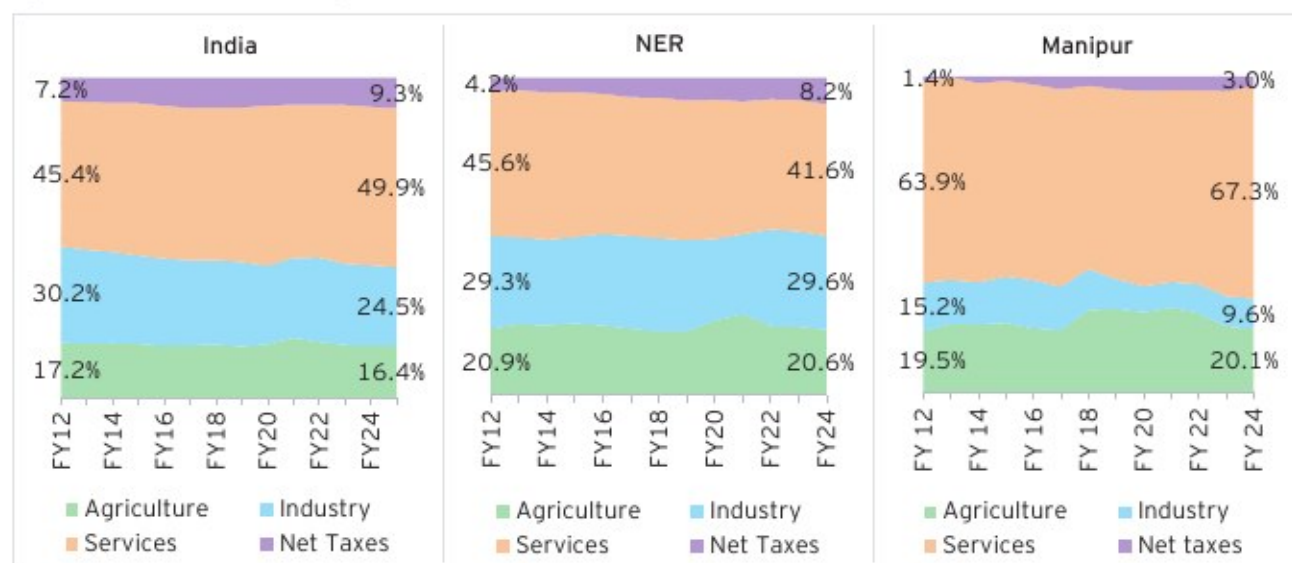
Figure 62: Manipur per capita GSDP



Source: MoSPI

Note: FY25 GSDP and Per Capita GSDP based on Business-as-Usual growth projections

Figure 63: India vs NER vs Manipur sectoral shares



Source: World Bank, MoSPI

Manipur, positioned at the geographic center of Northeast India, spans 22,327 sq. km and supports an estimated 3.2 million people ²³⁶ (2025). With a population density of 168 persons per sq. km ²³⁷, economic activity and public service demand remain spatially concentrated in and around the Imphal Valley – a reality that shapes both growth trajectories and the complexity of governance across the state.

Manipur's economic structure is decisively services-led, with services accounting for 67.3% of GSDP in FY24. Agriculture continues to anchor rural livelihoods at 20.8% of GSDP, yet its productivity remains constrained by fragmented landholdings, limited mechanization, and weak linkages to processing and value chains. Industry constitutes just 9.6% of GSDP, ²³⁸ underscoring a modest manufacturing base that has yet to absorb agricultural surplus labor or generate scalable tradable output.

This composition reflects not sectoral imbalance per se, but a stalled structural transition: gains in agricultural output have not catalyzed downstream agro-processing or industrial diversification capable of driving employment and export growth. With nearly 1,68,000 lakh MSMEs ²³⁹ registered as of FY25 –

predominantly micro and informal – the binding constraints are not entrepreneurial intent, but market access, logistics reliability, credit availability, and pathways to firm-level upgrading and formalization.

Human development indicators signal both progress and latent risk. A literacy rate of 92.0% ²⁴⁰ and an HDI of 0.75 ²⁴¹ reflect sustained public investments in education and basic capabilities. However, a youth cohort comprising 29.4% ²⁴² of the population (15-29 years) is entering a labor market where open unemployment stands at 6.1% (FY24) ²⁴³, nearly double the national average. This divergence between human capital accumulation and employment absorption reflects not merely a skills mismatch, but the absence of sufficiently diversified, private sector-led employment pathways beyond government services, low-productivity retail trade, and subsistence agriculture. Urbanization stands at 32.9% (2025) ²⁴⁴, reflecting a development pattern where urban expansion has yet to translate into broad-based, private-sector employment hubs for educated youth.

From a fiscal and trade perspective, Manipur operates within clear constraints. A debt-to-GSDP ratio of

²³⁶ Census 2011

²³⁷ NITI Aayog Macro and Fiscal Landscape of Manipur <https://www.niti.gov.in/sites/default/files/2025-03/Macro-and-Fiscal-Landscape-of-the-State-of-Manipur.pdf#:~:text=%E2%9E%A2%20Manipur's%20literacy%20rate%2C%20at%2079.2%20percent%2C,are%20both%20above%20their%20respective%20national%20averages.>

²³⁸ MoSPI, Ministry of Statistics and Programme Implementation

²³⁹ Udyam Portal https://dashboard.msme.gov.in/Udyam_Statewise.aspx

²⁴⁰ NITI Aayog Macro and Fiscal Landscape of the state of Manipur

²⁴¹ Subnational HDI (SHDI) – India (2022)

²⁴² Ministry of Statistics and Programme Implementation. Youth in India 2022 (June 29, 2022).

²⁴³ https://www.mospi.gov.in/sites/default/files/publication_reports/Youth_in_India_2022/Youth_in_India_2022.pdf

²⁴⁴ Government of India, Ministry of Statistics and Programme Implementation, Lok Sabha Unstarred Question No. 5160 (Answered on 02.04.2025), "PLFS Reports," Annexure – Annual Report, Periodic Labour Force Survey (PLFS) 2023-24

https://sansad.in/getFile/loksabhaquestions/annex/184/AU5160_LZipbs.pdf?source=pqals&utm_source

²⁴⁴ Census 2011

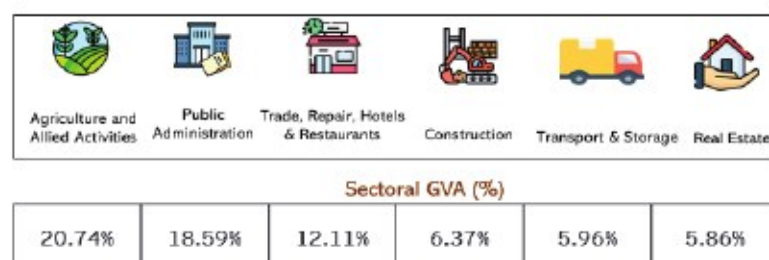


47.0%²⁴⁵ narrows fiscal flexibility, reinforcing the importance of efficiency, prioritization, and outcome orientation in public expenditure. On external competitiveness, the state ranked 35th in the Export Preparedness Index (2024),²⁴⁶ reflecting structural gaps in trade infrastructure, logistics integration, institutional export support, and product diversification. While Manipur's proximity to Myanmar and Southeast Asia is often cited as a strategic advantage, translating geography into measurable growth might depend on predictable connectivity, firm-level export readiness, and stable trade facilitation mechanisms – not border adjacency alone. Without coordinated improvements in cross-border infrastructure, regulatory predictability, and backward linkages to domestic production, locational proximity risks remaining a latent rather than realized asset.

Manipur's Unique Selling Proposition and unique identity

Manipur's sectoral GVA distribution reveals a highly concentrated economic structure with limited diversification.

Agriculture and Allied Activities account for 20.7% of GVA, followed by Public Administration at 18.6%, indicating substantial public sector presence in economic output. Trade, Repair, Hotels and Restaurants constitute 12.1%, while Construction (6.4%), Transport and Storage (6.0%), and Real Estate (5.9%) remain relatively modest. This composition underscores the state's reliance on primary sector activities and government services, with limited contribution from manufacturing, construction, and logistics – sectors critical for structural transformation, employment generation, and export-led growth. Expanding the share of tradable sectors and private-sector-led industrial activity remains essential for diversifying the economic base and enhancing productivity-driven growth.²⁴⁷



Distinctive economic assets

Manipur holds a strategic position in Northeast India's cross-border economic integration. Its 398 km international boundary with Myanmar²⁴⁸ along Trans-Asian Highway corridors create terrestrial gateway potential to Southeast Asian markets, enabling direct trade and logistics integration beyond traditional coastal port dependencies. The Moreh Integrated Check Post, aligned with India's Act East Policy, serves as the primary land customs station for bilateral trade with Myanmar.

Agriculture and natural resources form the backbone of Manipur's export economy. The state's bamboo endowment, comprising over 20 distinct varieties²⁴⁹, positions Manipur within regional bio-economy supply chains, with bamboo shoot processing aligned to Southeast Asian market demand structures. Tea cultivation concentrated in Tamenglong, Jiribam, Churachandpur, and Ukhrul districts produces output differentiated by taste profile while agro-climatic conditions enable coffee cultivation potential and rubber plantation infrastructure in Jiribam supports industrial linkages. The U-morok chili variety, alongside ginger and turmeric establish specialty spice positioning. Cardamom, cinnamon, garlic, and capsicum cultivation expands the high-value spice production base.

Chromite and limestone mineral reserves, governed under the Manipur Mineral Policy framework, provide resource foundations for cement and mineral extraction value chains with identified industrial investment pathways.

Manipur's ecological and cultural assets create distinct foundations for differentiated tourism and creative economic development. Keibul Lamjao National Park – the sole floating national park globally – serves as exclusive habitat for the Sangai brow-antlered deer within Loktak Lake, the largest freshwater lake

system in Northeast India with Ramsar Convention recognition. Manipuri classical dance traditions, including Raslila and Lai Haroba forms with UNESCO recognition and 1,500-year heritage continuity, establish cultural capital foundations supporting contemporary creative economy pathways in music, performance, and intellectual property asset creation within cultural and digital economy frameworks.

²⁴⁵ NITI Aayog Macro and Fiscal Landscape of the state of Manipur

²⁴⁶ NITI Aayog Export Preparedness Index 2024

²⁴⁷ NITI Aayog, India Climate & Energy Dashboard (ICED), <https://iced.niti.gov.in>

²⁴⁸ Consulate General of India, Sittwe, Myanmar. India – Myanmar Relations. <https://www.cgisittwe.gov.in/page/india-myanmar-relations/>

²⁴⁹ Rising Northeast. Updated Manipur - State Profile (May 2025), RisingNortheast. <https://risingnortheast.in/wp-content/uploads/2025/05/Updated-Manipur.pdf>

13.2 Manipur's 10 recommended priority areas

10 priority areas for Manipur

1. Tourism
2. Agriculture & Food Processing
3. Bamboo & Forest Products
4. IT / ITeS & Allied Services
5. Power (Hydropower & Renewable Energy)
6. Textiles & Handicrafts
7. Honey, Floriculture & Apiculture
8. Pharmaceutical, Aromatic & Minor Forest Products
9. Sports, Wellness & Event Economy
10. Water-Recycling, Water-Based & Compostable Plastics

1. Tourism

Manipur's ecological and cultural assets create distinct foundations for differentiated tourism development. The state's positioning encompasses eco-tourism anchored by biodiversity hotspots, adventure tourism leveraging hill terrain, battlefield tourism commemorating World War II sites, and cultural tourism based on living heritage traditions.

Manipuri classical dance traditions including Raslila and Lai Haroba forms carry UNESCO recognition and heritage continuity, establishing cultural capital for contemporary creative economy development. Keibul Lamjao National Park – the sole floating national park globally – serves as exclusive habitat for the Sangai brow-antlered deer within Loktak Lake, the largest freshwater lake in Northeast India with Ramsar Convention recognition. State support extends to tourism products centered on Loktak Lake water-based activities, trekking circuits in hill districts, and heritage tourism infrastructure.

Medical tourism development leverages institutional healthcare infrastructure at RIMS, JNIMS, and expanding private hospital facilities. Medical tourism development requires specialized infrastructure including international patient cells at major hospitals, treatment package development for specialized services, and wellness retreat facilities combining therapeutic interventions with cultural experiences.

Priority interventions include developing destination-specific infrastructure at key sites – Loktak Lake floating huts and water sports facilities, Keibul Lamjao interpretation center and wildlife viewing

infrastructure, Imphal heritage walk circuits. Visitor infrastructure including quality accommodation outside Imphal, transportation connectivity to tourism sites, and basic amenities (sanitation, signage, interpretation centers) require strengthening. Service quality standards and hospitality skill availability affect visitor experience, while integration of tourism products into regional circuits and national marketing platforms remains incomplete. Hospitality skill development programs through ITI and private training providers with industry-aligned certification, safety and quality certification for tourism service providers (homestays, guides, transport operators), and integrated marketing campaigns positioning Manipur's unique assets within Northeast tourism circuits support visitor growth.

2. Agriculture and Food Processing

Manipur's geographic position as a land gateway to Southeast Asia presents a competitive advantage in serving regional markets, enabling it to function as a specialized agri-processing hub for high-value crops. Coordinated investment in processing infrastructure, quality certification systems aligned with international buyer requirements, and export facilitation mechanisms can materially improve value capture while positioning Manipur's specialty agricultural products within premium regional and global markets. Agriculture and allied activities contributed 20.7% of Manipur's GVA, sustaining rural livelihoods across the state's diverse agro-climatic zones. The state's agricultural portfolio is notably differentiated: U-morok chili commands recognition for extreme pungency levels and export potential; ginger and turmeric from hill cultivation zones are preferred in premium markets for their sensory and color attributes; and tea cultivation in Tamenglong, Jiribam, Churachandpur, and Ukhrul districts produces output distinguished by taste profile and aromatic characteristics. Additional crops – coffee, cardamom, cinnamon, capsicum – further expand Manipur's high-value agricultural base. Despite this product diversity and strategic proximity to Southeast Asian markets via the Myanmar border, productivity remains constrained by rain-fed cultivation systems, fragmented landholdings, and limited mechanization. The Manipur Industrial Development and Investment Policy (2022) provides a 30% capital subsidy on plant and machinery for food processing units, complemented by transport subsidies addressing Northeast logistics cost disadvantages. Policy emphasis centers on organic farming output, with infrastructure priorities including cold storage



facilities, packing houses, warehouses, and pre-cooling systems. However, value-addition infrastructure remains underdeveloped: integrated spice processing units with cleaning, grading, and packaging capabilities; quick-freezing facilities for bamboo shoots aligned to Southeast Asian import standards; and quality certification laboratories for organic product verification are largely absent. Post-harvest losses for perishables remain substantial, limiting premium market access and income realization. The transition pathway lies in establishing integrated processing ecosystems – spice grinding and packaging units, bamboo shoot processing clusters with IQF technology, tea processing facilities with CTC and orthodox capacity – that convert raw materials into export-ready products. Developing agri-export clusters at Moreh and Jiribam integrated with phytosanitary certification facilities, strengthening cold chain corridors linking production zones to processing hubs and border trade points, and capacity building for Farmer Producer Organizations towards consistent quality supply are priority interventions.

3. Bamboo and forest products

Manipur's bamboo endowment comprises over 20 distinct varieties, supporting traditional livelihoods through handicrafts and raw material extraction. NTFPs including grasses, cane, oils, gums, and resins add to the state's forest-based economic base. Current utilization focuses predominantly on primary products, with opportunities for higher-value engineered bamboo products, laminated boards, activated carbon, bamboo fiber and processed bamboo shoots for export markets – particularly Southeast Asia where processed shoots command premium prices. The Manipur Industrial Development and Investment Policy (2022) supports bamboo industries and NTFP-based manufacturing units through capital subsidies (30% on plant and machinery), transport subsidies, and land access in industrial estates. Incentive coverage extends to bamboo shoot processing, ethanol production from bamboo cellulose, engineered bamboo products for construction applications, and NTFP value addition in medicinal extracts and natural dyes. Institutional support through the National Bamboo Mission targets farmers and self-help groups for plantation expansion and primary processing, creating formalization pathways for traditionally informal forest-based livelihoods. Infrastructure gaps persist in modern bamboo treatment and seasoning facilities meeting export quality standards, technology access for manufacturing composite boards and structural products, and backward linkages between bamboo

growers and processing enterprises. Establishing integrated bamboo processing clusters – particularly in districts with high bamboo density – equipped with preservation treatment facilities, machinery for furniture-grade boards and flooring, and packaging lines for processed bamboo shoots meeting international food safety standards represents the core development pathway. Complementary interventions include Farmer Producer Organization (FPO) development to enable consistent quality supply, testing and certification laboratories for structural bamboo products, and export facilitation infrastructure at border trade points for direct Southeast Asian market access. These measures position Manipur as a regional hub for value-added bamboo and forest products rather than a supplier of raw materials, capturing greater margins while supporting sustainable forest management and rural employment generation.

4. IT/ITeS and allied services

Manipur's IT and digital services sector offers strategic diversification opportunities for formal employment generation, particularly for the state's educated youth demographic. The Manipur IT Policy 2022 establishes a target of 50,000 jobs²⁵⁰ through digital services hubs, positioning information technology-enabled services – encompassing hardware, software, BPO operations, call centers, data processing, web design, alongside sports and education services – as thrust areas under MIDIP 2022 with access to capital subsidies, entrepreneurship facilitation support, MSME cluster development, and single-window clearances. Digital infrastructure improvements including broadband connectivity expansion, growing mobile internet penetration, and smartphone adoption create foundational conditions for sector development.

Managed IT/ITeS parks with quality infrastructure – reliable power, high-speed internet, modern office facilities – meeting client expectations for BPO and software development operations remain underdeveloped. Specialized skill availability in high-demand areas including software development, data analytics, cybersecurity, and digital marketing requires strengthening despite general educational attainment. Institutional linkages between educational institutions and industry for curriculum alignment, internship programs, and placement facilitation need expansion. Perception challenges regarding connectivity reliability and talent availability affect potential client and investor interest, though ground realities continue improving. Priority interventions

²⁵⁰ Government of Manipur, "Manipur IT-Policy 2015," Department of Information Technology, Government of Manipur https://manipur.gov.in/wp-content/uploads/2015/02/it-pol-finalartwork-web.pdf?utm_source

include plug-and-play infrastructure; implementing skill accelerator programs through partnerships with NIELIT, private training providers, and industry for targeted upskilling with placement linkages; developing BPO clusters for non-voice services (finance and accounting, legal process outsourcing, GIS mapping, content moderation) under the Northeast BPO Promotion Scheme; and creating startup acceleration mechanisms including incubation facilities, seed funding access, and mentorship programs. Expanding the talent development ecosystem beyond degree programs to include industry-recognized certifications, intensive training programs, and apprenticeship models creates job-ready professionals. Consistent policy implementation, sustained infrastructure investment, talent development and retention strategies, and proactive marketing positioning Manipur as a credible IT/ITeS destination within Northeast India can capitalize on cost advantages, language capabilities, and growing digital connectivity to capture meaningful share of India's digital services growth.

5. Power (Hydropower and renewable energy)

Manipur's current renewable energy resources include identified hydropower potential of 6,150 MW against installed capacity of 105 MW, alongside solar potential estimated at over 2,290 MW with less than 20 MW currently installed²⁵¹. The state's identified hydropower projects across various river basins represent substantial untapped capacity, while growing energy demand from industrial development and inter-state power purchase costs create both opportunity and urgency for renewable energy development. The MIDIP (2022) provides green technology cost reimbursement of 50% (maximum ₹25 lakh) for renewable energy installations ranging from 10-2,000 KW²⁵², alongside competitive tariff structures and power subsidies for industrial units. Policy provisions aim to advance energy self-sufficiency and potential exports to deficit regions in the Northeast. Land acquisition processes in hill terrain, transmission infrastructure connecting generation sites to demand centers, technical capacity for project development and environmental clearances, and private sector participation remain areas requiring attention. Hydropower development faces additional considerations around ecological sensitivities, community participation in project design and benefit-sharing, and capital commitment for

projects with longer gestation periods. Fast-tracking small and micro-hydropower projects (under 25 MW)²⁵³ offers a viable pathway, given shorter development timelines, lower environmental and social impacts, and suitability of run-of-river technology for Manipur's topography. Rooftop solar programs across government buildings, educational institutions, and industrial estates can create distributed generation capacity reducing transmission losses and enhancing grid resilience. Policy alignment through streamlined environmental clearances for small renewable projects, viability gap funding for private sector participation, energy wheeling arrangements for captive consumers, and skilled workforce development through ITI and polytechnic curriculum integration supports sector growth. Balancing energy development with environmental sustainability, community participation, and coordinated investment in generation and transmission infrastructure can transform Manipur from an energy-deficit state dependent on expensive power purchases into a regional renewable energy contributor, supporting industrial competitiveness and fiscal sustainability.

6. Textiles and handicrafts

Manipur has the highest concentration of handicrafts units as well as the highest number of craft artisans in the entire Northeast region²⁵⁴. Manipur's textiles and handicrafts sector, characterized by high women participation in micro and home-based production units, represents both a livelihood anchor for artisan communities and an opportunity for market expansion. The *Ima Keithel* (Mother's Market) is known as the world's only market run entirely by women, a tradition spanning centuries, where thousands of "Imas" (mothers) sell everything from fish, vegetables, and textiles to household goods, symbolizing unique female economic empowerment and cultural strength in Imphal²⁵⁵.

The state's textile traditions – distinctive handloom weaving techniques, indigenous motifs with cultural significance, and specialized products such as *Moirang Phee* and *Wangkhei Phee* with GI tag potential – create differentiated positioning in domestic and export craft markets. Handicraft production encompasses cane and bamboo articles, pottery, wood carving, and traditional jewelry, predominantly operating through informal household enterprises with market access limited to local bazaars and government emporiums.

²⁵¹ NITI Aayog, *India Climate & Energy Dashboard (ICED)*, <https://iced.niti.gov.in>

²⁵² The Manipur Industrial Development and Investment Policy (2022)

²⁵³ Manipur Renewable Energy Development Agency. *Hydro Power Projects of MANIREDA*. <https://manireda.mn.gov.in/projects/hydro-power/>

²⁵⁴ Government of Manipur, Department of Textiles, Commerce & Industry. (2020). *Manipur Textile Policy 2020* [PDF]. <https://manipur.gov.in/wp-content/uploads/2014/06/manipur-textile-policy-2020.pdf>

²⁵⁵ Ministry of Culture, Government of India. (n.d.). *Ima Keithel*. Indian Culture. <https://indianculture.gov.in/snippets/ima-keithel>



Government procurement programs and exhibition support provide periodic market access, while institutions including Manipur Handloom & Handicrafts Development Corporation facilitate supply chain participation. Production remains predominantly household-based without formalization into enterprises capable of handling bulk orders or maintaining consistent quality and delivery schedules. Design development services aligning traditional techniques with contemporary market preferences, market intelligence and buyer linkages beyond government channels, and working capital availability for raw material procurement require strengthening.

The following interventions position Manipur's textiles and handicrafts as distinctive, quality products commanding premium prices while enhancing income generation for artisan households and preserving cultural heritage:

- i. Strengthening artisan enterprises through producer collective formation – self-help groups, producer companies – enabling bulk production capability, collective bargaining with buyers, and access to formal credit and skill development programs.
- ii. Establishing common facility centers with modern looms, natural dyeing infrastructure, finishing equipment, and design studios.
- iii. Implementing design intervention programs connecting traditional artisans with professional designers for contemporary product development (home textiles, fashion accessories, lifestyle products) without diluting cultural authenticity. Establishing common facility centers with modern looms, natural dyeing infrastructure, finishing equipment, and design studios.
- iv. Creating digital market access through e-commerce platform onboarding and online marketing training; and developing buyer-seller meet programs, national craft fair participation, and institutional buyer linkages (hospitality sector, corporate gifting, export houses) provide sustained demand and price realization.

7. Honey, floriculture and apiculture

Manipur's apiculture sector benefits from diverse minor forest flora and agro-climatic suitability for bee-keeping, positioning honey production as a complementary income source aligned with seasonal agricultural cycles. The state's forest biodiversity and organic cultivation practices create potential for certified organic honey and mono-floral varieties – particularly from citrus, mustard, and forest flora – that command premium prices in domestic and export markets. Bee-keeping requires minimal land

investment while providing pollination services that enhance crop productivity in neighboring agricultural systems.

The Bee Keeping & Honey Mission provides institutional backing, while MIDIP 2022 thrust-area incentives include land access in industrial estates, capital subsidies (30% on plant and machinery), interest subsidies, insurance support, and transport subsidies. Technical capacity among bee-keepers for scientific apiculture practices – including colony management, disease prevention, and seasonal migration for nectar flow optimization – remains limited. Modern honey processing infrastructure with extraction, filtration, and packaging facilities meeting FSSAI and export certification requirements is largely absent, while market linkages beyond local informal sales remain weak. Value-addition infrastructure for bee products beyond honey, including beeswax processing for cosmetics and pharmaceutical applications, propolis extraction, and royal jelly production, offers opportunities for higher margin capture. Developing integrated apiculture clusters with common facility centers providing honey extraction and processing equipment, quality testing laboratories for purity and antibiotic residue testing, and packaging facilities for retail-ready products represents the priority pathway. Technical training programs through Bee Keeping Mission covering scientific bee-keeping techniques, queen rearing, and integrated pest management, combined with bee-keeper cooperatives enabling collective input procurement, bulk processing, and direct market access, can strengthen the sector foundation. Implementing organic certification programs for premium market positioning and developing market linkages with retail chains, export houses, and institutional buyers further enhance income potential. Floriculture development as a complementary activity – establishing nurseries for year-round high-value flower cultivation (orchids, anthuriums, gerberas suited to Manipur's climate), cold chain infrastructure for cut flower transportation, and market intelligence systems – creates remunerative livelihood opportunities complementing agricultural income while contributing to ecosystem services.

8. Pharmaceutical, aromatic and minor forest products

Processing, and direct market access, can strengthen the sector foundation. Implementing organic certification program. Manipur's biodiversity base encompasses over 1,200 medicinal plant species, aromatic plants, and diverse minor forest products, presenting opportunities for pharmaceutical, nutraceutical, and wellness product development.

Forest ecosystems harbor species with established therapeutic properties and commercial value – including rare orchids, medicinal herbs used in traditional systems, and aromatic plants for essential oil extraction. Current utilization centers primarily on primary collection and raw material sale, with opportunities for value-added manufacturing and integration into regulated pharmaceutical and export supply chains.²⁵⁶ The MIDIP 2022 framework supports bio-processing clusters, herbal and natural products units, and R&D facilities oriented toward national and export markets. Incentive structures provide capital subsidies (30% on plant and machinery), transport subsidies, and single-window clearances for units engaged in medicinal plant cultivation, extraction, formulation, and finished product manufacturing. GMP-certified processing facilities required for pharmaceutical market access, R&D infrastructure for product development and clinical validation, cultivation protocols and quality standardization for medicinal species, and linkages between forest-based collectors, cultivators, and processing enterprises represent development priorities. Regulatory compliance requirements for drug manufacturing – including licenses under Drugs and Cosmetics Act, safety testing, and quality certifications – require technical support and handholding mechanisms for small and medium enterprises. Establishing integrated medicinal plant clusters with GMP-compliant extraction and formulation facilities, quality testing laboratories accredited for pharmacopoeia standards, and R&D centers collaborating with pharmaceutical companies and research institutions supports the transition from primary extraction to value-added manufacturing. Cultivator aggregation through Farmer Produce Organization (FPO), technology transfer programs for cultivation and sustainable harvesting practices, and market linkage initiatives connecting producers to ayurvedic, pharmaceutical, and cosmetic industry buyers are essential complements. Developing a medicinal plant genetic resource inventory, establishing nurseries for quality planting material, implementing organic and sustainable wild collection certifications for export markets, and creating benefit-sharing mechanisms with forest-dependent communities balance commercial development with biodiversity conservation. Establishing integrated medicinal plant clusters with GMP-compliant extraction and formulation facilities, quality testing laboratories accredited for pharmacopoeia standards, and R&D centers collaborating with pharmaceutical companies and research institutions supports the transition from

primary extraction to value-added manufacturing. Cultivator aggregation through Farmer Produce Organizations (FPO), technology transfer programs for cultivation and sustainable harvesting practices, and market linkage initiatives connecting producers to ayurvedic, pharmaceutical, and cosmetic industry buyers are essential complements. Developing a medicinal plant genetic resource inventory, establishing nurseries for quality planting material, implementing organic and sustainable wild collection certifications for export markets, and creating benefit-sharing mechanisms with forest-dependent communities balance commercial development with biodiversity conservation.

9. Sports, wellness & event economy

Manipur is a consistent net contributor to India's elite sports talent, particularly in boxing, weightlifting, football, hockey, and indigenous martial arts, producing multiple Olympians and national medalists relative to its population size. This outcome is anchored in dense grassroots participation, state-run and private training centres around Imphal, and a strong culture of school- and community-level sports. The ecosystem supports downstream economic activity in coaching services, sports academies, physiotherapy and rehabilitation, referee and technical training, and sports-related MSMEs, complemented by traditional physical and wellness practices with relevance for fitness and recovery-oriented services.

Concurrently, Manipur sustains an active event economy rooted in recurring cultural festivals – Lai Haraoba, Yaoshang, Ningol Chakouba, and Cheiraoba – and regular sporting tournaments that attract participation from across the NER. With Imphal Airport serving as the primary access point and events concentrated within a compact urban footprint, the state captures demand for event management, hospitality, local transport, catering, audiovisual services, and cultural production. These events function as market platforms for handloom, handicrafts, indigenous food products, and creative performers, generating short-cycle employment and reinforcing Manipur's role as a regional sports-and-culture convening centre rather than a mass-tourism destination.

²⁵⁶ Rising Northeast. *Updated Manipur - State Profile* (May 2025), RisingNortheast. <https://risingnortheast.in/wp-content/uploads/2025/05/Updated-Manipur.pdf>



10. Water-Recycler, water-based and compostable plastics

Manipur's waste-recycler and compostable plastics sector represents a thrust area for converting waste streams into industrial products while addressing environmental management challenges.

Waste segregation at source, modern recycling infrastructure with sorting, cleaning, and processing facilities meeting industrial input specifications, and backward linkages between waste collection systems (municipal and informal) and processing enterprises require development. Technical capacity for operating recycling technologies and maintaining quality standards, along with regulatory frameworks for waste management and producer responsibility, need strengthening. Market awareness and acceptance of recycled and compostable products competing with conventional materials is an additional consideration.

Establishing integrated waste processing clusters with material recovery facilities, plastic recycling plants producing granules for manufacturing applications, and compostable plastic production units utilizing agricultural waste (bamboo, rice husk, biomass) forms the core development pathway. Implementing municipal solid waste management systems with source segregation and collection infrastructure feeding recycling enterprises, developing product standards and certification for recycled and compostable materials, creating institutional procurement mandates for recycled content products, and establishing technology demonstration centers showcasing waste-to-product conversion processes support sector growth. These interventions position waste processing as a viable industrial sector contributing to circular economy objectives while generating employment and reducing environmental impact from plastic waste.

13.3 Integration with regional value chains

Kiwi

In FY24, Manipur produced approximately 2,800 metric tonnes of kiwi²⁵⁷, ranking second in the NER after Arunachal Pradesh²⁵⁸, indicating a meaningful production base that can support targeted investments in aggregation, cold-chain linkages, and quality-led market access to stabilise and enhance farm incomes.

Kiwi cultivation in Manipur reflects a natural fit with hilly agro-climatic conditions in districts such as Senapati and Churachandpur. In rain-fed uplands with limited scope for staple crop intensification, it provides a diversification option rather than a primary livelihood shift. While area under cultivation has expanded, the value chain remains nascent and uneven. Productivity, post-harvest management, and market integration will determine the sustainability of farmer outcomes.

Textiles

Manipur's textiles value chain has a high concentration of handloom households anchored in tribal weaving traditions across valley and hill areas. Handloom activity remains a supplementary livelihood with women visible in institutions, such as Ima Keithel,

forming the backbone of the sector. Textile's structural importance is reflected in the state's national ranking of 4th in number of handlooms (FY20)²⁵⁹ and a weaver population exceeding 2.1 lakh²⁶⁰, indicating both the depth of artisanal capacity and the necessity of coordinated cluster-based interventions to translate scale into sustainable incomes and higher-value market participation.

Production is fragmented and household-based, creating challenges for scale, productivity, and quality. Self help groups, cooperatives and block-level clusters are critical to enable shared facilities, better merchandising, stronger market linkages and other efficiencies of aggregation.

Fisheries

In FY23, Manipur recorded inland fish production of approximately 0.34 lakh tonnes²⁶¹, ranking third in the NER in FY24 after Assam and Tripura²⁶², underscoring a material production base that can support targeted investments in productivity enhancement, post-harvest handling, and organised market access.

Fisheries in Manipur draw on extensive inland water resources, including Loktak Lake and connected river systems supporting both capture and culture

²⁵⁷ North Eastern Development Finance Corporation Ltd. (NEDFi). NEDFi Databank. <https://databank.nedfi.com/>

²⁵⁸ North Eastern Development Finance Corporation Ltd. (NEDFi). NEDFi Databank. <https://databank.nedfi.com/>

²⁵⁹ North Eastern Development Finance Corporation Ltd. (NEDFi). NEDFi Databank. <https://databank.nedfi.com/>

²⁶⁰ North Eastern Development Finance Corporation Ltd. (NEDFi). NEDFi Databank. <https://databank.nedfi.com/>

²⁶¹ North Eastern Development Finance Corporation Ltd. (NEDFi). NEDFi Databank. <https://databank.nedfi.com/>

²⁶² North Eastern Development Finance Corporation Ltd. (NEDFi). NEDFi Databank. <https://databank.nedfi.com/>

fisheries. The sector plays a role in valley-based consumption patterns. However, productivity remains constrained by fragmented management, ecological pressures on wetlands, and limited value addition. Strengthening sustainable practices, governance of common water bodies, and cold-chain linkages is key to improving livelihood outcomes.

Rice

In FY25, Manipur produced 417.4 thousand metric tonnes of rice²⁶³, with an average yield of 2,465 kg per hectare²⁶⁴, indicating a solid production base but clear headroom for productivity and value-realisation

gains through targeted agronomic and post-harvest interventions.

Rice dominates agriculture in Manipur, concentrated in the fertile alluvial soils of the Imphal Valley and accounting for a large share of cropped area in a largely subsistence system. The value chain underpins food security and rural stability but offers limited income growth under current productivity levels. Within this structure, GI-tagged black rice (Chakhao) provides a differentiated niche for value addition and branding. Realising this potential depends on yield improvements, quality standardisation, and market segmentation beyond local consumption.

13.4 Comparative advantage analysis²⁶⁵

Manipur's comparative positioning is defined by specialty horticulture production, forest-based resource concentration, artisanal craft traditions, and terrestrial border connectivity to Southeast Asia. These advantages operate across three layers – state level within the NER, regional level within India, and international level relative to Southeast Asia and global markets.

State advantage versus NER

Specialty horticulture and forest products

Manipur ranks second in India for kiwi production with output of 2,900 tons, alongside major contributions to passion fruit cultivation. Forest cover exceeding 70% supports a diversified bamboo value chain spanning handicrafts, bamboo shoots, and agarbatti production – one of the most integrated bamboo ecosystems in the region. This concentration creates value chain anchoring and critical mass for specialty fruit processing and bamboo-based industries largely unavailable elsewhere in the NER. Domestic resource availability enhances supply chain security and reduces vulnerability for local processing enterprises.

Ecological and cultural tourism assets

Loktak Lake (the largest freshwater lake in Northeast India with Ramsar Convention recognition), Keibul Lamjao National Park (the sole floating national park globally and exclusive habitat for the Sangai brow-antlered deer), and Shirui Lily provide unique ecological attractions not replicated in other NER states. Manipuri classical dance traditions including Rasliha and Lai Haroba forms carry UNESCO recognition and 1,500-year heritage continuity. This

cultural and ecological depth creates monopoly positioning for specific eco-tourism and cultural immersion products, distinguishing Manipur from neighboring states.

Regional advantage versus rest of India

Natural irrigation and environmental capital

Annual tropical rainfall ranging from 1,250-2,700 mm provides natural irrigation advantages over India's water-stressed zones, reducing dependence on groundwater extraction and irrigation infrastructure. Imphal Valley's fertile soils enable lower-cost cultivation compared to arid and semi-arid peninsular states, reducing input requirements and supporting higher yields per unit area. Manipur's 74% forest cover supports ESG-aligned, traceable sourcing frameworks in contrast to regions experiencing higher forest degradation. This environmental capital positions the state favorably within sustainability-conscious supply chains and certification frameworks increasingly governing market access and investment flows.

Renewable Energy potential

Solar irradiance of 4.5-5 kWh/m²/day is comparable to leading solar regions in South India, while identified hydropower potential of 1,783 MW (against installed capacity of 155.55 MW as of March 2024) enables competitive renewable energy development. This resource endowment positions Manipur within national renewable energy frameworks despite northeastern location traditionally associated with hydropower rather than solar generation. Lower incremental energy development costs compared to states dependent on thermal power or expensive

²⁶³ North Eastern Development Finance Corporation Ltd. (NEDFi). NEDFi Databank. <https://databank.nedfi.com/>

²⁶⁴ North Eastern Development Finance Corporation Ltd. (NEDFi). NEDFi Databank. <https://databank.nedfi.com/>

²⁶⁵ Niti Aayog; Invest India; Reports by State Government



inter-state purchases further potentially enable industrial competitiveness.

International advantage versus SE Asia and global markets

Specialty agricultural products and border connectivity

Manipur's high-altitude passion fruit and GI-tagged kiwi offer distinct flavor and quality profiles commanding price premiums in international markets based on origin-specific characteristics not replicable in lowland production zones. The Moreh land gateway provides direct terrestrial connectivity to ASEAN markets – an advantage rare for inland regions globally. This creates logistics alternatives to coastal port-dependent export routes, reducing time-to-market for perishable specialty products and enabling fresh produce exports that would deteriorate under longer maritime shipping routes. Natural honey and unique floral varieties provide differentiated products suited for niche global organic and specialty food markets where botanical origin influences consumer valuation above commodity pricing.

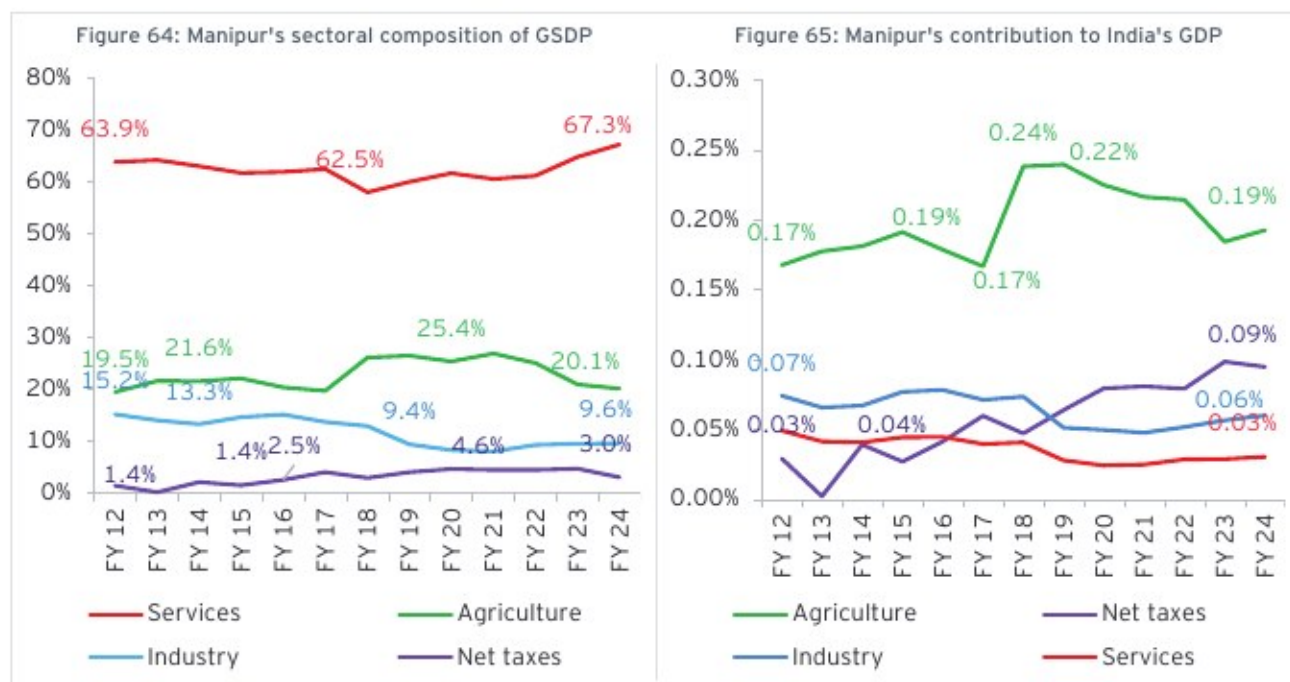
Sustainable materials and artisanal products

Extensive bamboo resources and high forest cover enable sustainably sourced bamboo crafts, shoots, and natural products matching global demand for eco-friendly materials. This positions Manipur within international supply chains prioritizing environmental certification and traceable sourcing for consumer markets in developed economies. Manipur's handloom

traditions – including Moirang Phee and Wangkhei Phee with GI tag potential – and tribal craft heritage offer artisanal, small-batch, design-rich products distinct from large-scale textile manufacturing hubs. This positions the state in ethical fashion, boutique retail, and craft markets where production scale limitations translate into authenticity premiums rather than competitive disadvantages, serving consumers seeking unique, traceable, and culturally embedded products. The Myanmar border enables cross-border cultural and nature tourism circuits, creating differentiated multi-destination itineraries supporting longer tourist stays and higher per-visitor expenditure through transnational route integration. Extensive bamboo resources and high forest cover enable sustainably sourced bamboo crafts, shoots, and natural products matching global demand for eco-friendly materials. This positions Manipur within international supply chains prioritizing environmental certification and traceable sourcing for consumer markets in developed economies. Manipur's handloom traditions – including Moirang Phee and Wangkhei Phee with GI tag potential – and tribal craft heritage offer artisanal, small-batch, design-rich products distinct from large-scale textile manufacturing hubs. This positions the state in ethical fashion, boutique retail, and craft markets where production scale limitations translate into authenticity premiums rather than competitive disadvantages, serving consumers seeking unique, traceable, and culturally embedded products. The Myanmar border enables cross-border cultural and nature tourism circuits, creating differentiated multi-destination itineraries supporting longer tourist stays and higher per-visitor expenditure through transnational route integration.

13.5 State economic analysis

Structure of Manipur's economy



Centre for Monitoring Indian Economy Pvt. Ltd. (n.d.). States of India [Database]. <https://statesofindia.cmie.com>
Source: MoSPI, EY Analysis

Manipur's economy is anchored in services, providing a degree of income stability and continuity in a challenging operating environment. However, the narrow productive base and limited diversification constrain the state's ability to scale growth and deepen national economic integration. Agriculture remains central to livelihoods, while industry has yet to achieve critical mass. National contribution levels remain modest across sectors, highlighting both the opportunity and the imperative to strengthen productivity, connectivity, and market linkages.

Agriculture: Livelihood anchor with productivity upside

Agriculture continues to play a significant role in Manipur's GSDP, fluctuating around 20%–25% and settling at about 20.1% in FY24. This underscores its importance as a livelihood stabilizer rather than a high-growth engine. Manipur's share in India's agricultural GSDP has remained small, rising to around 0.24% at its peak before moderating to 0.19%, indicating constraints in scale, market access, and value addition. The trajectory suggests that future gains are more likely to come from productivity enhancement, crop diversification, and integration with regional agri-value chains, rather than volume-led expansion.

Industry: Limited base, scope for selective deepening

Industry's share in Manipur's GSDP has declined from the mid-teens to under ~10% by FY24, reflecting structural limitations rather than short-term cyclical pressures. Correspondingly, the state's contribution to India's industrial GSDP remains marginal at around 0.06%. While this highlights the absence of manufacturing depth, it also clarifies the strategic direction: industrial development in Manipur might need to be selective, cluster-based, and logistics-enabled, focusing on small-scale processing, construction materials, and location-specific niches rather than large-scale manufacturing.

Services: Stable core, untapped value potential

Services dominate Manipur's economy, rising from roughly 64% to over 67% of GSDP by FY24, providing resilience and continuity. However, Manipur's contribution to India's services GSDP remains extremely limited at about 0.03%, reflecting a predominantly local and public-facing services base. This points to a clear opportunity to move up the value curve by strengthening tradable services linked to tourism, transport, logistics, and digital public service delivery, leveraging Manipur's strategic location and administrative capabilities.



Net taxes: Early signals of formalization

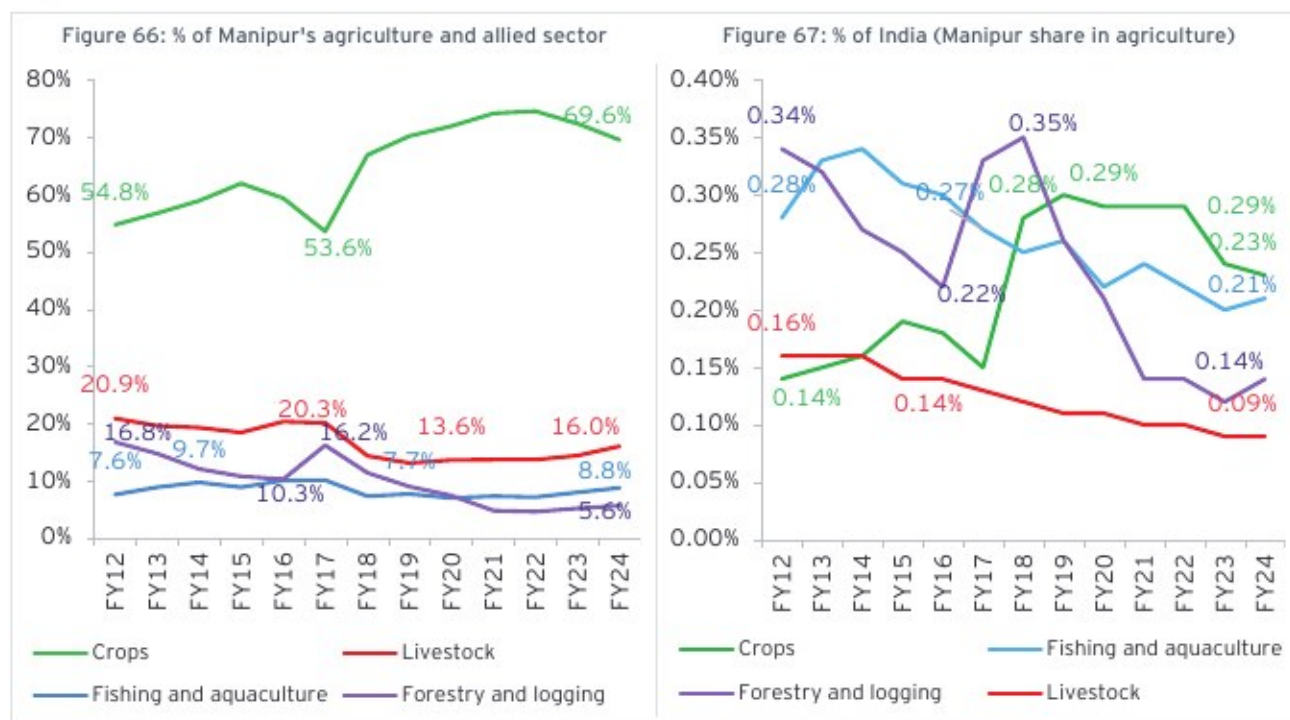
Net taxes have increased gradually from a low base, reaching around 3.0% of GSDP by FY24. Manipur's share in India's net tax pool has improved to ~0.09%, indicating incremental gains in formalization and fiscal mobilization. While still modest, this trend enhances the state's ability to fund targeted public investments, particularly in connectivity, urban services, and market infrastructure, which are critical enablers for broader economic participation.

Services dominate Manipur's economy, rising from roughly 64% to over 67% of GSDP by FY24, providing resilience and continuity. However, Manipur's contribution to India's services GSDP remains extremely limited at about 0.03%, reflecting a predominantly local and public-facing services base. This points to a clear opportunity to move up the value curve by strengthening tradable services linked to tourism, transport, logistics, and digital public service delivery, leveraging Manipur's strategic location.



13.6 Sectoral structure of Manipur's economy

Agriculture and Allied



Centre for Monitoring Indian Economy Pvt. Ltd. (n.d.). States of India [Database]. <https://statesofindia.cmie.com>

Source: MoSPI, EY Analysis

Internal structure of Agriculture and Allied Activities

Crops dominate Manipur's agriculture and allied sector, accounting for a high and rising share of agriculture GVA – moving from ~55% in FY12 to ~70% by FY24. The sharp increase post-FY17 reflects a consolidation around crop-based livelihoods rather than diversification, indicating limited expansion of allied activities.

Livestock has seen a gradual revival after a mid-period decline, stabilizing around 16.0% of agriculture GVA in FY24. While these signals are improving rural livelihood balance, the pace of expansion remains moderate.

Fishing and aquaculture remain a relatively small but steady sub-sector, fluctuating in the high single digits and reaching about 8.8% by FY24.

Forestry and logging have declined steadily from ~17% in FY12 to ~6% in FY24, reflecting regulatory tightening and conservation priorities, underscoring the need for sustainable forestry-linked livelihoods and NTFP value chains.

Manipur's share in India's Agriculture and Allied Activities

Crops form Manipur's strongest national linkage, with its share in India's crop output rising to 0.23% in FY24, indicating incremental productivity gains despite structural limitations.

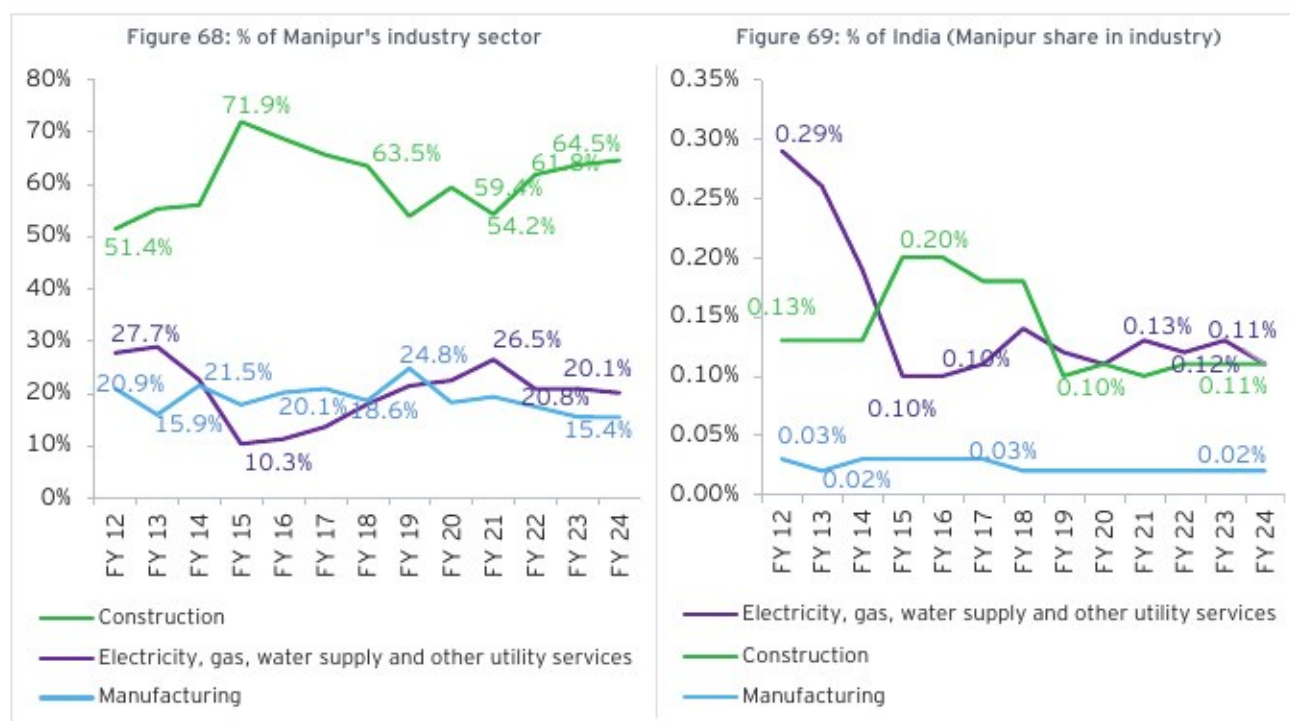
Fishing and aquaculture show relative stability at the national level, with Manipur's share fluctuating around 0.21%–0.28%, suggesting scope for targeted scaling through cold-chain development and market access rather than fundamental capability gaps.

Forestry and logging exhibit pronounced volatility in Manipur's national share, peaking near 0.35% before declining to about 0.14% by FY24, consistent with regulatory shifts and conservation-led constraints rather than capacity erosion.

Livestock remains the smallest contributor nationally, declining gradually to about 0.09% of India's output by FY24, pointing to the need for productivity enhancement and organized market channels rather than expansion of herd size.



Industry



Centre for Monitoring Indian Economy Pvt. Ltd. (n.d.). States of India [Database]. <https://statesofindia.cmie.com>

Source: MoSPI, EY Analysis

Internal structure of industry

Construction forms the dominant pillar of Manipur's industrial sector, accounting for a large and persistent share – rising from 51.4% in FY12 to 64.5% in FY24. This reflects sustained public investment and reconstruction activity rather than broad-based industrialization.

Electricity, gas, water supply and other utility services constitute the second-largest component, fluctuating between 20%–27% and settling at around 20.1% in FY24. The recovery after mid-decade volatility points to improving service provision and system stabilization.

Manufacturing remains structurally thin, declining from 20.9% in FY12 to 15.4% in FY24. Periodic upticks indicate pockets of activity, but the overall trajectory reflects constraints in investment scale, logistics integration, and market access rather than a lack of entrepreneurial base.

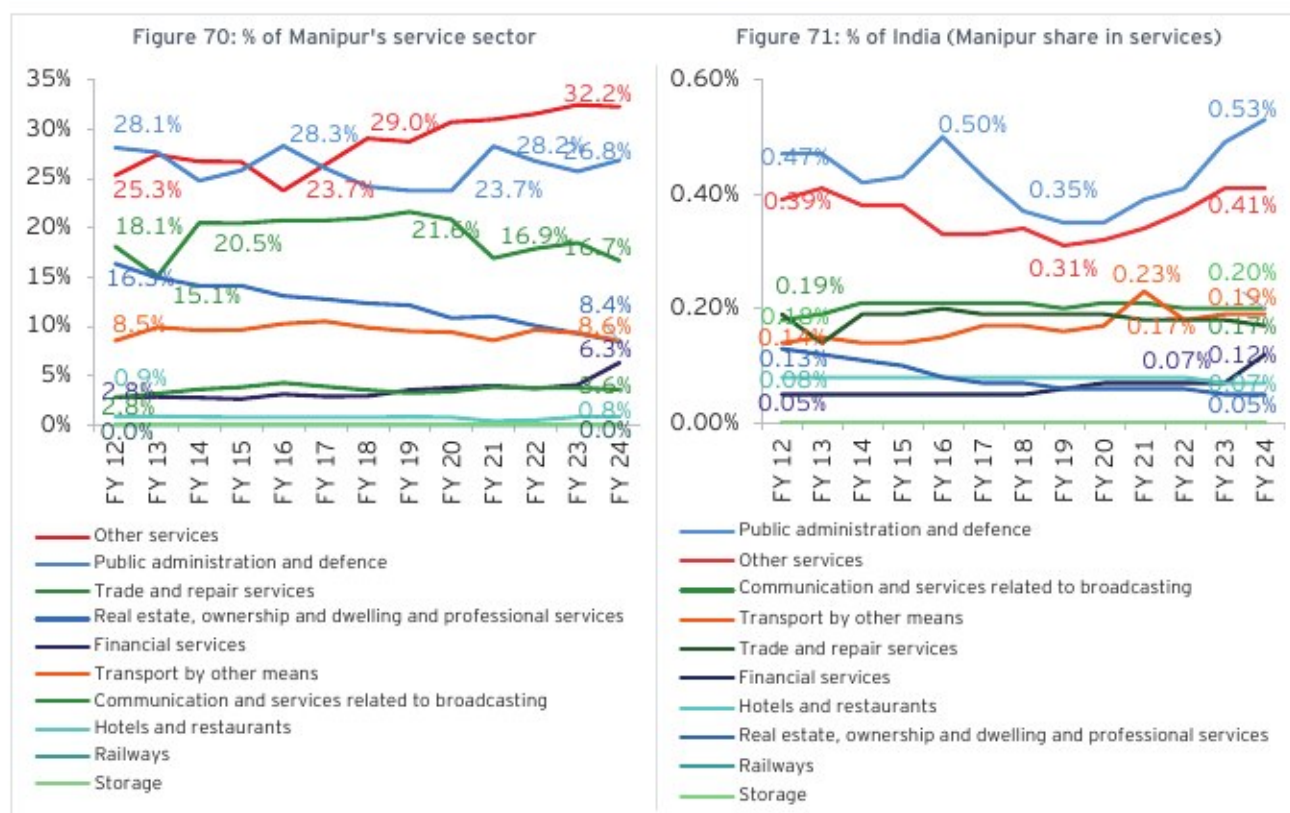
Manipur's share in India's industry

Electricity, gas, water supply and utility services represent Manipur's relatively strongest national presence, with its share in India's output stabilizing around 0.11% by FY24 after an earlier peak, indicating incremental strengthening of basic industrial services.

Construction shows moderate national relevance, with Manipur's share rising to about 0.11% in FY24 after peaking near 0.20% mid-period. This mirrors the state's infrastructure-led growth pattern, while also highlighting the limits of construction-driven expansion in building long-term industrial competitiveness.

Manufacturing remains marginal at the national level, contributing roughly 0.02% of India's output in FY24, which reinforces the need for targeted manufacturing niches – such as agro-processing, construction materials, and localized consumer goods – linked closely to regional demand and logistics improvements.

Services sector



Centre for Monitoring Indian Economy Pvt. Ltd. (n.d.). States of India [Database]. <https://statesofindia.cmie.com>

Source: MoSPI, EY Analysis

Internal structure of services

Other services, including education, health, and social services – form the single largest component of Manipur's services sector, have expanded steadily from 25.3% in FY12 to 32.2% in FY24, underscoring growing demand for social and human-capital-linked services, mostly met by the public sector.

Public administration and defence marginally decreased from 28.1% in FY12 to 26.8% in FY24. Government expenditure and administration have a central role in sustaining service activity and employment. While this provides stability and demands support, it also signals limited diversification toward market-driven and tradable services, reinforcing the need to broaden the services base over time.

Trade and repair services constitute a significant and relatively stable segment, fluctuating in the range of ~16%-21% and settling at around 16.7% in FY24, indicating the importance of local commerce and informal trade networks.

Real estate, ownership of dwellings, and professional services have moderated from about 16.3% in FY12 to 8.4% in FY24, reflecting limited urban formalization

and subdued private investment rather than declining demand.

Financial services have increased from a very low base, rising from under 3% to about 6.3% by FY24, signaling improving financial penetration and inclusion.

Transport by other means has remained broadly stable at around 8%-10%, aligned with mobility needs within the state, though scale remains tied to public spending rather than commercial logistics expansion.

Railways, storage and hotels and restaurants, and communication services remain marginal, each generally below 2% indicating latent opportunities linked to tourism, logistics, and digital connectivity.

Manipur's share in India's service sector

Public administration and defence represent Manipur's strongest national linkage, with its share in India's output rising to about 0.53% by FY24 - disproportionately higher relative to the size of the economy, and consistent with the sector's dominance within the state economy.

Other services have also strengthened nationally, increasing to around 0.41%, indicating Manipur's



growing role in social and community-oriented service provision, albeit at a modest scale.

Trade and repair services contribute 0.17% to India's output, remaining stable but underscoring the localized nature of Manipur's commercial activity and the need for stronger market integration.

Financial services, transport, real estate, and professional services each remain below 0.15%

nationally, highlighting under-penetration. These segments offer clear scope for productivity-led expansion as connectivity, urbanization, and institutional capacity improvement.

Railways, storage, and hotel services remain marginal at the national level, reinforcing the opportunity to leverage future investments in connectivity and digital infrastructure to enhance Manipur's services competitiveness.

13.7 SWOT Analysis

Strengths

- Second in India for kiwi production (2.8 thousand tons); Among the top NER states for passion fruit, large cardamom and chilies^{266 267}
- Maximum handicraft units and craftspeople concentration within NER; tribal motifs anchoring ODOP initiatives
- Over 1,200 medicinal plant species supporting pharmaceutical and bio-economy development²⁶⁸

Weaknesses

- Rural-urban skills divide with limited IT/BPM operational readiness constraining digital services expansion
- Fragmented NTFP market structure lacking aggregation scale and quality standardization systems
- Limited cold-chain, processing capacity, and export certification infrastructure with post-harvest losses

Opportunities

- Bio-economy synergies from NTFP-pharmaceutical clusters supported by 30%-100% subsidies through UNNATI and PLI schemes
- Renewable energy expansion through solar-biomass hybrid systems and PM-KUSUM generating employment opportunities
- Eco-tourism development around Loktak Lake and Shirui Lily circuits supported by homestay incentive structures

Threats

- Landlocked positioning creating supply chain disadvantages relative to Vietnam's coastal port access and Southeast Asian logistics infrastructure
- Resource over-exploitation risks from intensifying NTFP extraction without regeneration systems threatening forest sustainability
- Infrastructure deficits in connectivity, power reliability, and logistics integration, raising operational costs for enterprises

²⁶⁶ NER DATABANK. *Fruits* | NEDFi Data Bank: Horticulture. <https://databank.nedfi.com/horticulture/fruits/>

²⁶⁷ Ministry of Food Processing Industries, Government of India. (n.d.). *State profile: Manipur* (PDF).

<https://www.mofpi.gov.in/sites/default/files/KnowledgeCentre/State%20Profile/Manipur.pdf>

²⁶⁸ Rising Northeast. *Updated Manipur - State Profile* (May 2025), RisingNortheast. <https://risingnortheast.in/wp-content/uploads/2025/05/Updated-Manipur.pdf>

13.8 Strategic recommendations

Leveraging its strategic position as India's 'Gateway to the East' with direct connectivity to Myanmar and Southeast Asian markets, Manipur holds significant potential for regional trade integration, supported by natural resource endowments in bamboo, handloom, and horticulture, alongside emerging opportunities in tourism and handicrafts; however, structural

constraints related to cross-border infrastructure development, internal social cohesion challenges, and limited industrial diversification continue to moderate the state's ability to fully capitalize on its geographic and cultural advantages for sustained economic transformation.

Key challenges and strategic approach

Table 59: Key challenges and strategic approach (Manipur)

Key Challenge	Context	Strategic Approach
Hill-valley connectivity gaps	Population density 115/sq km, 32.4% urban (Imphal-centric); terrain limits hill access, creating spatial inequities in markets and services. Absence of rail connectivity and minimal railway infrastructure intensifies road dependence.	Prioritize road upgrades over rail given terrain constraints to strengthen last-mile connectivity and integrate hill districts with valley markets.
Limited industrial base	Industry at 8.5% of GSVA (manufacturing 1.6%), constrained by hill terrain and limited valley land availability.	Prioritize infrastructure-linked activity over land-intensive manufacturing; balance valley concentration with hill employment.
Heavy agriculture dependence	Agriculture contributes 26.8% of GSVA, employs 35.7% of workforce; hill farming and forest cover (16,598 sq km) limit mechanization.	Shift from hill livelihood stabilization to productivity expansion through valley-based aggregation and processing.
Loktak Lake livelihood pressures	Supports 50% of state fish production (~3% of GSDP); faces pressure from population growth, hydrological changes, and phumdi proliferation.	Balance ecological restoration with regulated hydropower and fisheries to stabilize livelihoods and preserve lake integrity.
Border trade underutilization	Moreh serves as key Myanmar gateway, yet exports at USD 1 million (2022-23) reflect infrastructure and institutional gaps.	Focus trade facilitation at Moreh on cross-border priorities; de-emphasize domestic logistics where trade-offs exist.
Fiscal sustainability risks	Debt-to-GSDP at 47%, fiscal deficit at 6.9%, expenditure at 76.2% – all exceed state medians, constraining developmental space.	Enforce fiscal consolidation through revenue surplus creation before deficit correction; align expenditure discipline with debt sustainability.
Urban concentration imbalances	32.4% urbanization masks Imphal dominance; 67.6% rural population dispersed across hills with limited secondary urban centres.	Decentralize services and economic functions to hill sub-centres rather than expanding Imphal.

Macro and Fiscal Landscape of the State of Manipur", NITI Aayog, Management Action Plan of Loktak Lake

Strategies for Manipur

- Cross-border economic corridor development:** Positioning Moreh as India's principal land gateway to Southeast Asia through phased implementation – prioritizing domestic capacity building via logistics training institutes, digital customs systems, warehouse facilities, and MSME export readiness programs (2025-2028) before full corridor activation, while developing complementary connectivity to Kolkata and Chennai ports to reduce single-corridor dependency and capture first-mover advantages in regional trade recovery as cross-border conditions normalize.
- Renewable Energy as productive infrastructure:** Scaling distributed solar, biomass, and PM-



KUSUM interventions for immediate productive use in cold chains, bamboo processing, handloom clusters, and agro-processing facilities to generate near-term economic returns while larger grid projects mature, with explicit linkage between renewable capacity additions and anchor investments in priority sectors ensuring coordinated development, demand-side absorption, and integration of enhanced environmental assessment protocols for future hydropower expansion.

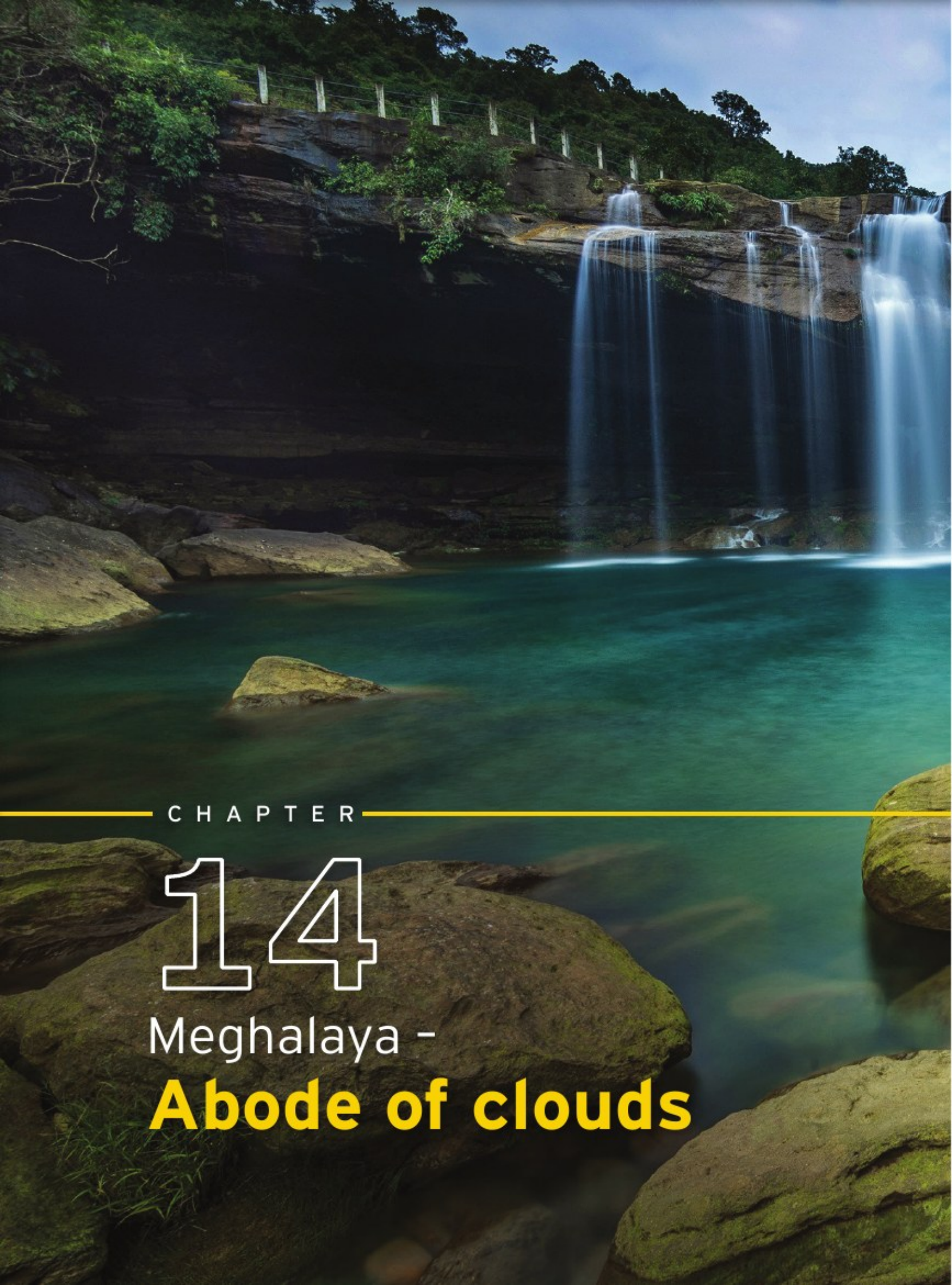
- **Scaling digital infrastructure and ITeS ecosystem:** The Government of Manipur has established a 10.85-hectare Information Technology Special Economic Zone (IT SEZ) at Mantripukhri, backed by World Bank funding of INR418 crore under the MIND Project. The infrastructure includes a near-complete 1,000-seater BPO Center, and initial success has been demonstrated through the placement of 1,200 trained IT/ITeS professionals in leading companies. However, critical underutilization persists – evidenced by zero expenditure against the state's INR15 lakh allocation in 2023-24 – signaling an urgent need to accelerate implementation.²⁶⁹

The strategic priority is scaling the IT SEZ, Startup Manipur initiative, and emerging IT Park ecosystem through: enhanced digital infrastructure, targeted skills development in IT/ITeS sectors, robust startup incubation support, and creation of a location-independent digital services sector. This approach could enable Manipur's young talent to access national and international employment opportunities through remote work, business process outsourcing, software development, and digital entrepreneurship – independent of physical connectivity constraints – thereby maximizing the SEZ's potential for sustainable digital economy growth and employment generation. **Bio-Economy formalization and industrial integration:** Developing Manipur's exceptional NTFP biodiversity and traditional medicinal plant knowledge through foundation-to-scale pathway – initially focusing on community-level value addition via women's self-help groups, Forest

Producer Organizations, and certification capacity before bio-processing cluster development, with institutional partnerships on pilot value chains establishing sustainable harvesting protocols, intellectual property protections, quality standards, and market linkages that enable transition from informal collection to formalized pharmaceutical, nutraceutical, and wellness product sectors.

- **Eco-tourism as formalized services economy:** Leveraging Loktak Lake and Keibul Lamjao National Park's authentic differentiation as India's only floating national park through community partnership frameworks with revenue-sharing mechanisms for fishing communities, formalization of existing homestay networks, and graduated infrastructure sequencing – experiential circuits and cultural interpretation centers preceding larger hospitality investments – to position Manipur in premium responsible tourism segments while aligning economic incentives with environmental stewardship and building local stakeholder support.
- **Sports excellence and wellness economy development:** Building on Manipur's exceptional sporting legacy through establishment of Centers of Sporting Excellence, sports tourism infrastructure, sports science and training facilities, international competition hosting, and wellness tourism integration that positions Manipur as a national hub for combat sports and athletic development while creating employment pathways for youth in coaching, sports management, and allied sectors.
- **Handloom and handicrafts value chain modernization:** Leveraging Manipur's position with the highest concentration of handicrafts units in Northeast India, alongside Ima Keithel – Asia's largest all-women market – through digital platforms, design innovation, certification frameworks, and direct-to-consumer channels to integrate traditional textiles and handicrafts into national and international premium markets while preserving cultural authenticity and ensuring equitable benefit distribution to artisan communities, particularly women entrepreneurs.

²⁶⁹ Department of Information Technology, Government of Manipur. (n.d.). *Setting-up of IT Special Economic Zone (SEZ) / MIND Project*. <https://ditmanipur.gov.in/setting-up-of-it-special-economic-zone-sez-mind-project/>

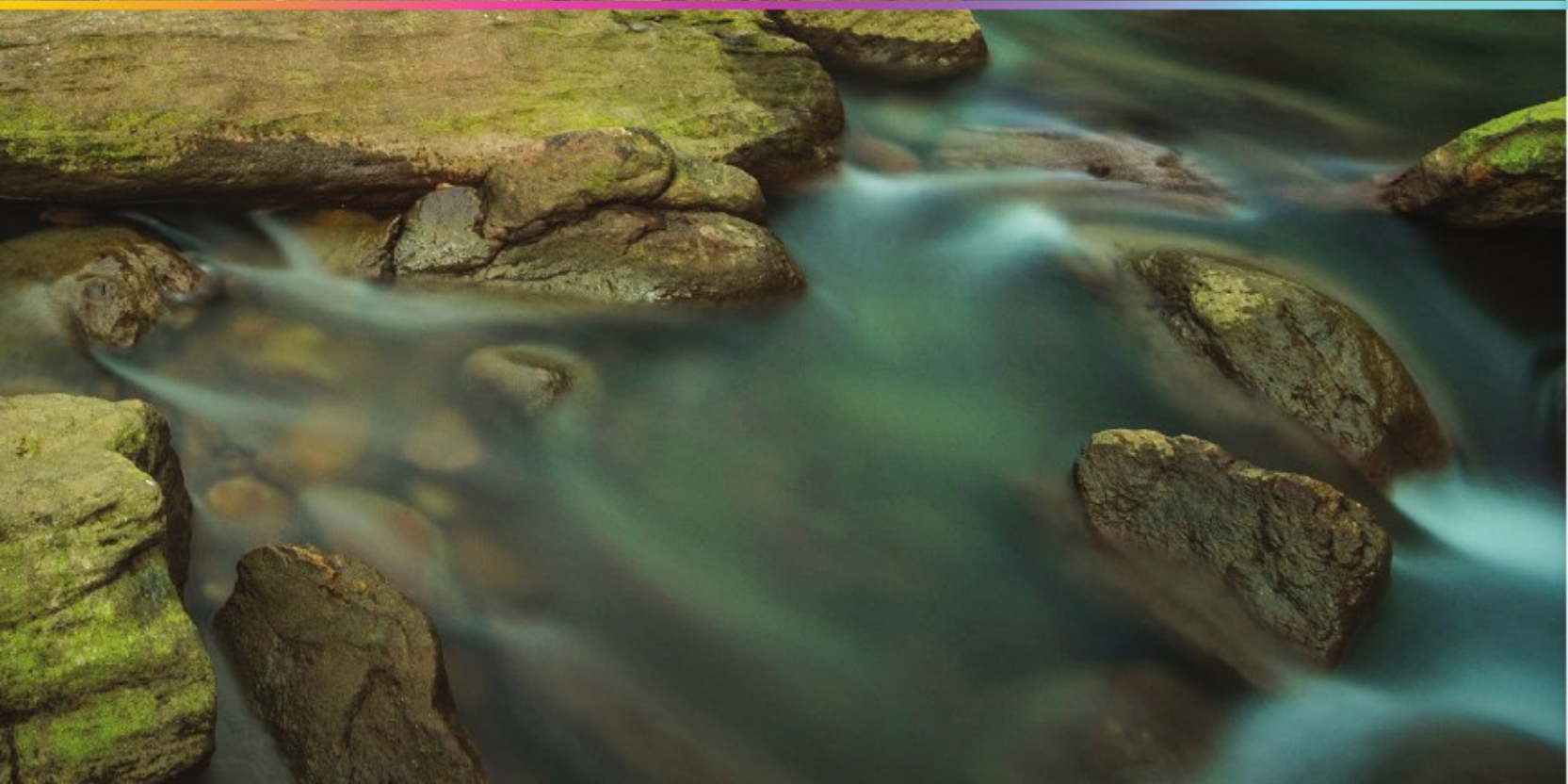


CHAPTER

14

Meghalaya -

Abode of clouds



14.1 Socio-economic profile and unique identity

Socio economic profile

Table 60: State overview (Meghalaya)

State overview ²⁷⁰	
Area	22,429 km ²
Population (2025)	3.4 million (Estimated)
GSDP (FY25)	INR59,626 crore
Per Capita GSDP (FY25)	INR1,74,089/US\$1,937
Contribution to NER GDP	5.8%
Population density	132 people per km ²
Unemployment Rate (2024)	6.2%
Urbanization Rate (2025)	20.1%
State Budgeted Expenditure (FY26)	INR30,003 crore
Number of MSMEs (2025)	67,883
Debt to GSDP (FY25)	37.6% (Estimated)
Literacy	94.2%
Youth population	39.9%
Human development index	0.65
Export Preparedness Index	27 th rank; Score: 37.5

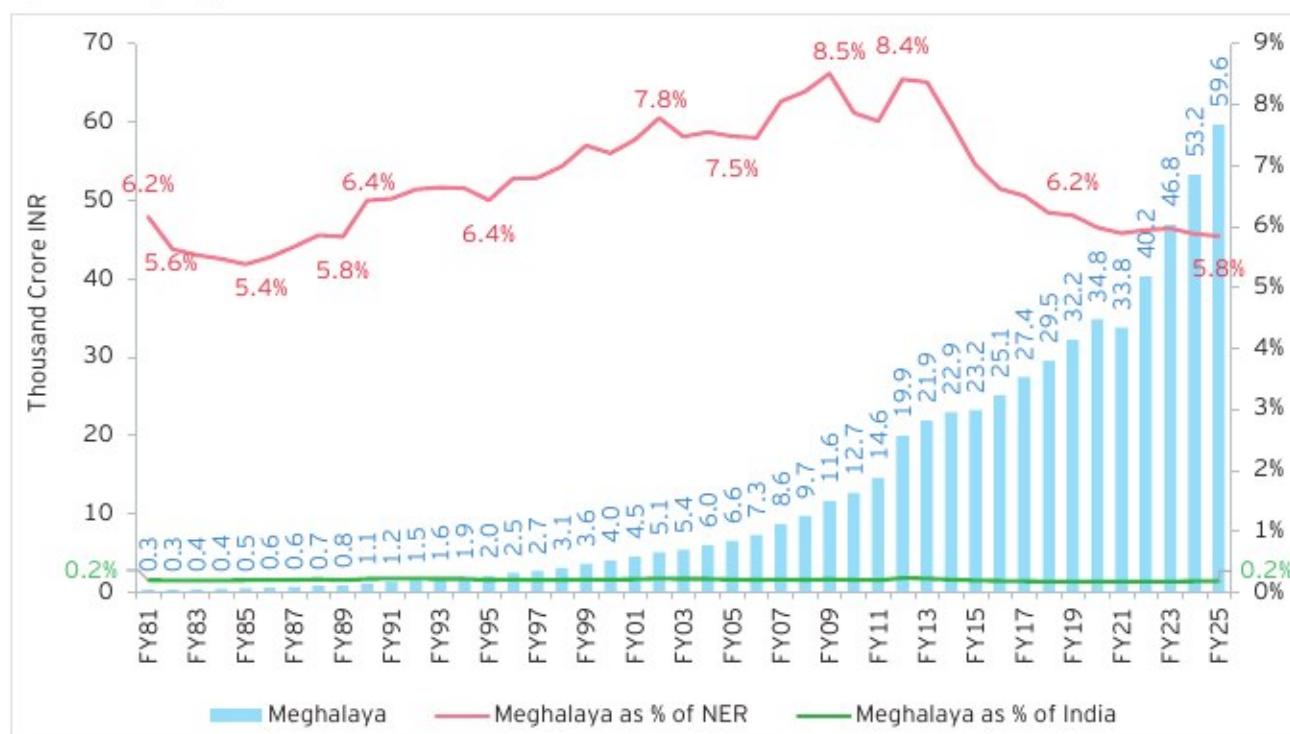
Meghalaya, positioned as India's northeastern gateway stands out with the highest rainfall in the country among Northeastern states, positioning it as a strategic gateway anchoring organic agriculture

leadership, tourism excellence, and cross-border trade corridors with Bangladesh.

²⁷⁰ Census of India, Meghalaya Industrial Promotion Policy 2024, PLFS 2023-24 NITI NCAER Macro and Fiscal Landscape of the State of Meghalaya, *NITI Aayog Export Preparedness Index 2024, Global Data Lab, "Subnational HDI (SHDI) – India (2022)" Census of India, 2011, MoSPI, Government of India, National Statistical Office (NSO), Ministry of Statistics and Programme Implementation. *Youth in India 2022* (June 29, 2022). https://www.mospi.gov.in/sites/default/files/publication_reports/Youth_in_India_2022/Youth_in_India_2022.pdf Government of India, Ministry of Statistics and Programme Implementation, Lok Sabha Unstarred Question No. 5160 (Answered on 02.04.2025), "PLFS Reports," Annexure - Annual Report, Periodic Labour Force Survey (PLFS) 2023-24. https://sansad.in/getFile/loksabhaquestions/annex/184/AU5160_LZipbs.pdf?source=pqals&utm_source



Figure 72: Meghalaya GSDP

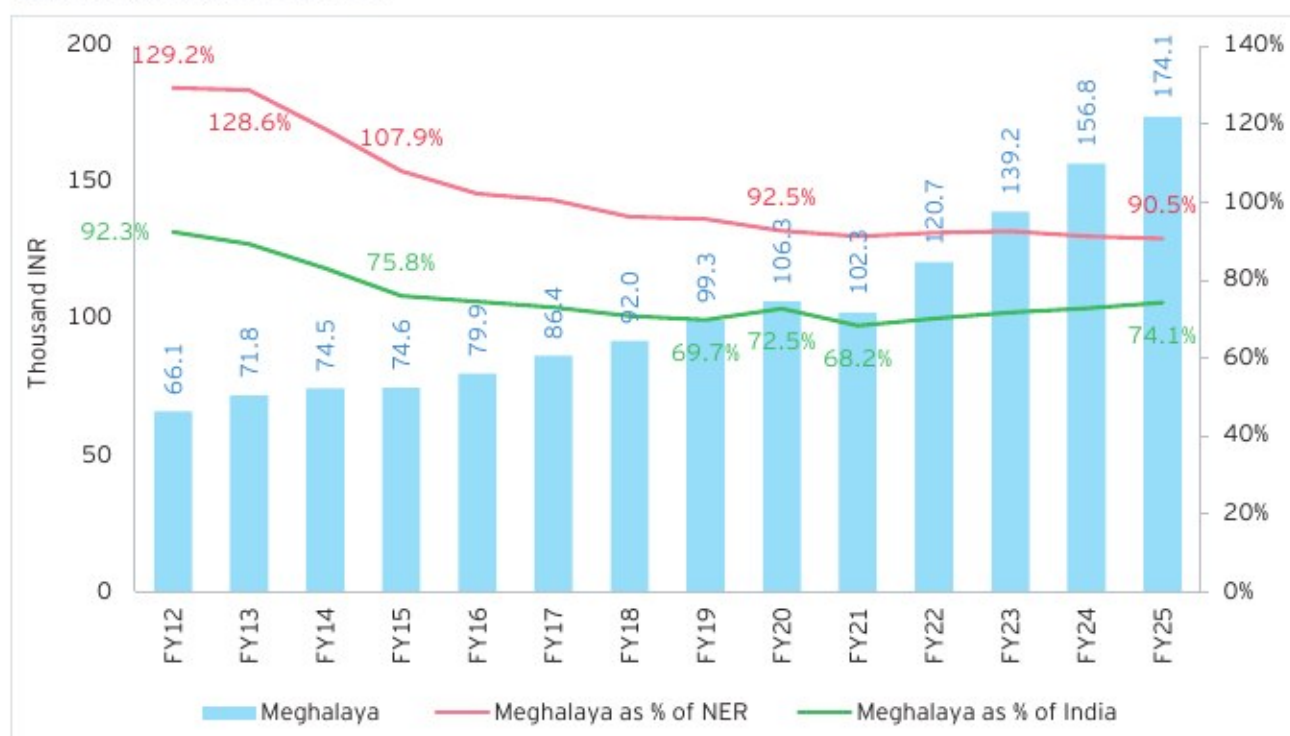


Source: MoSPI

Meghalaya has demonstrated substantial economic progression, with GDP expanding from INR360 crore in FY83 to INR59,626 crore in FY25, comprising 5.8% of NER's GDP. Per capita GDP has surged from

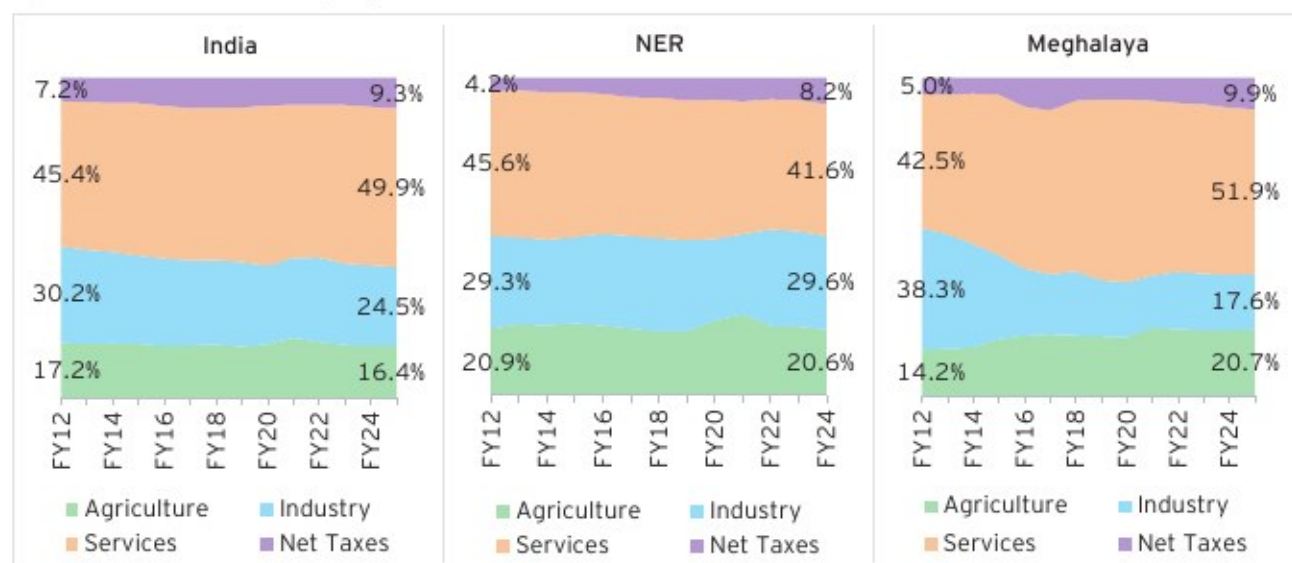
INR66,062 in FY12 to INR1,74,089 by FY25, reaching 74% of national average in FY25, lower compared to several NER peers.

Figure 73: Meghalaya per capita GSDP



Source: MoSPI

Figure 74: India vs NER vs Meghalaya sectoral shares



Source: World Bank, MoSPI

Meghalaya's agricultural sector accounts for 20.7% of GVA in FY25, marginally higher than the NER average and moderately above the national average, indicating that productivity gains in agriculture can have significant potential to accelerate overall economic growth. While services currently constitute the largest share at 51.9%, industry has contracted sharply to 17.6%, highlighting severe deindustrialization challenges. The notable agricultural base presents a substantial leverage point for structural transformation, though industrial revitalization remains critical for balanced economic development and income growth acceleration.

In human development, Meghalaya reached a literacy rate of 94.2% in 2024, reflecting ongoing challenges compared to the national average, marking progress from earlier decades but requiring accelerated interventions. The unemployment rate stands at 6.2% (2024), above the national average, while the state's Human Development Index is 0.65, reflecting challenges in healthcare availability, income generation, and access to quality services, especially in remote and rural areas. With an urbanization rate of 20.1% (2025)²⁷¹ and population density of 132 people per sq. km, the state's concentrated settlement pattern in urban centers contrasts with dispersed rural populations, necessitating targeted service delivery models to bridge development gaps across its 22,429 sq. km territory.

Meghalaya ranks 27th on the Export Preparedness Index²⁷², constrained by infrastructure deficits, connectivity challenges, and regulatory inefficiencies.

However, strategic initiatives including multi-modal connectivity upgrades through airports, improved road networks, and cross-border linkages with Bangladesh present significant opportunities to enhance economic growth and boost exports, especially in value-added organic agriculture, turmeric, and tourism products. The state's 67,883 MSMEs (FY2025)²⁷³ and budget allocation of INR30,003 crore (FY26) provides foundational capacity for enterprise development and infrastructure expansion critical to unlocking trade potential and reversing industrial decline.

Meghalaya's Unique Selling Proposition and unique identity

Meghalaya's economic identity is anchored in its position as NER's sustainable tourism and artisan manufacturing hub. The state's Living Root Bridges, cultivated by Khasi communities²⁷⁴, form a distinctive, sustainable tourist attraction that differentiates Meghalaya within regional markets. Agricultural competitiveness derives from high-value products including Lakadong turmeric, Khasi mandarin, pineapple, spices, and floriculture that benefit from GI recognition and natural-farming practices supporting premium market positioning. High-quality bamboo and cane craftsmanship provides design-led, sustainable products with strong domestic and export potential, creating pathways for premium market access and value capture in specialty tourism and artisan segments.

²⁷¹ Ministry of Health and Family Welfare, *Report of the Technical Group on Population Projections for India and States 2011-2036*

²⁷² NITI Aayog Export Preparedness Index 2022

²⁷³ Ministry of Micro, Small and Medium Enterprises, *State-Wise Udyam Registration - MSME Dashboard*

²⁷⁴ UNESCO <https://whc.unesco.org/en/tentativelists/6606/>



The state's large limestone reserves support a growing cement and mineral-processing cluster, with BBIN corridor access linking Meghalaya to Bangladesh, Bhutan, and Nepal for trade and logistics. Policy incentives including subsidies on renewable systems support solar, biotech, and zero-discharge manufacturing, positioning Meghalaya as a green-industrial state. This strategic connectivity creates direct export routes that reduce transportation costs while enabling value-added manufacturing proximate to raw material sources, establishing Meghalaya as a multi-modal trade gateway for regional value chain participation.

Meghalaya's creative and cultural economy, anchored by major music festivals and live-performance events including the Shillong Cherry Blossom Festival

attracting tourists annually, creates a regional hub for music, arts, and cultural tourism that generates employment while differentiating the state's hospitality sector. Infrastructure priorities include establishing cold chain networks for agricultural exports, processing facilities converting GI products into shelf-stable formats meeting international standards and accelerating broadband deployment to universal coverage enabling knowledge economy participation. Implementing renewable energy parks with dedicated transmission corridors and creating artisan design centers with e-commerce integration might position Meghalaya as the gateway for sustainable, experience-driven economic development driving resilience and differentiated integration into regional and global value chains.

14.2 Meghalaya's 10 recommended priority areas

10 priority areas for Meghalaya

1. Tourism & Hospitality
2. Education
3. Food Processing
4. IT / ITeS
5. Creative Industry
6. Power & Renewable Energy
7. Sustainable Infrastructure & Transport
8. Financial Services
9. Healthcare
10. Handloom & Handicrafts

#1 Tourism and hospitality

Natural and cultural heritage drawing ~1.2 million²⁷⁵ tourists annually position Meghalaya as an emerging destination with untapped potential for high-value tourism development. The state's globally unique Living Root Bridges, extensive cave systems, pristine waterfalls, and vibrant cultural festivals create compelling differentiation within regional and international markets. Yet homestays and basic infrastructure remain limited, constraining extended visitor stays and premium segment capture despite possessing distinctive assets capable of commanding higher spending and longer durations compared to conventional tourism destinations.

Investing in eco-tourism, adventure tourism, and heritage circuits could unlock deeper market penetration and visitor satisfaction. Standardized accommodation infrastructure, quality-certified lodging facilities, and integrated tourism services are essential for attracting travelers seeking authentic, experience-driven destinations. Improved connectivity between tourist sites, professional guide services, and safety infrastructure for adventure activities can enhance the overall visitor experience while enabling Meghalaya to compete effectively with established tourism destinations in India and Southeast Asia.

Strategic development requires establishing eco-adventure clusters that seamlessly link Living Root Bridges with national parks, waterfall sites, and cultural villages, supported by boutique hotels and community-managed homestays offering authentic local experiences. Adventure tourism infrastructure including trekking routes, rock climbing facilities, and water sports amenities must meet international safety standards while preserving environmental integrity. Festival-linked tourism packages leveraging Meghalaya's music and cultural events, combined with digital marketing through travel aggregators and international partnerships, might expand market reach. Backward linkages with local communities allow livelihood generation and cultural authenticity, while forward integration through online booking platforms and institutional tie-ups with travel operators can position Meghalaya as a premier sustainable tourism destination driving inclusive economic growth.

²⁷⁵ Government of Meghalaya, Meghalaya Tourism Homestay Scheme https://www.primemeghalaya.com/wp-content/uploads/2023/09/Homestay-Scheme_Doc.pdf

#2 Education

Despite Shillong's historical reputation as the educational hub of the Northeast, Meghalaya faces significant challenges in translating this legacy into contemporary educational outcomes and economic returns. Meghalaya's education infrastructure comprises ~14,600 schools and 55,160 teachers²⁷⁶, reflecting significant public investment in basic education delivery across rural and remote geographies. Efforts concentrate on improving access and quality in underserved areas, yet vocational and higher education coverage remains uneven, creating mismatches between educational outputs and workforce demands.

While foundational literacy infrastructure exists, gaps in skill-oriented education, technical training, and quality tertiary institutions constrain youth employability and perpetuate outmigration to other states for higher education and specialized skill development. Addressing these gaps requires expanding vocational training programs aligned with Meghalaya's growth sectors – tourism, creative industries, organic agriculture, food processing, and IT services. Establishing polytechnics, ITIs, and skill development centers in district towns provide accessible technical education alternatives to traditional academic pathways. Strengthening higher education institutions through improved faculty recruitment, research infrastructure, and industry partnerships enhances quality while retaining talented students within the state. Digital classrooms, e-learning platforms, and teacher training programs improve instructional quality across remote schools.

Strategic priorities include creating centers of excellence in areas matching Meghalaya's competitive advantages: hospitality management institutes linked to tourism growth, film and media academies supporting creative industries, agricultural universities focusing on organic farming and horticulture, and biotechnology programs leveraging medicinal plant resources. Public-private partnerships can establish industry-sponsored skill centers providing job-linked training with placement opportunities. By aligning educational investments with economic opportunities, Meghalaya can transform its young demographic into productive human capital driving entrepreneurship, innovation, and sustainable economic development.

#3 Food processing

Meghalaya's food processing sector presents a transformative opportunity to convert abundant raw materials into finished goods with distinct market identity and enhanced value capture. The state produces 1,44,000 MT²⁷⁷ of Pineapple annually and leads to spices including turmeric, ginger, and Khasi Mandarin, with a substantial farmer base engaged in organic farming. Seven PRIME hubs²⁷⁸ and the "Meghalaya Collectives Organic" brand support exports and value addition, providing compelling raw material advantages for establishing a differentiated product portfolio anchored in organic credentials and GI-tagged specialty crops.

Enhanced local food processing infrastructure enables deeper market penetration while reducing post-harvest losses and extending value chains. The sector benefits from organic certification frameworks and quality standardization mechanisms that facilitate premium market access in health-conscious domestic and international segments. PRIME hub infrastructure and collective branding initiatives create foundational capacity for quality control, traceability, and market linkages essential for competing in high-value organic and specialty food markets.

The strategic imperative involves establishing integrated processing ecosystems that transform Meghalaya's horticultural and agricultural abundance into branded, export-ready products. Critical focus areas include developing cold chain infrastructure across production clusters, establishing common facility centers for sorting, grading, and primary processing of Pineapple, Turmeric, and Ginger, and creating specialized zones for organic certification and value-added product development. Investment priorities encompass modern processing units for fruit pulping, spice grinding, dehydration technologies, and shelf-stable product formulations that leverage indigenous knowledge systems while meeting contemporary food safety standards. Development of backward linkages with Farmer Producer Organizations allows consistent raw material supply, while forward linkages through e-commerce platforms, institutional procurement mechanisms, and export channels expand market reach for Meghalaya's organic and GI-protected agricultural products.

²⁷⁶ Government of Meghalaya, Education Department, "Consolidation of Multiple Grant in Aid Schemes for Educational Institutions in Meghalaya" https://ssa.megeducation.gov.in/Document/Circulars/Consolidation_of_Government_Grants-Discussion_Paper.pdf

²⁷⁷ CEIC <https://www.ceicdata.com/en/india/production-of-horticulture-crops-in-major-states-fruits-pineapple>

²⁷⁸ Meghalaya Basin Management Agency (MBMA), Government of Meghalaya, *Expression of Interest (EOI) under CPPC Mode – Prime Hubs 2025*



#4 IT/ITeS

The IT policy launched in 2024 signals Meghalaya's intent to establish itself as a digital services hub, yet broadband coverage gaps, minimal data center infrastructure, and limited start-up incubation facilities constrain the sector's growth potential. While the state possesses a young, English-proficient workforce and favorable geographic positioning for serving international markets in compatible time zones, absence of Grade-A office spaces, unreliable power supply in certain areas, and insufficient technical training infrastructure deter IT and BPO firms from establishing operations despite policy incentives.

Expanding digital infrastructure forms the foundation for IT/ITeS growth. Achieving universal broadband connectivity through fiber optic networks and last-mile wireless solutions enables remote work models and distributed service delivery. Establishing data centers with reliable power backup, cybersecurity infrastructure, and international connectivity positions Meghalaya for cloud services, data processing, and enterprise IT operations. Creating plug-and-play IT parks with pre-built office spaces, shared facilities, and business support services reduces entry barriers for companies exploring northeastern expansion.

Meghalaya could target niche IT segments aligned with their competitive advantages rather than competing directly with established hubs. Geographic information systems (GIS) and remote sensing services leveraging the state's terrain diversity offer specialization opportunities. Content moderation, digital marketing, and creative services connect with the state's cultural economy strengths. Green technology and sustainability software development align with Meghalaya's environmental brand. Skill development programs must emphasize practical coding, software testing, data analytics, and digital communication skills through industry partnerships and placement-linked training. Incentivizing IT companies through tax holidays, employment subsidies, and infrastructure support – combined with promoting Meghalaya's quality of life advantages – can attract firms seeking cost-effective alternatives to saturated metros while generating high-value employment for educated youth.

#5 Creative industry

Meghalaya promotes creative industries through the Film Tourism Policy 2025 and Hello Meghalaya OTT platform, creating institutional frameworks for

content production and digital distribution. The state's vibrant music scene, cultural festivals, and scenic locations provide natural advantages for film production, live performances, and digital content creation. However, limited production infrastructure, skill gaps in technical filmmaking, and nascent monetization channels constrain the sector's ability to generate sustainable employment and attract external investment despite possessing cultural assets that resonate with youth audiences.

Upskilling youth in filmmaking, music production, digital content creation, and performing arts is critical for building a skilled workforce capable of supporting commercial creative ventures. Establishing production studios, post-production facilities, and content incubation centers could enable local creators to produce professional-quality output while reducing dependence on external production ecosystems.

Strategic priorities include developing film production clusters with equipment rental facilities, sound stages, and post-production infrastructure that attract external productions while building local capacity. Linking creative talent with commercial opportunities through industry partnerships, festival circuits, and digital platforms supports employment generation and revenue capture. Integrating creative industries with tourism by promoting filming locations, music festivals, and cultural experiences creates synergistic value chains. Investment in skilling programs covering cinematography, editing, music production, and digital marketing, combined with financial support mechanisms for independent creators, can position Meghalaya as a creative economy hub driving youth employment and cultural entrepreneurship across the northeastern region.

#6 Power and Renewable energy

Meghalaya's installed capacity stands at 651.78 MW²⁷⁹, with hydropower providing the dominant share while solar and distributed renewables remain significantly underutilized. Industrial demand frequently outstrips supply, creating power deficits that constrain manufacturing expansion and increase operational costs for existing enterprises. Energy reliability issues drive businesses toward captive generation, raising production costs and limiting industrial competitiveness despite the state's natural advantages in renewable resources.

Expanding generation capacity through small-hydro, solar, and captive power projects addresses immediate supply gaps while diversifying the energy mix. Small-hydro installations below 25 MW offer

²⁷⁹ IBEF Meghalaya State Presentation <https://www.ibef.org/states/meghalaya-presentation>

environmentally sustainable additions with minimal ecological disruption compared to large dams. Solar installations on industrial rooftops, commercial buildings, and degraded land parcels provide distributed generation close to consumption centers. Encouraging industries to develop captive renewable generation with surplus power sale provisions improves grid stability while reducing business energy costs.

Meghalaya can streamline clearances for renewable energy projects, establish wheeling and banking mechanisms enabling power trading, and upgrade transmission infrastructure to evacuate generation from remote sites. The state's high rainfall supports micro-hydro potential in numerous stream locations, requiring simplified approval processes and standardized PPAs for sub-1 MW installations. Industrial parks with dedicated solar or biomass generation backed by reliable grid connectivity attract energy-intensive manufacturing. Prioritizing renewable energy expansion not only meets industrial demand but positions the state as a clean energy producer capable of exporting surplus power to energy-deficit neighbors, generating revenue while supporting regional energy security.

#7 Sustainable infrastructure and transport

Meghalaya targets 100 MW²⁸⁰ of solar capacity by 2030, emphasizing public-private partnerships for EV charging infrastructure and battery storage systems as part of its green transition strategy. This renewable energy push addresses dual objectives: reducing fossil fuel dependence while creating clean technology entrepreneurship opportunities. However, implementation challenges include limited solar panel manufacturing ecosystems, financing constraints for decentralized renewable projects, and inadequate grid infrastructure to absorb variable renewable generation, potentially delaying ambitious capacity targets despite strong policy commitments.

Advancing renewable energy, green hydrogen, and biomass projects require coordinated action across infrastructure, financing, and technology domains. Solar rooftop programs for government buildings, commercial establishments, and residential complexes can rapidly distribute generation while reducing electricity costs. Biomass energy utilizing agricultural waste and forest residue addresses waste management challenges while generating power. Green hydrogen pilot projects leveraging Meghalaya's

clean energy potential position the state for emerging industrial applications and heavy transport decarbonization. Battery storage systems integrated with renewable installations allow grid stability and reliable power supply during variable generation periods.

Transport infrastructure must simultaneously pursue electrification and connectivity improvements. Establishing EV charging networks along tourism circuits, commercial centers, and highways accelerates electric vehicle adoption by addressing range anxiety. Incentivizing electric bus fleets for public transport reduces urban pollution while demonstrating government commitment to clean mobility. Road connectivity enhancements linking production clusters with markets and tourist destinations improve economic integration. By positioning sustainable infrastructure as an economic opportunity rather than compliance burden, Meghalaya can attract clean technology investments, green jobs, and establish itself as a model for environmentally responsible development in NER

#8 Financial services

Financial inclusion in Meghalaya shows progress but significant gaps persist, with ~7,50,000 PMJDY accounts and 4,74,790 RuPay debit cards issued as of 2023. While 2,49,157 cards remain activated, highlighting engagement with formal banking infrastructure, the state's digital payment adoption lags below national averages, constraining cashless transaction growth and limiting access to credit, insurance, and digital financial products essential for entrepreneurship and economic participation.²⁸¹

Accelerating financial deepening requires targeted interventions beyond account creation. Expanding bank branch networks and ATM infrastructure in underserved rural areas reduces physical access barriers, while business correspondent models leveraging local entrepreneurs bring banking services to remote villages. Promoting digital literacy campaigns focused on mobile banking, UPI adoption, and safe digital transaction practices addresses usage gaps among populations with limited technological familiarity. Strengthening microfinance institutions and self-help group linkages provides credit access for women entrepreneurs and small businesses excluded from formal lending channels.

Meghalaya can prioritize financial product innovation tailored to local economic activities – crop insurance

²⁸⁰ Government of Meghalaya, Meghalaya Power Policy 2024 https://meghalaya.gov.in/sites/default/files/documents/Meghalaya_Power_Policy_2024.pdf

²⁸¹ NABARD State Focus Paper Meghalaya 2024-25 <https://databank.nedfi.com/sites/default/files/2025-09/State%20Focus%20Paper%20Meghalaya%2C%202024-25.pdf>



for farmers, working capital loans for tourism operators, equipment financing for artisans, and startup credit for youth entrepreneurs in creative industries. Integrating financial services with government welfare schemes through direct benefit transfers enhances efficiency while familiarizing beneficiaries with digital payments. Establishing fintech partnerships and payment gateway infrastructure at tourist sites, markets, and commercial centers normalizes cashless transactions. By building a comprehensive financial ecosystem linking banks, cooperatives, fintech's, and community institutions, the state can achieve inclusive financial access that empowers economic participation, enables asset building, and supports entrepreneurial growth across urban and rural populations.

#9 Healthcare

With over 8% of state budget²⁸² allocated to healthcare, Meghalaya demonstrates substantial fiscal commitment supporting district hospitals, community health centres, and primary health centres across its geography. The Meghalaya Health Insurance Scheme provides 56% coverage²⁸³ to families, enabling universal health access and OPD benefits that reduce out-of-pocket expenditure for vulnerable populations. Despite these policy frameworks, gaps persist in specialized tertiary care availability, medical professional recruitment, and advanced diagnostic capabilities, limiting the state's capacity to retain patients requiring complex treatments who currently travel to other states.

Building robust healthcare capacity demands multi-pronged interventions beyond infrastructure expansion. Establishing medical colleges and nursing institutions creates a sustainable talent pipeline while addressing chronic workforce shortages through competitive recruitment packages and rural posting incentives. Upgrading diagnostic infrastructure – imaging equipment, pathology labs, telemedicine connectivity – enables early detection and remote consultation critical for serving dispersed hill populations. District-level multi-specialty hospitals with strong referral networks to tertiary centers allows care continuity across severity levels.

Meghalaya's healthcare transformation could leverage its unique medicinal plant biodiversity by integrating

traditional medicine systems with modern healthcare delivery through wellness centers and preventive care programs. Digital health initiatives including electronic health records, mobile health clinics, and telemedicine networks can overcome geographic barriers inherent to hilly terrain. Public-private partnerships for specialized care facilities, cardiology, oncology, trauma centers – combined with expanded insurance coverage for catastrophic illnesses, could reduce financial burden while improving health outcomes. These investments position Meghalaya not merely as a service provider but as a healthcare hub generating skilled employment, retaining patient spending within the state economy, and delivering quality, accessible medical services that enhance human capital development essential for broader economic growth.

#10 Handloom and handicrafts

Handloom and handicrafts are a priority for Meghalaya because they provide widely distributed, household-level employment across Khasi, Garo, and Jaintia communities, with women predominantly engaged in backstrap-loom weaving and allied crafts. The sector fits the state's fragmented landholdings and dispersed settlements, requires minimal fixed capital, and relies on locally available inputs such as bamboo, cane, and natural fibres, allowing income generation in remote rural areas where industrial employment options are limited.

The sector also has a strong market linkage to Meghalaya's tourism economy, with traditional shawls, stoles, bamboo crafts, and wood products forming a core component of visitor spending in hubs such as Shillong, Cherrapunji, and Mawlynnong. Unlike volume-driven manufacturing, value realization is driven by design distinctiveness, cultural authenticity, and small-batch production, which aligns with Meghalaya's scale and ecological constraints.

Strategically, handloom and handicrafts offer high employment elasticity per unit of public investment, support women's economic participation, and reinforce the state's cultural branding. Sector growth is therefore anchored in value addition, quality standardization, and direct market access, positioning it as a livelihood-intensive priority rather than a mass-production industry.

²⁸² Government of India, News on Air, "Meghalaya Allocates 8% Of State Budget To Health, Highest In India" <https://www.newsonair.gov.in/meghalaya-allocates-8-of-state-budget-to-health-highest-in-india/>

²⁸³ Government of Meghalaya, Sustainable Development Goals Budget FY 2023-24 https://megfinance.gov.in/budget_documents/2023-2024/others/sdg_budget.pdf

14.3 Integration with regional value chains

Rubber

In FY24, Meghalaya produced 11,775 tonnes of rubber²⁸⁴ from an area of 9,437 hectares²⁸⁵ under cultivation, indicating a sufficiently established plantation base to support productivity enhancement, quality upgrading, and stronger integration with regional rubber processing and manufacturing clusters.

Rubber cultivation in Meghalaya suits the state's high rainfall and provides stable income to small farmers. Latex is processed locally into sheet or crumb rubber. Basic processing infrastructure such as village-level smokehouses and cooperative units supports value addition. Meghalaya contributes to the North-East rubber value chain by supplying raw and processed rubber to regional industries.

Spices (Ginger & Turmeric)

On an annual basis, Meghalaya produces ~16,000–20,000 metric tonnes²⁸⁶ of turmeric and around 60,000 metric tonnes²⁸⁷ of ginger, underscoring a scale sufficient to support organised processing, branding, and premium market access within the North-East turmeric and ginger value chain.

Meghalaya stands out for turmeric and ginger cultivation due to its high rainfall, fertile soils, and largely organic production systems. The state is known for Lakadong turmeric with high curcumin content and flavour-rich ginger. Processing products such as dried slices, powder, and seed ginger helps improve value and market reach. These strengths make Meghalaya an important quality supplier in the North-East turmeric and ginger value chain.

Digital / IT Hub

Meghalaya is emerging as a digital and IT hub, supported by improved connectivity, a young English-speaking workforce, and a supportive policy environment. The historical presence of schools, universities and technical institutions contributes educated and English-speaking youth who can be skilled graduates for IT services, BPOs, and digital startups. Incubation centres, skill development programs, and expanding digital infrastructure further strengthen the ecosystem.

This momentum is anchored by the development of a 40-acre technology park²⁸⁸ in New Shillong and a base of over 110 colleges and educational institutions²⁸⁹, together indicating the physical and human-capital capacity to scale IT-enabled services, knowledge-based enterprises, and digitally driven employment in the state.

Pineapple

In 2023–24, Meghalaya recorded a pineapple production capacity of 145,499 metric tonnes²⁹⁰, contributing ~8% of India's total pineapple output²⁹¹, underscoring the scale and quality depth required to support organised processing, branding, and premium market integration.

Meghalaya's role in value chain is defined by quality-led horticulture aligned to processing suitability. The state's agro-climatic conditions support high-brix Kew pineapple, which is suited for juice, candy and dehydration formats where sugar content and flavour stability determine processing yields. This positions Meghalaya at the premium-input stage of the chain, allowing downstream processing and potential niche retail segments.

²⁸⁴ North Eastern Development Finance Corporation Ltd. (NEDFi). NEDFi Databank. <https://databank.nedfi.com/>

²⁸⁵ North Eastern Development Finance Corporation Ltd. (NEDFi). NEDFi Databank. <https://databank.nedfi.com/>

²⁸⁶ North Eastern Development Finance Corporation Ltd. (NEDFi). NEDFi Databank. <https://databank.nedfi.com/>

²⁸⁷ North Eastern Development Finance Corporation Ltd. (NEDFi). NEDFi Databank. <https://databank.nedfi.com/>

²⁸⁸ North Eastern Development Finance Corporation Ltd. (NEDFi). NEDFi Databank. <https://databank.nedfi.com/>

²⁸⁹ North Eastern Development Finance Corporation Ltd. (NEDFi). NEDFi Databank. <https://databank.nedfi.com/>

²⁹⁰ North Eastern Development Finance Corporation Ltd. (NEDFi). NEDFi Databank. <https://databank.nedfi.com/>

²⁹¹ Ministry of Food Processing Industries, Government of India. (2023). Study on infrastructure gaps - Pineapple (Assessment under Operation Greens). https://www.mofpi.gov.in/sites/default/files/study_on_infrastructure_gaps_-_pineapple.pdf



14.4 Comparative advantage analysis

Meghalaya's comparative positioning is defined by a combination of mineral resource endowment, cave tourism potential, strategic connectivity as NER's gateway, and organic agriculture leadership. These advantages operate across three layers – state level within the NER, regional level within India, and international level relative to Southeast Asia and global markets.

State advantage versus NER

Youth demographics and human capital

Demographic composition with 70% population under 35²⁹² and strong English proficiency fuels talent advantage across creative industries, digital services, and knowledge economy sectors. This positions the state favorably against NER peers experiencing demographic aging or lower educational attainment, particularly for creative industries, digital services, and knowledge economy participation where youth cohorts and language capabilities are critical inputs.

The demographic dividend is time-sensitive: this youth bulge represents immediate workforce availability for scaling modern service sectors and attracting investments requiring trainable talent pools but converts to economic liability if employment opportunities don't materialize before this cohort ages or migrates permanently to metros. Realizing this advantage requires translating demographic potential into actual employability through targeted skill development aligned with market demand and creating sufficient formal employment absorption to retain talent within the state.

Creative and digital economy enablers

Meghalaya possesses distinctive creative economy advantages within NER rooted in Shillong's established identity as the region's music and cultural capital positioning no other northeastern state credibly replicates. The city's multi-decade legacy in music has cultivated embedded creative infrastructure, translating into genuine comparative advantage. Meghalaya produces disproportionate creative talent relative to population, commands national recognition in music and arts circuits, and attracts creative tourism unmatched by other NER states. Beyond music, this foundation extends to

digital content production, graphic design, and media services where educational infrastructure and English proficiency create talent pools servicing national clients at competitive rates versus metro centers.

Policy enablers under **Meghalaya Industrial and Investment Promotion Policy (MIIPP) 2024** provide supporting conditions, but Meghalaya's differentiator is existing cultural brand equity and creative community depth. Sustaining this advantage requires preventing talent outmigration by demonstrating viable creative livelihoods, expanding digital infrastructure reliability beyond Shillong, and building commercial linkages that convert cultural capital into sustained economic returns.

Regional advantage versus rest of India

Tourism

Young population concentration fills hospitality roles creating service delivery advantage; 100% SGST²⁹³ reimbursement boosts competitiveness against other tourist destinations. Combined with unique natural assets, positions Meghalaya as cost-competitive yet differentiated tourism destination within India's growing domestic and international travel markets.

Living Root Bridges represent a unique tourism asset that, combined with cave systems and rainforest appeal, contributes to Meghalaya's tourism sector drawing 1.42 million tourists (4.1% GSDP, 50,000 jobs)²⁹⁴, offering distinctive positioning compared to other wildlife attractions. This unique natural and cultural heritage creates distinctive tourism positioning, establishing Meghalaya as a premier eco-adventure destination with authentic, non-replicable attractions that command premium visitor interest and spending.

Green sourcing and forest biomass

Meghalaya's forest cover of 75.65%²⁹⁵, among the highest in India, provides substantial competitive advantages for green sourcing, sustainable manufacturing positioning, and eco-tourism credibility that most Indian states cannot replicate. This natural capital base supports forest biomass availability at 80.0%²⁹⁶, enabling circular economy applications and renewable energy feedstock potential with

²⁹² Government of Meghalaya, Office of the Chief Minister https://meghalaya.gov.in/sites/default/files/press_release/CMO_104.pdf

²⁹³ Meghalaya Industrial and Investment Promotion Policy 2024 <https://investmeghalaya.gov.in/resources/homePage/17/megeddb/policies/mipp2024.pdf>

²⁹⁴ Government of Meghalaya, Draft Tourism Policy 2022 https://meghalaya.gov.in/meghalaya/sites/default/files/documents/Draft_Tourism_Policy_Meghalaya_2022.pdf

²⁹⁵ Indian State of Forest Report 2023 https://fsi.nic.in/uploads/isfr2023/isfr_book_eng-vol-2_2023.pdf

²⁹⁶ Meghalaya Basin Development Authority <https://mbda.gov.in/sites/default/files/carbon-footprint-report-meghalaya.pdf>



environmental credentials increasingly valued by conscious consumers and ESG-oriented investors. While heavily forested states like Arunachal Pradesh possess comparable cover, Meghalaya's relative accessibility, infrastructure connectivity, and proximity to major consumption markets in eastern India create superior commercial viability for monetizing these environmental assets.

Compared to resource-scarce or heavily deforested states across peninsular and northern India, Meghalaya offers manufacturers and tourism operators authentic sustainability positioning – organic inputs, carbon sequestration capacity, biodiversity richness – that cannot be artificially created and commands premium positioning in markets where environmental authenticity is scrutinized. Within national value chains, this positions Meghalaya for industries requiring verified green credentials: organic food processing, eco-certified manufacturing, nature-based tourism, carbon credit generation, and sustainable biomass utilization.

International advantage versus SE Asia and global markets

Sustainable tourism differentiation

Meghalaya's living root bridges, exceptional rainfall regimes, and unique biodiversity create a distinctive monsoon-adventure and ecological tourism positioning that differentiates fundamentally from dominant Southeast Asian tourism products centered on tropical beaches, temple circuits, and coastal resorts. While Southeast Asia captures mass-market leisure tourism through established infrastructure, scale economies, and price competitiveness.

Meghalaya offers experiential alternatives appealing to growing segments of responsible travelers seeking authentic ecological immersion, cultural heritage

engagement, and nature-based adventures unavailable in commoditized beach destinations.

The state's environmental authenticity – functional living architecture, intact biodiversity corridors, indigenous cultural practices integrated with landscape – provides credibility that purpose-built eco-resorts or greenwashed tourism operations cannot replicate, addressing increasing global consumer skepticism toward superficial sustainability claims. Globally, Meghalaya competes not on volume or amenity luxury but on experiential uniqueness and ecological genuineness – positioning within niche adventure tourism, nature photography, biodiversity tourism, and cultural immersion markets where Southeast Asia's mass-market infrastructure becomes disadvantage rather than asset.

High-value Lakadong turmeric

Lakadong Turmeric, with curcumin content of 7%-12%²⁹⁷, significantly exceeding conventional varieties globally and rivaling or surpassing leading origins including those in Southeast Asia – represents Meghalaya's most distinctive agricultural competitive advantage in international spice markets. This superior phytochemical profile commands substantial price premiums where curcumin concentration determines commercial value for pharmaceutical, nutraceutical, and culinary applications, positioning Lakadong as a premium specialty product rather than commodity turmeric competing on volume or price

Combined with GI certification and organic cultivation protocols, Meghalaya offers global buyers a verified, traceable, high-curcumin organic turmeric that addresses growing international demand for clean-label, therapeutically potent spice ingredients – a market segment where Southeast Asian producers operating at larger scale, but lower curcumin levels cannot directly compete on quality differentiation.

²⁹⁷ Government of Meghalaya, Meghalaya Farmers' (Empowerment) Commission
https://meghalaya.gov.in/sites/default/files/press_release/Press_Release_161.pdf

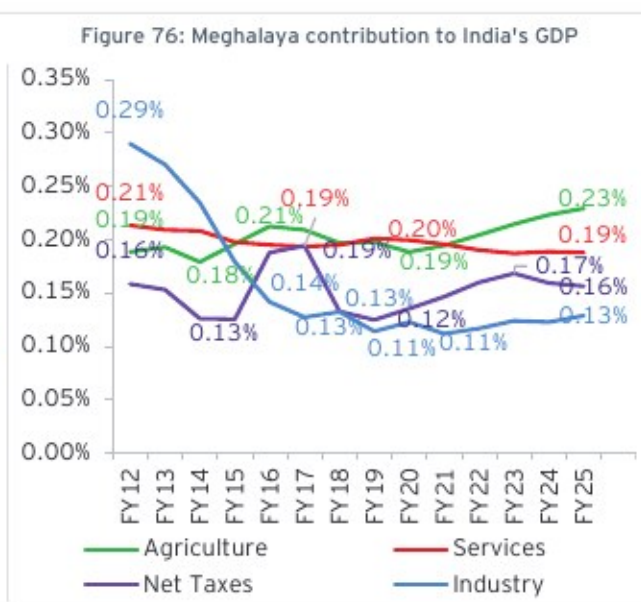
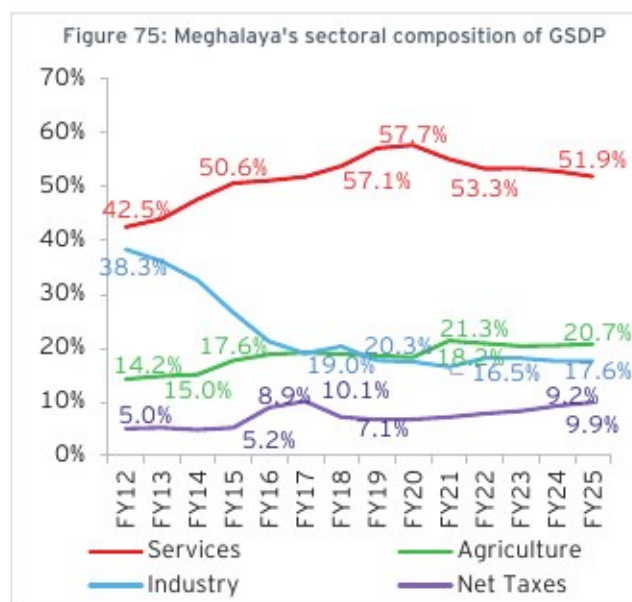


14.5 State economic analysis

Structure of Meghalaya's economy

Meghalaya's economy shows steady structural maturity with services maintaining sustained dominance while agriculture has declined modestly from its historically significant position. Industry's sharp contraction underscores persistent deindustrialization pressures and structural constraints, while rising net taxes reflect gradual fiscal strengthening and improved revenue mobilization capacity.

Meghalaya's national comparative advantage has strengthened moderately in agriculture, reflecting organic agriculture and specialty crops positioning despite modest absolute scale. Industry has collapsed dramatically, signaling severe loss of manufacturing competitiveness and structural weakening. Services remain stable but significantly under-represented in India's economy, underscoring need for strategic interventions to reverse industrial decline and scale service sector efficiencies to drive competitiveness.



Centre for Monitoring Indian Economy Pvt. Ltd. (n.d.). States of India [Database]. <https://statesofindia.cmie.com>
Source: MoSPI, EY Analysis

Agriculture: Modest growth but limited national scale

Agriculture's share of Meghalaya's GSDP increased from 14.2% in FY12 to 20.7% in FY25, reflecting sustained focus on the primary sector, and the state's share of India's agricultural GDP rose modestly from 0.19% in FY12 to 0.23% in FY25. This growth is encouraging, especially given the state's organic agriculture potential and specialty crops like Lakadong Turmeric, yet highlights limited absolute scale relative to the national landscape despite premium positioning advantages.

Industry: Collapsing contribution and severe deindustrialization

Industry has contracted dramatically from 38.3% of GSDP in FY12 to 17.6% in FY25, showing severe structural decline, and its national contribution plummeted from 0.29% in FY12 to 0.13% in FY25, highlighting a persistent manufacturing and industrial

gap relative to India's benchmark and signaling urgent need for reindustrialization strategies.

Services: Maintaining dominance with stable national presence

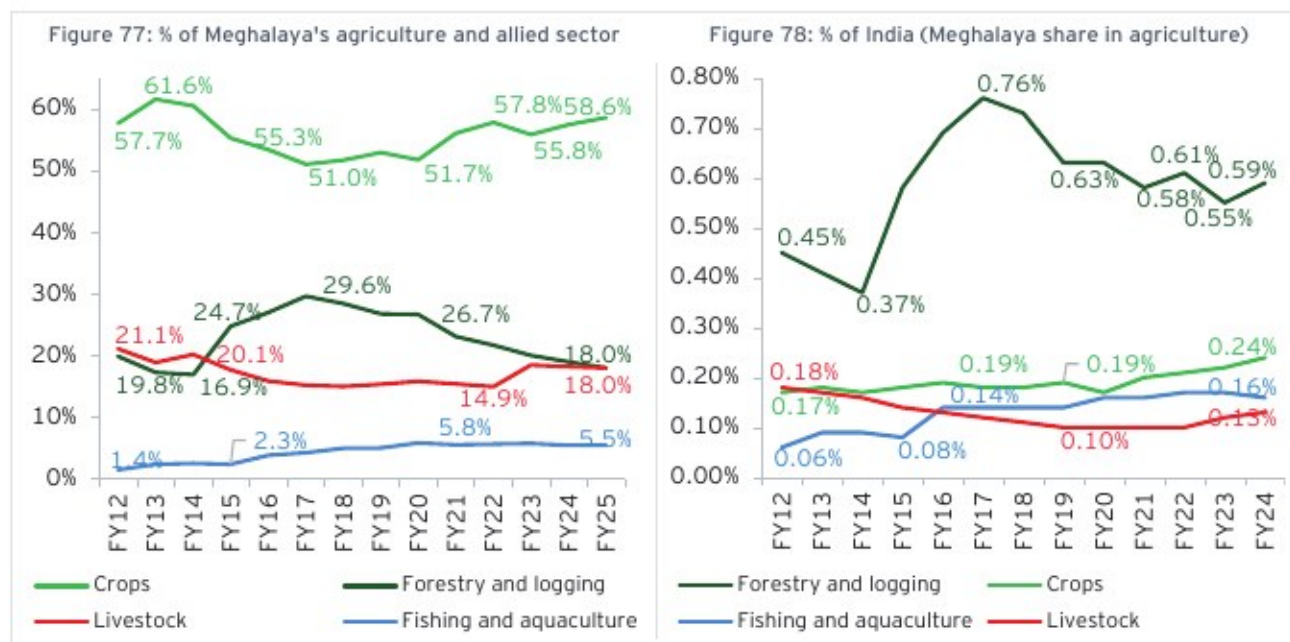
Services surged from 42.5% of GSDP in FY12 to 51.9% in FY25, becoming the dominant sector and reflecting structural transition toward tertiary economy – and Meghalaya's share of India's services GDP remained stable around 0.19-0.21%, indicating steady presence but limited scale against major hubs despite tourism and digital services potential.

Net taxes: Fiscal strengthening with volatility

Net tax revenue climbed from 5.0% of GSDP in FY12 to 9.9% in FY25, signaling stronger fiscal capacity, and its contribution to India's net tax pool remained at 0.16% in both FY12 and FY25, though experiencing volatility in between with intermediate peaks, marking progressive gains in revenue mobilization despite the state's compact economic base.

14.6 Sectoral structure of Meghalaya's economy

Agriculture and Allied Sector



Centre for Monitoring Indian Economy Pvt. Ltd. (n.d.). States of India [Database]. <https://statesofindia.cmie.com>

Source: MoSPI, EY Analysis

Internal structure of Agriculture and Allied Activities

Crops dominate Meghalaya's agriculture sector, ranging from 57.7% in FY12 to 58.6% in FY25, maintaining consistent dominance throughout the period and reflecting the state's strong focus on horticulture and specialty agricultural production.

Forestry and logging have remained a secondary component, declining from 19.8% in FY12 to 18.0% in FY25, though peaking at 29.6% in FY17, indicating fluctuations in forest-based economic activities and timber production.

Livestock contribution has declined from 21.1% in FY12 to 18.0% in FY25, showing reduced emphasis as the state shifts agricultural priorities toward crop-based value chains and organic production systems.

Fishing and aquaculture showed modest growth from 1.4% in FY12 to 5.5% in FY25, highlighting gradual development but remaining the smallest component of the agriculture sector.

Meghalaya's share in India's agriculture

Forestry and logging national share increased from 0.45% in FY12 to 0.59% in FY24, though peaking dramatically at 0.76% in FY14, indicating fluctuating comparative advantage with its natural forest resources.

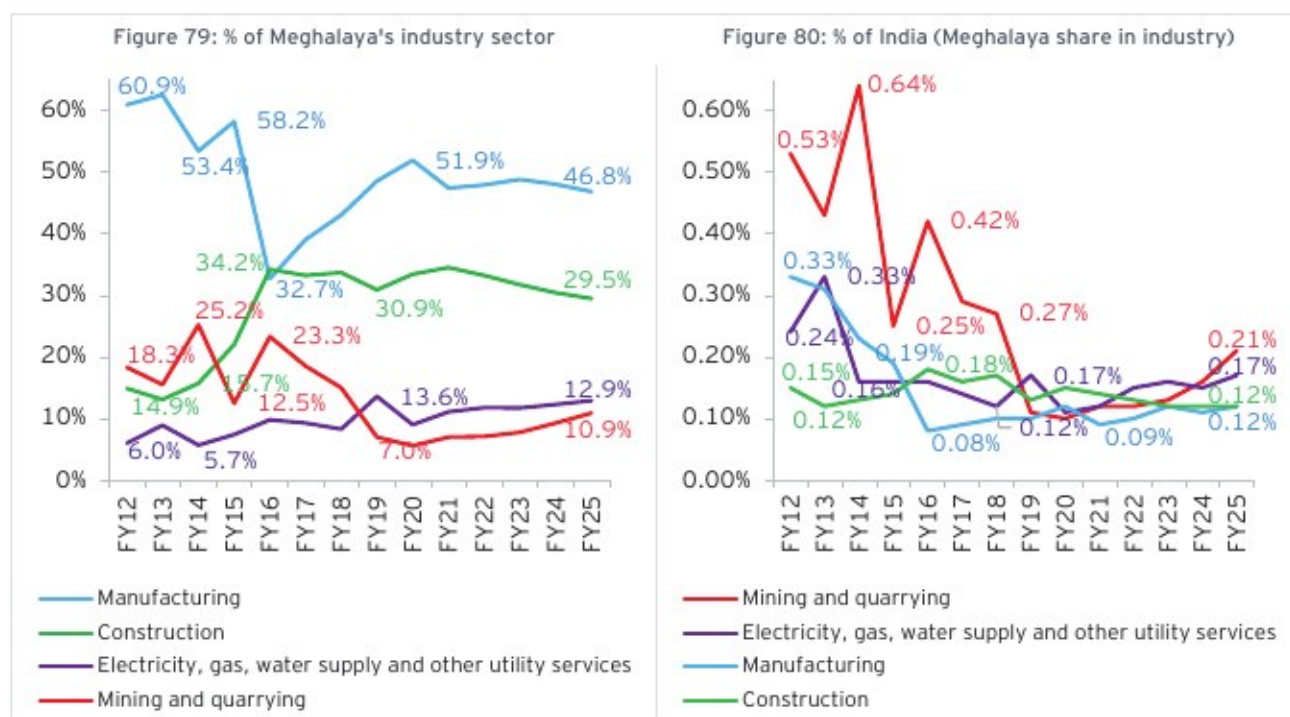
Crops share in India rose from 0.17% in FY12 to 0.24% in FY24, showing gradual strengthening and improved positioning in national agriculture markets, particularly for organic and specialty crops.

Livestock contribution to India remained stable, ranging from 0.18% in FY12 to 0.13% in FY24, showing modest national presence.

Fishing and aquaculture had marginal presence, rising from 0.06% in FY12 to 0.16% in FY24, showing gradual improvement but very limited national scale.



Industry sector



Centre for Monitoring Indian Economy Pvt. Ltd. (n.d.). States of India [Database]. <https://statesofindia.cmie.com>
Source: MoSPI, EY Analysis

Internal structure of industry

Manufacturing emerged as the dominant sub-sector, starting at 60.9% in FY12, though declining sharply to 32.7% in FY16, before recovering and stabilizing at 46.8% by FY25. This reflects Meghalaya's historical manufacturing base, though volatility indicates structural challenges and competitiveness pressures.

Construction started at 14.9% in FY12, peaked at 34.2% in FY16, but has since declined to 29.5% in FY25, indicating fluctuations in infrastructure-driven growth relative to other industrial components.

Mining and quarrying started high at 18.3% in FY12, peaked at 25.2% in FY14, before declining dramatically to 10.9% in FY25, showing declining contribution from extraction-based activities despite the state's mineral resource endowment.

Electricity, gas, water supply and other utility services has remained relatively stable, ranging from 6.0% in FY12 to 12.9% in FY25, suggesting modest growth in utility-based industries and limited expansion within the state.

Meghalaya's share in India's industry

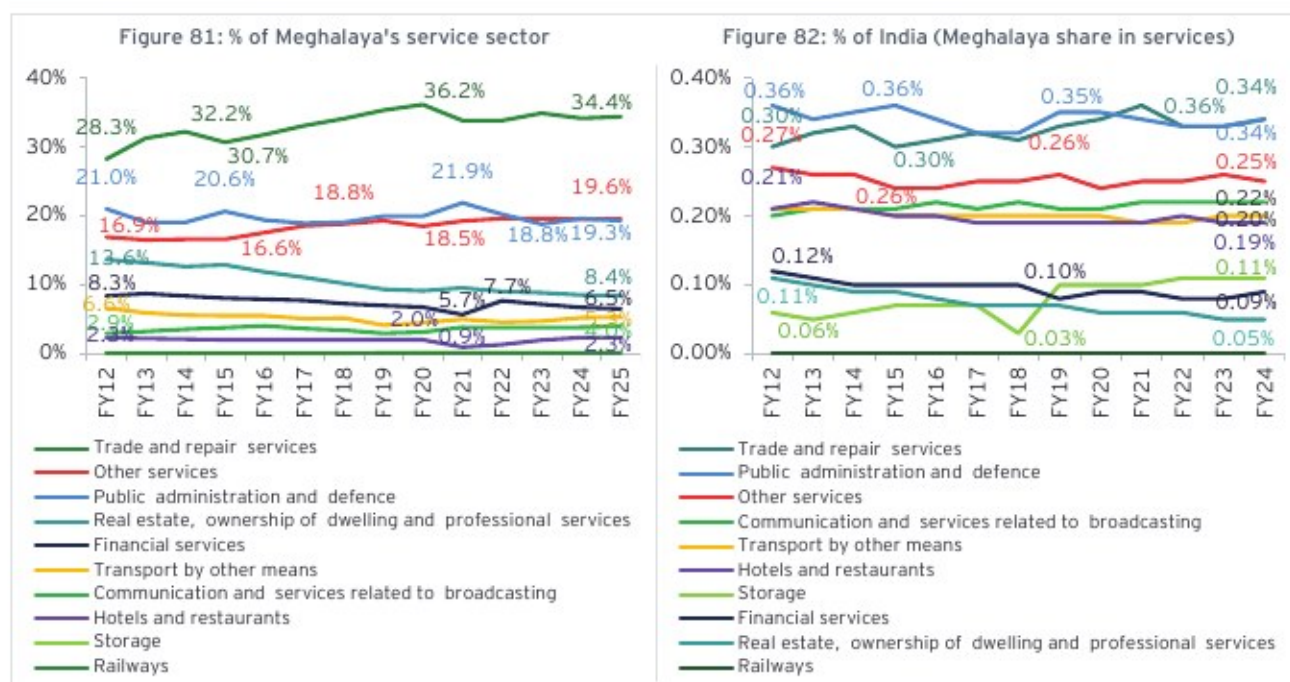
Mining and quarrying emerged as the most prominent contributor initially, with Meghalaya's national share at 0.53% in FY12, peaking dramatically at 0.64% in FY14, before collapsing to 0.21% in FY25. This marks severe loss of comparative advantage in the extractive sector.

Manufacturing share declined from 0.33% in FY12 to 0.12% in FY25, showing persistent weakening in industrial production and manufacturing competitiveness at the national level.

Construction share declined from 0.15% in FY12 to 0.12% in FY25, showing minimal but weakening presence at the national level.

Electricity, gas, water and other utility services share remained modest, declining from 0.24% in FY12 to 0.17% in FY25, confirming limited scale and structural weakness in utility-based industrial development.

Services sector



Centre for Monitoring Indian Economy Pvt. Ltd. (n.d.). States of India [Database]. <https://statesofindia.cmie.com>
Source: MoSPI, EY Analysis

Internal structure of services

Trade and repair services dominate Meghalaya's services sector, rising from 28.3% in FY12 to 34.4% in FY25, becoming the largest sub-sector and reflecting strong commercial activity and market development.

Public administration & defense declined from 21.0% in FY12 to 19.3% in FY25, showing reduced proportional dependence on government services as other service sectors expanded.

Other services (education, health, social) grew from 16.9% in FY12 to 19.6% in FY25, showing steady expansion in social sector services.

Real estate and professional services declined from 13.6% in FY12 to 8.4% in FY25, showing reduced contribution over the period.

Financial services remained relatively stable from 8.3% in FY12 to 6.5% in FY25, indicating modest penetration of banking and insurance services.

Transport by other means declined from 6.6% in FY12 to 5.2% in FY25, showing weakening contribution from transport services.

Hotels and restaurants, Storage, and Railways remained minor contributors, each staying below or at 4% throughout the period.

Meghalaya's share in India's services

Trade and repair services showed notable presence, with Meghalaya's share at 0.30% in FY12, peaking at 0.36% in FY21, before stabilizing at 0.34% in FY25, representing a significant contributor for the state in services.

Public administration and defense contributed 0.36% in FY12, declining to 0.34% in FY25, showing stable but modestly declining presence at the national level.

Other services share remained relatively stable around 0.27% in FY12 to 0.25% in FY24, showing modest national presence.

Communication and services related to broadcasting share rose from 0.20% in FY12 to 0.22% in FY25, showing gradual improvement and strengthening comparative advantage.

Transport by other means maintained stable presence at 0.20% in both FY12 and FY25, showing consistent contribution throughout.

Hotels and restaurants' share declined from 0.21% in FY12 to 0.19% in FY25, showing modest weakening in the hospitality sector.

Storage, financial services, real estate, ownership of dwelling and professional services, and Railways all maintained limited national presence with shares below 0.15% throughout the period, indicating modest scale in these sub-sectors.



14.7 SWOT analysis

Meghalaya's strategic outlook is shaped by distinctive tourism assets and organic agriculture positioning, counterbalanced by severe industrial decline and connectivity constraints. The SWOT assessment provides a consolidated, strategy-led view to inform prioritization under the state's vision framework.

Strengths

- Tourism powerhouse with 1.42 million visitors generating 4.1% GSDP and ~50,000 jobs via iconic root bridges²⁹⁸.
- World-class turmeric with Lakadong variety leading India at 7%-12%²⁹⁹ curcumin content.
- Rich minerals; top NER producer of coal and limestone reserves.

Weaknesses

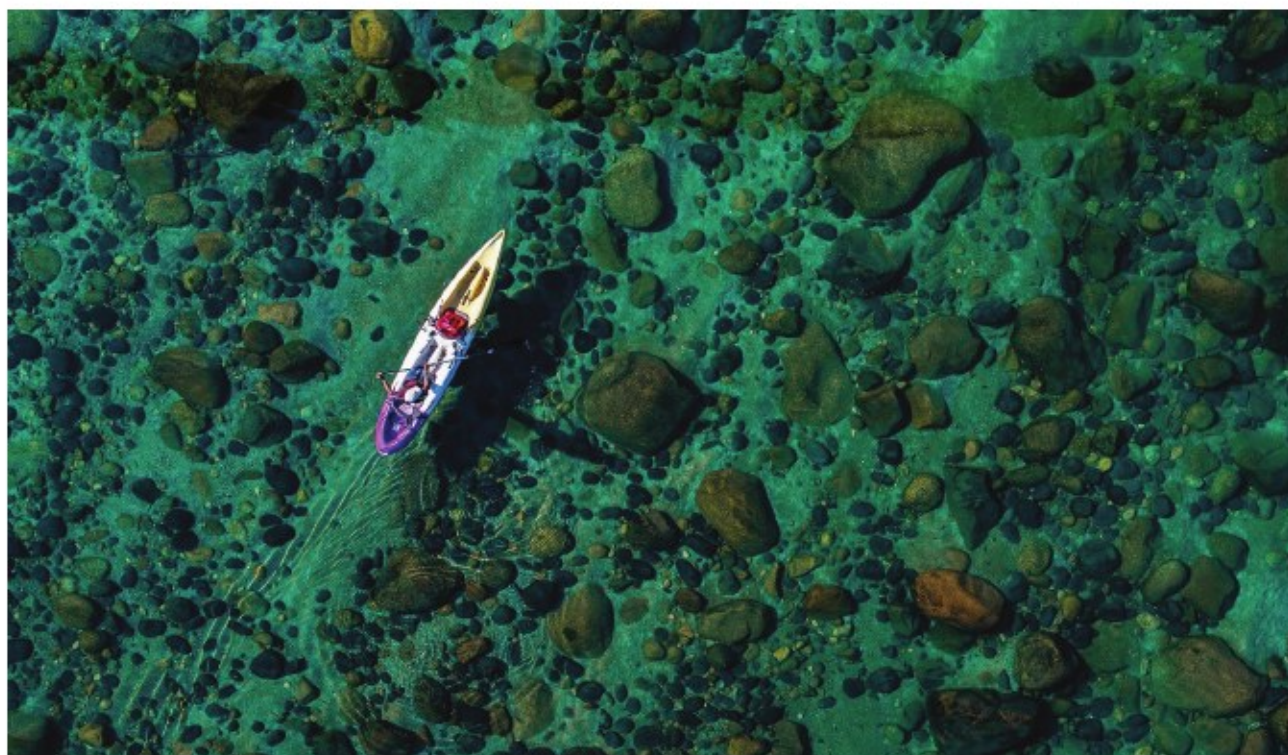
- Infrastructure limited with hilly terrain restricting industrial scaling versus Assam's connectivity.
- Narrow specialization with heavy tourism/IT focus leaving manufacturing gaps.
- Logistics dependence relying on Siliguri Corridor for market access.

Opportunities

- IT/Biotech growth via Shillong IT Park leveraging young workforce for technology sector investment.
- Bangladesh-Bhutan-India-Nepal (BBIN) market access enabling Bangladesh exports for turmeric/renewables via green corridors.
- Clean tech leadership with exceptional rainfall powering waste-to-wealth initiatives with subsidies.

Threats

- Climate vulnerability with floods/landslides threatening tourism infrastructure.
- Geopolitical delays with BBIN corridor slowdowns versus Vietnam's ASEAN integration.
- Youth migration with talent outflows to metros despite local policies.



²⁹⁸ Government of Meghalaya, Draft Tourism Policy 2022

https://meghalaya.gov.in/meghalaya/sites/default/files/documents/Draft_Tourism_Policy_Meghalaya_2022.pdf

²⁹⁹ Government of Meghalaya, Meghalaya Farmers' (Empowerment) Commission

https://meghalaya.gov.in/sites/default/files/press_release/Press_Release_161.pdf

14.8 Strategic recommendations

Despite its infrastructure constraints and small economic base, Meghalaya has transformative potential to emerge as the NER's tourism and organic agriculture leader, leveraging its unique natural assets, high-curcumin turmeric, young English-

proficient workforce, and Bangladesh-Bhutan-India-Nepal (BBIN) gateway positioning to drive sustainable and inclusive growth across multiple high-value sectors.

Key challenges and strategic approach:

Table 61: Key challenges and strategic approach (Meghalaya)

Key Challenge	Context	Strategic Approach
Predominantly rural demographic pressures	Meghalaya's demographic structure with ~80% rural population across Shillong plateau areas strains service delivery to mining and border logistics nodes.	Direct urbanization towards border trade corridors over dispersed highland settlements.
Railway connectivity	Teteliya-Byrnihat rail line to Shillong remains incomplete despite surveys, blocking mineral evacuation to mainland markets.	Advance rail freight alignments through mining districts rather than dispersed lines.
Coal and limestone reserves	Coal and limestone deposits across East Khasi Hills remain under scientific extraction due to regulatory bans and unscientific mining practices.	Prioritize value-added cement clusters over raw mineral exports.
Limited hydropower development	Umngot and Myntdu river systems on Shillong plateau catchment hold hydro potential but face delays from environmental clearances and local opposition.	Focus large hydro projects over small run-of-river dispersion for grid evacuation.
Underdeveloped border trade infrastructure	443 km Bangladesh border with Dawki ICP lacks integrated cargo handling for limestone and coal exports despite high trade volumes.	Emphasize export-oriented border logistics over domestic market linkages.
Industrial policy clustering	Meghalaya's coal, limestone, and cement nodes lack designated industrial corridors under 2024 promotion policy.	Promote sector-specific clusters versus broad spatial industrial parks.
Road network capacity	Shillong plateau catchment geography along NH-40 to Dawki limits road upgrades due to heavy coal-limestone truck traffic.	Prioritize freight corridors over passenger tourism routes.

NITI Aayog, *Macro and Fiscal Landscape of the State of Meghalaya*; Government of Meghalaya, *Meghalaya Industrial Promotion Policy 2024*; Government of Meghalaya, Department of Public Works <https://meghalaya.gov.in/dept/38>

Strategies for Meghalaya

- **Infrastructure and connectivity constraints:** Shillong lacks a commercial airport with the nearest facility in Guwahati three hours away, constraining both tourism flows and business services scalability, while rail connectivity exists only at Mendipathar, limiting freight movement for manufacturing and agriculture. Broadband penetration beyond urban centers remains inconsistent, affecting digital services expansion and reducing the competitiveness of remote tourism circuits. Without addressing these

infrastructure gaps – through commercial airport development, rail network expansion, and comprehensive broadband coverage – tourism, digital services, and manufacturing strategies underperform regardless of quality or market demand.

- **Institutional capacity and financial ecosystem development:** Governance coordination between the state and Autonomous District Councils (ADCs) fundamentally affects implementation authority: the Sixth Schedule grants ADCs control over land and resources in tribal areas, meaning

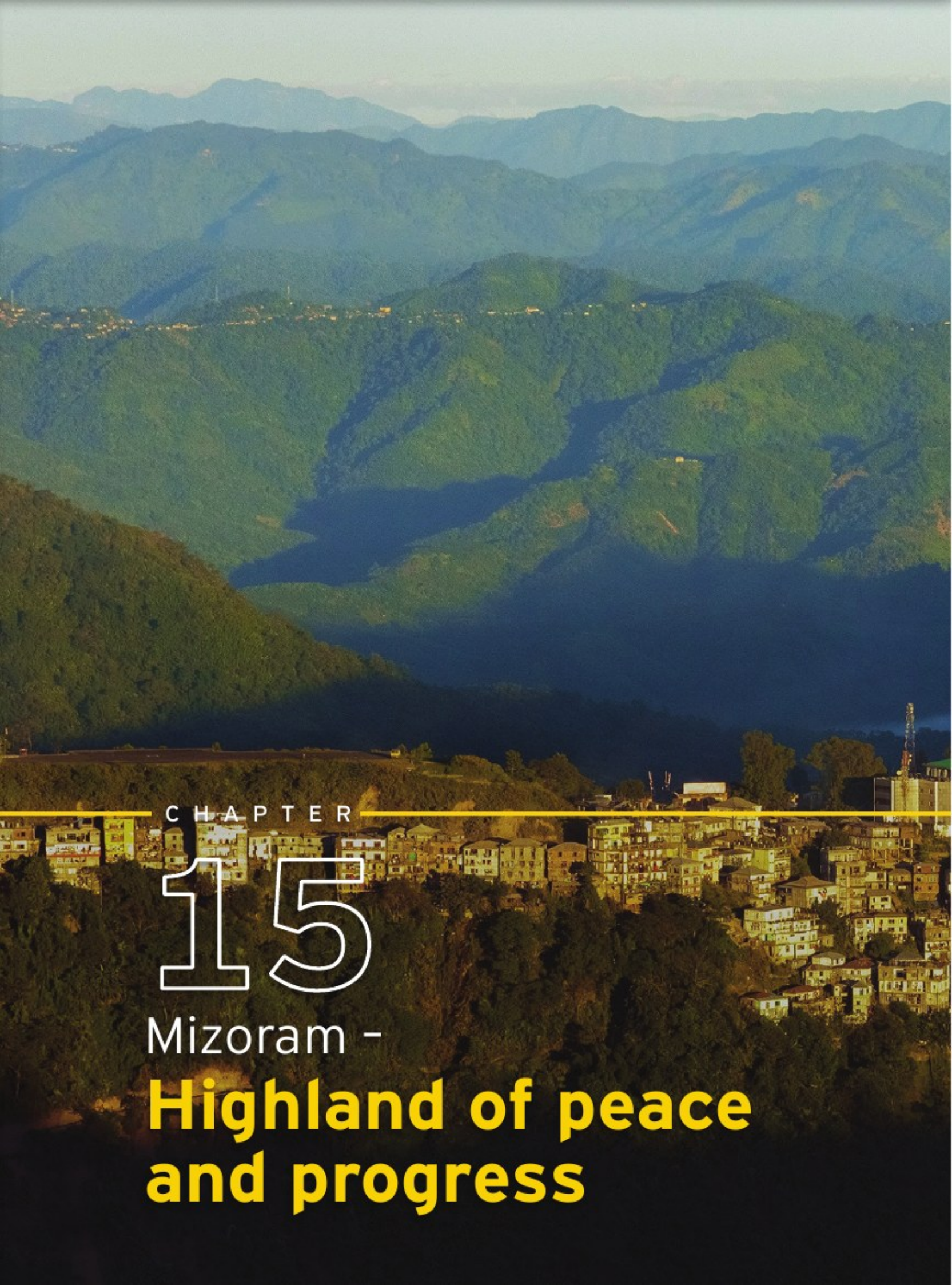


collaborative governance models, streamlined clearance processes, and capacity-building programs are necessary to translate state-level policy into district-level execution. Without targeted skill development aligned with growth sectors, expanded formal credit access through rural banking and MSME financing mechanisms, and collaborative state-ADC governance frameworks, labor and capital remain underutilized despite aggregate availability.

- **Eco-tourism and cultural tourism:** Meghalaya possesses globally distinctive tourism assets that provide the foundation for a scalable hospitality sector, but converting these into reliable revenue streams requires addressing binding constraints in infrastructure, seasonality, and value capture. Community-based tourism models with transparent revenue-sharing structures are necessary to prevent economic leakage and maintain asset quality, as tourism growth does not automatically benefit rural communities without institutional design ensuring this outcome. Strategic success depends on integrated circuit development linking key destinations, Cherrapunji, Dawki, Mawlynnong, and Shillong, with coordinated execution across transport infrastructure, sustainable carrying-capacity frameworks, and community engagement mechanisms.
- **High-value agriculture and horticulture transitioned into premium, export-oriented value chains:** Lakadong turmeric, Khasi mandarin, pineapple, and other products with GI recognition or organic potential represent opportunities for rural income growth, but current performance reflects system weaknesses in production systems, land tenure, and market access rather than inherent product quality. Strategic success depends on coordinated intervention across jhum transition programs, FPO formation to aggregate supply and manage quality, processing-cluster development to capture value locally, and market-access infrastructure including cold chains, digital platforms, and institutional procurement linkages.
- **Green manufacturing and Renewable Energy:** Renewable energy incentives, zero-discharge industrial promotion, and forest-based resource access create conditions for green manufacturing, but sector specificity is necessary to move beyond generalized aspirations toward executable industrial strategy. Competitively priced, reliable power supply is the relevant

variable determining industrial location decisions, not renewable energy availability alone. Strategic requirements include accelerated hydropower development for competitive captive power, bamboo-processing clusters for export products, pharmaceutical and nutraceutical processing linked to agriculture, and light engineering capacity in renewable energy equipment – with success depending on sector-specific investment promotion and infrastructure enabling competitive cost structures.

- **Creative and cultural industries positioned as a formal, monetizable growth sector:** Major festivals and a vibrant music-film ecosystem provide the basis for organized creative employment and tourism-linked revenues, but moving from cultural activity to economic sector requires monetization pathways, intellectual property infrastructure, and export orientation that currently do not exist at scale. Export market orientation targeting the Northeast diaspora, pan-India OTT platforms, and international music markets is necessary for scale given limited domestic demand, though this requires deliberate business development and distribution partnerships rather than organic market discovery. Incubation infrastructure and access to capital is required to professionalize creative enterprises with formal employment generation. Festivals like NH7 Weekender and Shillong Literary Festival attract significant audiences but do not anchor year-round creative economic activity, and positioning festivals as demand aggregators for ongoing creative enterprise would convert episodic events into sustained economic activity.
- **Digital services and creative tech:** Literacy above 90%, widespread English proficiency, expanding connectivity through MeghNet, and significantly lower costs than Bangalore or Guwahati create arbitrage opportunities for BPO, ITeS, and digital content production. Strategic positioning might target tier-2 hub status, positioning Shillong as a cost-effective alternative for companies seeking geographic diversification, with export orientation ensuring growth is not constrained by local demand. Success requires establishing digital services infrastructure including co-working spaces and training centers, attracting anchor clients through targeted investment promotion, and developing sector-specific training programs aligned with employer demand.



CHAPTER

15

Mizoram -

**Highland of peace
and progress**



15.1 Socio economic profile, state USP and unique identity

Socio economic profile

Table 62: State overview (Mizoram)

State overview ³⁰⁰	
Area	21,081 km ²
Population (2025)	1.3 million (Estimated)
GSDP (FY25)	INR33,277 crore
Per Capita GSDP (FY25)	INR2,67,498/US\$2,978
Contribution to NER GDP	3.7%
Population density	52 people per km ²
Unemployment Rate (2024)	2.4%
Urbanization Rate (2025)	55.5% (Estimated)
State Budgeted Expenditure (FY26)	INR15,199 crore
Number of MSMEs (2025)	49,722
Debt to GSDP (FY25)	39.8%
Literacy	98.2%
Youth population	29.6%
Human development index	0.71
Export Preparedness Index	34 th rank; Score: 30.2

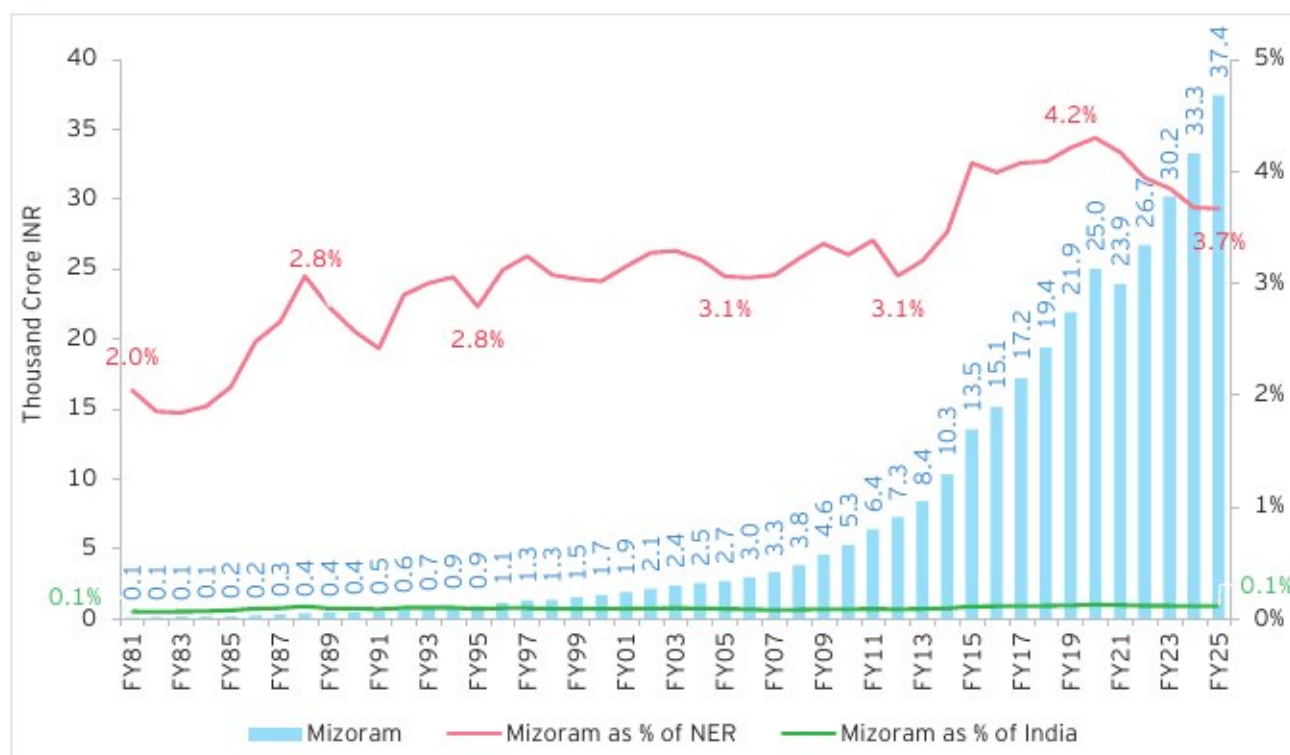
Mizoram, positioned on India's southeastern frontier, is a compact hill state distinguished by high literacy levels, organic agriculture potential, and strategic international borders with Myanmar and Bangladesh,

anchoring bamboo-based value chains, sustainable horticulture, and cross-border trade corridors with Southeast Asia.

³⁰⁰ Census of India, Mizoram Industrial Development & Investment Policy 2025, PLFS 2023-24 NITI NCAER Macro and Fiscal Landscape of the State of Mizoram, "NITI Aayog Export Preparedness Index 2024, Global Data Lab, "Subnational HDI (SHDI) – India (2022) Census of India, 2011, MoSPI, Government of India, National Statistical Office (NSO), Ministry of Statistics and Programme Implementation. *Youth in India 2022* (June 29, 2022). https://www.mospi.gov.in/sites/default/files/publication_reports/Youth_in_India_2022/Youth_in_India_2022.pdf
Government of India, Ministry of Statistics and Programme Implementation, Lok Sabha Unstarred Question No. 5160 (Answered on 02.04.2025), "PLFS Reports," Annexure - Annual Report, Periodic Labour Force Survey (PLFS) 2023-24. https://sansad.in/getFile/loksabhaquestions/annex/184/AU5160_LZipbs.pdf?source=pqals&utm_source



Figure 83: Mizoram GSDP

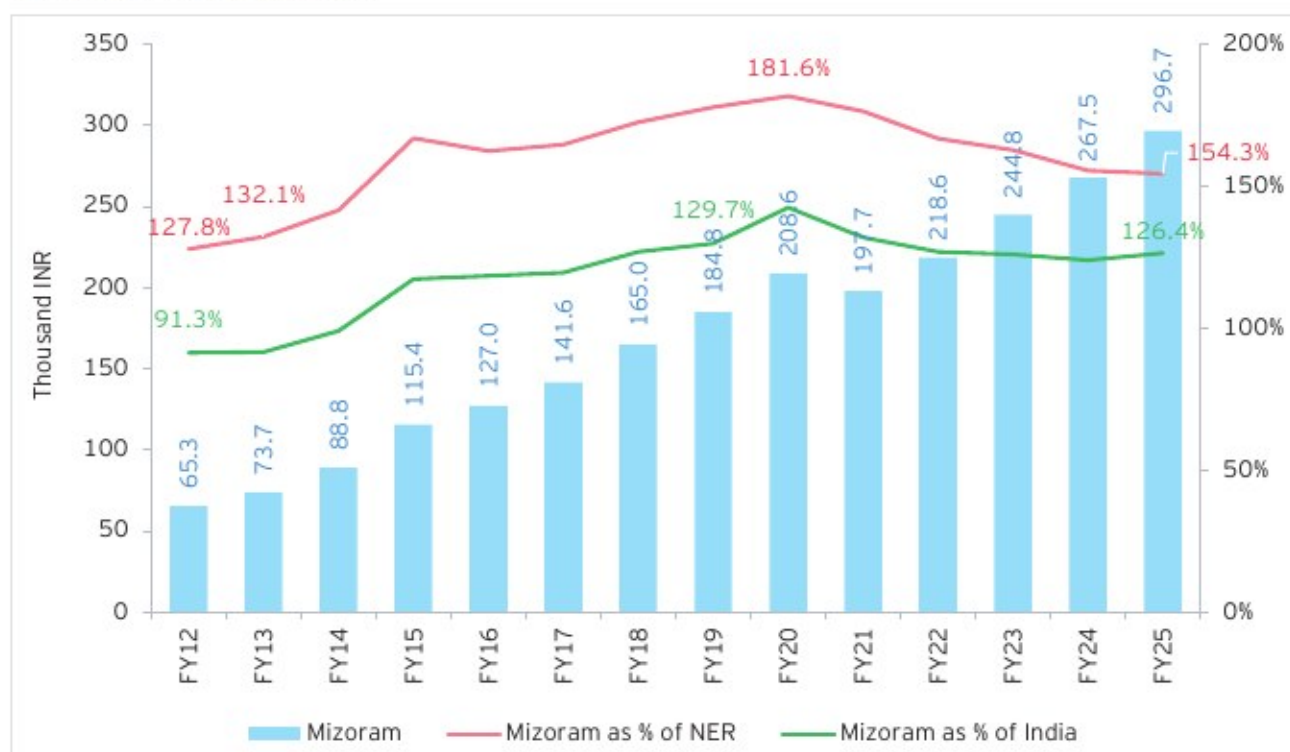


Source: MoSPI

Mizoram has demonstrated substantial economic progression, with GDP expanding from INR120 crore in FY83 to INR37,420 crore in FY25, comprising 3.7% of NER's GDP. Per capita GDP has surged from

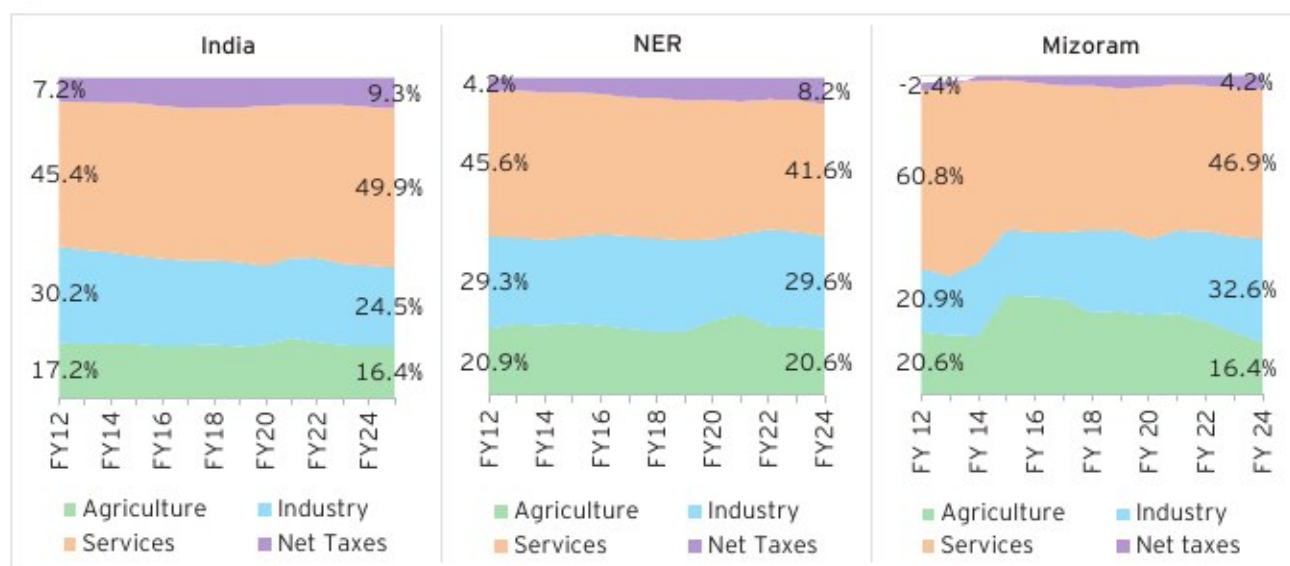
~INR66,000 in FY12 to INR2,96,745 by FY25, outpacing several NER peers, reaching 126% of national average in FY25.

Figure 84: Mizoram per capita GSDP



Source: MoSPI

Figure 85: India vs NER vs Mizoram sectoral shares



Source: World Bank, MoSPI

Mizoram's Agricultural sector accounts for 7.7% of GVA in FY24 – significantly lower than the NER average and substantially below the national average – indicating an advanced structural transformation beyond primary sectors. While Industry currently constitutes the largest share at 58.5%, followed by Services at 28.7%, the diminished Agricultural base reflects a mature economic transition, presenting opportunities for high-value agriculture, agro-processing, and service sector expansion to drive balanced structural development and sustained income growth acceleration.

In human development, Mizoram achieved a literacy rate of 98.2% in 2024³⁰¹, significantly exceeding the national average and marking it as one of India's most literate states with sustained educational investments, while the unemployment rate stands at 2.4% (2024)³⁰², below the national average, and the state's Human Development Index is 0.71³⁰³, reflecting relatively better outcomes in healthcare availability, income generation, and access to quality services.

With an urbanization rate of 55.5% (2025)³⁰⁴ and population density of 52 people per km², the state's concentrated settlement pattern facilitates efficient

service delivery and infrastructure development across its 21,081 sq. km territory³⁰⁵.

Mizoram ranks 34th on the Export Preparedness Index³⁰⁶, constrained by infrastructure deficits, connectivity challenges, and regulatory inefficiencies. However, strategic initiatives include multi-modal connectivity upgrades through airports, improved road networks, and cross-border linkages with Myanmar and Bangladesh present significant opportunities to enhance economic growth and boost exports, especially in value-added bamboo products, horticulture, and organic agriculture. The state's 49,722 MSMEs (2025)³⁰⁷ and budget allocation of INR15,199 crore (FY26) provide foundational capacity for enterprise development and infrastructure expansion critical to unlocking trade potential.

Mizoram's Unique Selling Proposition and unique identity

Mizoram's economic identity is anchored in its position as India's state with the highest forest cover at 85.34%³⁰⁸, driving rich biodiversity, ecosystem services, and climate resilience. The state's agricultural competitiveness derives from its renowned cane and bamboo craftsmanship producing

³⁰¹ Government of Mizoram, Directorate of Information & Public Relations, "Chief Minister Declares Mizoram the First Fully Literate State in India" <https://dipr.mizoram.gov.in/post/chief-minister-declares-mizoram-the-first-fully-literate-state-in-india>

³⁰² Government of India, Ministry of Statistics and Programme Implementation, Lok Sabha Unstarred Question No. 5160 (Answered on 02.04.2025), "PLFS Reports," Annexure - Annual Report, Periodic Labour Force Survey (PLFS) 2023-

24. https://sansad.in/getFile/loksabhaquestions/annex/184/AU5160_LZipbs.pdf?source=pqals&utm_source

³⁰³ Subnational HDI (SHDI) – India (2022)

³⁰⁴ Census 2011

³⁰⁵ NITI Aayog Macro and Fiscal Landscape of the State of Mizoram <https://niti.gov.in/sites/default/files/2025-07/Macro-and-Fiscal-Landscape-of-the-State-of-Mizoram-1.pdf>

³⁰⁶ NITI Aayog Export Preparedness Index 2024

³⁰⁷ Udyam Portal https://dashboard.msme.gov.in/Udyam_Statewise.aspx

³⁰⁸ Indian State of Forest Report 2023 https://fsi.nic.in/uploads/isfr2023/isfr_book_eng-vol-2_2023.pdf



durable, intricate cultural and utility products, with 35 bamboo species (20 indigenous)³⁰⁹ supporting handicrafts and industrial applications. Established as the NITI Aayog-designated "*Ginger Capital of India*" with high-quality ginger and fast-rising production, combined with organic agriculture and food processing frameworks for ginger, turmeric, and spices; Mizoram creates pathways for premium market access and value capture in specialty agricultural and Non-Timber Forest Product (NTFP) segments.

The state's 21,081 sq. km of land area with national parks and sanctuaries present compelling eco, adventure, and wellness tourism prospects. Strategic borders with Myanmar and Bangladesh, combined with rising tourism, supportive subsidies, and a strong sporting culture driving training academies, events,

and sports-goods opportunities supported by hill terrain for adventure circuits, position Mizoram as an emerging trade, tourism, and sports hub in the northeastern corridor.

Multi-modal connectivity through airports, improved road networks, and emerging infrastructure, supported by digital incentives, establishes efficient logistics capabilities. This framework enables cold chain development for perishable goods, warehousing expansion, and integrated supply chain solutions critical for bamboo products, horticulture, and time-sensitive organic sectors. A young, tech-savvy workforce and plug-and-play digital infrastructure positioning Mizoram as an emerging IT/AI/drone hub in NER, combined with local hiring and targeted skilling initiatives, enhances governance capacity and service delivery across the economy.

15.2 Mizoram's 10 recommended priority areas

10 Priority areas for Mizoram

1. Bamboo Bioeconomy
2. Food Processing & Agri-Business Park
3. Tourism
4. High-Value Horticultural Produce
5. Handloom, Handicrafts & Bamboo Crafts
6. Cross-Border Trade & Regional Logistics Hub
7. Renewable Energy
8. IT & Digital Hub
9. Rubber
10. Forest-based Eco-services (Carbon, PES)

#1 Bamboo bioeconomy

Mizoram commands a unique position in India's bamboo economy, with an abundant bamboo resource base spanning 35 bamboo species, including 20 indigenous varieties³¹⁰. Despite this natural wealth, local bamboo processing remains minimal, with the majority exported as raw material to other states and countries at minimal value realization. This represents a significant economic leakage and foregone employment opportunity, as the state remains a supplier of unprocessed bamboo while importing finished bamboo products at substantially higher prices. The absence of integrated processing infrastructure limited technical capabilities, and weak

industry linkages have constrained Mizoram's ability to capture downstream value chains.

Transforming Mizoram into a competitive bamboo bioeconomy hub requires establishing integrated processing clusters for bamboo-shoot preservation through canning and fermentation technologies that extend shelf life and enable year-round supply to domestic and export markets. Bamboo shoots – already a dietary staple and export item – can command premium pricing in Japan, South Korea, and Southeast Asian markets with proper processing, quality certification, and branding. Expanding into non-timber forest products (NTFP) extraction from bamboo – including herbal teas, medicinal oils, activated charcoal, and bamboo vinegar – would diversify revenue streams while leveraging traditional knowledge and forest-based livelihoods.

Developing forest-based value chains for structural bamboo products such as engineered bamboo panels, laminated boards, flooring materials, and prefabricated housing components offers high-value industrial applications aligned with green building trends. Establishing bamboo treatment and seasoning facilities, quality testing laboratories, and design innovation centers could enable Mizoram's manufacturers to meet national and international standards for construction and furniture markets.

Skilling artisans and entrepreneurs in advanced bamboo processing techniques, machinery operation, and product design can build local capacity while

³⁰⁹ Bamboo Development Agency Government of Mizoram <https://bda.mizoram.gov.in/page/list-of-bamboo-species-in-mizoram>

³¹⁰ Bamboo Development Agency, Government of Mizoram, "List of Bamboo Species in Mizoram" <https://bda.mizoram.gov.in/page/list-of-bamboo-species-in-mizoram>



creating sustainable employment, particularly for women and forest-dependent communities. Strategic partnerships with research institutions for bamboo-based biomaterials, textiles, and bioenergy applications can position Mizoram at the forefront of the emerging bamboo bioeconomy in India.

#2 Food processing and Agri-business park

Mizoram's food processing sector presents significant untapped potential despite a strong raw material base and entrepreneurial ecosystem. With 49,722 MSMEs³¹¹ operating across the state, the agricultural and horticultural produce – particularly bamboo, ginger, turmeric, passion fruit, and organic vegetables – remains largely unprocessed due to minimal integrated processing infrastructure and inadequate cold-chain systems. This results in substantial post-harvest losses, limited value addition, and reduced income realization for farmers and rural entrepreneurs. The absence of modern processing facilities constrains Mizoram's ability to capture premium market segments and access export opportunities in ASEAN markets.

The establishment of a state-of-the-art food park at Aizawl, complemented by district-level processing clusters in Lunglei (bamboo shoots), Kolasib (pineapple), and Champhai (spices and horticulture), is essential to unlock value-chain integration. These facilities might incorporate cold storage, grading and sorting units, packaging lines, quick-freezing capabilities, and quality testing laboratories to enable compliance with food safety standards and export norms. MSME incubators within these clusters would provide shared infrastructure, technical support, and market linkages, enabling small producers to scale operations and access institutional buyers.

Further, developing integrated agri-business parks with backward linkages to organic farming clusters and forward linkages to retail and export channels would enhance competitiveness. Investment in processing technologies for bamboo shoot preservation, ginger dehydration, spice grinding, and fruit pulping, combined with branding initiatives for Mizoram's organic and GI-tagged products, can position the state as a premium supplier in domestic and international markets. Capacity building for MSMEs in food safety compliance, packaging innovation, and digital marketing are sectoral interventions critical to transforming Mizoram into a competitive food processing hub.

#3 Tourism

Mizoram's tourism sector holds immense potential as a catalyst for economic diversification and employment generation, anchored in the state's pristine natural landscapes, rich tribal heritage, and vibrant cultural traditions. Iconic attractions such as Vantawng Waterfall, Tamdil Lake, and the Dampa Tiger Reserve offer compelling eco-tourism experiences, while unique festivals like Chapchar Kut, Mim Kut, and Pawl Kut showcase Mizo cultural identity and community celebrations. Despite these assets, Mizoram remains an underexplored destination in India's tourism map, constrained by limited connectivity, insufficient hospitality infrastructure, and weak destination marketing, resulting in low visitor footfall and minimal tourism-driven revenue compared to regional peers.

Unlocking Mizoram's tourism potential requires developing integrated eco-adventure clusters that combine trekking routes, wildlife safaris, rock climbing sites, and water sports facilities across key destinations including Reiek, Phawngpui (Blue Mountain), and Palak Lake. Establishing community-managed homestays and eco-lodges in villages surrounding tourist circuits would create direct livelihood opportunities for local communities while offering authentic cultural immersion experiences to travellers seeking offbeat destinations. Upgrading tourist amenities – including signage, interpretation centres, sanitation facilities, and mobile connectivity at major sites – might enhance visitor experience and encourage extended stays.

Cross-border tourism circuits connecting Mizoram with Myanmar and Bangladesh present distinctive opportunities for regional tourism collaboration, offering multi-country itineraries that appeal to adventure travelers and cultural enthusiasts. Developing festival-linked tourism packages around major Mizo celebrations, coupled with culinary trails featuring traditional cuisine and locally sourced organic produce, can differentiate Mizoram in the experiential tourism market.

Strategic investments in digital marketing, partnerships with travel aggregators, and participation in international tourism fairs might boost regional visibility. Training hospitality professionals, tour guides, and homestay operators in service excellence, language skills, and sustainable tourism practices might strengthen service delivery while positioning Mizoram as a premier eco-cultural tourism destination that balances economic growth with environmental conservation and cultural preservation.

³¹¹ Udyam Portal https://www.dashboard.msme.gov.in/Udyam_Statewise.aspx



#4 High-value horticultural produce

With an annual output exceeding 60,000 MT³¹² and the GI-certified Lakadong Sairung Ginger Processing Unit operational since January 2026, Mizoram has established itself as a premium supplier in domestic and export markets. Beyond ginger, the state cultivates diverse high-value crops including passion fruit, dragon fruit, bird's eye chili, turmeric, and citrus varieties that are well-suited for organic farming practices and command attractive price premiums in metropolitan markets and international trade.

Realizing the full economic potential of Mizoram's horticultural wealth depends on strengthening cluster-based processing infrastructure that enables powder production, sliced-dry products, essential oil extraction, and value-added formulations. Establishing direct buyer linkages with organized retail chains, export houses, and pharmaceutical companies would bypass intermediaries and improve farmer realization. Pursuing organic and export certifications – including USDA Organic, EU Organic, and APEDA registration – positions Mizoram's produce for premium global markets, particularly in Japan, South Korea, and the European Union where demand for clean-label, traceable products continues to grow.

Strategic investments in post-harvest infrastructure such as controlled atmosphere storage, solar dryers, and mobile grading units at production clusters can reduce wastage and extend market windows. Farmer producer organizations (FPOs) equipped with aggregation capabilities, quality assurance systems, and market intelligence can negotiate better prices and consistent supply to buyers. Coupling production excellence with aggressive branding and participation in international trade fairs might solidify Mizoram's reputation as a reliable source of high-value, organic horticultural produce in competitive global value chains.

#5 Handloom, handicrafts and bamboo crafts

Mizoram's handloom and handicraft sector is deeply rooted in tribal heritage and represents a vital livelihood source, particularly for women artisans across rural areas. The Thenzawl hub has emerged as a prominent production center for traditional shawls (Puan), intricately woven bamboo crafts, and cane products that reflect the state's rich cultural identity. These products command niche market appeal both domestically and internationally, yet artisans face persistent challenges in market access, pricing power,

and design innovation. The sector's growth is constrained by fragmented production units, limited exposure to contemporary design trends, and weak linkages to organized retail and tourism channels.

Scaling Mizoram's handloom and bamboo craft industry requires targeted interventions centered on e-commerce integration, designer collaborations, and shared production facilities equipped with modern looms, dyeing units, and finishing equipment. Establishing common facility centers in key clusters like Thenzawl, Aizawl, and Champhai would enable artisans to enhance product quality, achieve scale economies, and meet bulk orders from institutional buyers.

Partnerships with fashion designers and lifestyle brands can infuse contemporary aesthetics into traditional crafts, broadening market appeal while preserving cultural authenticity. Simultaneously, skilling initiatives focused on product diversification, quality standardization, and digital marketing could empower artisan communities – especially women entrepreneurs – to capture higher value in domestic and export markets.

Tourism-linked retail outlets at airports, heritage sites, and border trade points offer direct consumer engagement opportunities, while GI tagging and certification of signature products such as Mizo Puan and bamboo utility items can command premium pricing. Integrating craft villages with experiential tourism circuits would create additional revenue streams and showcase Mizoram's artisanal excellence to national and international visitors, strengthening both the cultural economy and livelihoods resilience.

#6 Cross-Border trade and regional logistics hub

Mizoram's strategic positioning presents significant untapped potential for cross-border trade and regional economic integration. With 722 km of international borders – 404 km with Myanmar and 318 km with Bangladesh³¹³ – Mizoram serves as a natural gateway to Southeast Asia, offering direct access to the ASEAN economic corridor. However, limited formal trade infrastructure, inadequate border haats, and insufficient integrated check posts (ICPs) currently constrain its export potential.

Strengthening ICP systems with single-window clearance mechanisms, aggregation centers, and logistics hubs at strategic border points such as Zokhawthar and Tlabung-Kawrpuchhuah is essential

³¹² Government of India, Press Information Bureau, "GST Rationalisation: Cultivating Growth, Crafting Prosperity in Mizoram" <https://www.pib.gov.in/FactsheetDetails.aspx?Id=150365®=3&lang=1>

³¹³ Mizoram NIC <https://mizoram.nic.in/about/glance.htm>



to unlock border-driven export opportunities. Operationalizing border haats under bilateral agreements would facilitate formal trading channels for local producers, particularly in bamboo products, ginger, turmeric, and handicrafts, while reducing informal cross-border flows.

Mizoram's transformation into a regional logistics hub necessitates an integrated multi-modal logistics park with cold chain facilities for perishable horticulture, value-addition clusters for bamboo and organic products, and dry ports equipped with containerization and quality testing infrastructure. Strategic partnerships with Myanmar's Chin State and Bangladesh's Chittagong Hill Tracts for coordinated border development would create synergistic trade corridors.

Leveraging frameworks such as Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC), the Kaladan Multi-Modal Transit Transport Project, and the Trilateral Highway (India-Myanmar-Thailand) positions Mizoram as a pivotal node in India's Act East Policy. Enhancing trade facilitation through harmonized customs procedures, cross-border e-commerce platforms, and capacity building for MSMEs might boost formal trade volumes, attract private logistics investment, and establish Mizoram as a competitive regional trade hub.

#7 Renewable Energy

Mizoram's renewable energy sector presents substantial untapped potential, particularly in hydropower generation, which remains critically underutilized despite favorable topography and hydrological conditions. The state possesses an estimated hydro potential of 4,500 MW across various river basins, yet only 29.35 MW has been installed to date, reflecting a utilization rate of less than 1%³¹⁴. This vast energy deficit represents both a constraint on industrial development and a significant economic opportunity, as Mizoram currently depends heavily on power imports to meet domestic and commercial demand, resulting in elevated energy costs and grid vulnerability.

Accelerating hydropower development – particularly the 24 MW³¹⁵ Tuirial hydro project and other run-of-river schemes – requires streamlined environmental clearances, improved project financing mechanisms, and enhanced implementation capacity at state

utilities. Prioritizing small and mini-hydro projects (under 25 MW) can minimize ecological disruption while delivering decentralized power generation suited to Mizoram's terrain and settlement patterns. Solar rooftop installations on government buildings, educational institutions, and commercial establishments offer complementary generation capacity, while biomass energy from agricultural residues and bamboo waste can provide distributed energy solutions for rural areas.

Beyond domestic consumption, Mizoram's strategic location offers compelling opportunities for cross-border electricity trade with Myanmar and Bangladesh, both of which face energy deficits and growing demand. Establishing grid interconnections and power trading frameworks under bilateral agreements would enable revenue generation through electricity exports while strengthening regional energy security.

Investment in transmission infrastructure, smart grid technologies, and energy storage systems might be essential to evacuate power from remote generation sites and optimize grid stability. Coupling renewable energy expansion with green hydrogen production, electric vehicle charging infrastructure, and energy-intensive industries such as data centres can create integrated value chains that maximize economic returns from Mizoram's clean energy endowment.

#8 IT and digital hub

Mizoram possesses distinctive advantages for emerging as a competitive IT and digital services hub in the northeastern region. With a literacy rate of 98.2%³¹⁶ – among the highest in India – combined with rapid 4G network rollout and proactive digital governance initiatives, the state has cultivated an educated, tech-savvy workforce well-positioned for knowledge economy opportunities. The young demographic profile, proficiency in English, and cultural affinity for technology adoption provide a strong foundation for attracting investments in IT-enabled services, software development, and digital content creation sectors.

Developing managed IT/ITeS parks in Aizawl and satellite centres in district towns would provide plug-and-play infrastructure with reliable power, high-speed internet connectivity, and collaborative workspaces essential for startups and established IT firms. Targeting niche service segments such as geo-

³¹⁴ Power & Electricity Department, Government of Mizoram "Hydro Power Potential & its Development" <https://power.mizoram.gov.in/page/hydro-power-potential-its-development>

³¹⁵ Power & Electricity Department, Government of Mizoram, "Notification of Empowered Committee for Development of Tuirini Small Hydro Project (24 MW)"

³¹⁶ Government of Mizoram, Directorate of Information & Public Relations, "Chief Minister Declares Mizoram the First Fully Literate State in India" <https://dipr.mizoram.gov.in/post/chief-minister-declares-mizoram-the-first-fully-literate-state-in-india>



spatial mapping, climate informatics, biodiversity data management, and remote sensing applications aligns with Mizoram's ecological assets and can differentiate the state in specialized global markets. Establishing centers of excellence in drone technology, AI/ML applications for agriculture and forestry, and digital animation

leveraging local cultural narratives would create high-value employment while building sectoral depth.

Advanced skilling programs in cybersecurity, cloud computing, data analytics, and emerging technologies through partnerships with industry leaders and premier institutions could enable talent pipeline readiness. Instituting a stable and progressive digital infrastructure policy – including tax incentives, bandwidth subsidies, and streamlined approvals for technology companies – might enhance Mizoram's investment attractiveness. Integrating IT sector growth with remote work models and global delivery centres can unlock substantial employment opportunities for educated youth, reducing outmigration while positioning Mizoram as a digitally empowered state driving innovation and inclusive growth.

#9 Rubber

Mizoram's rubber sector represents an emerging opportunity for agricultural diversification and sustainable livelihoods, particularly as a viable alternative to jhum cultivation in suitable agro-climatic zones. The Chief Minister's Rubber Mission has set ambitious targets with 4,000 hectares planned under Phase 1 and an additional 2,400 hectares under Phase 2, positioning rubber as a strategic plantation crop capable of delivering long-term income stability to farming communities. The initiative envisions establishing 100 processing units across the state to enable local value addition and minimize dependence on external markets for raw rubber processing³¹⁷.

Successful implementation of Mizoram's rubber expansion hinges on FPO-led plantation execution models that consolidate smallholder efforts and enable economies of scale in input procurement, technical services, and output marketing. Establishing a cooperative auction platform would provide price transparency and fair realization for farmers, while Rubber Board technical support allows adherence to best practices in clonal selection, tapping techniques, and plantation management. Strong farmer retention systems – including long-term buy-back

arrangements, crop insurance, and subsidized inputs – are critical to sustaining grower interest through the gestation period before rubber trees become economically productive.

Developing localized processing infrastructure for sheet rubber, latex concentrate, and value-added products such as rubber wood and latex-based goods can capture a greater share of the value chain within the state. Skilling initiatives for tapping techniques, processing operations, and quality control could build a specialized workforce, while research partnerships with the Rubber Board can optimize cultivation practices for Mizoram's hill terrain and climatic conditions. Integrating rubber plantations with carbon credit schemes and sustainable land use certifications might enhance environmental credentials and open access to green finance mechanisms, strengthening the sector's economic and ecological viability.

#10 Forest-based Eco-services (Carbon, PES)

Forest-based eco-services are a priority sector for Mizoram due to the state's exceptionally high forest cover of ~85% (~18,000 square kilometers)³¹⁸, encompassing evergreen, semi-evergreen, and bamboo-dominated forests within the Indo-Myanmar biodiversity hotspot. These forests provide measurable ecosystem services, including carbon sequestration, watershed regulation, and soil conservation, and are managed largely through Village Councils and Community Reserve Forests, giving Mizoram an institutional advantage in implementing community-linked conservation finance mechanisms.

The sector offers scope for non-extractive revenue generation through voluntary carbon markets, Reducing Emissions from Deforestation and Forest Degradation (REDD+) frameworks, and Payments for Ecosystem Services (PES) linked to standing forests and improved forest management. For Mizoram, this creates income pathways that are compatible with existing land use, while helping offset economic pressures associated with shifting cultivation and forest degradation, and supporting livelihoods tied to conservation outcomes rather than resource extraction.

Strategically, forest-based eco-services warrant prioritization because they leverage Mizoram's existing ecological stock and community governance systems, require limited physical infrastructure, and

³¹⁷ Government of Mizoram, Directorate of Information & Public Relations, "Mizoram Chief Minister Launches CM's Rubber Mission" <https://dipr.mizoram.gov.in/post/mizoram-chief-minister-launches-cms-rubber-mission#:~:text=Aizawl%2C%20December%2016%2C%202024;info%20a%20rubber%20production%20hub>.

³¹⁸ Forest Survey of India, Ministry of Environment, Forest and Climate Change, Government of India, *India State of Forest Report 2023, Volume II* (2023). https://fsi.nic.in/uploads/isfr2023/isfr_book_eng-vol-2_2023.pdf

align directly with national and international climate-finance flows. The state's advantage lies in converting ecological assets into predictable, performance-linked revenues, with incremental investments focused on

measurement, reporting, verification, and transparent benefit-sharing rather than large-scale capital expansion.

15.3 Integration with regional value chains

Bamboo

Mizoram plays a key role in the bamboo value chain by managing primary collection and supplying raw bamboo. This role is underpinned by a bamboo-bearing area of ~9,200 sq. km³¹⁹, 20 +bamboo species³²⁰ and; ~ 57% of the state's geographical area is under bamboo cover.³²¹ This demonstrates both scale and biological diversity sufficient to sustain long-term supply, enable selective species-based utilisation, and support future value addition through organised aggregation and processing. Its extensive bamboo-bearing areas provide a reliable resource base, supporting local livelihoods, traditional industries, and cultural practices, forming an essential upstream link in the broader bamboo-based economy.

Spices

Mizoram is a key producer of spices such as ginger, turmeric, and bird's eye chilli, with ~101,000 tonnes³²² of total spice production (2024). Spices in Mizoram are concentrated mainly in ginger, turmeric, bird's eye chilli, and black pepper; Mizo Ginger and Mizo Chilli have received GI registration. The state has sufficient scale to support organised aggregation, quality standardisation, and gradual movement toward value-added spice processing and branded market channels. In the spices value chain, Mizoram's contribution is centered on agricultural output and raw spice supply, reflecting production base and climatic suitability for spice cultivation.

Digital/IT Hub

Mizoram is emerging as a digital IT hub in the North East, with BharatNet project being implemented in a

phased manner to provide connectivity to all the Gram Panchayats (GPs) for broadband services, such as Wi-Fi Hotspots, Fibre to the Home (FTTH) connections etc with 749 villages having 4G coverage as of June 2025.³²³ Initiatives like STI hubs, cloud data centers, and digital platforms enhance capacity building, entrepreneurship, and technology adoption, positioning the state as a key upstream enabler of the regional digital economy.

This role is reinforced by core governance infrastructure including the Mizoram State Data Center (MSDC), State Wide Area Network (MSWAN), and State Service Delivery Gateway (SSDG), alongside policy support under the Industrial Policy 2025, which explicitly encourages investment in high-tech and small-scale digital enterprises – together creating a foundation for sustained digital-sector growth.

Textiles

Mizoram's textile industry is a vital part of North East handicraft and apparel value chain. Garments like Puan, Puanchei, and Kawrchei are handwoven by women on loom, frame, or Zo looms, featuring traditional motifs and vibrant colours. These textiles serve as essential materials and culturally unique products for craft, fashion, and export-oriented sectors across the North East.

This depth of artisanal capability is reinforced by five GI-tagged textile products – Pawndum, Ngotekherh, Hmaram, Tawlhlopuan, and Mizo Puanchei – supported by an estimated 10,000 looms and a weaver workforce of 17,000³²⁴, indicating a scale sufficient to support cluster-based upgrading, design-led value addition, and stronger market integration.

³¹⁹ North Eastern Development Finance Corporation Ltd. (NEDFi). NEDFi Databank. <https://databank.nedfi.com/>

³²⁰ North Eastern Development Finance Corporation Ltd. (NEDFi). NEDFi Databank. <https://databank.nedfi.com/>

³²¹ Environment, Forests & Climate Change Department, Government of Mizoram. (2017). *Bamboo resources in Mizoram*. <https://forest.mizoram.gov.in/page/bamboo-resources-in-mizoram>

³²² North Eastern Development Finance Corporation Ltd. (NEDFi). NEDFi Databank. <https://databank.nedfi.com/>

³²³ Press Information Bureau, Government of India. (2025, August 20). *4G broadband in North Eastern Region* [Press release]. <https://www.pib.gov.in/PressReleasePage.aspx?PRID=2158463®=3&lang=2>

³²⁴ North Eastern Development Finance Corporation Ltd. (NEDFi). NEDFi Databank. <https://databank.nedfi.com/>



15.4 Comparative advantage analysis

Mizoram's comparative positioning is defined by a combination of bamboo resource dominance, organic agriculture base, high literacy and human capital, and strategic cross-border connectivity. These advantages operate across three layers – state level within the NER, regional level within India, and international level relative to Southeast Asia and global markets.

State advantage versus NER

Forest and bamboo resource dominance

Highest forest cover density at 85.34%³²⁵ exceeds Assam/Meghalaya medians; leads with 20+ bamboo species (95% Mautak)³²⁶, positioning the state as the top producer via New Land Use Policy (NLUP) subsidies. This concentration creates scale for anchoring bamboo-based industries and forest product value chains compared to fragmented resources across other NER states, enabling competitive raw material costs and consistent supply for processing units.

Human capital and literacy leadership

Literacy at 98.2%³²⁷ surpasses all NER states and national average, creating superior workforce quality for knowledge-intensive sectors. High educational attainment combined with English proficiency and tech-savvy youth population positions the state uniquely for IT/ITeS operations, digital services, and skilled employment generation absent in other northeastern states with lower human development indicators.

Organic agriculture specialization

Zoram Mega Food Park pioneers agri-processing in NER, focused on ginger/turmeric MSP; organic plantations (broom/ginger) leverage traditional jhum systems transitioning to settled organic farming. GI-tagged "Ginger Capital of India" status with 60%-70%

agricultural baseline already organic provides authentic certification advantages and premium market positioning unavailable to conventional farming systems in Assam plains and other NER states.

Regional advantage versus rest of India

Bamboo industrial ecosystem

85.34% forest cover ranks 2nd nationally with +241.73 sq km recorded gain³²⁸; 20+ bamboo species³²⁹ create unmatched raw material security. Sustained forest expansion enables long-term industrial planning for bamboo processing, lamination, and bio-products unavailable in states with declining forest cover, positioning the state as India's potential bamboo manufacturing hub with FSC certification capabilities.

Service economy maturity with organic edge

Services GSVA share of 46.6% aligns closely with states' average 51%³³⁰, reflecting advanced structural transformation typically seen in more developed states. Combined with extensive organic agricultural baseline, creates unique hybrid development model offering service economy sophistication while retaining sustainable primary sector strengths and premium agricultural positioning.

Infrastructure and sustainability excellence

Achieves high rate of power access and sanitation; SDG score 81.43 (Hnahthial)³³¹ beats national average despite lower per capita income. Superior social development indicators relative to economic development level demonstrate governance effectiveness and inclusive growth, creating enabling environment for business operations and quality of life advantages for attracting skilled workforce and investment.

³²⁵ Indian State of Forest Report 2023 https://fsi.nic.in/uploads/isfr2023/isfr_book_eng-vol-2_2023.pdf

³²⁶ Bamboo Policy of Mizoram 2002 https://mizoramassembly.in/storage/Assembly/Gazette/EO/GZEO31_ISS222.pdf

³²⁷ Government of Mizoram, Directorate of Information & Public Relations, "Chief Minister Declares Mizoram the First Fully Literate State in India"

<https://dipr.mizoram.gov.in/post/chief-minister-declares-mizoram-the-first-fully-literate-state-in-india>

³²⁸ Indian State of Forest Report 2023 https://fsi.nic.in/uploads/isfr2023/isfr_book_eng-vol-2_2023.pdf

³²⁹ Bamboo Development Agency, Government of Mizoram

³³⁰ A Macro and Fiscal Landscape of the State of Mizoram <https://niti.gov.in/sites/default/files/2025-07/Macro-and-Fiscal-Landscape-of-the-State-of-Mizoram-1.pdf>

³³¹ Government of India, Press Information Bureau, "North East India's SDG Progress"

<https://www.pib.gov.in/PressNoteDetails.aspx?id=154877&Notelid=154877&ModuleId=3®=3&lang=2>



International advantage versus SE Asia and global markets

Organic premium positioning

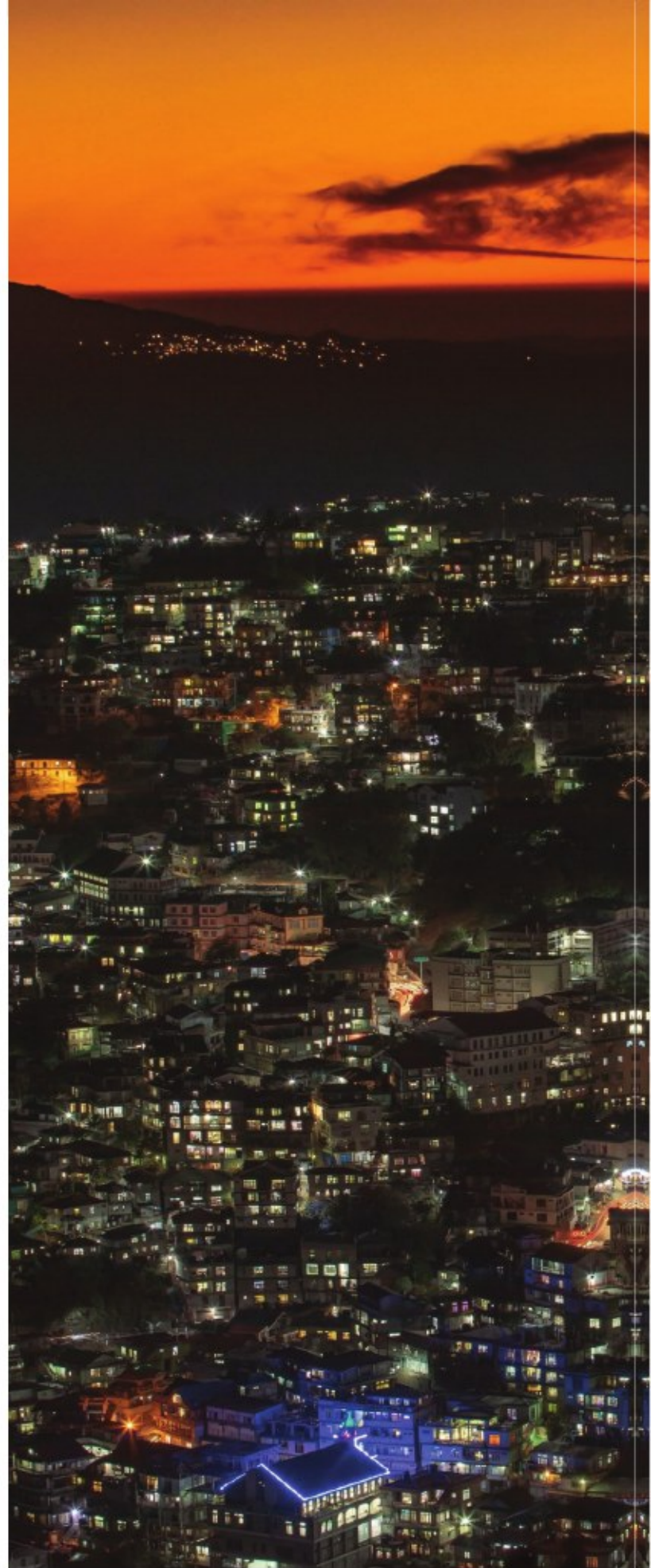
Zoram Mega Food Park agri-exports align with Vietnam volumes via favorable time-zone; organic ginger/turmeric plantation costs/yields rival Vietnam and Indonesia competitiveness. GI-tagged organic certification combined with traditional farming systems commands premium pricing in health-conscious European and Japanese markets, differentiating from chemical-intensive Southeast Asian produce while maintaining cost competitiveness through lower input requirements.

Bamboo processing gateway

Bamboo processing matches Vietnam standards; Act East positioning serves as Myanmar gateway; eco-forest products benchmark Southeast Asian bamboo hubs near Myanmar border. Geographic proximity combined with FSC certification potential and cross-border trade infrastructure creates advantages for serving ASEAN markets with sustainable, certified bamboo products commanding premium over conventional Southeast Asian alternatives.

Digital services time-zone advantage

IT/BPO operations five hours ahead of Philippines with high-literacy talent (98.2%)³³². Time zone enables real-time collaboration with European clients during their business hours, while workforce quality matching established outsourcing destinations at competitive costs creates compelling value proposition for remote service delivery, particularly in niche segments like geo-spatial services, climate informatics, and high-skilled BPO operations.



³³² Government of Mizoram, Directorate of Information & Public Relations, "<https://dipr.mizoram.gov.in/post/chief-minister-declares-mizoram-the-first-fully-literate-state-in-india>"

Chief Minister Declares Mizoram the First Fully Literate State in India" [y-literate-state-in-india](https://dipr.mizoram.gov.in/post/chief-minister-declares-mizoram-the-first-fully-literate-state-in-india)

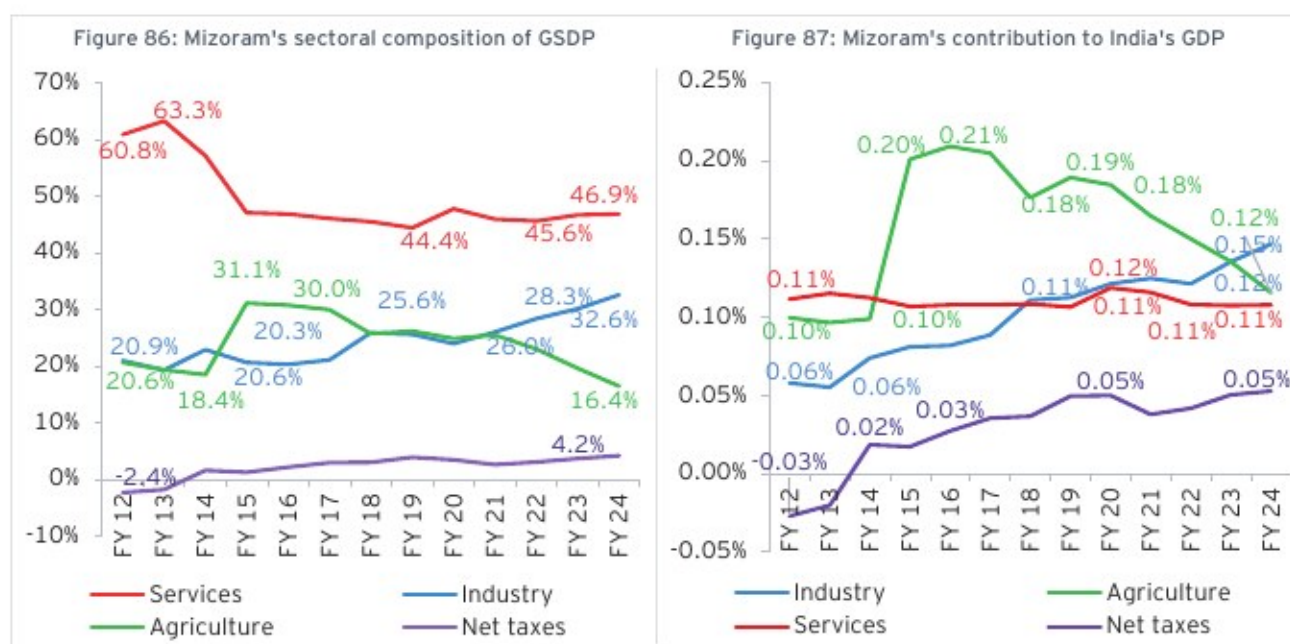


15.5 State economic analysis

Structure of Mizoram's economy

Mizoram's economy shows a steady structural transformation with services maintaining sustained dominance while agriculture has declined from its historically significant position. Industry's gradual expansion reflects emerging industrialization progress amid persistent structural constraints, while rising net taxes reflect progressive fiscal strengthening and improved revenue mobilization capacity.

Mizoram's national comparative advantage has shifted decisively away from agriculture, which is rapidly losing its national share despite the state's organic agriculture potential and "Ginger Capital" designation. Industry has strengthened moderately but remains significantly under-represented in India's economy, while services maintain stable but modest national positioning, signaling need for strategic interventions to scale efficiencies and drive competitiveness across all economic segments.



Centre for Monitoring Indian Economy Pvt. Ltd. (n.d.). States of India [Database]. <https://statesofindia.cmie.com>

Source: MoSPI, EY Analysis

Agriculture: Declining national presence despite organic potential

Agriculture's share of Mizoram's GSDP fell from 20.6% in FY12 to 18.4% in FY24, reflecting a structural shift away from the primary sector, and the state's share of India's Agricultural GDP diminished from 0.21% in FY16 to 0.12% in FY24. This decline is significant, especially given the state's organic agriculture base, high forest cover, and highlights a loss of comparative advantage in agriculture relative to the national landscape despite designation and GI-tagged advantage.

Industry: Gradual expansion with emerging manufacturing base

Industry has expanded from 20.9% of GSDP in FY12 to 29.8% in FY24, showing structural development, and its national contribution rose from 0.06% to 0.15%, highlighting nascent industrialization progress. The bamboo processing, food processing, and emerging

manufacturing sectors show potential, yet the persistent manufacturing and industrial gap relative to India's benchmark underscores infrastructure and scale constraints.

Services: Maintaining dominance with modest national footprint

Services declined from 60.8% of GSDP in FY12 to 47.3% in FY24, while remaining the dominant sector – and Mizoram's share of India's services GDP remained stable at 0.11%, indicating limited scale against major hubs despite high literacy and digital potential.

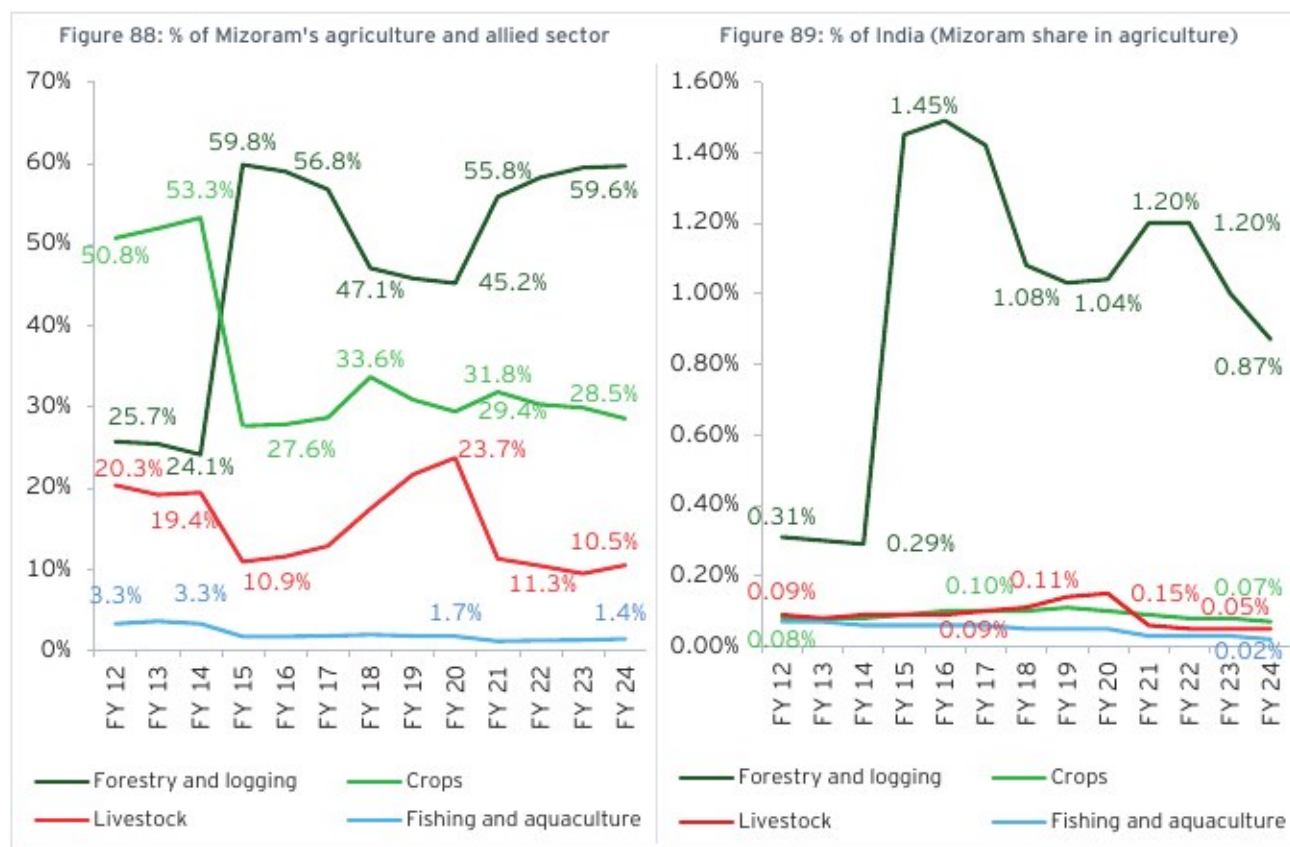
Net taxes: Progressive fiscal strengthening

Net tax revenue climbed from negative 2.4% of GSDP in FY12 to 4.2% in FY24, signaling stronger fiscal capacity, and its contribution to India's net tax base rose significantly from negative 0.03% to 0.05%, marking substantial gains in national fiscal participation and improved revenue mobilization despite the state's compact economic base.



15.6 Sectoral structure of Mizoram's economy

Agriculture and Allied Sector



Centre for Monitoring Indian Economy Pvt. Ltd. (n.d.). States of India [Database]. <https://statesofindia.cmie.com>

Source: MoSPI, EY Analysis

Internal structure of Agriculture and Allied Activities

Forestry and logging and Crops alternate dominance in Mizoram's agriculture sector, with Forestry yielding 59.8% in FY15, before declining to 47.1% by FY18 and recovering to 59.6% by FY24.

Crops have seen a volatile trajectory declining from 50.8% in FY12 to 24.1% in FY15, though recovering to 28.5% in FY24, reflecting fluctuations likely tied to Mizoram's jhum cultivation patterns and shifting agricultural priorities.

Livestock contribution has fluctuated from 20.3% in FY12 to 23.7% in FY20, before declining to 10.5% in FY24, remaining a moderate component compared to Forestry and Crops.

Fishing and aquaculture showed modest presence ranging from 3.3% in FY12 to 1.4% in FY24, highlighting gradual decline but remaining the smallest component of the agriculture sector.

Mizoram's share in India's agriculture

Forestry and logging national share surged dramatically from 0.31% in FY12 to peak at 1.45% in FY15, before declining to 0.87% in FY24, indicating fluctuating comparative advantage in the natural resources.

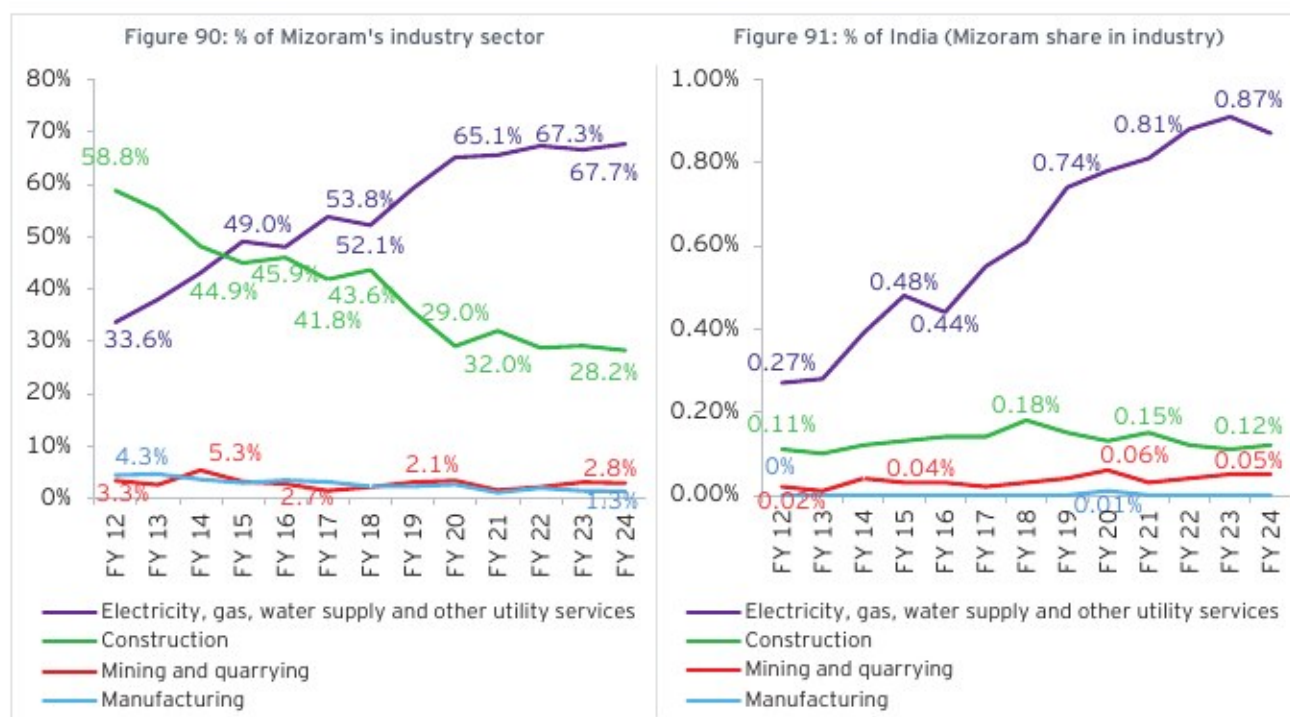
Crops share in India remained minimal, rising from 0.08% in FY12 to 0.10% in FY17, before declining to 0.07% in FY24, showing weakening comparative presence.

Livestock contribution to India declined from 0.11% in FY18 to 0.05% in FY24, showing diminishing scale.

Fishing and aquaculture had marginal presence at 0.05% in FY24, showing very limited gains and national insignificance.



Industry sector



Centre for Monitoring Indian Economy Pvt. Ltd. (n.d.). States of India [Database]. <https://statesofindia.cmie.com>

Source: MoSPI, EY Analysis

Internal structure of industry

Electricity, gas, water supply and other utility services emerged as the dominant sub-sector, rising sharply from 33.6% in FY12 to 65.6% in FY20, and stabilizing at 67.7% by FY24. This reflects Mizoram's focus on power and utility-based industries, though lacking the hydroelectric potential scale of neighboring states.

Construction started high at 58.8% in FY12, but has since declined dramatically to 28.2% in FY24, indicating a slowdown in infrastructure-driven industrial activity.

Mining and quarrying increased modestly from 3.3% in FY12 to 2.8% in FY24, showing minimal contribution yet stable presence in the state.

Manufacturing has remained relatively marginal, fluctuating between 3% and 5%, declining from 4.3% in FY12 to 1.3% in FY24, suggesting weak industrialization and limited value-addition within the state.

Mizoram's share in India's industry

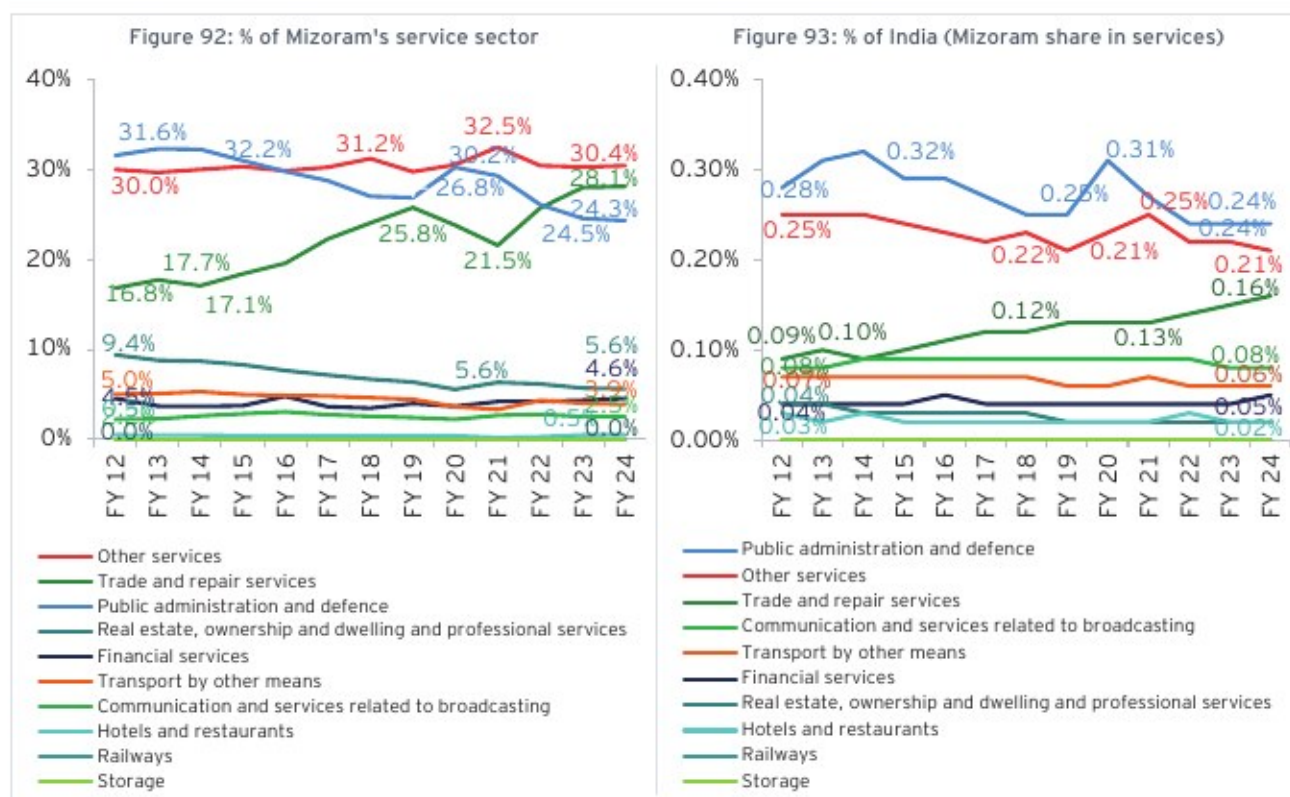
Electricity, gas, water and utilities emerged as the most prominent contributor, with Mizoram's national share growing strongly from 0.27% in FY12 to 0.87% in FY24. This marks the state's strongest comparative advantage within industry.

Construction share grew from 0.11% in FY12 to 0.12% in FY24, highlighting modest but steady presence at the national level.

Mining and quarrying share increased marginally from 0.02% in FY12 to 0.05% in FY24, showing minimal but improving comparative advantage.

Manufacturing share remained less than or equal to 0.01% throughout, indicating negligible presence and confirming structural weakness in industrial production and very limited manufacturing base.

Services sector



Centre for Monitoring Indian Economy Pvt. Ltd. (n.d.). States of India [Database]. <https://statesofindia.cmie.com>

Source: MoSPI, EY Analysis

Internal structure of Services

Other services (education, health, social) saw measured growth, rising from 30.0% in FY12 to 32.5% in FY21, before moderating to 30.4% in FY24, emerging as one of the largest sub-sectors within services.

Public administration and defence declined from 31.6% in FY12 to 24.3% in FY24, with a slight recovery to 30.2% in FY20, reflecting fluctuations in government expenditure and administrative activities.

Trade and repair services showed substantial growth, rising from 16.8% in FY12 to peak at 28.1% in FY24, reflecting strengthening commercial activity and market development in the state.

Real estate and professional services declined from 9.4% in FY12 to 5.6% in FY24, showing reduced contribution over the period.

Financial services remained steady in the narrow range of 4.5% in FY12 to 4.6% in FY24, indicating stable penetration of banking and insurance services.

Transport by other means declined from 5.0% in FY12 to 3.9% in FY24.

Communication and services related to broadcasting, Hotels and restaurants, Railways, and Storage remained marginal contributors, with each staying below 3% throughout the period.

Mizoram's share in India's services

Public administration and defense showed notable presence, contributing 0.28% in FY12, peaking at 0.32% in FY14, before declining to 0.24% in FY24, representing a significant share for Mizoram in services.

Other services share declined from 0.25% in FY12 to 0.21% in FY24, showing weakening comparative presence despite being a major internal sub-sector.

Trade and repair services share rose from 0.09% in FY12 to 0.16% in FY24, showing gradual strengthening and improved commercial integration with national markets.

Communication and broadcasting share remained steady at 0.08% in FY12 and 0.08% in FY24, with a peak of 0.09% in FY14, showing stable but modest presence throughout.

Transport by other means decreased from 0.07% in FY12 to 0.06% in FY24, indicating declining comparative advantage.

Real estate and professional services, Hotels and restaurants, Railways, and Storage all maintained very limited national presence, remaining below 0.05% throughout the period, while **financial services** reached 0.05% in FY24, indicating negligible comparative advantage in most of these sub-sectors.



15.7 SWOT analysis

Mizoram's strategic outlook is shaped by exceptional bamboo wealth, human capital excellence, and cross-border gateway positioning, counterbalanced by infrastructure deficits and limited industrial base. The SWOT assessment provides a consolidated, strategy-led view to inform prioritization under the state's vision framework.

Strengths

- Natural capital: ~85% forest cover³³³ and highest bamboo density in the NER, enabling bio-based value chains.
- Clean energy and sustainability: second-highest solar capacity in NER, supported by strong renewable potential.
- Growth momentum: robust GSDP growth trajectory and rapid expansion in tourism and allied services.

Weaknesses

- Limited connectivity and infrastructure constraints due to hilly terrain, landslide risks, and dispersed settlements.
- Low industrial base and manufacturing depth, with minimal workforce absorption beyond agriculture and retail services.
- Fiscal pressures driven by expenditure growth outpacing revenue mobilisation.

Opportunities

- 404 km Myanmar and 318 km Bangladesh borders enable SE Asia trade and exports.³³⁴
- Zoram Mega Food Park provides value-chain integration linking thousands of farmers.
- Visitor footfall surge signals potential for hospitality sector expansion.

Threats

- Terrain vulnerabilities with landslides disrupting roads/rail and climate impacts on plantations.
- Remote location raises logistics costs vs. NER hubs like Assam.
- Sectoral lags with policy frameworks requiring modernization and low MSME scale vs. national competitors.

³³³ Indian State of Forest Report 2023 https://fsi.nic.in/uploads/isfr2023/isfr_book_eng-vol-2_2023.pdf

³³⁴ Mizoram NIC <https://mizoram.nic.in/about/glance.htm>



15.8 Strategic recommendations

Despite its compact geography and dispersed settlement pattern, Mizoram has transformative potential to emerge as the NER's bamboo bio-economy leader and organic agriculture hub, leveraging its

unparalleled forest wealth, high human capital, and strategic cross-border positioning to drive sustainable and inclusive growth across multiple high-value sectors.

Key challenges and strategic approach

Table 63: Key challenges and strategic approach (Mizoram)

Key Challenge	Context	Strategic Approach
Low urban concentration and weak economic density	Population 2.3 million dispersed; only Dimapur has commercial density. Fragmentation limits scale economies and MSME growth.	Consolidate growth in Dimapur-Kohima corridor through densification: commercial space, housing, healthcare, and skilling.
Logistics dependence on Assam corridors	Heavy Assam dependence raises costs and disruption risk. Dimapur was sole rail station for 100+ years until Shokhuvi (2022); 82.5 km Dimapur-Kohima line under construction, targeted completion by December 2029.	Accelerate Dimapur-Kohima rail completion to reduce Assam dependence. Strengthen last-mile road connectivity from production clusters to rail nodes.
Under-leveraged Act East location	Contributes only 3.7% of NER GDP despite Myanmar border; formal trade weak, informal exchanges dominate.	Develop border trade nodes with warehousing, testing, and customs. Position as services-enabled Act East gateway.
Fragmented agri and plantation value chains	Per capita GSDP ₹1.9 lakh constrained by low value addition; high-value crops operate in small, dispersed volumes.	Shift to cluster-led systems with processing, certification, and branding, anchored to Dimapur logistics.
Low industrial value addition despite MSME base	70,000+ MSMEs mostly micro, informal, disconnected from institutional markets; lack common facilities and standards.	Promote sector-specific clusters (bamboo, agro-processing, construction) with shared infrastructure and compliance support.
Seasonal and episodic tourism economy	Strong cultural and eco-tourism assets but demand concentrated in short windows, limiting stable employment.	Implement destination management: better access, professional hospitality, circuit-based tourism for year-round employment.
Social and environmental sensitivity around mining	Mineral resources face community resistance, environmental risks, and logistics constraints.	Prioritize regulated downstream processing over extraction; ensure community participation and environmental safeguards.
Private-sector depth and job absorption	High education and young workforce (31% aged 15-29), yet elevated unemployment due to limited private job creation.	Expand urban services, formalize MSMEs, leverage institutional procurement to convert human capital into jobs.

Strategies for Mizoram

- **Green industrialization through Engineered Bamboo:** Industrial viability requires clarity on specific product segments with demonstrated market demand – construction materials, textiles, composites – and the technology partnerships necessary to achieve quality standards that justify Mizoram-based sourcing over competing production geographies. Bamboo availability alone is insufficient; the state must develop processing capabilities, quality assurance

systems, and buyer relationships that convert resource endowment into reliable commercial supply. Additionally, sustainable extraction protocols are essential to prevent resource depletion that would undermine long-term industrial positioning.

- **Agri-processing as primary economic growth lever:** Converting existing agri-processing infrastructure into economic outcomes requires explicit market access strategies – identifying target geographies, distribution channels, and

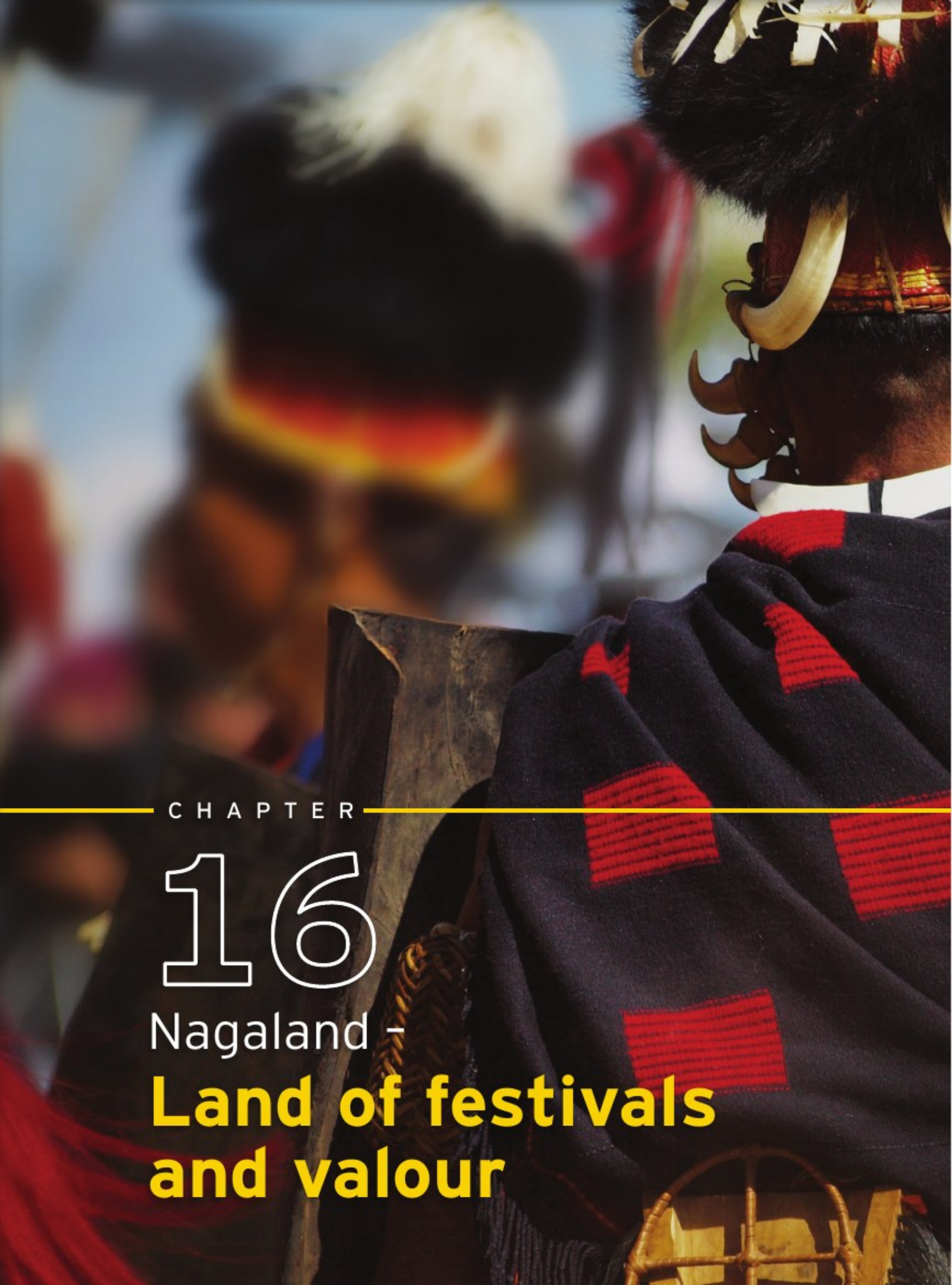


buyer segments for Mizoram's processed products. Organic certification provides differentiation, but sustained premium realization depends on consistent quality, volume reliability, and brand positioning that distinguishes Mizoram produce in crowded domestic and export markets. This necessitates backward integration with farmer collectives for quality standardization and forward integration into logistics and cold-chain systems that maintain product integrity to end markets. Processing capacity without structured offtake mechanisms and quality consistency frameworks might not translate into stable producer incomes or scalable exports.

- **Tourism as structured services-sector engine:** Tourism's economic contribution depends on moving beyond footfall growth to value capture through structured service delivery. This requires defining specific tourism product architecture – adventure circuits, cultural immersion experiences, wellness retreats, or eco-tourism programming – matched to target visitor segments and their spending patterns. Infrastructure quality standards, service provider certification, and experience curation determine whether Mizoram captures premium positioning or competes on price with alternative destinations. Additionally, carrying capacity frameworks are necessary to prevent environmental degradation of the very assets being monetized, while benefit distribution mechanisms must allow tourism revenues to reach communities beyond Aizawl and gateway towns. Tourism's seasonal volatility also necessitates developing off-season product offerings or complementary economic activities that stabilize incomes.
- **Investment-led industrial transition via policy enablement:** Industrial policies succeed not through incentive generosity alone but through reducing transaction costs and regulatory uncertainty for investors. This necessitates state capacity building in areas currently constrained: project appraisal, technical support for enterprise development, market intelligence provision, and quality infrastructure for testing and certification. Additionally, sector prioritization based on locational feasibility – which industries genuinely make economic sense in Mizoram given connectivity constraints and factor costs – determines whether policy translation attracts viable enterprises or remains aspirational. Competitive benchmarking against incentive structures in other NER states and Southeast

Asian alternatives is essential to enable Mizoram's offerings are commercially compelling.

- **Infrastructure connectivity and logistics cost management:** All value chains – bamboo processing, agri-exports, tourism – are constrained by Mizoram's connectivity limitations. Strategic infrastructure prioritization that identifies which corridors matter most for each sector, combined with digital infrastructure investments that compensate where physical connectivity remains challenging, determines economic feasibility. Logistics cost frameworks that clarify whether processing occurs in-state or at better-connected interface points with Assam or other regions are essential for realistic value chain design.
- **Cross-border economic integration:** Mizoram's borders with Myanmar and Bangladesh represent underutilized strategic assets. As regional connectivity improves under Act East frameworks and Myanmar's economic trajectory stabilizes, developing border trade infrastructure, trans-border value chain linkages, and positioning as a gateway for specific commodity flows could create differentiated growth channels. This requires proactive engagement with central trade facilitation mechanisms and bilateral frameworks rather than treating borders as peripheral.
- **Human Capital leverage and Knowledge Services:** High literacy and educational attainment position Mizoram for knowledge-based services and remote work opportunities – IT-enabled services, content development, specialized professional functions – that do not require heavy industrial infrastructure. Leveraging diaspora networks for investment facilitation, market access, and technical expertise transfer represents an additional, currently underutilized asset. This requires targeted skill development aligned with remote service demand and digital infrastructure reliability.
- **Fiscal sustainability and revenue architecture:** Economic growth must translate into enhanced state fiscal capacity rather than perpetuating transfer dependence. This requires designing revenue frameworks – tourism taxation structures, industrial licensing fees, processing levies – that convert private sector growth into public resources for reinvestment. Public-private financing models for sector infrastructure that avoid overextending state finances while ensuring necessary facility development are essential for sustainable scaling.



CHAPTER

16

Nagaland -

**Land of festivals
and valour**



16.1 Socio economic profile, state USP and unique identity

Socio economic profile

Table 64: State overview (Nagaland)

State overview ³³⁵	
Area	16,579 km ²
Population (2025)	2.3 million
GSDP (FY25)	137.2 persons per km ²
Per Capita GSDP (FY25)	INR1,76,691
Contribution to NER GDP	INR 39,808.6 crore
Population density	4.3%
Unemployment Rate (2024)	₹24,849 crore
Urbanization Rate (2025)	7.8%
State Budgeted Expenditure (FY26)	48.7%
Number of MSMEs (2025)	71,067
Debt to GSDP (FY25)	47.7%
Literacy	95.7% (3rd fully literate state in India)
Youth population	30.9%
Human development index	0.67
Export Preparedness Index	18 th rank; Score: 46.4

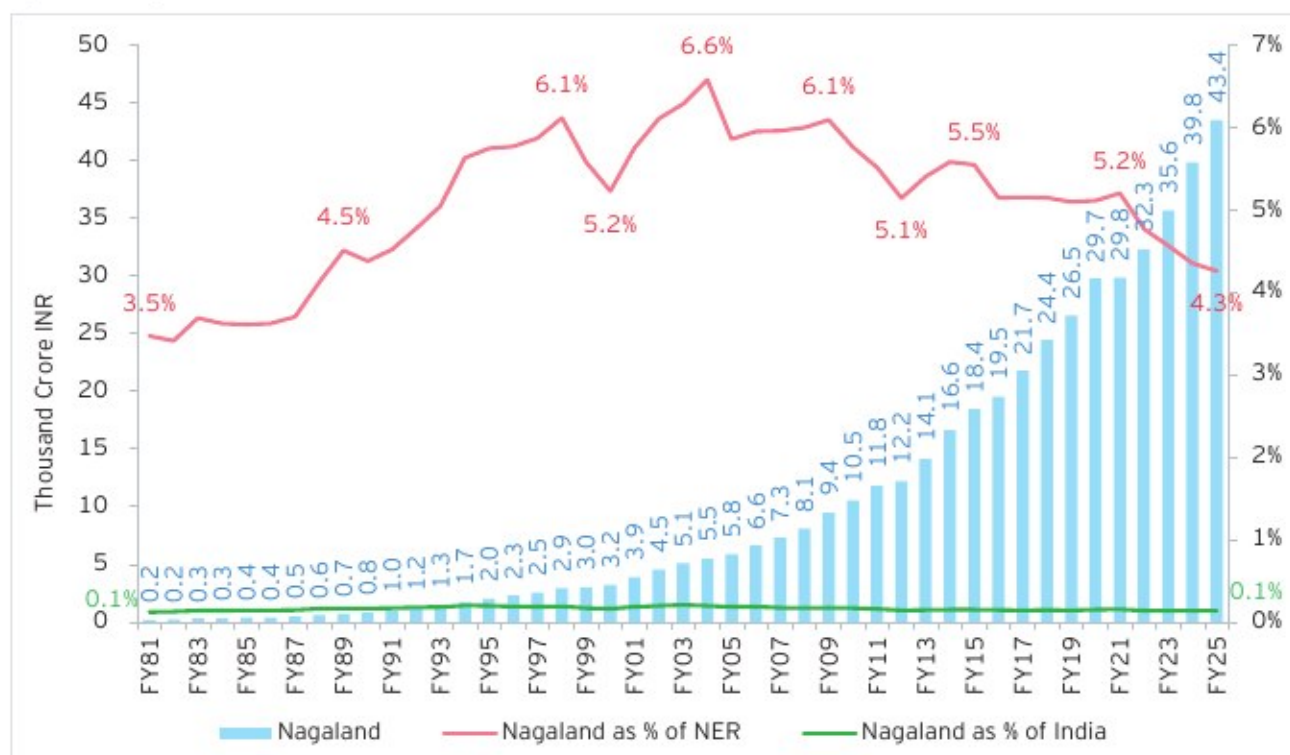
Nagaland, located in the eastern part of India's North Eastern Region, is a small hill state, with a steadily growing economy. It stands out in the region for its high literacy levels and strong services-led growth

trajectory. The state occupies a strategic position along the India-Myanmar border, with an area of 16,579 km² and an estimated population of 2.3 million (2025)

³³⁵ Census of India, Nagaland Industrial Development & Investment Policy 2025, PLFS 2023-24 NITI NCAER Macro and Fiscal Landscape of the State of Nagaland, "NITI Aayog Export Preparedness Index 2024, Global Data Lab, "Subnational HDI (SHDI) – India (2022) Census of India, 2011, MoSPI, Government of India, National Statistical Office (NSO), Ministry of Statistics and Programme Implementation. *Youth in India 2022* (June 29, 2022). https://www.mospi.gov.in/sites/default/files/publication_reports/Youth_in_India_2022/Youth_in_India_2022.pdf
Government of India, Ministry of Statistics and Programme Implementation, Lok Sabha Unstarred Question No. 5160 (Answered on 02.04.2025), "PLFS Reports," Annexure – Annual Report, Periodic Labour Force Survey (PLFS) 2023-24. https://sansad.in/getFile/loksabhaquestions/annex/184/AU5160_LZipbs.pdf?source=pgals&utm_source



Figure 94: Nagaland GSDP

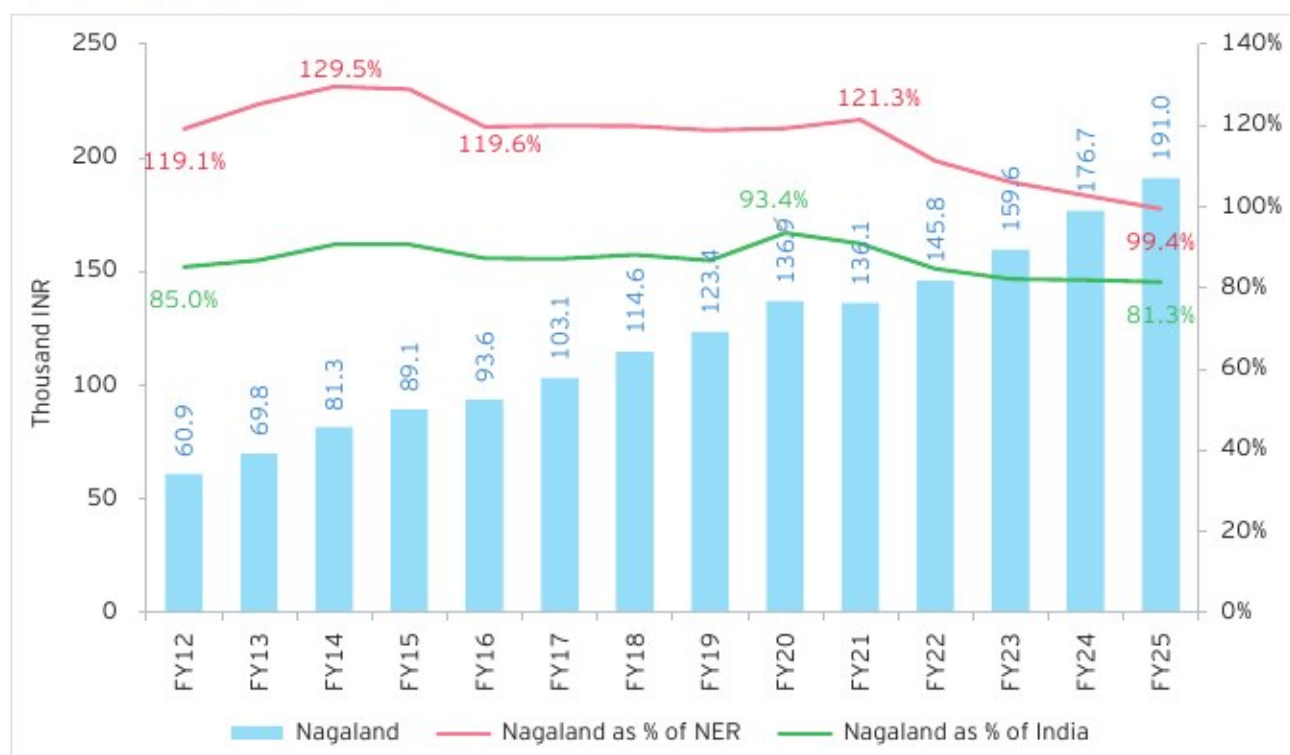


Source: MoSPI

Nagaland has exhibited steady, services-led economic expansion, with GSDP rising from INR264 Cr in FY83 to INR43.4 thousand crore in FY25, accounting for about 4.3% of NER's GDP. Per capita GSDP

reached INR1.9 lakh by FY25, reflecting sustained income growth and standing at roughly 80%-82% of the national average.

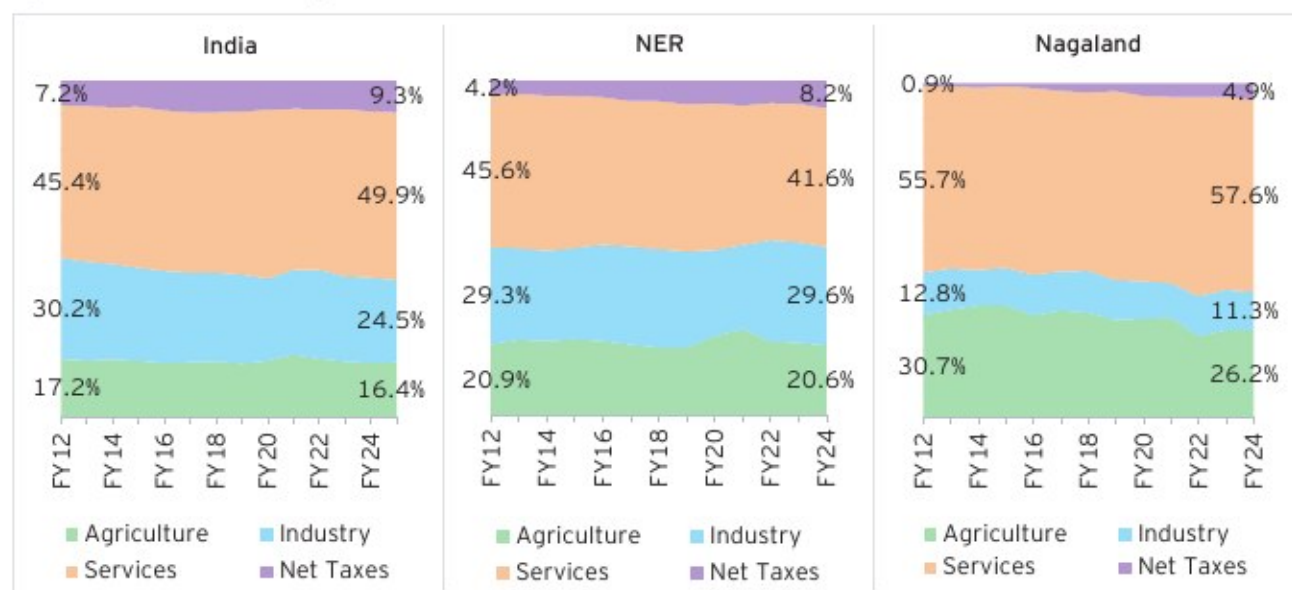
Figure 95: Nagaland per capita GSDP



Source: MoSPI



Figure 96: India vs NER vs Nagaland sectoral shares



Source: World Bank, MoSPI

Nagaland's GVA remains strongly services-led in FY24, with services accounting for 57.6% of total GVA, reflecting the state's relatively advanced urbanization (48.7%). Agriculture contributes 26.2%, underscoring its continued importance for livelihoods despite a gradual decline in relative share over the decade. Industry remains limited at 11.3%, reflecting structural constraints in manufacturing and large-scale industrial activity, while net taxes contribute 4.9%³³⁶, indicating that future growth acceleration could depend less on traditional industrialization and more on improving productivity in agriculture, urban services, and public sector linked economic activity. Given the state's small economic base, targeted improvements in market access, agri-value chains, and urban service delivery offer the highest leverage for broad-based income growth.

On human development, Nagaland performs strongly on educational outcomes, with a literacy rate of 95.7%³³⁷, making it India's third fully literate state. However, the unemployment rate remains elevated at 7.8%³³⁸, pointing to a persistent mismatch between educational attainment and local employment opportunities. The state's Human Development Index stands at 0.67³³⁹, suggesting relatively better outcomes compared to several NER peers, but also highlighting gaps in income generation and access to quality healthcare and urban services, particularly outside key towns.

In terms of competitiveness, Nagaland ranks 18th in Export Preparedness Index³⁴⁰, reflecting incremental institutional improvements but continued constraints related to market size, connectivity, and private investment depth. With a contribution of 4.3% to NER GDP and a debt-to-GDP ratio of 48%³⁴¹, fiscal space remains limited. Strengthening regional connectivity with Myanmar, improving urban infrastructure, and aligning skills with services and cross-border trade opportunities can be critical to translating human capital strengths into sustained economic gains.

Nagaland's Unique Selling Proposition and unique identity

Nagaland's sectoral composition is dominated by agriculture and horticulture (27.5% of GVA), followed by other services (18.9%) and public administration (15.4%), reflecting the state's agrarian base alongside a strong public-sector and services footprint. Trade, repair, hotels and restaurants (9.2%), construction (8.4%), and transport and storage (5.8%) together indicate limited but growing market-linked and infrastructure-related activity, largely concentrated in urban centers.³⁴²

³³⁶ (MoSPI), Ministry of Statistics and Programme Implementation

³³⁷ Annual Report, PLFS, 2023-24

³³⁸ Annual Report, PLFS, 2023-24

³³⁹ Subnational HDI (SHDI) – India (2022)

³⁴⁰ NITI Aayog Export Preparedness Index 2024

³⁴¹ MoSPI

³⁴² NITI Aayog ICED Portal



This structure points to an economy where primary activities and government-led services drive output and employment, while private-sector-led, tradable activities remain relatively shallow. The modest shares of construction, logistics, and commercial services suggest untapped potential for value-chain development, urban services expansion, and market integration areas that could enable gradual structural transformation without relying on large-scale industrialization.



Sectoral GVA (%)

27.52%	18.86%	15.40%	9.22%	8.36%	5.83%
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Distinctive economic assets

Nagaland's economic distinctiveness lies in a rare combination of strategic geography, critical minerals, and identity-based natural and cultural assets. The state hosts one of India's largest cobalt reserves, placing it within future-facing battery minerals and EV-linked value chains of growing geopolitical and industrial importance. Alongside this, ~315 million tons of coal deposits provide a resource base for regionally oriented cement, construction materials, and power-linked industries. In a fragile hill ecology, these assets point not to extractive-led growth but to carefully governed, downstream-oriented value chains aligned with regional demand and environmental constraints.

Geographically, Nagaland's location along India's Act East Policy corridor, with proximity to the India-Myanmar border and the Moreh-Tamu route, positions it as a potential node for cross-border trade and ASEAN connectivity, including linkage to the India-Myanmar-Thailand Trilateral Highway. As road, logistics, and customs infrastructure matures, the

state can evolve into a logistics and transshipment hub serving Manipur, parts of Arunachal Pradesh, and cross-border commerce – an opportunity contingent on sustained investments in connectivity, warehousing, and urban logistics capacity.

Nagaland's agricultural and forest-based assets combine scale in select crops with strong niche differentiation. The state is one of India's leading producers of tapioca, supporting starch and food-processing value chains, while Bhut Jolokia, originating in Nagaland, anchors premium niche spice markets. Naga tree tomato (tamarillo) offers emerging superfood potential with minimal domestic competition, complemented by wild mountain honey, medicinal and aromatic plants suited to wellness and pharmaceutical applications, and specialty coffee cultivation in southern districts benefiting from favorable altitude and climate. Extensive bamboo and cane resources further strengthen prospects in green construction materials, furniture, handicrafts, and sustainable packaging, aligning with low-carbon and circular economy priorities.

Cultural and ecological capital adds a distinct, non-substitutable dimension to Nagaland's economy. The Hornbill Festival anchors global cultural visibility, while tribe-specific festivals such as Moatsu, Sekrenyi, and Tuluni enable a decentralized tourism calendar. The state's identity as the "Falcon Capital of the World", driven by Amur falcon congregations, supports conservation-led eco-tourism, while 17 indigenous tribes, 60+ dialects³⁴³, strong village councils, and a vibrant music, arts, and culinary tradition provide a foundation for community-based tourism, creative industries, and specialty food enterprises. The strategic challenge is not asset scarcity but conversion – building institutions, market access, and value addition mechanisms that translate these endowments into scalable, sustainable economic activity suited to Nagaland's geography and social context.

³⁴³ Rising Northeast. Nagaland - Rising Northeast: Profile & Investment Highlights. <https://risingnortheast.in/nagaland/>

16.2 Nagaland's 10 recommended priority areas

10 Priority areas for Nagaland

1. Tourism
2. Agriculture and Horticulture
3. Food Processing
4. Bamboo Industries
5. Renewable Energy
6. IT and Digital Hub
7. Handloom and Handicrafts
8. Medicinal and Aromatic Plants
9. Forest-based Eco-services (Carbon, Payment for Ecosystem Services (PES))
10. Livestock and Fisheries

#1 Tourism

Nagaland's tourism economy is anchored in cultural authenticity across 17 tribes³⁴⁴, distinctive landscapes, and festival-led visibility. The Hornbill Festival in Nagaland is a major annual cultural tourism event that attracts large numbers of visitors each December and has become an important driver of tourism and local economic activity, though it also highlights strong seasonality in accommodation and visitor flows linked to the festival period rather than year-round demand.

Tourism demand is rebounding strongly. The state recorded 1.3 lakh tourist arrivals in 2024. Under Swadesh Darshan 2.0³⁴⁵, INR98.1 crore has been sanctioned for the development of Mokokchung-Tuensang-Mon³⁴⁶ region, improving last-mile roads, interpretation centers, and visitor facilities – addressing structural gaps in visitor experience.

The Pangti Amur Falcon initiative has become a globally recognized example of community-led wildlife conservation, transforming the village from a historic hunting ground into a major stopover site for migratory falcons and creating opportunities for eco-tourism and local economic engagement while maintaining strict conservation protocols. Certified

homestays in Nagaland benefit from quality frameworks that help standardize services and enhance attractiveness to travelers.

Strategically, tourism must shift from volume to professionalized, high-value experiences. Expanding certified homestays, trained local guides, and decentralized festival calendars can smooth seasonality and distribute income. Digital storytelling rooted in local voices, coupled with targeted improvements in last-mile connectivity, positions Nagaland within experiential and conservation tourism segments willing to pay for authenticity rather than mass tourism.

#2 Agriculture and horticulture

Agriculture employs nearly 50% of Nagaland's workforce³⁴⁷, reflecting both agro-ecological suitability and limited diversification. The state's comparative strength lies in crop diversity rather than scale: GI-tagged Naga King Chili (Bhut Jolokia), significant pineapple cultivation, citrus across 7,000+ hectares, and 61,267 tons of tapioca (fourth largest producer nationally)^{348 349 350}, positioning Nagaland among India's leading producers. Nagaland coffee industry is spread state-wide with legacy and active zones in Mokokchung, Wokha, Mon, Zunheboto, and Tuensang. The sector is driven by tribal smallholders cultivating shade-grown plots and a growing number of MSMEs engaged in roasting and retailing. As of 2022-23, there were nearly 2,200 registered coffee growers in Nagaland³⁵¹. Nagaland coffee has carved a niche in both domestic and international markets, exporting to countries such as South Africa, Bahrain, UAE, Germany, Italy, Netherlands, and across Southeast Asia. Green beans are typically sold to traders, while roasted beans are supplied to cafes and specialty buyers.

Extensive adoption of organic and low-input farming practices offers market differentiation, though much of this reflects traditional systems rather than fully commercial, certified organic supply chains. Structural constraints continue to suppress income realization. Fragmented landholdings, predominantly

³⁴⁴ Rising Northeast. Nagaland - Rising Northeast: Profile & Investment Highlights. <https://risingnortheast.in/nagaland/>

³⁴⁵ North Eastern Development Finance Corporation (NEDFi). NER Databank - North East India: State-wise Data Overview. <https://databank.nedfi.com/node/96>

³⁴⁶ Press Information Bureau, Government of India. Tourism Circuits for North Eastern States (Press Release No. PRID 2205888). <https://www.pib.gov.in/PressReleasePage.aspx?PRID=2205888®=3&lang=2>

³⁴⁷ NITI NCAER Macro and Fiscal Landscape of the State of Nagaland

³⁴⁸ Ministry of Food Processing Industries (MoFPI). State Profile: Nagaland.

<https://www.mofpi.gov.in/sites/default/files/KnowledgeCentre/State%20Profile/Nagaland.pdf>

³⁴⁹ Invest India. Nagaland - State Profile & Investment Opportunities. <https://www.investindia.gov.in/state/nagaland>

³⁵⁰ North Eastern Development Finance Corporation (NEDFi). Fruits - NER Databank (Horticulture). <https://databank.nedfi.com/horticulture/fruits>

³⁵¹ Press Information Bureau, Government of India. GST Reforms 2025: How Nagaland's Economy Will Gain Across Sectors (Press Release No. PRID 2179211). <https://www.pib.gov.in/PressReleasePage.aspx?PRID=2179211®=3&lang=2>



rain-fed cultivation, and weak aggregation mechanisms drive high post-harvest losses, particularly in perishable crops. Although cold-chain projects have been approved under Pradhan Mantri Krishi Sinchayee Yojana (PMKSY), implementation has lagged due to land availability challenges and contractor mobilization issues. Market access remains nascent, with only 15 operational Farmer Producer Organizations (FPOs)³⁵², and despite 19 markets³⁵³ – including Dimapur Agricultural Produce Market Committee, Dimapur (APMC) being integrated with the e-NAM platform as of mid-2025, transaction volumes remain modest.

Recent interventions signal incremental progress. Custom Hiring Centres under Sub-Mission on Agricultural Mechanization (SMAM) have expanded access to farm mechanization, reducing labor bottlenecks during peak seasons³⁵⁴. The Nagaland Organic Mission has enabled farmer certification and improved market positioning, with early adopters beginning to realize price differentiation in premium markets³⁵⁵. Under Mission for Integrated Development of Horticulture (MIDH), cluster-based horticulture development particularly for high-value fruits supported by micro-irrigation has demonstrated meaningful productivity improvements, validating aggregation-led approaches for hill agriculture.³⁵⁶

The strategic pathway lies in crop-specific clustering, not blanket expansion. Prioritizing passion fruit (Phek), kiwi (southern districts), and oranges (Mokokchung belt), supported by aggregation points, micro-irrigation, cold storage, and direct market linkages (e-NAM, contract sourcing), can convert diversity into income stability. Strengthening FPOs beyond registration towards input procurement, grading, and processing tie-ups might be critical. The objective is not universal commercialization, but replicable, profitable clusters that demonstrate viability and pull wider farmer participation.

#3 Food processing

Despite strong raw material availability, only a small share of Nagaland's agricultural output is processed. The state produces 60,000+ tons of tapioca³⁵⁷ and is the global origin of Bhut Jolokia, yet most output exits as raw produce. Post-harvest losses driven by aggregation gaps and power reliability issues, translate into significant income leakage.

Under the PMFME scheme in Nagaland, micro food processing enterprises across products like ginger-garlic paste, dried bamboo shoots and chili have been supported with capital investment, but many units are operating below full capacity due to inconsistent raw material supply chains, limited working capital and broader structural constraints in infrastructure and market linkages rather than lack of demand³⁵⁸.

Encouragingly, institutional and export markets show promise. Premium export-grade Bhut Jolokia products (including dehydrated or processed forms) command significantly higher prices overseas compared with domestic raw chili pricing. Tapioca's industrial applications – starch, food processing, and bio-ethanol – remain largely untapped despite established mainland demand.

Strategically, Nagaland requires integrated processing hubs rather than isolated units – combining cold storage, multi-product processing lines, packaging, and quality testing near Dimapur's logistics corridor. Contracts with farmer clusters and forward backward linkages through Agricultural and Processed Food Products Export Development Authority (APEDA), GeM, e-commerce, and institutional buyers are essential. Solar-backed power systems and dedicated credit lines can stabilize operations.

³⁵² Spices Board India. *FPO List 2021*. Retrieved from https://www.indianspices.com/sites/default/files/FPO_List_2021.pdf

³⁵³ National Agriculture Market (eNAM), Ministry of Agriculture & Farmers' Welfare, Government of India. *No. of Unified Licenses - State-wise Data*. <https://enam.gov.in/web/state-unified-license/no-of-unified-licenses>

³⁵⁴ Press Information Bureau, Government of India. *Farm Mechanization - A Mandatory Change: Empowering farmers through Sub-Mission on Agricultural Mechanization (SMAM)* (Press Release No. PRID 1726205).

<https://www.pib.gov.in/PressReleaseDetail.aspx?PRID=1726205&noshow=1&req=3&lang=2>

³⁵⁵ Department of Agriculture, Government of Nagaland. *Mission Organic Value Chain Development for North Eastern Region (MoVCD)*. <https://agriculture.nagaland.gov.in/movcd/>

³⁵⁶ Department of Horticulture, Government of Nagaland. *Mission for Integrated Development of Horticulture (MIDH)*.

<https://hortidept.nagaland.gov.in/mission-for-integrated-development-of-horticulture-midh/>

³⁵⁷ Ministry of Food Processing Industries (MoFPI). *State Profile: Nagaland*.

<https://www.mofpi.gov.in/sites/default/files/KnowledgeCentre/State%20Profile/Nagaland.pdf>

³⁵⁸ Department of Industries & Commerce, Government of Nagaland. *About PM-FME Scheme* (Pradhan Mantri Formalisation of Micro Food Processing Enterprises). <https://pmfme.nagaland.gov.in/about-pm-fme-scheme/>

#4 Bamboo industries

The growing stock of bamboo has been estimated to be around 8.96 million hectares in the country, out of which about 5% of the growing stock is assessed to be available in Nagaland (~0.5 million Ha³⁵⁹). National missions have supported plantations, processing units, and artisan training, while the Bamboo Technology Park at Medziphema provides mechanized treatment and seasoning infrastructure for producers.

Industrial momentum is emerging through mechanized processing units supplying laminated boards to neighboring states, alongside design collaborations with national institutions such as the *Bamboo and Cane Development Institute (BCDI)*, *Agartala*, *National Centre for Design and Product Development (NCDPD)* and *Export Promotion Council for Handicrafts* that have improved product functionality and market appeal³⁶⁰. Plantation-based bamboo under environmental missions also supports raw material security while contributing to land restoration.

Constraints persist in scale and integration. Processing capacity remains limited relative to potential, design support is project-based, and market linkages are fragmented across products and geographies. Strategically, Nagaland can position bamboo as a sustainable construction and green material, expanding common processing facilities, permanent design support, and BIS-compliant engineered products for housing and interiors. Integrating bamboo waste into biomass and biochar applications can further improve value capture while aligning with climate objectives.

#5 Renewable energy

Renewable energy is a priority for Nagaland due to its hilly terrain, dispersed settlements, and high cost of grid extension, which constrain reliable electricity access in remote villages. The state's physical geography – perennial streams and steep gradients, creates suitability for micro and small hydropower, while decentralized solar photovoltaic systems are viable where grid connectivity is weak or intermittent. These conditions make centralized power

infrastructure structurally inefficient relative to local generation.

Nagaland's community-based land ownership and village council governance provide an enabling institutional framework for community-owned renewable energy projects, allowing electricity assets to be aligned with local decision-making and revenue retention. Localized systems can reduce dependence on externally procured power and diesel-based backup, improving energy security while lowering recurrent fiscal and household energy costs.

Strategically, renewable energy prioritization supports reliable power for productive uses – including agro-processing, cold storage, and cottage industries linked to horticulture and bamboo – while minimizing transmission losses inherent in long-distance supply. The sector's advantage lies in decentralized deployment rather than scale expansion, with targeted investments focused on technical capacity, upfront financing, and system maintenance to deliver durable, village-level energy outcomes.

#6 IT and digital hub

Nagaland has clear service-sector fundamentals: high literacy (95.7%)³⁶¹, English proficiency, and a youthful demographic with over 31% in 15-29 years³⁶² age group. Under the North East BPO Promotion Scheme, a total of 5,000 seats were covered with substantial opex and capex support, yet only 3,511 seats have been allocated till date, 1,451 currently allocated seats of which 400 allocated to Nagaland with one unit³⁶³.

Infrastructure reliability has been a binding constraint. Under the BharatNet Project, 134 Gram Panchayats in Nagaland have been made service-ready over the last five years³⁶⁴, expanding the foundational digital connectivity required for last-mile service delivery and rural inclusion, though effective utilization continues to depend on complementary infrastructure and local capacity.

Skill development efforts are strengthening supply. NIELIT Kohima and NSDC partners trained over 4,398 individuals in the last three years³⁶⁵, while a leading

³⁵⁹ National Bamboo Mission (NBM), Department of Agriculture & Farmers' Welfare, Government of India. *Nagaland State Bamboo Policy*.

<https://nbm.da.gov.in/Documents/Policies/NagalandStateBambooPolicy.pdf>

³⁶⁰ Department of Agriculture & Farmers Welfare, Government of India. (2025). *Concept note on bamboo sector development* (PDF). National Bamboo Mission. https://nbm.da.gov.in/Documents/pdf/Concept_Note_Bamboo_25Feb.pdf

³⁶¹ Annual Report, PLFS, 2023-24

³⁶² Ministry of Statistics and Programme Implementation. *Youth in India 2022* (June 29, 2022).

https://www.mospi.gov.in/sites/default/files/publication_reports/Youth_in_India_2022/Youth_in_India_2022.pdf

³⁶³ Software Technology Parks of India (STPI), Ministry of Electronics & Information Technology, Government of India. *North East BPO Promotion Scheme (NEBPS)*. <https://nebps.stpi.in/>

³⁶⁴ Universal Service Obligation Fund (USOF), *BharatNet Project*. <https://usof.gov.in/en/bharatnet-project>

³⁶⁵ National Institute of Electronics & Information Technology (NIELIT), Ministry of Electronics & Information Technology, Government of India. *Replies to Questions Asked in Parliament (Section 4.7.1)*.

https://www.nielit.gov.in/sites/default/files/headquarter/pdf/20250828_4.7.1_Replies_Parliament.pdf



private IT skilling centre in Kohima center has demonstrated relatively strong placement outcomes compared to typical IT skilling initiatives, elevated attrition highlights constraints in local career progression and wage competitiveness, continuing to drive outward migration to larger metropolitan labor markets.

The strategic approach must remain focused, not expansive. Strengthening managed IT parks with dual connectivity, solar backup, and shared services can lower entry barriers for firms. Targeting tier-II services – BPO, fintech back-office, GIS, e-governance processing where cost advantages matter most is pragmatic. Employer-led skilling, anchor tenants, and predictable subsidy disbursement are critical to building credibility and retaining talent locally.

#7 Handloom and handicraft

Nagaland's 44,000 women artisans³⁶⁶ produce GI-protected Naga shawls, bamboo-cane crafts, and woodwork embedded within deep cultural identity.

The Nagaland Handloom & Handicrafts Development Corporation (NHHDC), a state government undertaking established in 1979, supports traditional handloom and handicraft production through raw material supply, procurement, skill and design training, and market linkage via its centers and the *Meraki Nagaland* brand. In 2023-24, NHHDC recorded INR28 lakh+ in production value, INR40 lakh+ in sales³⁶⁷, and organized three state handloom expos, indicating active institutional engagement at a modest scale. Nagaland's craft ecosystem is rooted in bamboo and cane traditions, supported by physical emporiums across Kohima, Dimapur, Mokochung, and Phek, alongside "*Made in Nagaland*" outlets and government-linked channels such as National Rural Livelihood Mission (NSRLM) and Tribal Co-operative Marketing Development Federation of India (TRIFED)³⁶⁸. MSDE-led skill training and Recognition of Prior Learning (RPL) certification for Nagaland artisans is carried out, with exposure to national markets including the Indian Handicrafts & Gifts Fair (IHGF Delhi Fair), reflecting integration with central schemes such as PMKVY³⁶⁹.

The constraint is continuity. One-off design workshops and limited certification coverage restrict scaling.

Institutional buyers and premium retailers increasingly require Handloom Mark, quality grading, and consistent supply, which informal systems struggle to meet.

The strategic path lies in cluster consolidation – permanent design studios, shared finishing and packaging facilities, expanded certification, and multi-platform digital commerce integration. Extending GI protection to tribe-specific motifs and techniques can strengthen legal and branding defensibility. The objective is not craft dilution, but controlled commercialization that preserves identity while enabling income growth.

#8 Medicinal and aromatic plants

Nagaland hosts 650+ medicinal plant species³⁷⁰, supported by indigenous knowledge across tribal systems and varied altitudes. While the sector generates meaningful rural livelihoods, its presence in formal export and premium retail markets remains limited, pointing to gaps in market access, quality certification, and aggregation rather than product or design weakness.

Cluster-based interventions demonstrate the sector's upside. Bamboo craft clusters supported under national handicraft development programmes have improved productivity and standardisation, while digital onboarding through national e-commerce enablement initiatives has allowed artisans to bypass traditional intermediaries and access higher-value markets. Design collaborations with institutions like NIFT Shillong have validated demand for contemporary adaptations of traditional forms, improving market acceptance without diluting cultural identity. The binding constraint is continuity. Design interventions remain project-based, certification coverage is limited, and informal production systems struggle to meet the consistency, grading, and traceability increasingly required by institutional buyers and premium retailers. The strategic pathway lies in cluster consolidation: permanent design studios, shared finishing and packaging facilities, expanded certification coverage, and multi-platform digital commerce integration. Extending GI protection to tribe-specific motifs and techniques can strengthen legal and branding defensibility. The objective is

³⁶⁶ Press Information Bureau, Government of India, *GST Reforms 2025: How Nagaland's Economy Will Gain Across Sectors* (Press Release No. PRID 2179211). <https://www.pib.gov.in/PressReleasePage.aspx?PRID=2179211®=3&lang=2>

³⁶⁷ Department of Industries & Commerce, Government of Nagaland, *Nagaland Handloom & Handicrafts Development Corporation* (NHHDC). <https://industry.nagaland.gov.in/corporations-institutions/nhhdc/>

³⁶⁸ Department of Industries and Commerce, Government of Nagaland. (2025). *Crafting Cultural Futures: A study on the artisanal economy in Nagaland under PM Vishwakarma* (PDF). <https://industry.nagaland.gov.in/wp-content/uploads/2025/12/Crafting-Cultural-Futures-A-Study-on-the-Artisanal-Economy-of-Nagaland-under-PM-Vishwakarma-21225-1346pm.pdf>

³⁶⁹ Press Information Bureau. (2022, March 31). *Skill India takes artisans from J&K and Nagaland to Delhi* [Press release]. Government of India. https://www.pib.gov.in/PressReleasePage.aspx?PRID=1812163&utm_source=®=3&lang=2

³⁷⁰ Ministry of Food Processing Industries (MoFPI), Government of India, *Nagaland State Profile*. <https://www.mofpi.gov.in/sites/default/files/KnowledgeCentre/State%20Profile/Nagaland.pdf>



controlled commercialization that preserves identity while enabling sustainable income growth.

#9 Forest-based eco-services (Carbon, PES)

Forest-based eco-services are a priority for Nagaland because ~74% of its land area (around 12,200 square kilometers)³⁷¹ is under community-owned forests, including tropical evergreen, moist deciduous, and bamboo systems. These forests provide measurable services – carbon storage, watershed protection, and soil stability – and are governed through village institutions, giving Nagaland a structural advantage in implementing ecosystem-service frameworks that require local stewardship and benefit-sharing.

The immediate opportunity lies in Payments for Ecosystem Services (PES) linked to watershed protection, landscape conservation, and improved forest management, where outcomes can be monitored at the community level. Selective participation in voluntary carbon markets may be feasible for standing forests and restoration activities, offering supplementary, non-extractive income that complements existing forest-based livelihoods and reduces pressure from shifting cultivation.

From a strategic perspective, this sector warrants prioritization because it monetizes existing ecological assets without land-use conversion or capital-intensive infrastructure. Nagaland's advantage is institutional rather than scale-based: community forest governance lowers social and implementation risk, allowing incremental investments in monitoring, verification, and revenue-sharing to translate forest

conservation into stable, performance-linked financial flows.

#10 Livestock and fisheries

Nagaland's livestock economy (mithun, piggery, poultry, and inland fisheries) is culturally embedded but underproductive. As per Sample Survey report of 2020-21, the state produces 45.1% of the total requirement of meat, egg and milk worth INR1,022.6 crore, leaving a shortfall of 54.9%. The state imported the above three products worth INR211.9 crore³⁷². Productivity gaps stem from limited breeding services, feed shortages, and weak veterinary coverage.

Targeted interventions are showing results. Genetic improvement initiatives, local feed manufacturing, and fisheries development programs have improved productivity and reduced input costs in pockets where services are bundled rather than fragmented. However, processing, cold-chain, and disease-management gaps continue to constrain scale and commercialization, particularly in remote areas.

Strategically, Nagaland must shift from isolated interventions to integrated livestock clusters encompassing genetics, feed, veterinary services, processing, and cold chains. Value-added products, organic certification, and reservoir-based aquaculture can convert subsistence systems into market-oriented, import-substituting value chains.

³⁷¹ Forest Survey of India, Ministry of Environment, Forest and Climate Change, Government of India. *India State of Forest Report 2023, Volume II* (2023). https://fsi.nic.in/uploads/isfr2023/isfr_book_eng-vol-2_2023.pdf

³⁷² North Eastern Development Finance Corporation (NEDFi). *State Focus Paper: Nagaland 2024-25*. <https://databank.nedfi.com/sites/default/files/2025-09/State%20Focus%20Paper%20Nagaland%2C%202024-25.pdf>



16.3 Integration with regional value chains

High-Mix Manufacturing

Nagaland's relevance in NER value chain is shaped by assembly- and finishing-led production. This positioning is anchored by Dimapur's role as the state's commercial and manufacturing hub and the Ganeshnagar SEZ, with ~ 125 acres identified for export-oriented manufacturing (FY24)³⁷³, together indicating adequate spatial and policy readiness to support high-mix, low-volume manufacturing and assembly-driven industrial activity. The availability of notified industrial land under an SEZ framework, combined with proximity to Act East corridors, positions the state at post-fabrication stages where customization, finishing and export readiness determine value.

Food Processing

Nagaland plays an upstream role in the North East food processing value chain, supplying organic fruits, vegetables, and spices such as pineapple, passion fruit, plum, peach, ginger, turmeric, and GI-tagged Naga Mircha. This role is reinforced by GI recognition for *Naga Mircha (King Chilli)* and an annual spice production volume of ~22,000 tonnes in 2023³⁷⁴, indicating a production scale sufficient to justify decentralised processing, quality standardisation, and stronger integration with regional food-processing and export supply chains. With the Nagaland Food Processing Industries Policy 2024 and PMFME schemes, the state is expanding local processing units and improving infrastructure, supporting value addition, employment, and market linkages.

Minerals

Nagaland plays an upstream role in the value chain, supplying coal, limestone, and nickel-cobalt-

chromium-bearing magnetite. This role is underpinned by coal reserves estimated at 46.42 million tonnes³⁷⁵ and limestone reserves of ~ 1,752 million tonnes (as of April 1, 2021)³⁷⁶, indicating substantial geological depth that can support sustained extraction, aggregation, and eventual movement toward higher-value mineral processing as infrastructure and regulatory frameworks mature.

Deposits in Mon, Tuensang, and Phek districts support industrial uses such as cement, metallurgy, and critical mineral production. Active exploration provides raw materials for regional industries, while reserves of decorative stones, petroleum, and potential gold and platinum group elements enhance state's strategic importance in the North East.

Pharmaceuticals

Nagaland contributes to the North East pharmaceutical value chain through PCD (Propaganda cum Distribution)³⁷⁷ franchise distribution and third-party manufacturing. Key hubs include Dimapur, Kohima, and Chumukedima, supporting distribution, marketing, and contract manufacturing of ISO-accredited, DCGI-certified formulations. The state supplies raw and finished products to regional markets and utilizes traditional medicinal plants in certain products.

This ecosystem is supported by a base of 278 registered pharmaceutical professionals servicing around 1,157 licensed pharmacies (as of June 2025)³⁷⁸, with demand concentrated in gynaecology, cardio-diabetic, and ayurvedic/herbal product segments, indicating a stable market depth and platform for gradual expansion of distribution-led and contract manufacturing activities.

³⁷³ Nagaland Industrial Development Corporation Ltd. (2025). Industrial complexes. <https://nidc.nagaland.gov.in/industrial-complexes/>

³⁷⁴ North Eastern Development Finance Corporation Ltd. (NEDFi). NEDFi Databank. <https://databank.nedfi.com/>

³⁷⁵ North Eastern Development Finance Corporation Ltd. (NEDFi). NEDFi Databank. <https://databank.nedfi.com/>

³⁷⁶ North Eastern Development Finance Corporation Ltd. (NEDFi). NEDFi Databank. <https://databank.nedfi.com/>

³⁷⁷ PCD: a franchise business model where a pharmaceutical company grants rights to an individual or small business (franchisee) to market, promote, and distribute its medicines in a specific area, using the parent company's brand

³⁷⁸ North Eastern Development Finance Corporation Ltd. (NEDFi). NEDFi Databank. <https://databank.nedfi.com/>

16.4 Comparative advantage analysis

State advantage versus NER

Organic cash crops and Bamboo resource density

Nagaland's comparative advantage within the Northeast stems from the concentration of high-value niche cash crops alongside dense bamboo resources. The state records high pineapple production (123,300 MT) and supports Arabica coffee cultivation in frost-free, high-altitude zones, alongside premium organic spices such as GI-tagged Naga King Chilli, ginger, and turmeric, enabled by low chemical input use and relatively low population pressure.³⁷⁹

³⁸⁰Simultaneously, Nagaland hosts 4.9 lakh hectares of bamboo across 46 species³⁸¹, representing one of India's highest bamboo diversity concentrations. This dual resource base enables integrated agro-forestry value chains that neighboring NER states cannot replicate at comparable density.

Cultural tourism assets and handloom brand differentiation

Nagaland's cultural economy provides a distinct advantage within the NER through tribal diversity and event-led tourism scale. The Hornbill Festival attracted over 2 lakh visitors in 2024³⁸², positioning it among the Northeast's largest cultural tourism events and anchoring Nagaland's role as a regional cultural hub. Complementary eco-tourism destinations such as Khonoma Green Village and Dzukou Valley have received national recognition under Ministry of Tourism programs, reinforcing experiential tourism depth. This tourism strength directly supports handloom competitiveness: Nagaland has 35,950 registered handloom weavers, producing tribe-specific textiles (Angami, Ao, Sumi) with strong authenticity premiums, unlike more standardized handloom clusters elsewhere in the NER³⁸³. Branding initiatives such as *Meraki Nagaland*, supported through Nagaland Handloom & Handicrafts Development Corporation Ltd

(NHHDC)³⁸⁴, leverage this cultural capital to command premium positioning in ethnic and niche fashion markets (NHHDC), creating reinforcing demand between tourism and crafts.

Regional advantage versus rest of India

Forest capital and untapped mineral optionality

At the national level, Nagaland's advantage lies in its exceptionally high forest cover – approximately 73.7% of its geographical area (12,222 sq km of 16,579 sq km)³⁸⁵ – among the highest forest-to-area ratios in India, enabling organic agriculture, biodiversity-based livelihoods, and emerging carbon-aligned economic activities that are constrained in degraded mainland states. Alongside this ecological capital, Nagaland possesses under-explored mineral resources, including coal deposits in Mon, Mokokchung, Wokha, and Tuensang, limestone across six districts, and magnetite occurrences in Peren, contrasting with mature and environmentally stressed mining regions elsewhere in India³⁸⁶. The strategic advantage lies not in extraction scale, but in resource optionality – allowing selective, regulated downstream value addition while maintaining ecosystem services, a flexibility increasingly unavailable to resource-depleted states.

Livestock and inland fisheries systems

Nagaland holds a distinctive livestock advantage at the national level due to its temperate climate and culturally embedded meat-based consumption patterns, particularly pork. As per the 20th Livestock Census (2019), Nagaland has a pig population of ~4.0 lakh, ranking 7th nationally, with AS holding the highest population.³⁸⁷ This demographic intensity – rather than aggregate scale – creates a structural advantage for pork-based value chains such as fresh, smoked, and processed meat, particularly when compared with mainland tropical states where climatic

³⁷⁹ Directorate of Information & Public Relations (DIPR), Government of Nagaland. *Coffee Canvas: Capturing the Journey of Coffee from Farm to the Global Market Held at Kohima*. <https://ipr.nagaland.gov.in/COFFEE-CANVAS%3A-CAPTURING-THE-JOURNEY-OF-COFFEE-FROM-FARM-TO-THE-GLOBAL-MARKET-HELD-AT-KOHIMA>

³⁸⁰ North Eastern Development Finance Corporation (NEDFi). *Fruits - NER Databank (Horticulture)*. <https://databank.nedfi.com/horticulture/fruits>

³⁸¹ Directorate of Information & Public Relations (DIPR), Government of Nagaland. *World Bamboo Day 2024: Next Generation Bamboo Held at Sovima (Photo/News)*. https://ipr.nagaland.gov.in/WORLD_BAMBOO_DAY_2024%3A-NEXT-GENERATION-BAMBOO-HELD-AT-SOVIMA

³⁸² Press Information Bureau, Government of India. *Waste Not, Celebrate More: The 25th Hornbill Festival Paves the Way for Sustainability!* (Press Release No. PRID 2083308). <https://www.pib.gov.in/PressReleasePage.aspx?PRID=2083308®=3&lang=2>

³⁸³ Press Information Bureau, Government of India. *Handloom Weavers* (Press Release No. PRID 2157866).

<https://www.pib.gov.in/PressReleasePage.aspx?PRID=2157866®=3&lang=2>

³⁸⁴ Department of Industries & Commerce, Government of Nagaland. *Nagaland Handloom & Handicrafts Development Corporation (NHHDC)*.

<https://industry.nagaland.gov.in/corporations-institutions/nhhdc/>

³⁸⁵ Forest Survey of India (FSI), Ministry of Environment, Forest and Climate Change, Government of India. *India State of Forest Report 2023: Volume II* (ISFR 2023, Vol. 2). ISBN 978-81-950073-9-4. https://fsi.nic.in/uploads/isfr2023/isfr_book_eng-vol-2_2023.pdf

³⁸⁶ Directorate of Geology & Mining, Government of Nagaland. *Major Minerals in Nagaland*. <https://dgm.nagaland.gov.in/major-minerals/>

³⁸⁷ Roy, N. K., Deka, R. J., Mili, D. C., Haque, A., Bora, J. R., Hussain, J., Kaushik, P., Haloi, S., Sarma, M., & Sarma, M. (2025). *Current status and strategies for further development of the piggery sector in North Eastern Region*. *International Journal of Veterinary Sciences and Animal Husbandry*, 10(4), 292-296. <https://www.veterinarypaper.com/pdf/2025/vol10issue4/PartE/10-4-47-497.pdf>



stress, disease prevalence, and cultural preferences constrain piggery expansion. Inland fisheries further complement this profile: despite small water bodies, targeted interventions under PMMSY have expanded scientific aquaculture in ponds and reservoirs, enabling productivity levels competitive with hill states. The combined livestock-fisheries base positions Nagaland for protein-focused value chains serving the Northeast and proximate Southeast Asian markets, where pork and freshwater fish dominate consumption, an advantage largely unavailable to cereal-centric Indian states.

International advantage versus SE Asia and global markets

Act East geography and export proximity

Nagaland's international advantage is driven by geographic proximity under India's Act East Policy, positioning the state closer to Myanmar and Southeast Asian markets than most Indian producers. Border trade points such as Pangsha/Longwa offer long-term potential for road-based exports of horticulture, spices, bamboo products, and handicrafts, reducing transit time and spoilage relative to maritime routes from western or southern India. National investments under the Border Area Development Programme and regional connectivity initiatives linked to the India-Myanmar-Thailand Trilateral Highway are expected to improve trade

facilitation over time. Combined with cultural and ethnic linkages across the India-Myanmar border, this proximity lowers transaction costs for niche exports, positioning Nagaland as a responsive origin point for high-value, low-volume goods as Southeast Asian demand for organic, traceable products expands.

Pharmaceutical raw materials and herbal value Chains

Nagaland's international relevance extends beyond trade geography into pharmaceutical and herbal raw material supply chains, aligned with global demand for natural, traceable inputs. The state hosts a diverse base of medicinal and aromatic plants, including high-value species such as *Paris polyphylla*, *Swertia chirayita*, *Cinnamomum tamala* (Tejpat/Indian bay leaf), *Zanthoxylum armatum* (Timur), and *Acorus calamus* widely used in Ayurveda, Yoga & Naturopathy, Unani, Siddha, and Homeopathy (AYUSH), nutraceutical, and phytopharmaceutical formulations. Nagaland's low chemical input history and forest-based sourcing provide a provenance advantage over synthetic or intensively farmed alternatives. When combined with extraction, testing, and certification – largely located outside the state today – Nagaland can integrate into international pharmaceutical value chains as a trusted origin for high-purity botanical raw materials, capturing premiums driven by sustainability and origin-linked compliance standards.

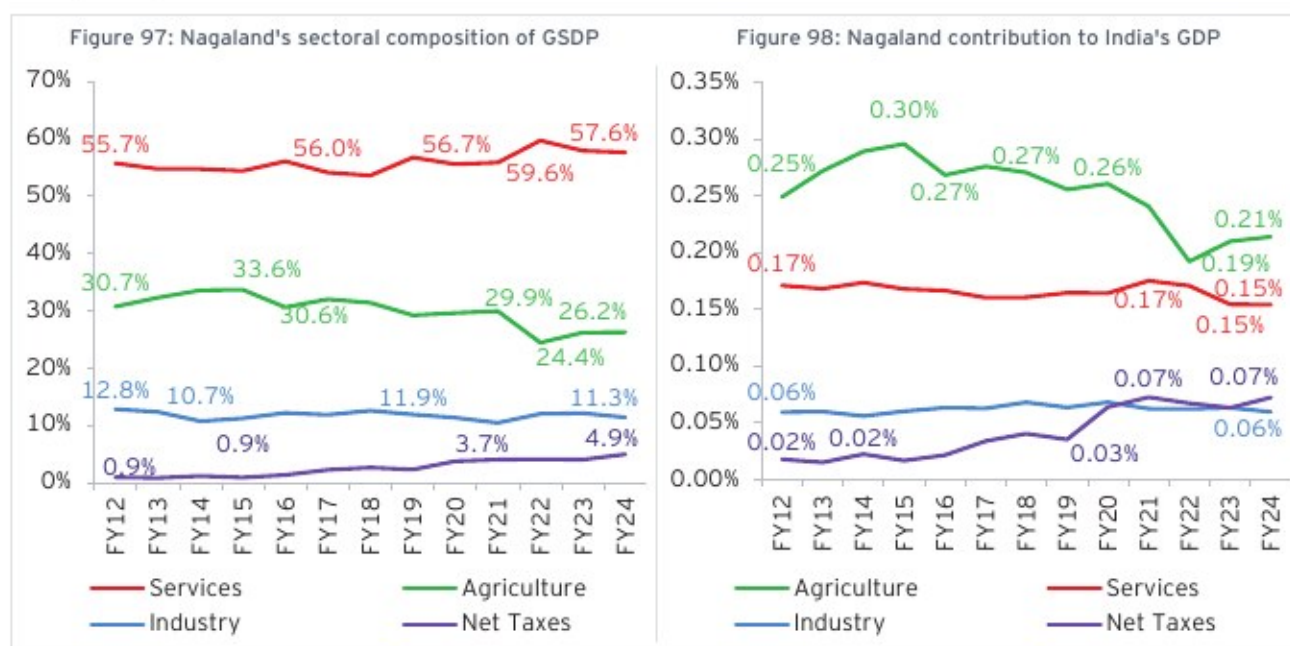


16.5 State economic analysis

Structure of Nagaland's economy

Nagaland's economy remains Services-led, with Services consistently dominating GSDP over the last decade, while agriculture continues to play a significant but gradually declining role. Industry remains structurally weak, underscoring a limited manufacturing base, while net taxes form a small but slowly increasing component, reflecting modest fiscal strengthening.

Nagaland's strongest relative presence within the national economy lies in Agriculture, which contributes a higher share to India's GDP compared to Industry and Services. Services and Industry remain relatively under-represented at the national level, signalling the need for targeted interventions to improve productivity, deepen value addition, and strengthen integration with regional markets.



Centre for Monitoring Indian Economy Pvt. Ltd. (n.d.). States of India [Database]. <https://statesofindia.cmie.com>
Source: MoSPI, EY Analysis

Agriculture: Declining state share with moderating national presence

Agriculture's share of Nagaland's GSDP declined from 30.7% in FY12 to around 26.2% in FY24, indicating a gradual shift away from agriculture as services expanded. Despite this decline, Agriculture remains a key pillar of livelihoods, reflecting the state's continued dependence on primary activities.

At the national level, Nagaland's share of India's Agricultural GDP declined from 0.25% in FY12 to 0.21% in FY24. While the national share has moderated, Agriculture continues to represent Nagaland's strongest comparative presence in the national economy relative to Industry and Services.

Industry: Persistently weak and marginal contribution

Industry's contribution to Nagaland's GSDP remained broadly stagnant, declining from 12.8% in FY12 to

about 11.3% in FY24, with no sustained phase of expansion over the period.

At the national level, Nagaland's share of India's industrial GDP remained flat at 0.06% in FY24, indicating negligible national presence and reinforcing the absence of competitive industrial scale relative to larger manufacturing states.

Services: Dominant and relatively stable contribution

Services continue to dominate Nagaland's economy, contributing 57.6% of GSDP in FY24. The sector has remained relatively stable over time, supported by Public Administration, Trade, Education, and Other Services, rather than high-value tradable services.

However, Nagaland's share in India's Services GDP remains very small, at 0.15%, and has shown a mild declining trend. This indicates that while Services are dominant within the state, they lack the scale and



competitiveness needed to significantly raise Nagaland's national footprint.

Net Taxes: Small but gradually increasing contribution

Net taxes contributed a very small share to Nagaland's GSDP in the early years, rising from 0.9% in FY12 to around 4.9% by FY24, reflecting gradual

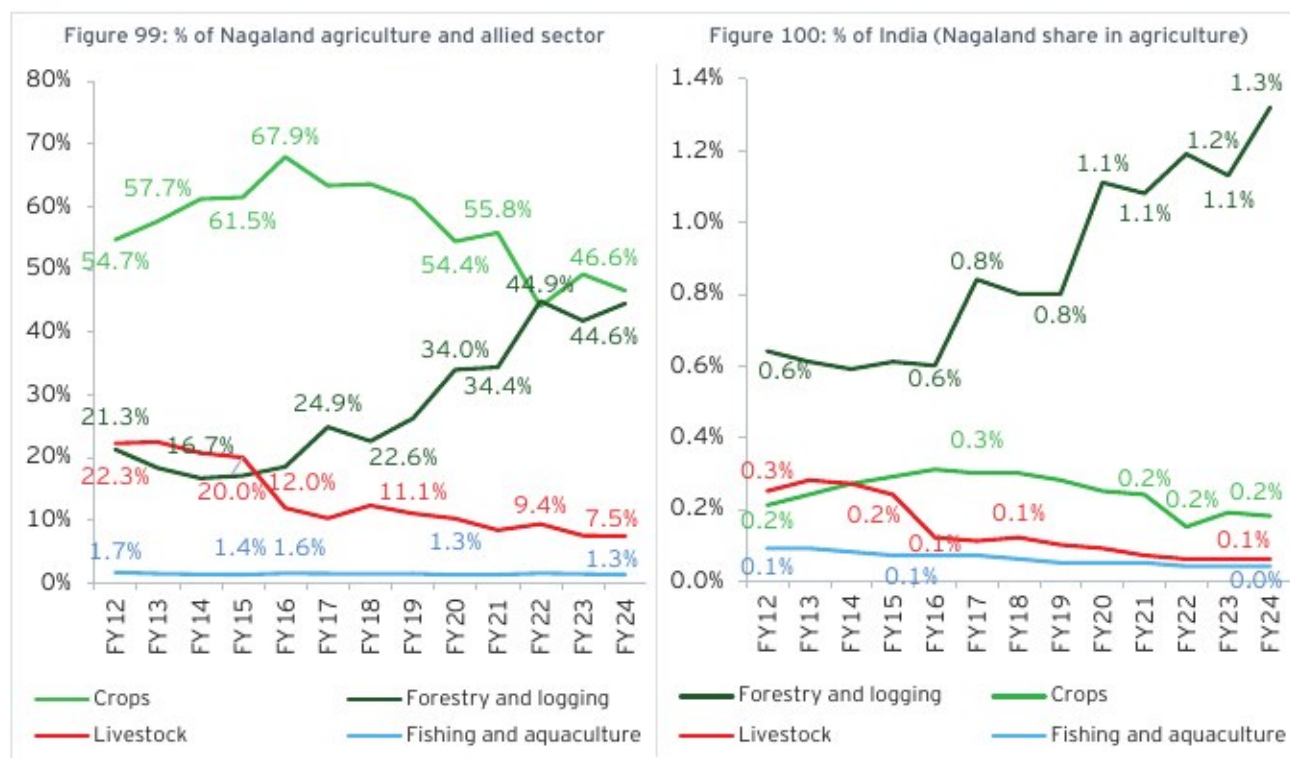
improvements in tax mobilization and fiscal capacity over the period.

At the national level, Nagaland's contribution to India's net tax pool increased from about 0.02% in FY12 to 0.07% by FY24, signalling incremental gains in national fiscal participation, albeit from a very low base.



16.6 Sectoral structure of Nagaland's economy

Agriculture and Allied Sector



Centre for Monitoring Indian Economy Pvt. Ltd. (n.d.). States of India [Database]. <https://statesofindia.cmie.com>
Source: MoSPI, EY Analysis

Internal structure of Agriculture and Allied Activities

Crops dominate Nagaland's agriculture sector, though their share has declined over time. Crops accounted for 54.7% of agriculture GVA in FY12, increased to a peak of 67.9% in FY16, and subsequently declined to 46.6% by FY24, indicating a gradual diversification within the agriculture sector.

Forestry and logging have increased in relative importance over the period. Its share rose from 21.3% in FY12 to 44.6% by FY24, reflecting Nagaland's extensive forest resources and the growing role of forestry-linked activities within the agriculture and allied sector.

Livestock contribution has steadily declined over the period. Livestock accounted for roughly 22.3% of agriculture GVA in FY12, falling consistently to about 7.5% by FY24, indicating limited expansion and lower productivity growth relative to other sub-sectors.

Fishing and aquaculture remain a small component of Nagaland's agriculture sector, fluctuating narrowly between 1.3% and 1.7% over FY12-FY24, and accounting for 1.3% in FY24, highlighting limited scale and constrained sectoral development.

Nagaland's share in India's Agriculture

Forestry and logging represent Nagaland's strongest comparative advantage nationally. The state's share in India's forestry and logging GVA increased from 0.6% in FY12 to 1.3% by FY24, indicating a strengthening national presence driven by forest-based activities.

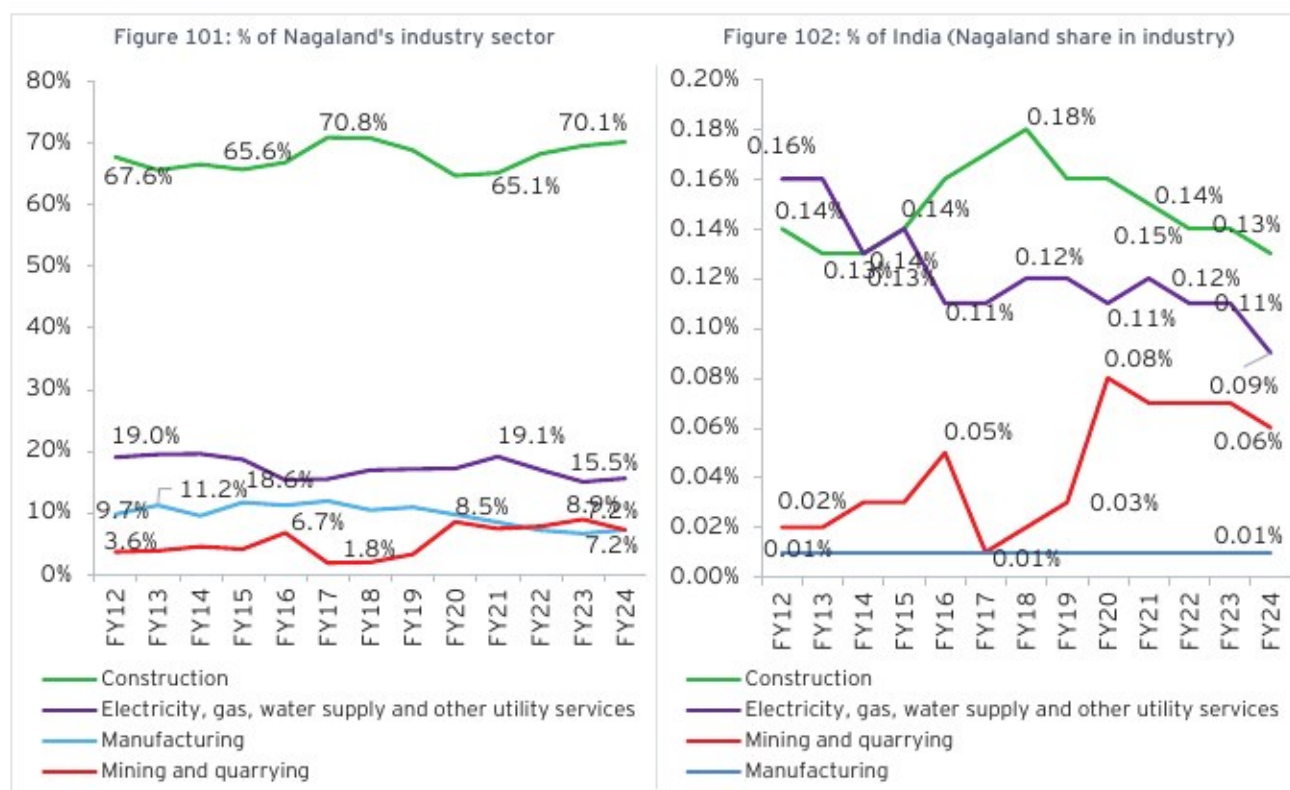
Crops contribution to India's agricultural GDP remained moderate and relatively stable. Nagaland's share rose marginally from about 0.2% in FY12 to 0.2-0.3% during FY17-FY20, before declining back to 0.2% by FY24, reflecting limited scale despite crop diversity.

Livestock contribution to India's livestock GVA declined steadily from 0.3% in FY12 to 0.1% by FY24, underscoring weak competitiveness and slow growth relative to other states.

Fishing and aquaculture contribution to India remained negligible throughout the period, declining from 0.1% in FY12 to ~0% by FY24, reflecting minimal national presence and underdeveloped fisheries activity.



Industry sector



Centre for Monitoring Indian Economy Pvt. Ltd. (n.d.). States of India [Database]. <https://statesofindia.cmie.com>

Source: MoSPI, EY Analysis

Internal structure of industry

Construction is the dominant sub-sector within Nagaland's industry throughout the period. Its share remained consistently high, rising from 57.6% in FY12 to 70.1% by FY24, with a peak of 70.8% in FY17. This reflects the industry sector's heavy reliance on construction-led activity rather than manufacturing or extractive industries.

Electricity, gas, water supply and other utility services form the second-largest component of Nagaland's industry sector. The share declined from 19.0% in FY12 to 15.5% by FY24, after peaking at 19.1% in FY21, indicating moderation in utilities-related activity over time.

Manufacturing has remained marginal within Nagaland's industry sector. Its share declined from 9.7% in FY12 to around 7.2% by FY24, reflecting limited industrialization, absence of scale manufacturing, and weak downstream value addition.

Mining and quarrying accounts for a small but gradually increasing share. The sub-sector rose from 3.6% in FY12 to 7.2% by FY24, though it remains a minor contributor relative to construction and utilities.

Nagaland's share in India's industry

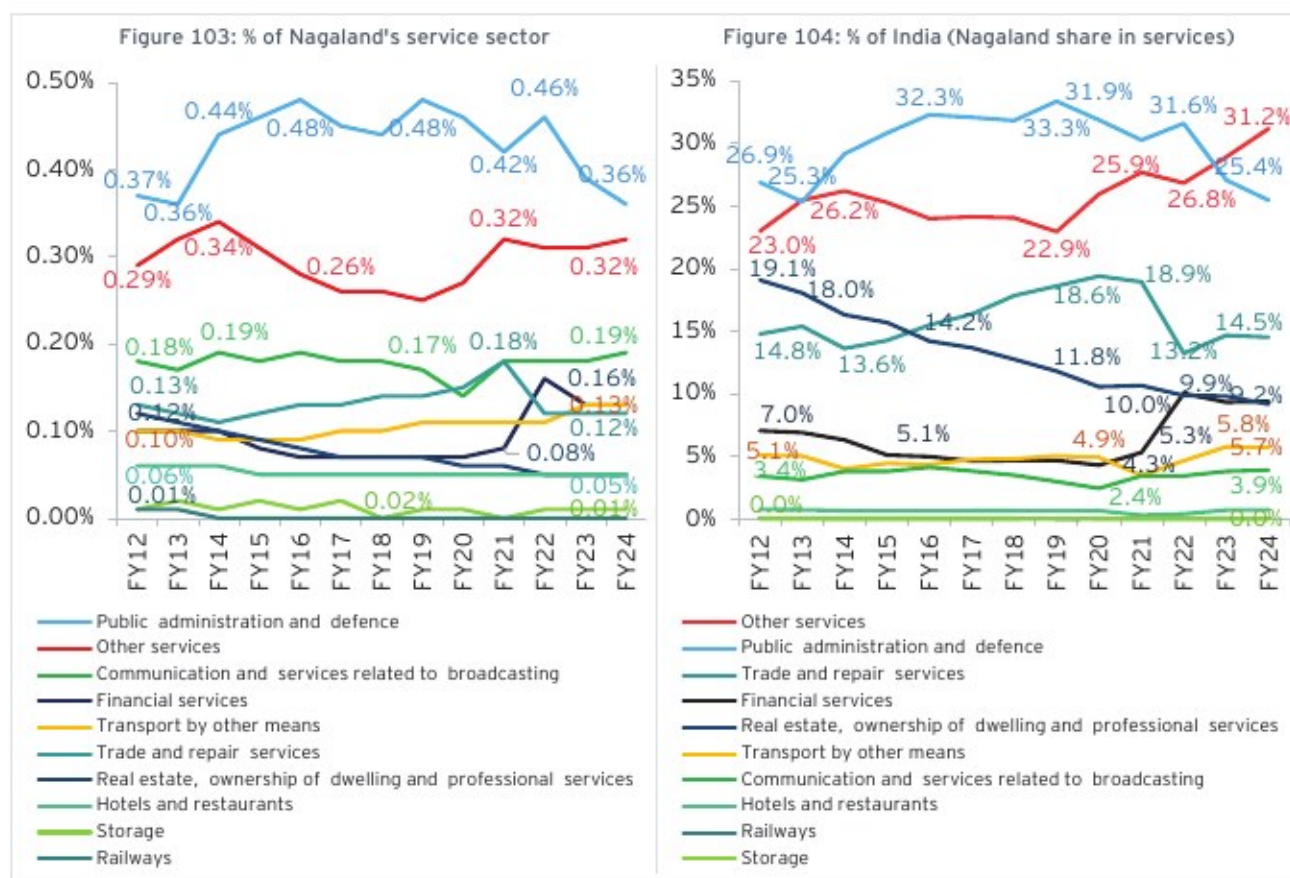
Construction represents Nagaland's strongest relative presence within India's industrial economy. The state's share in India's construction GVA increased from 0.14% in FY12 to around 0.13%-0.16% during FY18-FY20, before moderating to about 0.13% by FY24, indicating a modest but visible national footprint.

Electricity, gas, water supply and other utilities show a declining national share. Nagaland's contribution fell from 0.16% in FY12 to 0.09% by FY24, reflecting limited expansion and declining relative importance at the national level.

Mining and quarrying show a volatile but low national presence. Nagaland's share increased from 0.02% in FY12 to a peak of 0.08% in FY20, before moderating to 0.06% by FY24, indicating episodic growth without sustained scale.

Manufacturing contribution to India's industrial GDP has remained negligible and unchanged throughout the period. Nagaland's share hovered around 0.01% in both FY12 and FY24, confirming the absence of competitive manufacturing scale and limited national relevance of the sector.

Services sector



Centre for Monitoring Indian Economy Pvt. Ltd. (n.d.). States of India [Database]. <https://statesofindia.cmie.com>
Source: MoSPI, EY Analysis

Internal structure of Services

Public administration and defence are key drivers of Nagaland's services sector, though its share has moderated over time. It accounted for ~26.9% of services GVA in FY12, rose to a peak of 33.3% in FY19, and subsequently declined to 25.4% by FY24, reflecting reduced proportional dependence while remaining a dominant component.

Other services (including education, health, and social services) have increased steadily in importance. The share rose from 23% in FY12 to 31.2% by FY24, emerging as one of the largest sub-sectors within Nagaland's services economy.

Trade and repair services have remained relatively stable over the period. Their contribution fluctuated modestly, moving from 14.8% in FY12 to 14.5% by FY24, indicating a consistent role in supporting consumption and local commerce.

Real estate, ownership of dwelling and professional services have declined in relative importance. The share fell from 19.1% in FY12 to 9.2% by FY24, reflecting slower growth in real estate and

professional services compared to other service sub-sectors.

Financial services have increased in relative importance within Nagaland's services sector. The share rose from 7.0% in FY12 to 9.2% by FY24, indicating gradual deepening of banking, insurance, and formal financial activity over the period.

Transport by other means showed moderate growth over the period, increasing from 5.1% in FY12 to 5.7% by FY24, indicating gradual strengthening of transport-related services.

Communication and services related to broadcasting remained a small but growing component, rising from 3.4% in FY12 to 3.9% by FY24.

Hotels and restaurants remain a very small component of Nagaland's services sector, with the share largely stagnant, declining marginally from 0.8% in FY12 to 0.7% by FY24, indicating limited scale and slow expansion of hospitality activities.

Railways and storage services continue to have a negligible contribution to Nagaland's services sector throughout the period, remaining well below 1%, and



indicating minimal development and limited integration into the state's services economy.

Nagaland's share in India's service sector

Public administration and defense represent Nagaland's strongest national presence within services. The state's share remained broadly stable, moving from 0.37% in FY12 to 0.36% by FY24, indicating sustained but limited national relevance.

Other services including education, health, and social services showed moderate strengthening at the national level. Nagaland's share increased from 0.29% in FY12 to 0.32% by FY24, reflecting gradual improvement in social sector activities.

Trade and repair services maintained a stable national footprint, with Nagaland's share of India's trade and repair services GDP remaining unchanged at ~0.13% in FY12 and FY24, indicating persistence without scale expansion over the period.

Real estate, ownership of dwelling and professional services' contribution remained limited but showed mild improvement, increasing from 0.12% in FY12 to 0.13% by FY24, underscoring constrained scale relative to major financial hubs.

Transport by other means showed gradual strengthening, with Nagaland's share increasing from 0.10% in FY12 to 0.13% by FY24, indicating incremental improvement in national presence.

Communication and services related to broadcasting increased modestly, with the state's share rising from 0.18% in FY12 to 0.19% by FY24, reflecting stable participation in national communication services.

Hotels and restaurants maintained a very small national presence, with Nagaland's share of India's hotels and restaurants GDP declining marginally from 0.06% in FY12 to around 0.05% by FY24, indicating limited scale and slow expansion of hospitality activities.

Railways contribution to India's services GDP is negligible, remaining well below 0.1% across all years, reflecting minimal railway-linked economic activity within the state.

Storage services showed a marginal increase in national presence, with Nagaland's share of India's storage services GDP rising from 0% in FY12 to 0.01% by FY24, indicating a very small but emerging footprint from a negligible base.



16.7 SWOT analysis

Strengths

- **Very high forest cover and biodiversity capital**, with ~74% of land under forests, enabling ecosystem services, organic agriculture, and biodiversity-linked livelihoods³⁸⁸.
- **Young and adaptable workforce (~31%)³⁸⁹**, with a large share of working-age population and strong inter-state mobility, enabling faster skill absorption in services and MSME sectors
- **High English proficiency and services readiness**, providing a natural advantage for tourism, education, BPO, and external-facing services compared to most Indian states.

Weaknesses

- **Manufacturing weakness:** Manufacturing contributes only 7.2% of Industry GSVA³⁹⁰, reinforcing dependence on agriculture and public services and limiting formalization of the ~50% workforce in the primary sector³⁹¹.
- **Limited private sector depth**, with economic activity dominated by micro and informal enterprises and weak presence of mid-sized firms that typically anchor value chains.
- **Jobs-skills mismatch:** Limited formal sector depth drives **youth outmigration**, as educational attainment outpaces local wage employment creation.

Opportunities

- **Nagaland Coffee**, offering price premiums over commodity rates if supported by quality certification, washing stations, and direct buyer linkages for smallholder collectives.
- **Cultural tourism scale-up**, with ~1.05 lakh tourist visits in 2023³⁹², demonstrating replicable demand beyond the Hornbill Festival through improved homestay standards and multi-nodal connectivity.
- **Organic and forest-linked branding**, leveraging ~74% forest cover³⁹³ and low agrichemical use to premium-position horticulture (passion fruit, kiwi) and spices (Naga King Chilli) in domestic and export markets.

Threats

- **Climate vulnerability**, where climate variability disproportionately impacts hill agriculture, with limited irrigation and frequent landslides disrupting PMGSY roads and raising adaptation costs.
- **Digital infrastructure gap**, with a CHIPS (Connect, Harness, Innovate, Protect, and Sustain) score of 37.6 and bottom-13 state ranking, constraining participation in services-led growth and BPO opportunities³⁹⁴.
- **Border geopolitical risk**, where instability in Myanmar's Sagaing Region disrupts cross-border trade potential and creates displacement pressures, weakening Act East economic assumptions.

³⁸⁸ Forest Survey of India (FSI), Ministry of Environment, Forest and Climate Change, Government of India. *India State of Forest Report 2023: Volume II* (ISFR 2023, Vol. 2). ISBN 978-81-950073-9-4. https://fsi.nic.in/uploads/isfr2023/isfr_book_eng-vol-2_2023.pdf

³⁸⁹ Annual Report, PLFS, 2023-24

³⁹⁰ MoSPI, Ministry of Statistics and Programme Implementation

³⁹¹ NITI NCAER Macro and Fiscal Landscape of the State of Nagaland

³⁹² North Eastern Development Finance Corporation (NEDFi). *Nagaland: Tourism - NER Databank*. <https://databank.nedfi.com/nagaland/nagaland-tourism>

³⁹³ Forest Survey of India (FSI), Ministry of Environment, Forest and Climate Change, Government of India. *India State of Forest Report 2023: Volume II* (ISFR 2023, Vol. 2). ISBN 978-81-950073-9-4. https://fsi.nic.in/uploads/isfr2023/isfr_book_eng-vol-2_2023.pdf

³⁹⁴ NITI NCAER Macro and Fiscal Landscape of the State of Nagaland



16.8 Strategic recommendations

Despite its small economic base and dispersed geography, Nagaland has the potential to play a catalytic rather than scale-driven role in the NER growth story. Its strengths lie in high-value, low-volume

sectors such as niche agro-processing, biodiversity-linked industries, cultural tourism, and knowledge services, where quality and coordination matter more than size.

Key challenges and strategic approach

Table 65: Key challenges and strategic approach (Nagaland)

Key Challenge	Context	Strategic Approach
Low urban concentration and weak economic density	Population 2.3 million dispersed; only Dimapur has commercial density. Fragmentation limits scale economies and MSME growth.	Consolidate growth in Dimapur-Kohima corridor through densification: commercial space, housing, healthcare, and skilling.
Logistics dependence on Assam corridors	Heavy Assam dependence raises costs and disruption risk. Dimapur was sole rail station for 100+ years until Shokhuvi (2022); 82.5 km Dimapur-Kohima line under construction, targeted completion by December 2029.	Accelerate Dimapur-Kohima rail completion to reduce Assam dependence. Strengthen last-mile road connectivity from production clusters to rail nodes.
Under-leveraged Act East location	Contributes only 4.3% of NER GDP despite Myanmar border; formal trade weak, informal exchanges dominate.	Develop border trade nodes with warehousing, testing, and customs. Position as services-enabled Act East gateway.
Fragmented agri and plantation value chains	Per capita GSDP ₹1.9 lakh constrained by low value addition; high-value crops operate in small, dispersed volumes.	Shift to cluster-led systems with processing, certification, and branding, anchored to Dimapur logistics.
Low industrial value addition despite MSME base	70,000+ MSMEs mostly micro, informal, disconnected from institutional markets; lack common facilities and standards.	Promote sector-specific clusters (bamboo, agro-processing, construction) with shared infrastructure and compliance support.
Seasonal and episodic tourism economy	Strong cultural and eco-tourism assets but demand concentrated in short windows, limiting stable employment.	Implement destination management: better access, professional hospitality, circuit-based tourism for year-round employment.
Social and environmental sensitivity around mining	Mineral resources face community resistance, environmental risks, and logistics constraints.	Prioritize regulated downstream processing over extraction; ensure community participation and environmental safeguards.
Private-sector depth and job absorption	High education and young workforce (31% aged 15-29), yet elevated unemployment due to limited private job creation.	Expand urban services, formalize MSMEs, leverage institutional procurement to convert human capital into jobs.

MoSPI, Ministry of Statistics and Programme Implementation PLFS Annual Report 2023-24

Strategies for Nagaland

- Act East gateway for trade, tourism, and services integration:** Nagaland's long border with Myanmar gives it structural gateway relevance under India's Act East policy, but this advantage remains latent due to weak logistics, limited formal trade infrastructure, and low regulatory readiness. Strategic investment in border-area roads, warehousing, customs facilitation, and digital trade systems can formalize existing agri-trade and cultural exchanges. Tourism circuits linked to border heritage and ecology can reinforce trade flows, positioning Nagaland as a services-enabled gateway rather than a transit periphery.
- Dimapur-Kohima twin urban corridor as the economic spine:** Unlike scale-driven urban models elsewhere in the NER, Nagaland's growth must consolidate around a Dimapur-Kohima corridor. Dimapur anchors logistics, wholesale trade, and private enterprise, while Kohima provides administrative, educational, and cultural depth.



Focused densification – managed IT spaces, healthcare, skilling institutions, and quality housing – is essential to retain youth, support MSMEs, and enable services-led growth. Without deliberate urban concentration, sectoral interventions might remain fragmented.

- **Cluster-led agri and plantation value chains:** Nagaland's comparative advantage lies in high-value, low-volume crops rather than bulk agriculture. Spices such as Naga King Chili, ginger, and turmeric, alongside emerging coffee clusters in higher-altitude districts, offer strong market pull but remain constrained by weak testing, certification, processing, and branding. Cluster-based infrastructure – quality labs, curing and roasting units for coffee, common processing and traceability systems – can shift farmers from raw sales to premium domestic and export markets.
- **Bamboo, handloom and handicraft**
Industrialization: The state's bamboo diversity and artisan base provide a foundation for engineered bamboo, construction materials, and design-led crafts, but productivity remains limited by dispersed production and project-based support. Consolidated clusters with shared processing, finishing, packaging, and standards compliance are critical. The emphasis must be on contemporary product design and institutional markets, not souvenir-led craft, to formalize livelihoods and scale MSME output.
- **Eco-tourism anchored in culture and landscape:** Nagaland's cultural and ecological assets – from flagship festivals to village-based conservation sites – offer a differentiated tourism proposition, but demand remains seasonal and access uneven. Planned hospitality development, better road connectivity, and professional destination management can convert episodic tourism into a stable services engine. The focus could be on employment depth and local participation, not volume-led tourism.
- **Mineral-based downstream industries for GSDP diversification:** Nagaland's coal, limestone, and critical mineral reserves hold strategic value, but extraction-led models face environmental, social, and logistical constraints. The viable pathway is limited, well-regulated downstream processing – cement, construction materials, and select battery-linked inputs – aligned with community participation and strict safeguards. This can be







CHAPTER

17

Sikkim -

The organic state



17.1 Socio economic profile, state USP and unique identity

Socio economic profile

Table 66: State overview (Sikkim)

State overview ³⁹⁵	
Area	7,069 km ²
Population (2025)	0.7 million
GSDP (FY25)	INR52,555 crore
Per Capita GSDP (FY25)	INR 7,07,181
Contribution to NER GDP	5.4%
Population density	86 people/km ² (2022-23 projected)
Unemployment Rate (2024)	2.2%
Urbanization Rate (2025)	49.5%
State Budgeted Expenditure (FY26)	INR15,535 crore
Number of MSMEs (2025)	5,856
Debt to GSDP (FY25)	38.2% (projected by end of FY 26)
Literacy	84.7%
Youth population	32.6%
Human development index	0.76
Export Preparedness Index	31 st Rank; Score: 33.7

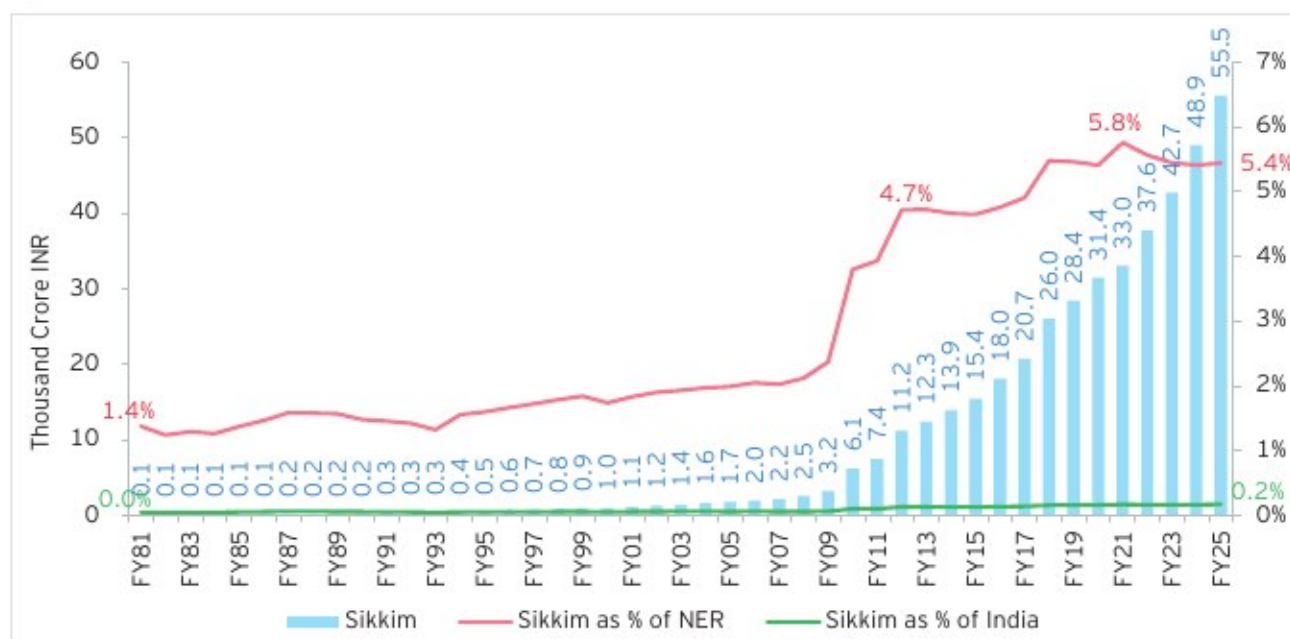
Sikkim, located in the northern part of NER, has a geographical area of 7,096 sq. km and an estimated population of 0.7 million in 2025. The state shares international borders with Nepal, Bhutan, and the

Tibet Autonomous Region of China, while remaining connected to mainland India through the Siliguri Corridor. This geography shapes both its economic structure and its development constraints.

³⁹⁵ Census of India, Arunachal Pradesh Industrial Development & Investment Policy 2025, PLFS 2023-24 NITI NCAER Macro and Fiscal Landscape of the State of Arunachal Pradesh, "NITI Aayog Export Preparedness Index 2024, Global Data Lab, "Subnational HDI (SHDI) – India (2022) Census of India, 2011, MoSPI, Government of India, National Statistical Office (NSO), Ministry of Statistics and Programme Implementation. *Youth in India 2022* (June 29, 2022). https://www.mospi.gov.in/sites/default/files/publication_reports/Youth_in_India_2022/Youth_in_India_2022.pdf
Government of India, Ministry of Statistics and Programme Implementation, Lok Sabha Unstarred Question No. 5160 (Answered on 02.04.2025), "PLFS Reports," Annexure - Annual Report, Periodic Labour Force Survey (PLFS) 2023-24. https://sansad.in/getFile/loksabhaquestions/annex/184/AU5160_LZipbs.pdf?source=pqals&utm_source



Figure 105: Sikkim GSDP



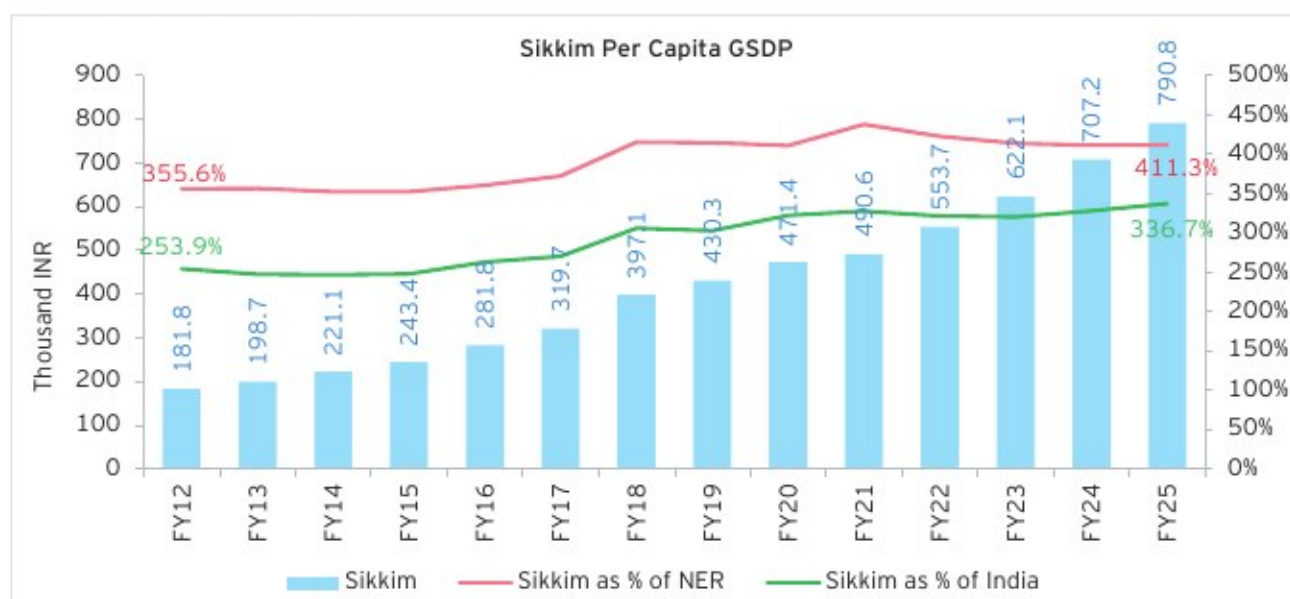
Source: MoSPI

Sikkim's GSDP has expanded sharply over the long term, rising from a marginal base in the early years to ~INR55,000-56,000 crore by FY25. The acceleration in absolute GSDP is particularly evident after FY10, indicating a clear shift from low-growth dynamics to a higher growth trajectory driven by structural factors. In relative terms, Sikkim's contribution to NER GSDP has increased steadily over time, reaching a peak of around 5.8% and stabilizing at ~5.4% by FY25. This indicates sustained growth at a rate higher than the regional average over an extended period.

Despite this regional outperformance, Sikkim's contribution to India's GSDP remains structurally small, stabilizing at ~0.2%. This reflects the state's scale constraints rather than a lack of growth momentum.

Sikkim's per capita GSDP exhibits a strong and sustained upward trajectory over the period FY12-FY25, rising from INR1.8 lakh to INR7.9 lakh. The growth path is largely monotonic, with acceleration visible post-FY17 and continued gains through FY25, indicating that income expansion has been structurally embedded rather than cyclical.

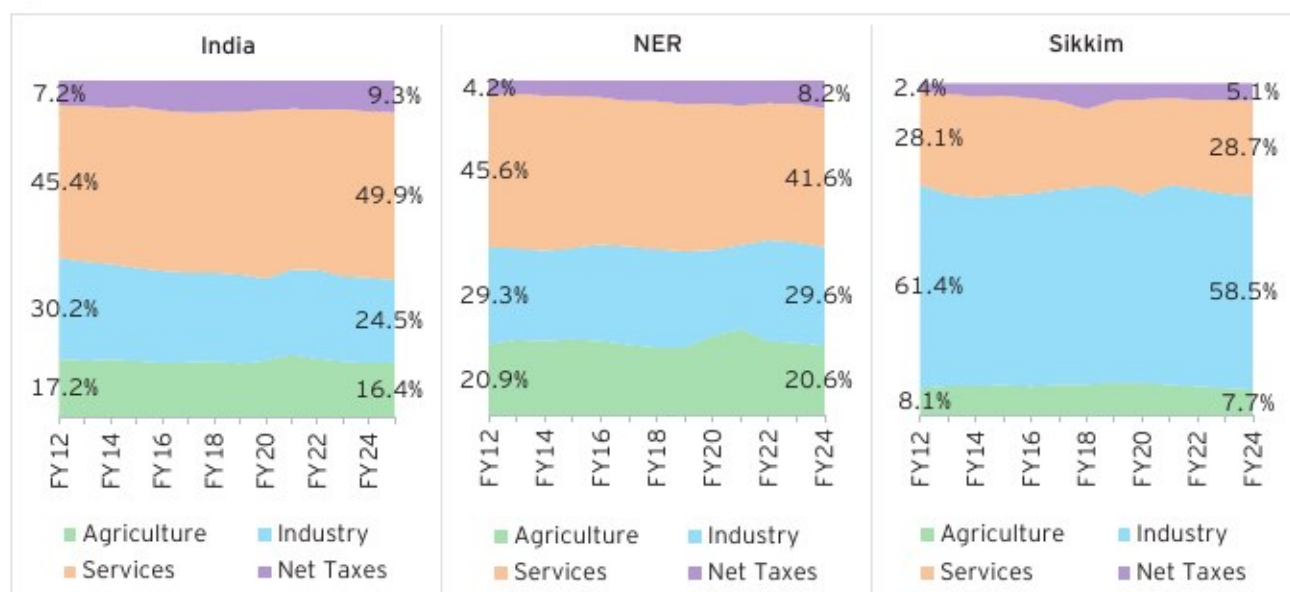
Figure 106: Sikkim per capita GSDP



Source: MoSPI



Figure 107: India vs NER vs Sikkim sectoral shares



Source: MoSPI

Sikkim's economic performance reflects a high-income, low-density model. GSDP increased from INR8,200 crore in FY12 to an estimated INR43,000 crore in FY25, contributing around 4%-5% of NER's GDP. Per capita GSDP exceeds INR5 lakh, placing Sikkim among the top states nationally. This high per-capita outcome is driven by low population pressure, sustained public expenditure, hydropower revenues, and a service-heavy economy, rather than large-scale industrial output.

In terms of sectoral share, Services dominate the economy, accounting for over 60% of GVA in FY25, followed by Industry at ~25% and Agriculture at ~15%. Hydropower, Construction, Tourism, Public Administration, and Trade Services anchor the Services and Industrial segments. While Agriculture contributes a smaller share to GVA, it remains critical for rural livelihoods, food security, and ecological stability, particularly given the state's terrain and environmental sensitivity.

Sikkim exhibits strong human development outcomes. Literacy exceeds 80%, poverty levels are among the lowest in NER, and access to basic services such as sanitation, electricity, and primary healthcare is near universal. The state consistently ranks among the top performers in national SDG indices. Despite these strengths, Sikkim faces structural challenges related to limited private-sector employment generation, high logistics costs, constrained market access, and fiscal

dependence on central transfers and hydropower revenues.

Sikkim's Unique Selling Proposition and unique identity

Sikkim's unique identity within NER is defined by its status as the world's first fully organic state and one of India's most environmentally regulated economies.³⁹⁶ Unlike other NER states where agriculture and natural resources are leveraged primarily for scale-driven growth, Sikkim's development model is anchored in conservation-led economic activity, premium positioning, and strict institutional discipline. This identity fundamentally shapes the state's opportunity set, constraining volume-based industrialization while enabling high-value participation in select national and global markets.

Core competitive advantages

The state's competitive advantage arises from the convergence of structural factors rooted in sustainability and quality differentiation:

Agricultural excellence and organic leadership: Sikkim achieved 100% organic certification across all 76,000 hectares of cultivated land in 2016³⁹⁷, making it the first state in India and the first region globally to accomplish this transformation. This complete organic conversion enables full traceability

³⁹⁶ Sikkim Industrial and Investment Policy 2024, Govt. of Sikkim. <https://industries.sikkim.gov.in/tenderdoc/tenderdoc-PKoV5U6JcbWz8aWIM8Z9TdNMbiVTvN3YPFL1pB3m.pdf>

³⁹⁷ Government of India, Ministry of Information & Broadcasting. (2023, May 16). *Sikkim Statehood Day (May 16): The Himalayan state shows the way to an organic and sustainable future* (Document No. doc2023517199601). Press Information Bureau. <https://static.pib.gov.in/WriteReadData/specificdocs/documents/2023/may/doc2023517199601.pdf>



and compliance with stringent domestic and international standards, positioning the state favorably for premium agri-horticultural, wellness, and processed food markets. Sikkim is also one of India's leading producers of Black Cardamom (Large Cardamom), contributing significantly to national production and commanding premium prices in domestic and export markets due to organic certification.

Energy security: The state's high biodiversity endowments, exemplified by the UNESCO World Heritage-listed Khangchendzonga National Park³⁹⁸, create a thriving eco-tourism sector that attracts environmentally conscious visitors. Sikkim has an estimated hydropower potential of ~ 8,000 MW. So far, hydropower projects with a combined installed capacity of over 2,200 MW have been commissioned, and as of March 2022 the state's total installed capacity was about 2,295 MW.³⁹⁹ Sikkim generates more electricity than it consumes and is a power-surplus state ensuring energy security and positioning the state as a clean energy contributor to the national grid. This surplus reduces exposure to energy cost volatility faced by other hill states and supports climate-aligned industrial growth.

Economic performance and social stability: Sikkim maintains the highest per capita NSDP among all North Eastern states, reflecting efficient resource utilization and quality-led economic growth.⁴⁰⁰ The state's low crime rate and strong social cohesion enhance livability, investor confidence, and its attractiveness as a premium destination for tourism and knowledge-based services.

Geographic and strategic positioning

Geography plays a dual role in shaping Sikkim's identity: Himalayan terrain and fragile ecology impose hard limits on large-scale manufacturing, logistics-

intensive industries, and urban sprawl; simultaneously, international borders with Nepal, Bhutan, and proximity to China, combined with environmentally conscious markets and integration into Himalayan tourism circuits, enhance Sikkim's attractiveness for eco-tourism, spiritual tourism, and wellness-based services.

Strategic connectivity infrastructure: The state is strengthening its Act East gateway positioning and ASEAN market proximity through targeted infrastructure development. The Sevoke-Rangpo railway line (under construction) can provide Sikkim's first rail connectivity, linking it to the national network.⁴⁰¹ Pakyong Airport is operational, enabling direct air connectivity and reducing dependence on ground transport. NH-10 serves as the critical backbone corridor connecting the state to Siliguri and broader markets. However, dependence on the Siliguri Corridor for external connectivity reinforces the need for selective, high-value economic integration rather than mass production or export-led manufacturing.

Institutional framework and investment climate

Institutionally, Sikkim distinguishes itself through high governance credibility, effective policy implementation, and alignment with national sustainability priorities. The state has established a single-window clearance system (Sikkim GO) to streamline investment approvals and reduce bureaucratic delays. Strong performance on social development indicators and environmental outcomes underpins investor confidence in regulated sectors such as organics, clean energy, and wellness tourism. Sikkim's unique identity is therefore characterized by quality-led growth, regulatory reliability, and long-term ecological resilience.

³⁹⁸ UNESCO https://whc.unesco.org/en/list/1513/?utm_source

³⁹⁹ Report of CAG on Performance Audit on Financial and Energy Management by Power Department of Govt. of Sikkim, for year ended March 2022. https://cag.gov.in/webroot/uploads/download_audit_report/2017/Performance-Report-on-Financial-and-Energy-department-of-Sikkim-for-the-year-ended-March-2022---ENGLISH-%281%29-067b8367cb55317.51236846.pdf?utm_source

⁴⁰⁰ Invest India https://www.investindia.gov.in/state/sikkim?utm_source

⁴⁰¹ https://nfr.indianrailways.gov.in/view_detail.jsp?lang=0&dcd=2428&id=0,4,268



17.2 Sikkim's 10 recommended priority areas

10 priority areas for Sikkim

1. Tourism
2. Organic Agriculture and Horticulture
3. Plantation Sectors (Large Cardamom, Tea)
4. Sustainable Connectivity and Eco-Sensitive Urban Development
5. Pharmaceuticals and Herbal Products
6. IT and Digital Services
7. Renewable Energy
8. Floriculture and Medicinal Plants
9. Food Processing
10. Natural Capital and Carbon Services

#1 Tourism

Tourism functions as Sikkim's primary market-facing growth vector – the most significant channel through which the state's natural and cultural capital converts into economic activity. It dominates services employment, anchors non-farm livelihoods, and represents the state's most legible interface with external demand. The sector's foundation rests on a deliberately curated portfolio: eco-tourism leveraging Himalayan ecology, spiritual and cultural tourism drawing on Buddhist institutional depth, adventure tourism exploiting topographical gradients, and emerging wellness propositions that synthesize these elements into experiential offerings.

Destinations like Gangtok, Pelling, Lachung, Yumthang Valley, and Gurudongmar Lake have established recognition within domestic high-value tourist segments – a non-trivial achievement given India's competitive experiential tourism landscape. The policy articulation around low-volume, high-value tourism reflects strategic clarity: rejecting mass-market scalability in favor of yield optimization and carrying capacity discipline. Wellness tourism represents the natural convergence of these threads, creating reinforcing brand logic across the state's sustainability positioning.

Tourism revenue, however, remains hostage to climatic seasonality, producing pronounced income volatility. Visitor concentration in specific corridors creates spatial imbalances – certain localities capture disproportionate benefits while peripheral regions with comparable assets remain economically disengaged. Infrastructure deficits, particularly last-mile connectivity and accommodation quality outside

primary nodes, constrain both market expansion and experience delivery. Skills gaps in hospitality service, interpretive guiding, and experience curation limit the state's ability to command premium positioning credibly.

The strategic challenge is not demand generation – latent demand exists and is growing – but structural capacity to absorb, distribute, and monetize that demand across temporal and spatial dimensions. Extending the operational calendar requires developing off-season product architecture: cultural festivals, curated winter experiences, wellness intensives, and niche adventure offerings that decommoditize the proposition beyond landscape viewing.

Improving accommodation standards and last-mile access is foundational to credible premium positioning. Further, Sikkim must address the distributional question: how tourism benefits permeate beyond gateway towns. This requires conscious institutional design – community-based enterprises, benefit-sharing protocols, and deliberate routing strategies that diffuse economic activity.

#2 Organic agricultural and horticultural produce

Sikkim's statewide organic certification represents a distinctive market positioning that few sub-national jurisdictions globally can replicate – a first-mover advantage in an environment where organic authenticity is increasingly contested. The cultivation of large cardamom, ginger, turmeric, buckwheat, maize, vegetables, and specialized horticultural varieties under certified organic protocols establishes not merely a production system, but a potential brand architecture rooted in verifiable differentiation. However, the current economic geography reveals a strategic misalignment: The state functions essentially as a primary commodity exporter within value chains it does not control, command, or significantly influence. This is the classic resource trap – possessing differentiated inputs yet participating at the lowest-margin segment of the value ladder.

Limited processing infrastructure means value-addition occurs downstream, often outside state boundaries, where margin accrual is concentrated. Inadequate cold-chain networks compress marketing windows and force distress sales during seasonal gluts. Fragmented grading and branding efforts dilute premium signaling, making Sikkim's certified organic produce indistinguishable from conventional alternatives at retail touchpoints. Elevated logistics



costs further erode producer economics, creating persistent price volatility and margin compression at the farm gate.

Sikkim must pivot from production-led expansion to value architecture development. Further hectareage growth without corresponding investments in aggregation infrastructure, processing nodes, brand equity development, and structured offtake mechanisms might simply amplify existing inefficiencies. The state requires vertical integration logic – not through ownership, but through orchestrated ecosystem development that internalizes value creation stages currently externalized to intermediaries and distant processors. This is fundamentally about transitioning from being a certified input provider to becoming a branded value curator. The organic certification is the foundation; the superstructure of processing, quality standardization, brand equity, and market access remains unbuilt. Without this architectural shift, Sikkim risks commoditizing its singular competitive advantage.

#3 Plantation focus sectors: Large cardamom and tea

Sikkim holds a distinctive position as India's largest producer of large cardamom, making this crop a foundational income source for hill farming communities. The sector represents accumulated cultivation knowledge, established market channels, and genuine economic significance for rural livelihoods. Tea cultivation, while more modest in scale, offers credible premium positioning opportunities through quality differentiation and alignment with Sikkim's organic certification advantage.

Both sectors face common pressures that affect their sustainability and income stability. Large cardamom cultivation has experienced yield volatility driven by disease incidence, particularly viral and fungal infections – climate variability affecting moisture regimes, and plantation aging that reduces productivity over time. These factors compound to create income uncertainty for dependent households, undermining what can be a stable perennial crop revenue stream. Tea's smaller footprint limits economies of scale, though this creates potential for niche positioning. The challenge lies in translating organic certification and terroir characteristics into consistent premium realization – a function of processing quality, branding effectiveness, and market access rather than cultivation alone.

Production system resilience and value stabilization requires:

- Targeted research and development focused on disease-resistant planting material adapted to Sikkim's specific agro-climatic conditions
- Systematic plantation rejuvenation programs to address productivity decline in aging stands
- Enhanced downstream processing capacity that allows quality control and value addition closer to production sites

The objective is not radical repositioning but systematic strengthening of productive capacity and value capture within existing frameworks, ensuring these plantation sectors deliver consistent returns that justify continued farmer investment and intergenerational engagement.

#4 Key cross-sector priorities: Sustainable connectivity and eco-sensitive urban development

Sikkim's economic constraints are structural and spatial rather than sectoral. Despite high per-capita public expenditure and strong social outcomes, the state remains dependent on a single external access corridor through the Siliguri stretch, creating systemic challenges. Landslides, rainfall-induced disruptions, and lack of redundancy in transport networks elevate logistics costs across all productive sectors and reduce reliability for time-sensitive goods.

Cold-chain infrastructure, integrated warehousing, and aggregation facilities remain limited, constraining value capture in organic agriculture, floriculture, food processing, and tourism-linked supply chains. Premium production without logistics integration results in fragmented, low-volume trade with limited income multipliers. The absence of urban-anchored aggregation further weakens rural market access.

Eco-sensitive urbanization, therefore, becomes the primary integrating lever. Compact urban growth, climate-resilient transport, and digitally enabled service delivery allow economic density to increase without ecological degradation. Gangtok and secondary urban nodes must evolve from administrative centers into integrated service, logistics, and aggregation hubs, enabling rural producers and service providers to access national markets at lower transaction costs.

#5 Pharmaceuticals and herbal products

Sikkim's biodiversity richness and statewide organic certification create foundational assets for herbal, nutraceutical, and traditional medicine product development. The state's botanical diversity includes species with established therapeutic applications, while organic provenance addresses growing consumer preference for clean-label and sustainably sourced wellness products. These advantages position Sikkim favorably within expanding domestic and international markets for plant-based health solutions.

The sector shows early-stage activity with artisanal production and scattered commercial initiatives. However, scaling from informal or cottage production to formal market participation faces technical and regulatory hurdles. Pharmaceutical and nutraceutical regulations impose stringent requirements for quality assurance, standardized extraction processes, contaminant testing, and documented traceability – standards designed to protect consumer safety but requiring infrastructure and expertise that individual producers typically lack. Production scale presents a related challenge. Institutional buyers and retail chains require consistent volumes, shelf stability, and batch-to-batch quality uniformity. Fragmented processing, variable raw material quality, and absence of standardized protocols limit the sector's ability to secure reliable offtake agreements or justify distribution investments by larger players.

The pathway forward centers on organized processing ecosystems rather than dispersed individual efforts. Clustered facilities offering shared infrastructure – extraction equipment, quality testing laboratories, packaging lines, and certification support – would allow producers to meet regulatory requirements while maintaining cost efficiency. Such models enable smaller enterprises to access technical capabilities and compliance frameworks that would be economically unviable independently.

#6 IT and digital services

Sikkim's development fundamentals – high literacy rates, advancing digital governance capabilities, and manageable population scale – create a logical foundation for IT-enabled services rather than conventional industrial or large-scale IT park models. The state's human capital base, combined with ongoing investments in digital infrastructure, positions it to participate meaningfully in knowledge-based and remote service delivery segments that do not require extensive land footprints or heavy industrial infrastructure. Unlike manufacturing or traditional IT parks that require substantial land

allocation, utility provisioning, and agglomeration economies, IT-enabled services can scale incrementally through distributed model-home-based work, small office configurations, and network-based collaboration that fits naturally within existing urban and peri-urban settlements.

However, employment generation in these sectors is not automatic. It depends fundamentally on two enablers: targeted skill development that moves beyond basic digital literacy to functional competencies in specific service domains, and reliable digital infrastructure – consistent broadband connectivity, stable power supply, and digital payment systems – that allows seamless integration with remote clients and platforms. Success would require deliberate investments in both the skill ecosystem and digital backbone – neither transformational nor prohibitively expensive, but essential for translating potential into realized employment and income generation within the IT-enabled services domain.

#7 Renewable energy

Sikkim's renewable energy base is a core structural advantage. Installed hydropower capacity significantly exceeds internal consumption, positioning the state as energy surplus and enabling sustained power exports. Power sales constitute a material share of non-tax revenues, supporting fiscal stability and public expenditure.

However, the remaining hydropower potential is increasingly constrained by ecological sensitivity, seismic risk, and social acceptability. Large dam expansion faces diminishing feasibility, shifting the development frontier toward run-of-the-river projects, small hydro, and distributed renewable systems. Diversification into rooftop solar, public infrastructure solarization, and decentralized energy solutions can moderate hydrological risk and improve supply resilience, particularly in remote habitations. Renewable energy, thus, functions as both a fiscal anchor and a strategic enabler, underpinning low-carbon growth while reducing exposure to external energy price volatility.

#8 Floriculture and medicinal plants

Sikkim's altitudinal diversity and biodiversity endowment provide genuine comparative advantages for specialized floriculture and medicinal plant cultivation. Orchids, anthuriums, alpine florals, and medicinal aromatic plants serve premium market segments where organic certification, traceability, and Himalayan provenance carry tangible value. These products align strategically with expanding wellness, nutraceutical, and cosmetic value chains –



sectors experiencing robust growth trajectories and increasing consumer willingness to pay for authenticity and sustainability credentials.

The sector demonstrates clear promise, with established cultivation knowledge and growing market recognition. However, translating this into consistent commercial returns faces specific structural challenges. Production remains fragmented across numerous small-scale cultivators, limiting the ability to aggregate volumes that institutional buyers require. Testing and certification infrastructure is underdeveloped, creating bottlenecks in accessing premium markets where phytosanitary standards and quality documentation are non-negotiable. Regulatory navigation, particularly for medicinal plants with therapeutic claims, presents complexities that individual producers struggle to manage effectively.

The absence of organized clusters creates a coordination gap: individual cultivators possess production capability but lack the collective infrastructure to meet formal market requirements for quality consistency, volume commitments, and certification protocols. This is neither a failure of demand nor of agronomic potential, but rather an organizational stage where scattered capability has not yet crystalized into structured commercial systems. Cluster-based models provide shared processing facilities, collective certification mechanisms, and coordinated market engagement. Such infrastructure would allow dispersed producers to function as coherent commercial entities while retaining the small-scale cultivation practices that preserve quality and organic integrity.

#9 Food processing

Sikkim's agricultural base provides substantial raw material availability for food processing activities. Organic certification creates a differentiated profile aligning with demand for clean-label and sustainably sourced food products. This represents a significant value-addition opportunity where produce can be converted into shelf-stable, higher-margin products. Currently, however, processing infrastructure remains limited relative to production potential. The sector operates primarily through informal or household-scale units with minimal mechanization, quality control, or market linkage. This constrains both value capture and market access – fresh produce remains vulnerable to seasonal gluts and price volatility, while processed product offerings lack the consistency, packaging quality, and certification documentation that formal retail channels require.

Specific infrastructural gaps include insufficient processing units located near production zones,

limiting farmers' ability to convert surplus or sub-optimal fresh produce into value-added forms. Cold-chain coverage remains patchy, creating bottlenecks in maintaining quality from farm to processing facility. Quality certification infrastructure – testing laboratories, food safety protocols, and packaging standards – is underdeveloped, preventing credible market signaling of product quality and organic authenticity.

The strategic opportunity lies in geographically distributed processing infrastructure operating within coordinated ecosystem frameworks. Rather than large centralized industrial facilities or isolated individual units, the optimal model involves multiple processing nodes situated close to production clusters – minimizing transport costs for perishable raw materials while maintaining collective quality standards, shared certification protocols, and coordinated market access. This combines the logistical efficiency of decentralization with the organizational advantages of cluster-based coordination.

Such distributed-yet-coordinated models align naturally with Sikkim's organic standards, small landholding patterns, and community-based production systems. Processing units near production areas reduce waste and transport burden, allow seasonal processing flexibility, and can integrate traditional preparation methods that preserve product authenticity – increasingly valued attributes in premium organic food markets. Simultaneously, common quality frameworks, collective branding initiatives, and shared market linkages provide the consistency and scale that formal retail channels demand.

#10 Natural capital and carbon services

Sikkim's extensive forest cover and ecological assets position it as a natural-capital-rich state with genuine potential to monetize environmental stewardship. Opportunities exist in ecosystem service valuation, carbon credits, and green finance mechanisms that can supplement traditional revenue sources, translating conservation outcomes into tangible fiscal benefits while reinforcing incentives for sustainable resource management.

However, moving from conceptual potential to operational revenue streams requires substantial technical and institutional development. Realizing this potential requires establishment of robust measurement frameworks for ecosystem service quantification aligned with internationally recognized methodologies, strengthening of institutional capacity within state planning and forest departments for

valuation, monitoring, and verification, development of bankable project proposals for accessing climate finance mechanisms including the Green Climate Fund and multilateral development bank resources, and strategic alignment with emerging environmental markets and carbon trading systems under development at the national level.

These requirements are not trivial. Ecosystem service markets demand rigorous quantification protocols, third-party verification, and navigation of complex international carbon accounting standards – representing significant upfront investment before revenue generation begins. However, Sikkim's existing conservation track record and environmental governance framework provide credible foundations. With targeted capacity building and strategic partnerships with technical institutions, the state can credibly position itself to access emerging climate finance flows – converting environmental assets into sustainable fiscal resources.

Complementing this environmental positioning, the State's Film Policy 2021 anchors creative industries development through cinema and media production leveraging its UNESCO World Heritage Site, cultural heritage, and landscapes. Core infrastructure including the Sikkim Eco Heritage Film Village with sound stages, post-production facilities, and training institutes can be developed via PPP models. The Sikkim Film Promotion Board operationalizes this

through single-window clearances, financial incentives up to 10% of production budgets, and mandated 50% local workforce participation. Supporting infrastructure includes rural miniplexes, audition halls, and archival facilities, while the annual Sikkim Global Film Festival drives cinematic tourism and sustainable livelihoods for local artists and technical professionals.⁴⁰²

Film production offers an interesting diversification vector – leveraging visual and cultural assets without requiring extensive resource extraction or industrial infrastructure. Success depends on execution quality and sustains promotional effort. Film production is highly mobile; crews gravitate toward locations offering reliable infrastructure, efficient permitting, and competitive incentives. Sikkim's natural beauty provides initial attraction, but retaining repeat business requires consistent logistical delivery and 50% local workforce mandate balances employment objectives with quality requirements, necessitating sustained skill development investments.

Together, ecosystem services and creative industries represent non-extractive economic pathways leveraging Sikkim's distinctive environmental and cultural endowments. Both require institutional capacity building and execution discipline, but offer revenue diversification aligned with the state's sustainability positioning critical pillars for Sikkim's development trajectory

17.3 Integration with regional value chains

Spices

Sikkim's spices value chain, led by large cardamom, is closely aligned with the state's steep terraced terrain and organic farming mandate, particularly in East and North districts. In FY25, the state recorded spice production of ~102.9 thousand metric tonnes⁴⁰³, supported by GI-tagged products including *Dalle Khursani* (fiery red cherry pepper) and large cardamom, underscoring both scale and differentiation potential to move toward higher-value, branded, and export-ready spice offerings.

The crop suits smallholder systems in high-altitude, shade-grown conditions where alternatives are limited. While the state holds a distinct position within NER, productivity and disease vulnerability continue

to affect output stability. Sustaining export-oriented growth will depend on plantation rejuvenation, quality control, and market diversification beyond raw spice exports.

Pharmaceuticals

Sikkim has emerged as the leading pharmaceutical hub in NER, with 45 operational units as of 2020. This leadership is evidenced by the presence of over 50 pharmaceutical companies⁴⁰⁴ operating in the state and the fact that drug formulations, biologicals, and medical and scientific instruments account for ~63% of Sikkim's total exports⁴⁰⁵, underscoring the sector's central role in the state economy and its capacity to anchor export-led industrial growth.

⁴⁰² Sikkim Film Policy 2021 <https://www.nsws.gov.in/s3fs/2022-12/Sikkim%20Film%20Policy%202021.pdf>

⁴⁰³ North Eastern Development Finance Corporation Ltd. (NEDFi). NEDFi Databank. <https://databank.nedfi.com/>

⁴⁰⁴ Press Information Bureau, Government of India. (2025, September 24). From tourism to tea: How GST reforms will transform Sikkim's economy [Press release]. <https://www.pib.gov.in/PressReleasePage.aspx?PRID=2170699®=3&lang=1>

⁴⁰⁵ Press Information Bureau, Government of India. (2025, September 24). From tourism to tea: How GST reforms will transform Sikkim's economy [Press release]. <https://www.pib.gov.in/PressReleasePage.aspx?PRID=2170699®=3&lang=1>



This concentration of the pharmaceutical industry in Sikkim reflects tax incentives, reliable hydro-based power, and a relatively clean industrial environment conducive to formulations and API manufacturing. The sector suits the state where high-value, skill-intensive industries are preferable to land-intensive manufacturing. Continued growth will depend on regulatory compliance, skilled manpower availability, and resilient supply-chain linkages.

Food Processing

Food processing in Sikkim builds on the state's 100% organic status and production of off-season vegetables and horticultural crops. This opportunity is anchored in a diversified basket of high-value crops – including large cardamom, mandarin orange, kiwi, tea, ginger, turmeric, and cherry pepper – which provide a strong foundation for organic-certified processing, branding, and premium market positioning.

The sector enables aggregation of smallholder output into value-added products such as pickles and juices for urban markets. However, processing remains

limited in scale, with gaps in cold storage, logistics, and branding. Strengthening infrastructure and market linkages is critical to improving shelf-life, reducing losses, and stabilising farmer incomes.

High mix Manufacturing

High-mix manufacturing in Sikkim supports diversification away from agriculture, drawing on policy incentives and improving connectivity. The sector leverages linkages with organic and horticulture-based inputs while remaining compatible with the state's compact industrial footprint. However, scale remains limited by market access, logistics costs, and a narrow skill base. Targeted skill development and supplier integration will be essential to sustain competitiveness.

This role is reflected in the presence of ~90 manufacturing factories⁴⁰⁶ in the state, with industry contributing 58.5% to Sikkim's Gross State Value Added⁴⁰⁷, underscoring the sector's centrality to the state economy and its importance as a pillar for continued structural diversification.

17.4 Comparative advantage analysis

Sikkim's comparative advantage is anchored in renewable energy capacity, concentration of high-value agricultural production, state-wide organic certification, and geographic positioning within the eastern Himalayan system. These advantages operate across three analytical levels: within the North Eastern Region, relative to India, and in selective international markets.

State advantage versus NER

Energy security and surplus

Sikkim hosts a high concentration of commissioned hydropower assets on the Teesta river system, including large-capacity projects such as Teesta-III (1,200 MW) and Teesta-V (510 MW), along with multiple mid-sized projects. Installed hydropower capacity substantially exceeds the state's internal electricity consumption, enabling net export of power to the regional grid.

Within the NER, several states remain dependent on thermal or gas-based generation and inter-state transfers for peak demand. Sikkim's energy position is therefore defined by exportable renewable capacity, with economic relevance arising from power sales and

grid support rather than industrial consumption. The binding constraint is transmission availability and scheduling, not generation adequacy.

Natural resource production scale

Sikkim is India's largest producer of large cardamom, accounting for a dominant share of national output. Cultivation is geographically concentrated and supported by agro-climatic conditions specific to the eastern Himalayas. In parallel, Sikkim has implemented organic farming across its entire cultivated area, resulting in a unified, certified production system.

Within the NER, agricultural output is typically fragmented by crop, geography, and certification status. Sikkim's advantage lies in the scale of certified, traceable production in specific high-value crops, particularly spices and niche horticulture. This enables Sikkim to function as an upstream supplier of premium agricultural inputs to regional processing and marketing systems located outside the state.

⁴⁰⁶ North Eastern Development Finance Corporation Ltd. (NEDFi). NEDFi Databank. <https://databank.nedfi.com/>

⁴⁰⁷ MoSPI



Regional advantage versus rest of India

Human capital development

Sikkim records consistently high literacy levels and sustained outcomes in basic service delivery. Education and health indicators reflect long-term public investment and administrative implementation at the state level. These outcomes are structurally relevant for sectors that require regulatory compliance, traceability, and quality control, including organic agriculture, herbal products, eco-tourism, and renewable energy operations.

At the national scale, this translates into institutional reliability at origin, rather than labor scale or cost arbitrage. The economic role of human capital in Sikkim is therefore linked to compliance-dependent value chains rather than mass employment absorption.

International border advantage

Sikkim shares international borders with Nepal and Bhutan and is connected to mainland India through the Siliguri Corridor, one of the country's most critical transit links. Road connectivity provides access to plains markets, while rail connectivity projects under implementation (including the Sivok-Rangpo line) are designed to reduce transit time and uncertainty.

This geographic position does not support large-scale transit trade. Instead, it reduces effective distance to national processing and distribution centres, which is economically relevant for time-sensitive, high-value, and perishable products originating in the state.

International advantage versus SE Asia and global markets

Clean energy and environmental credibility in a carbon-constrained market

Sikkim's electricity generation profile is dominated by hydropower, and the state maintains high forest cover. Together, these characteristics provide verifiable low-emission and environmental credentials. In global markets increasingly shaped by carbon disclosure, ESG compliance, and sustainable sourcing requirements, such credentials constitute a measurable economic attribute.

International relevance arises not from export volume, but from alignment with low-carbon procurement and financing frameworks, where renewable provenance and ecosystem integrity are prerequisites.

Organic and high-value agricultural production in premium global markets

Sikkim has been formally declared India's first fully organic state, with certification and enforcement covering agricultural production systems. This enables the supply of certified spices, botanicals, and niche horticultural products that meet stringent food safety and sustainability standards in global markets.

In contrast to South-East Asian producers that compete primarily on scale and cost, Sikkim's participation is confined to premium segments where certification, traceability, and origin assurance determine market access. Export competitiveness is therefore niche, compliance-driven, and high-value, rather than volume-based.

Across analytical scales, Sikkim's comparative advantage is structural and measurable: within the NER, it supplies exportable renewable energy and concentrated certified agricultural outputs; at the national level, it functions as a compliance-grade origin for regulated value chains; and internationally, it participates selectively in premium, sustainability-linked markets.

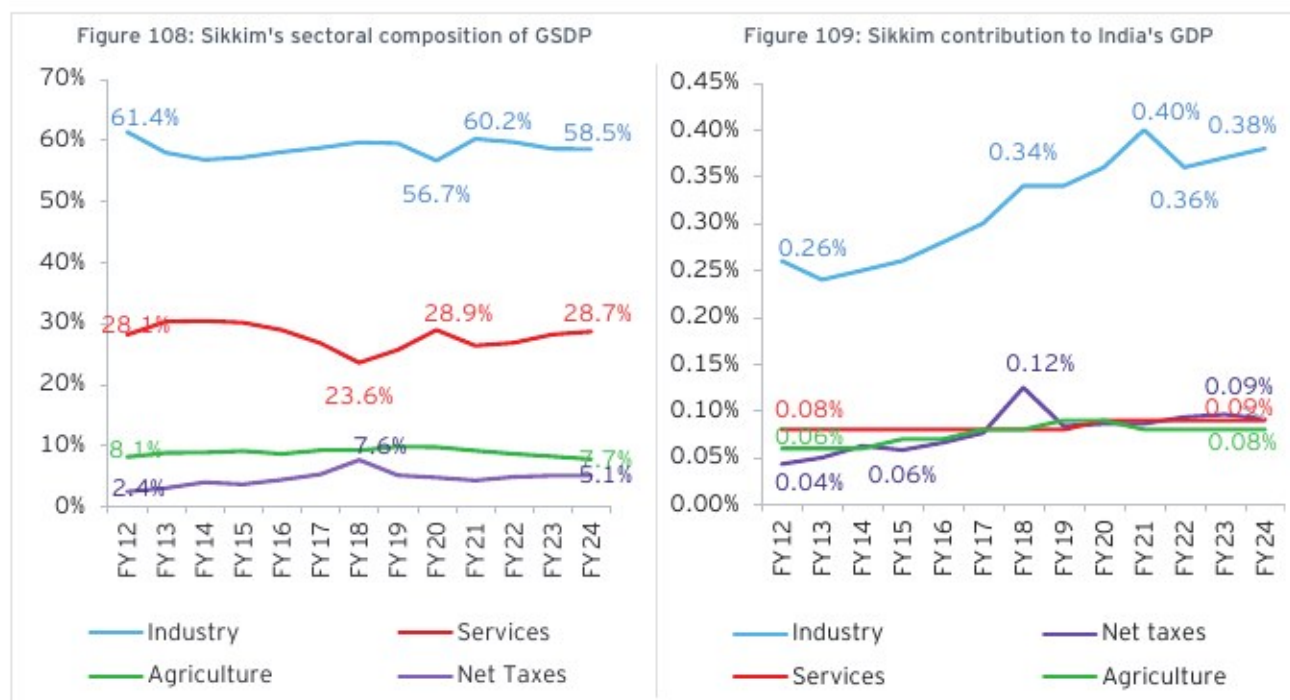


17.5 State economic analysis

Structure of Sikkim's economy

Sikkim's economy reflects a distinct industrial-led structure, with industry remaining the dominant pillar even as its share moderates marginally, while services show gradual consolidation and agriculture remains a small but stable component. The rising share of net taxes points to improving fiscal capacity and formalization rather than broad-based structural rebalancing.

Sikkim's strongest national comparative advantage lies in industry, where its contribution to India's industrial GDP has increased steadily despite the state's small size, driven by concentrated manufacturing and pharmaceuticals. Services and agriculture, while stable, remain modestly represented at the national level, signaling the need for targeted strategies to deepen service-sector scale, strengthen tourism and logistics linkages, and sustain high-value, niche agricultural productivity alongside industrial diversification.



Centre for Monitoring Indian Economy Pvt. Ltd. (n.d.). States of India [Database]. <https://statesofindia.cmie.com>

Source: MoSPI, EY Analysis

Agriculture: Stable but modest national footprint

Agriculture's share of Sikkim's GSDP has remained broadly stable, easing marginally from 8.1% in FY12 to 7.7% in FY24, reflecting structural constraints of limited arable land and a gradual shift toward non-farm activities. However, Sikkim's share in India's agricultural GDP rose from 0.06% to 0.08% over the period, indicating steady productivity gains relative to its small economic base. This suggests that while agriculture is not a dominant growth engine within the state economy, Sikkim has sustained a niche national presence supported by high-value horticulture and organic farming orientation.

Industry: Structurally dominant with rising national relevance

Industry remains the backbone of Sikkim's economy, accounting for over half of GSDP throughout the period, though its share moderated from 61.4% in FY12 to 58.5% in FY24. Despite this mild internal rebalancing, Sikkim's contribution to India's industrial GDP increased meaningfully from 0.26% to 0.38%, peaking near 0.40% in the early 2020s. This divergence highlights Sikkim's outsized national industrial relevance relative to its size, driven by concentrated pharmaceutical and manufacturing clusters, even as within-state diversification gradually progresses.

Services: Gradual expansion with limited scale effects

Services have grown incrementally from 28.1% of GSDP in FY12 to 28.7% in FY24, indicating steady but unspectacular expansion alongside industry. Sikkim's share of India's services GDP edged up from 0.08% to 0.09%, underscoring limited scale effects and the absence of large urban service agglomerations. While services contribute to economic stability, particularly tourism, trade, and public services, the sector has yet to emerge as a strong national growth lever compared to major service hubs.

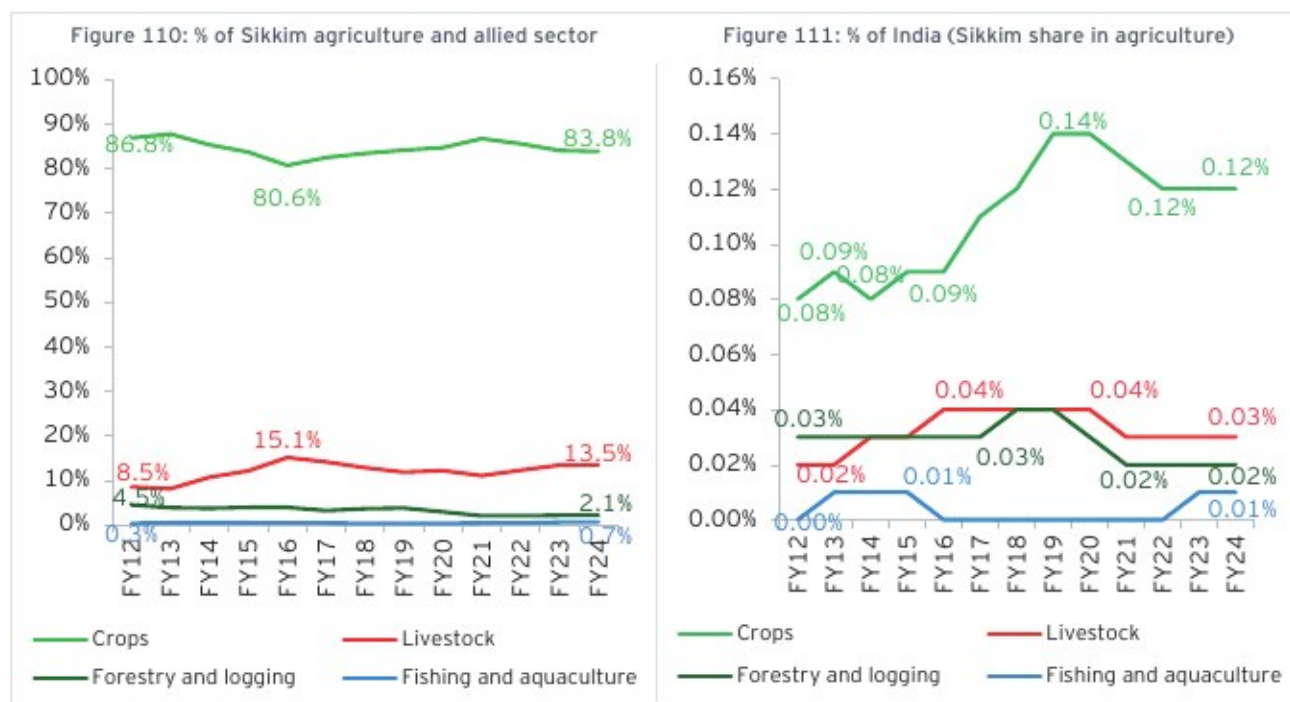
Net taxes: Rising fiscal significance from a low base

Net taxes increased notably from 2.4% of GSDP in FY12 to 5.1% in FY24, signaling improving fiscal mobilization and formalization of economic activity. Correspondingly, Sikkim's share in India's net tax pool rose from 0.04% to a peak of 0.12% before stabilizing around 0.09%. Although still small in absolute terms, this trajectory reflects strengthening state-level fiscal capacity and deeper integration into national revenue systems.



17.6 Sectoral structure of Sikkim's economy

Agriculture and Allied Sector



Centre for Monitoring Indian Economy Pvt. Ltd. (n.d.). States of India [Database]. <https://statesofindia.cmie.com>

Source: MoSPI, EY Analysis

Internal structure of Agriculture and Allied activities

Crops overwhelmingly dominate Sikkim's agriculture and allied sector, consistently accounting for over 80% of agriculture GVA, easing slightly from 86.8% in FY12 to 83.8% in FY24. This reflects the state's continued dependence on crop cultivation, particularly high-value horticulture, despite gradual diversification within allied activities.

Livestock has emerged as the most dynamic sub-sector, rising from 8.5% in FY12 to a peak of 15.1% in FY16, before stabilizing at 13.5% in FY24. This trajectory suggests growing household-level income diversification, though scale remains limited.

Forestry and logging play a relatively small but stable role, declining modestly from 4.5% in FY12 to 2.1% in FY24, reflecting regulatory constraints and conservation priorities rather than resource depletion.

Fishing and aquaculture remain marginal, contributing below 1% throughout the period, inching up from 0.3% in FY12 to 0.7% in FY24, constrained by geography and limited inland water bodies.

Sikkim's share in India's agriculture

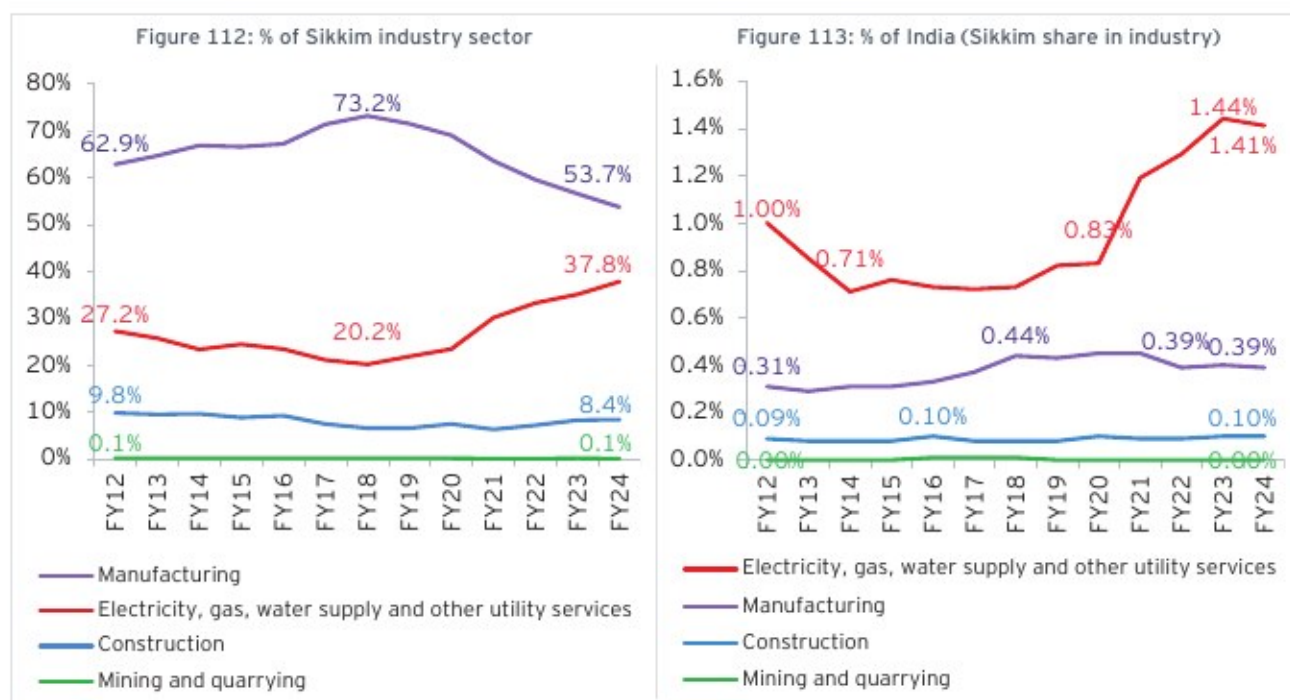
Crops represent Sikkim's strongest national comparative advantage within agriculture. The state's share in India's crop output rose from 0.08% in FY12 to a peak of 0.14% around FY19, before moderating to 0.12% in FY24, indicating sustained productivity gains despite scale limitations.

Livestock shows incremental national integration, with Sikkim's share rising from 0.02% in FY12 to 0.03% in FY24, peaking at 0.04% during FY17-FY20, signaling gradual but uneven expansion.

Forestry and logging maintain a small but steady national presence, broadly fluctuating between 0.02-0.04%, and settling around 0.02% in FY24, consistent with conservation-led management.

Fishing and aquaculture contribute negligibly to the national level, improving marginally from near zero in FY12 to 0.01% in FY24, reflecting structural and geographic constraints.

Industry sector



Centre for Monitoring Indian Economy Pvt. Ltd. (n.d.). States of India [Database]. <https://statesofindia.cmie.com>

Source: MoSPI, EY Analysis

Internal structure of industry

Manufacturing is the dominant industrial sub-sector in Sikkim, though its share has moderated over time – from 62.9% in FY12 to 53.7% in FY24, after peaking at 73.2% in FY18. This reflects both the maturity of Sikkim's pharmaceutical-led manufacturing base and a gradual relative expansion of non-manufacturing activities within industry.

Electricity, gas, water supply and other utility services have expanded strongly, rising from 27.2% in FY12 to 37.8% in FY24, indicating growing energy generation, utilities provisioning, and infrastructure-linked services supporting both industry and households.

Construction plays a secondary but stable role, declining slightly from 9.8% in FY12 to 8.4% in FY24, suggesting limited cyclical volatility but constrained scale in construction activity relative to manufacturing and utilities.

Mining and quarrying remain negligible, contributing 0.1% throughout the period, underscoring the absence of extractive dependence and reflecting Sikkim's ecological and regulatory context.

Sikkim's share in India's industry

Manufacturing constitutes Sikkim's strongest industrial comparative advantage nationally. The state's share in India's manufacturing output, while modest, remained significant relative to its size – easing from 1.00% in FY12 to 0.71% in FY14, before rising sharply to 1.44% in FY23 and 1.41% in FY24. This highlights Sikkim's outsized national role in specific manufacturing segments.

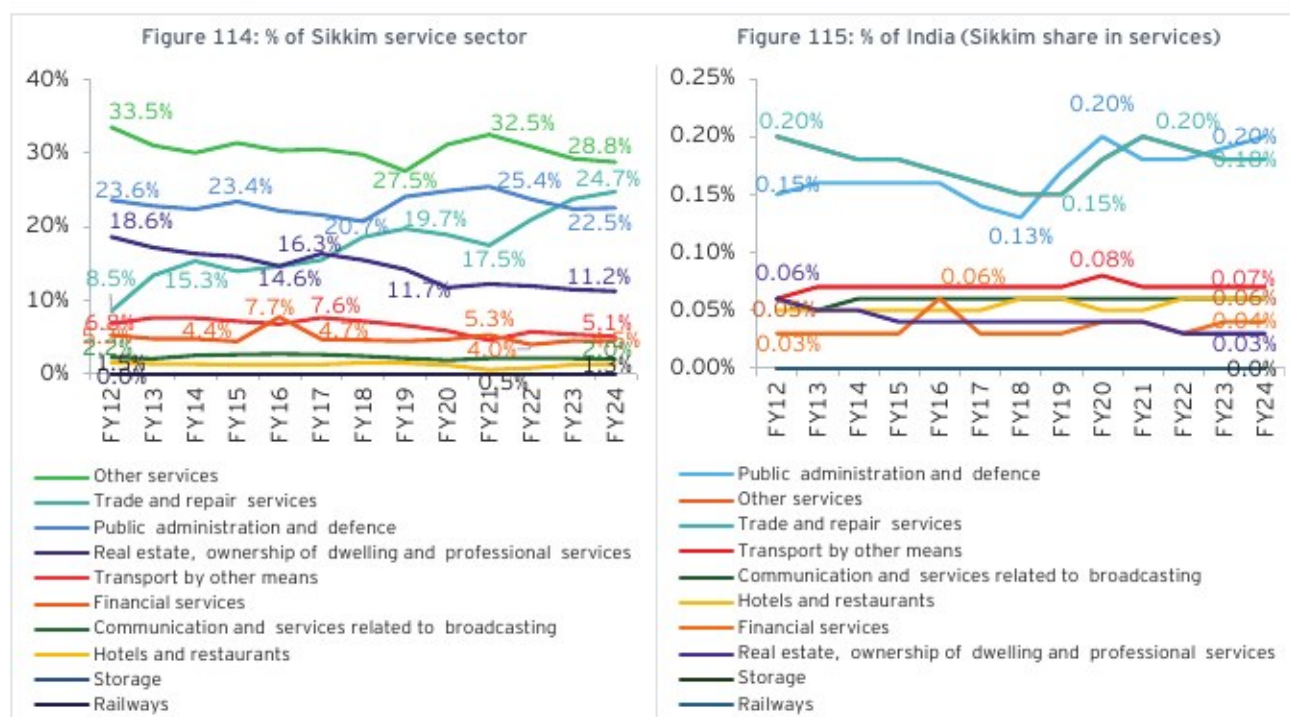
Electricity, gas, water supply and utilities show steady national integration, with Sikkim's share rising from 0.31% in FY12 to 0.39% in FY24, peaking around 0.45% during FY19-FY21, reflecting capacity expansion and grid integration.

Construction remains under-represented nationally, with Sikkim's share hovering around 0.09%-0.10%, consistent with the state's limited urban scale and terrain constraints.

Mining and quarrying have almost no contribution to India's mining output, reinforcing the non-extractive nature of Sikkim's industrial model.



Services sector



Centre for Monitoring Indian Economy Pvt. Ltd. (n.d.). States of India [Database]. <https://statesofindia.cmie.com>

Source: MoSPI, EY Analysis

Internal structure of services

Other services (education, health, social and personal services) have emerged as the largest and most resilient sub-sector, accounting for 33.5% in FY12 and 28.8% in FY24. While the share has moderated, it continues to anchor service-sector employment and social infrastructure.

Trade and repair services have shown steady expansion, rising from 8.5% in FY12 to 24.7% in FY24, indicating gradual deepening of domestic commerce linked to tourism, consumption, and inter-state trade.

Real estate, ownership of dwellings and professional services is a foundational pillar of Sikkim's service economy, though its relative importance has declined from 18.6% in FY12 to 11.2% in FY24.

Transport by other means have contracted structurally, declining from 6.8% in FY12 to 5.1% in FY24, reflecting declining logistics, mobility, and connectivity demand in a terrain-constrained economy.

Financial services remain small but stable, easing from 5.3% in FY12 to 4.5% in FY24, indicating moderate financial penetration without strong sectoral take-off.

Communication and broadcasting, hotels and restaurants, storage, and railways remain marginal

contributors, each below ~2%, reflecting structural limits of scale, geography, and market size.

Sikkim's share in India's service sector

Public administration and defense represents Sikkim's strongest national service-sector presence, maintaining a 0.2% share of India's total throughout the period, reflecting the state's administrative weight relative to population size.

Trade and repair services show a small but consistent national footprint, holding at 0.2% of India's total, signaling steady but limited scale effects.

Transport by other means maintains a moderate national share of 0.1% from FY12 to FY24, indicating stable integration into national transport and logistics activity.

Other services maintain a moderate national share of 0.2%, though with some fluctuation, reflecting Sikkim's role in education, health, and social services relative to its size.

Financial services, real estate and professional services, communication, storage, railways, and hotels and restaurants remain under-represented nationally, generally below 0.1%, underscoring the absence of large urban, financial, or corporate service hubs.

17.7 SWOT analysis

Sikkim's strategic outlook reflects a unique positioning at the junction of India, China, Nepal, and Bhutan, supported by hydropower assets and organic agriculture credentials, yet constrained by geography, sectoral imbalances, and fiscal vulnerabilities. The SWOT assessment provides a consolidated, strategy-led view to inform prioritization under the state's vision framework.

Strengths

- **World's first 100% organic state** since 2016; global recognition for sustainable agriculture
- **62.6% of GSVA from industry sector, highest among all NE states;** driven by pharmaceuticals and hydropower
- **Dominant producer of large cardamom (80% of India's output);** strong horticulture and floriculture base

Weaknesses

- **Severe sectoral employment mismatch:** majority workforce in agriculture contributing only 9% to GSVA
- **Limited connectivity** via single NH10 lifeline; Pakyong Airport non-operational since June 2024
- **Smallest population in NER,** 0.7 Million, with slow population growth limits availability of workforce for large scale industries.

Opportunities

- **Tourism:** Scale eco-tourism, medical tourism, and high-value niche tourism leveraging pristine Himalayan assets
- **Expand renewable energy portfolio** through solar, biomass, micro-hydro; position as green energy exporter
- **Leverage 100% organic certification** to access premium international markets and wellness tourism

Threats

- **Workforce quality gaps and challenges in retaining the talent pool** constrain diversification beyond capital-intensive industries
- **Climate vulnerability** with frequent landslides, Glacial Lake Outburst Flood (GLOFs); 2023 Teesta III flood caused major infrastructure loss⁴⁰⁸
- **Rising debt-to-GSDP ratio** at 38.2%, exceeding fiscal targets; significant contingent liabilities

⁴⁰⁸MoHA <https://ndmindia.mha.gov.in/ndmi/viewUploadedDocument?uid=NEW1685&utm>



17.8 Strategic recommendations

Sikkim's economic outcomes are characterized by high per capita income, capital-intensive growth, and strong regional performance, alongside structural constraints related to scale, connectivity, and sectoral concentration. Strategic recommendations therefore

focus on stabilizing existing growth drivers, improving transmission of value across sectors, and managing exposure to concentrated risks, rather than pursuing volume-led diversification.

Key challenges and strategic approach

Table 67: Key challenges and strategic approach (Sikkim)

Key Challenge	Context	Strategic Approach
Geographic isolation and high logistics costs	Mountainous, landlocked terrain increases logistics costs, constraining market access and investment. No railway connectivity; 44.96 km Sevoke-Rangpo line under construction, targeted completion by December 2027.	Accelerate Sevoke-Rangpo rail completion to integrate with national network and reduce freight costs. Strengthen all-weather roads; leverage digital connectivity.
Limited industrial land & infrastructure	Severe land constraints and ecological sensitivity restrict scale-based manufacturing and diversification.	Focus on high-value, low-footprint clusters (pharmaceuticals, wellness, precision processing) aligned with environmental capacity.
Urban capacity constraints	Gangtok constrained by high density, limited civic infrastructure, and environmental limits.	Pursue quality-led densification; upgrade civic and digital infrastructure; position as specialized governance, education, and services hub.
Employment constraints & limited private sector depth	Small market and limited enterprise base restrict job creation, driving youth outward migration.	Strengthen services-led employment (education, healthcare, tourism, professional services) with targeted skill development.
Agriculture with low value addition	Smallholder agriculture with high organic potential but limited processing, branding, and market access.	Promote premium organic products; expand processing and cold-chain infrastructure; strengthen certification and branding for high-income markets.
Financial access constraints	Limited long-term credit for MSMEs and agri-enterprises due to scale and risk perceptions.	Expand digital financial inclusion; deploy targeted MSME and agri-credit instruments; strengthen cooperative and regional institutions.
Underutilised tourism potential	Strong natural and cultural assets underexploited due to infrastructure gaps, seasonality, and capacity constraints.	Develop high-value, low-impact tourism (wellness, eco-tourism, cultural experiences) with quality standards and capacity norms.
Climate vulnerability and ecological fragility	Exposure to landslides, extreme weather, and ecological degradation threatens infrastructure and livelihoods.	Embed climate resilience in infrastructure planning; strengthen disaster preparedness; promote sustainable land-use practices.

Strategies for Sikkim

- **Gangtok as a high-value urban nucleus:** Gangtok functions as the administrative, educational, and service core of the state. Rather than pursuing population-led expansion, the focus may be on high-quality urban densification, premium residential and institutional infrastructure, and positioning Gangtok as a center for governance, education, healthcare, and specialized services for the Eastern Himalayas. Targeted investments in digital infrastructure, professional services, and hospitality can enhance Gangtok's role as a knowledge and services hub.
- **Pharmaceutical and wellness manufacturing:** Sikkim has already demonstrated competitiveness in pharmaceutical manufacturing due to its policy-led industrial base and regulatory credibility. The next phase might move from volume-driven formulation manufacturing to high-margin segments, including biologics, nutraceuticals, herbal formulations, and wellness-linked products. Strong backward linkages with medicinal plant cultivation and quality certification systems can reinforce Sikkim's positioning in global health and wellness value chains.
- **Organic agriculture and premium agri-exports:** As India's first fully organic state, Sikkim holds a differentiated brand advantage. Strategic emphasis can be placed on premium agri-products, including spices, horticulture, floriculture, and processed organic foods, targeted at export and high-income domestic markets. Value addition through branding, certification, and cold-chain-enabled processing is essential to overcome scale limitations and logistics costs.
- **Education, research, and skill institutions:** Sikkim can evolve as a regional center for mountain ecology, climate science, sustainable agriculture, and Himalayan studies. Strengthening universities, research institutions, and specialized training centers can generate skilled employment, attract external talent, and anchor long-term knowledge-driven growth aligned with the state's ecological priorities.
- **Sustainable tourism and experience economy:** Tourism must shift decisively from volume-based footfall to high-value, low-impact experiences. Wellness tourism, eco-tourism, cultural tourism, and adventure tourism supported by strict carrying-capacity norms – can generate stable income while preserving ecological integrity. Institutionalized tourism standards and premium service benchmarks could be critical for sustaining this model.
- **Regional and cross-border connectivity:** Improved connectivity with Siliguri and other NER states is central to reducing economic isolation. While cross-border linkages offer long-term potential, the immediate focus could remain on strengthening domestic market integration, logistics reliability, and digital connectivity to enable participation in national and global value chains without ecological stress.







CHAPTER

18

Tripura -

**Where culture
meets nature**



18.1 Socio-economic profile and unique identity

Socio economic profile

Table 68: State overview (Tripura)

State overview ⁴⁰⁹	
Area	10,500 km ²
Population (2025)	4.2 million (Estimated)
GSDP (FY25)	INR89,681 crore
Per Capita GSDP (FY25)	INR2,13,375/US\$2,362
Contribution to NER GDP	8.8%
Population density	402 people per km ²
Unemployment Rate (2024)	1.8%
Urbanization Rate (2025)	41.4% (Estimated)
State Budgeted Expenditure (FY26)	INR32,423 crore
Number of MSMEs (2025)	2,92,911
Debt to GSDP (FY25)	27.9%
Literacy	93.7%
Youth population	22.0%
Human development index	0.62
Export Preparedness Index	22 nd rank; Score:42.8

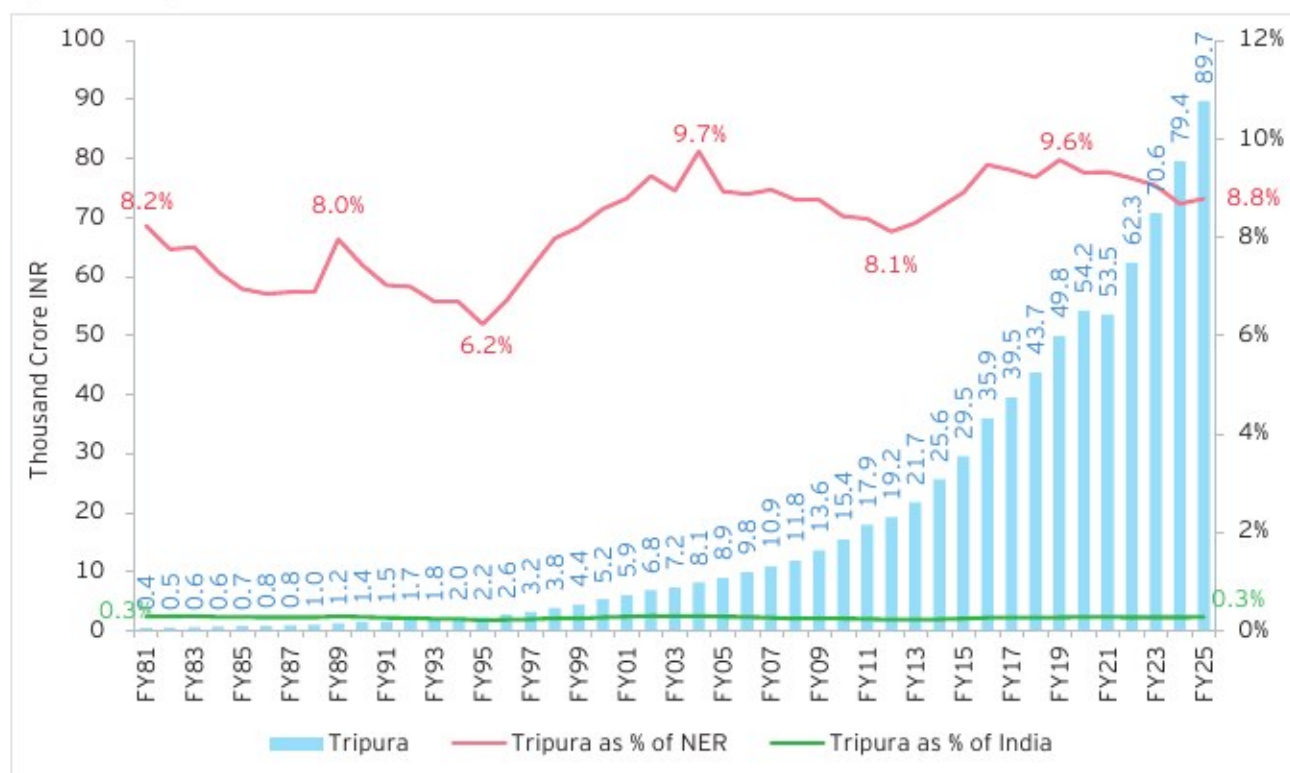
Tripura, located in the southern part of NER, is the second smallest state in the region but stands out with the second-largest GDP and population. Tripura is strategically positioned as a gateway linking NER with

Bangladesh and Southeast Asia with an area of 10,500 km² and an estimated population of 4.2 million (2025).

⁴⁰⁹ Census of India, PLFS 2023-24, MoSPI, Ministry of Statistics and Program Implementation, NITI NCAER Macro and Fiscal Landscape of Tripura, NITI Aayog Export Preparedness Index 2024, Global Data Lab, Subnational HDI (SHDI) – India (2022)



Figure 116: Tripura GSDP

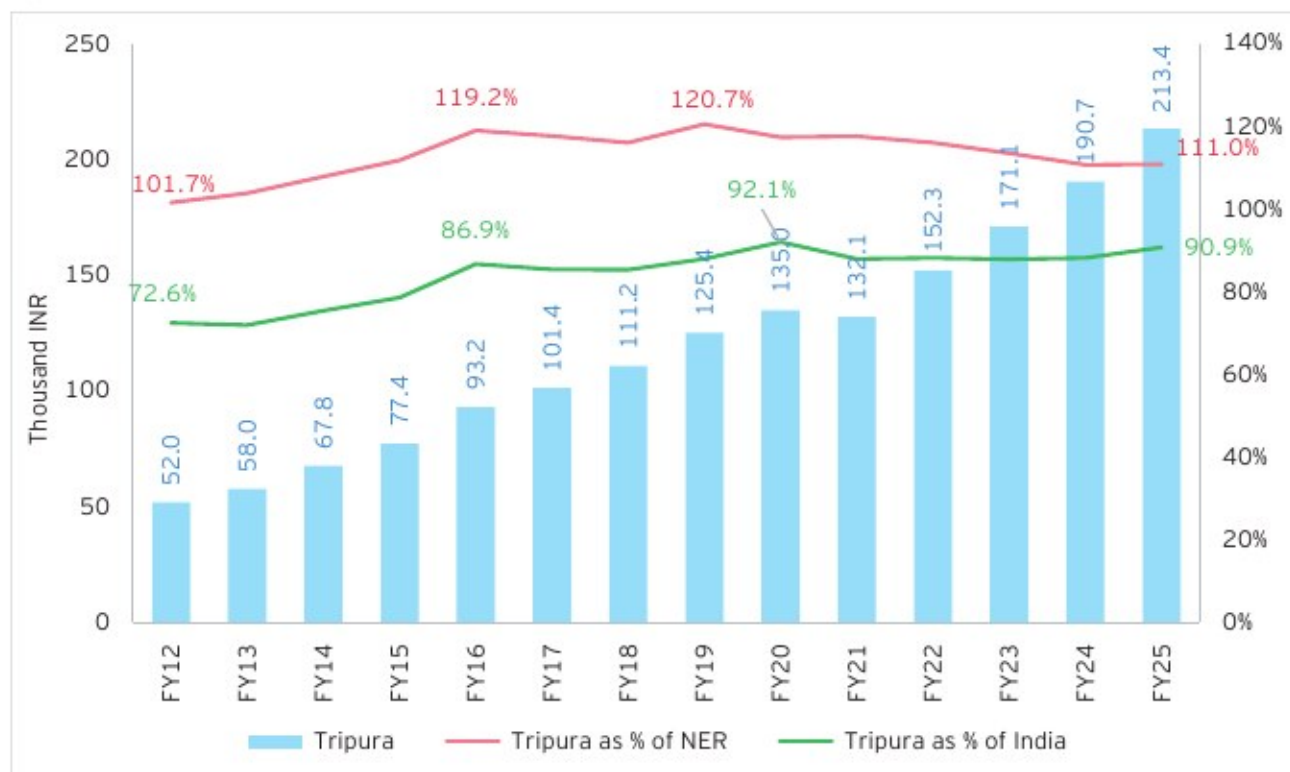


Source: MoSPI

Tripura has demonstrated considerable economic resilience, with GDP growing from INR 558 crore in FY83 to INR 89,682 crore in FY25, comprising 8.8% of

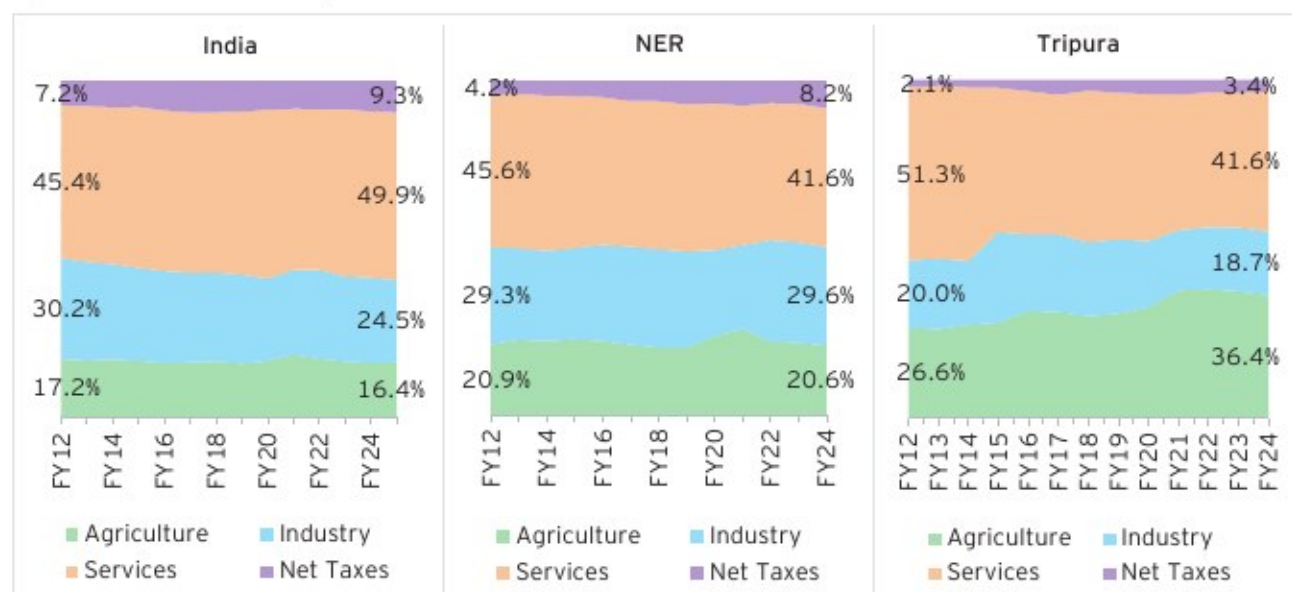
NER's GDP. Per capita GDP has surged to INR 2,13,375 by FY25, outpacing several NER peers, approaching ~90% of national average in FY25.

Figure 117: Tripura per capita GSDP



Source: MoSPI

Figure 118: India vs NER vs Tripura sectoral shares



Source: World Bank, MoSPI

Tripura's agricultural sector accounts for 34.9% of GVA in FY25 – higher than both national and NER averages – indicating that productivity gains in agriculture can have greater potential to accelerate overall economic growth. While services currently constitute the largest share at 44.4%, followed by industry at 20.7%, the elevated agricultural base presents the highest leverage point for structural transformation and income growth acceleration.

In human development, Tripura reached a milestone with a 95.6% literacy rate in 2024-25⁴¹⁰, becoming India's third fully literate state after Mizoram and Goa, a significant rise from 20.24% in 1961. The unemployment rate stands at 1.8% (2023-24), well below the national average of 3.5%⁴¹¹, while multidimensional poverty declined from 16.62% (2015-16) to 13.11% (2019-21)⁴¹², lifting ~143,000 people out of poverty since 2015. Despite these advances, Tripura Human Development Index is (0.624)⁴¹³, reflecting challenges in healthcare availability, income generation, and access to quality services, especially in rural areas.

Tripura ranks 22nd and scores 42.8 on the Export Performance Index⁴¹⁴, constrained by infrastructure deficits, high transportation costs, and regulatory inefficiencies. However, strategic initiatives like the Agartala-Akhaura railway link and cross-border trade expansion present significant opportunities to

enhance economic growth and boost exports, especially in value-added agricultural and processed products.

Tripura's Unique Selling Proposition and unique identity

Tripura has a critical strategic position in NER's cross-border economic integration. Of 11 highest-priority Phase I Border Centres identified in the North East Economic Corridor (NEEC) project for immediate investment, three are in Tripura – Agartala, Sabroom, and Srimantpur – reflecting Tripura's critical role in regional trade and economic growth.

The state's competitive advantage stems from multi-modal connectivity to Bangladesh, Myanmar, and Bhutan via the Agartala-Akhaura rail link, Sonamura Inland Water Transport Terminal at Srimantpur, and Sabroom's proximity to Chattogram port (72 km). Growth Polygon 3A (Agartala-Belonia-Sabroom) capitalizes on this geographical positioning through enhanced Integrated Check Posts and road network upgrades. This infrastructure creates direct market access for agriculture, power, and tourism sectors while positioning Tripura as the primary cross-border trade gateway for regional value chain integration⁴¹⁵.

Agriculture forms the backbone of Tripura's export economy, with high-exporting border districts

⁴¹⁰ Press Information Bureau, Ministry of Education, *Tripura becomes third state in the country, after Mizoram and Goa, to achieve Full Functional Literacy*, 23 June 2025, <https://www.pib.gov.in/PressReleasePage.aspx?PRID=2139103>

⁴¹¹ Annual Report, PLFS, 2023-24

⁴¹² NITI NCAER Macro and Fiscal Landscape of Tripura

⁴¹³ Subnational HDI (SHDI) – India (2022)

⁴¹⁴ Niti Aayog Export Preparedness Index 2024

⁴¹⁵ Asian Development Bank (ADB), *Final Report – Vol. I: Knowledge and Institutional Strengthening for Infrastructure Planning and Sustainable Development for Subregional Integration (TA-9797 IND)*, Program Development and Capacity Building Consultant, April 30, 2025



specializing in rice, cereals, jackfruits, and bananas destined for Bangladesh, Myanmar, and Southeast Asian markets. To unlock this potential, establishing export-standard processing plants is critical, supported by policies offering subsidies to exporters, a dedicated Agar market, and an International Trade and Research Centre near industrial corridors.

Non-tariff barriers imposed by Bangladesh remain a significant concern historically limiting exports. The Government of Tripura, with support from relevant Central ministries, advocated for removal of these barriers and implementation of Petrapole-Benapole like export permissions, positioning Tripura as a gateway for seamless cross-border trade that drives economic resilience and integration into regional value chains.

18.2 Tripura's 10 recommended priority areas

10 priority areas for Tripura

1. Tourism
2. Plantation Focus Sectors (Bamboo, Rubber, Tea)
3. Agriculture and Horticulture (including Organic and Rubber)
4. Logistics, Integrated Urbanization and Cross-Border Development
5. Natural Gas
6. IT and Digital Hub
7. Rubber-based MSMEs (Footwear, Mats, Components)
8. Renewable Energy
9. Agarwood and Agar-oil
10. Pharmaceuticals and Medical Devices

#1 Tourism, including medical tourism

Tripura's rich tapestry of cultural heritage, ecological diversity, and frontline healthcare infrastructure positions the state as an emerging tourism hub. The state's unique assets include the grand Ujjayanta Palace in Agartala, the floating Neermahal Palace set amid Rudrasagar Lake, the panoramic Jampui Hills with orange orchards, and prehistoric rock carvings at Unakoti – each offering immersive heritage experiences.

Ecotourism draws on the Sepahijala Wildlife Sanctuary's primate reserves, the Clouded Leopard National Park, and the Tripura State Eco Park's butterfly conservatory. Under **Tripura Industrial**

Investment Policy (TIIP) 2024, high-value tourism activities such as water sports on Gomati River, ropeways to hill-top temples, adventure sports like zip-lining and rock climbing in Jampui, and floating restaurants on Dugdhou Lake all require minimum ₹3 crore investments, ensuring world-class facilities⁴¹⁶.

Simultaneously, the policy incentivizes healthcare infrastructure to develop medical tourism packages for yoga and Ayurveda retreats, tropical disease treatment, and wellness spas, capitalizing on Tripura's 95.6% literacy rate, multilingual workforce, and preferential medical service pricing⁴¹⁷.

#2 Plantation focus sectors: Bamboo, Rubber, Tea

Tripura's plantation triumvirate, *bamboo, rubber, and tea*, represent a transformative economic catalyst leveraging the state's natural abundance for industrial diversification. Tripura has 4.2 lakh hectares of bamboo, about one-third of the state with 21 species⁴¹⁸, yet, currently underutilizing this asset for high-value engineered products, tiles, and laminated boards despite established infrastructure through the Bamboo Mission and specialized parks at Bodhjungnagar.

The rubber industry reveals a critical value-addition gap. Despite being India's second-largest producer, with ~1.1 lakh hectares under cultivation⁴¹⁹, Tripura processes minimal output locally. Tripura has become the second largest producer of natural rubber in the country, after Kerala, accounting for about 9% of the total production of India. Tripura also has the second largest rubber growing area in the country, after Kerala⁴²⁰. Similarly, the tea sector's production growth with 2,755 small tea growers having 1,398

⁴¹⁶ Department of Industries & Commerce, Government of Tripura, *Tripura Industrial Investment Policy 2024* (Notification, 7 Oct. 2024), <https://industries.tripura.gov.in/sites/default/files/Notification%20-%20Tripura%20Industrial%20Investment%20Policy%202024.pdf>

⁴¹⁷ Press Information Bureau, Ministry of Education, *Tripura becomes third state in the country, after Mizoram and Goa, to achieve Full Functional Literacy*, 23 June 2025, <https://www.pib.gov.in/PressReleasePage.aspx?PRID=2139103>

⁴¹⁸ Department of Industries & Commerce, Government of Tripura, *Bamboo & Bamboo Handicrafts/Other Products*, <https://industries.tripura.gov.in/bamboo>

⁴¹⁹ North Eastern Development Finance Corporation Ltd. (NEDFi), *North East Databank*, <https://databank.nedfi.com/>

⁴²⁰ Department of Industries & Commerce, Government of Tripura, *Overview - Rubber*, <https://industries.tripura.gov.in/overview-rubber>

hectares of land under cultivation demonstrates strong premium positioning, particularly given the state's superior liquor (brewed tea) quality and absence of land ceiling restrictions, allowing both large-scale and small-scale growers to flourish⁴²¹.

The strategic imperative involves establishing integrated processing ecosystems that transform raw material abundance into manufactured exports, creating sustainable employment while positioning Tripura as NER's definitive plantation-product manufacturing hub. Success requires coordinated investment in processing infrastructure, export facilitation, and skills development to capture maximum value from the state's natural endowments.

#3 Agricultural and horticultural produce (including organic segment)

Tripura's diverse agricultural and horticultural portfolio and strategic location presents an opportunity for creating a transformative economic multiplier, with potential for value addition and export expansion. Despite new infrastructure at Agartala and Sabroom Integrated Check Posts (ICPs) enabling cross-border trade with Bangladesh, production remains hampered by inconsistent inputs, inadequate storage, and nascent community-based organizations. The state's agricultural foundation rests on rice production (~8 lakh tons across 2.41 lakh hectares)⁴²² while the horticultural sector demonstrates differentiation through the GI-tagged Queen Pineapple, cultivated across 11,862 hectares producing 1.74 lakh metric tons annually and high-curcumin turmeric⁴²³. The INR132 crore DoNER global branding initiative positions this flagship crop for premium export markets, complemented by strong performance in jackfruit (top 10 national ranking) and ginger production (2,131 hectares)⁴²⁴. Encouraging integrated packhouses, micro-irrigation, and agri-based processing clusters could significantly elevate output and trade volumes. The organic agriculture expansion from 20,000 to 25,500 hectares under MOVCD-NER Phase III⁴²⁵, creates a scalable platform for premium market positioning. Critical value-addition opportunities exist in integrated rice processing (boiled, parboiled, flake varieties), pineapple derivatives (juice, concentrates, Individually Quick Frozen or IQF, fiber), and jackfruit processing

(dehydrated chips, pulp), establishing comprehensive farm-to-export value chains.

Tripura relies heavily on rain-fed cultivation and faces a severe shortage of modern cold storage, causing substantial post-harvest losses and limiting market access. Capacity building across the value chain is weak, restricting farmers' abilities to apply good practices and leverage digital commerce platforms. Additionally, region-specific R&D is insufficient, and adoption of emerging technologies such as biological pest management and robust traceability systems remains limited. These combined factors reduce overall productivity, efficiency, and integration into broader markets.

#4 Key cross-sector priorities: Logistics and cross-border development

Tripura's positioning creates opportunity for economic transformation through logistics infrastructure and cross-border trade development. While arterial networks exist, critical last-mile infrastructure remains absent: cold chain networks for horticultural output, integrated warehousing complexes, inland container depots, and container freight stations for cargo aggregation.

Without logistics as a connective tissue between production and markets, natural resources and fiscal incentives cannot catalyze industrial development. Border proximity without processing capability perpetuates a primary commodity model with minimal value capture.

Integrated urbanization serves as the strategic lever synchronizing logistics efficiency, cross-border commerce, and agricultural productivity by addressing fragmented supply chains. Urban-rail integration enables farmers' proximity to processing units and export corridors while consolidating trade infrastructure. Rail-based hubs aggregate output for value addition and serve as distribution nodes, reducing transportation costs and improving margins through assured market access and cold chain facilities. Integration captures arbitrage opportunities created by border proximity.

Cross-border infrastructure must evolve from customs checkpoints into value-creation platforms. Current

⁴²¹ Department of Industries & Commerce, Government of Tripura, Tea, <https://industries.tripura.gov.in/tea>

⁴²² North Eastern Development Finance Corporation Ltd. (NEDFi), North East Databank, <https://databank.nedfi.com/>

⁴²³ Directorate of Information and Cultural Affairs, Government of Tripura, Tripura Pineapple Festival Inaugurated at Pragna Bhawan by Agriculture Minister: Over 73 Metric Tons of Pineapple Exported in 7 Years (Agartala: 5-1495, 30 June 2025), <https://ica.tripura.gov.in/sites/default/files/1495-25%20Eng%20PR%20%23%20Tripura%20Pineapple%20Festival%20Inaugurated%20at%20Pragna%20Bhawan%20by%20Agriculture%20Minister%20%23%20Over%2073%20Metric%20Tons%20of%20Pineapple%20Exported%20in%207%20Years.pdf>

⁴²⁴ <https://www.ceicdata.com/en/india/area-of-horticulture-crops-in-major-states-spices-ginger-tripura#:~:text=Area%20Horticulture%20Crops%20Spices%20Ginger%20Tripura%20data%20was,Major%20States%20Spices%20Ginger>

⁴²⁵ Press Information Bureau, Ministry of Agriculture & Farmers Welfare, Expansion of Organic Farming (17 Dec. 2021), <https://www.pib.gov.in/PressReleasePage.aspx?PRID=1782627>



gaps include inadequate processing capacity to convert raw produce into export-ready products, absent quality certification and testing facilities, and non-tariff barriers. Establishing agri-export clusters for products with competitive advantage – pineapple, jackfruit, organic spices, processed rubber – and integrated with certification and testing infrastructure can enable international market standards compliance and penetration.

#5 Natural gas

Tripura's natural gas sector presents a significant opportunity for industrial development and regional energy integration. The state holds substantial natural gas reserves with 400 billion cubic meters estimated and high-quality deposits containing ~97% methane content.

Recent developments include Oil India Limited's ~INR60 crore investment in Debtamura Hill exploration under India's HELP regime, complementing ONGC's existing 23 blocks and expanding the state's hydrocarbon exploration footprint⁴²⁶. The Northeast Natural Gas Pipeline Grid connectivity scheduled for September 2026 represents a crucial infrastructure milestone, linking Tripura to national gas networks through 1,656 km of pipelines with 4.7 MMSCMD capacity and potential to unlock 6 MMSCMD regional production while generating INR14,000 crore in energy cost savings⁴²⁷.

The availability of natural gas in Tripura has supported industrial activities and provides a foundation for potential projects such as ceramic and derivative clusters. The sector currently powers ~80% of Tripura's electricity demand through major installations including ONGC Tripura Power Company Limited (OTPC's) 726 MW Palatana plant and North Eastern Electric Power Corporation Ltd. (NEEPCO) facilities totaling 147 MW⁴²⁸–⁴²⁹; While maintaining cross-border electricity exports to Bangladesh and serving over 50 industrial consumers, primarily in rubber processing⁴³⁰.

Unreliable gas supply can restrict the scale of manufacturing operations, thus, having resilient gas

supply is critical to increasing Tripura's industrial base. Leveraging proximity to neighboring countries, Tripura can foster regional trade in natural gas-based products. Tripura can advance hydrocarbon-allied industries and monetize flared gases through technologies like Gas-to-Liquid, Gas-to-Chemicals, producing polymers, ammonia, and urea – key for agriculture and industry.

However, gas flaring during crude extraction remains a challenge due to inadequate capture infrastructure, releasing methane, a potent greenhouse gas. NER's domestic petroleum market is limited, accounting for only 2% of India's consumption. Additionally, regulatory and investment complexities hinder full exploitation of Tripura's gas resources.

#6 IT and Digital hub

Tripura's emerging IT and digital services sector represents a strategic diversification opportunity driven by substantial infrastructure investments and supportive policy frameworks. The establishment of India's third International Internet Gateway with 10 Gbps connectivity via Cox's Bazar (Bangladesh), combined with the Agartala Smart City Data Center (the first Indian smart city to launch its own data center and 156 km-fiber network)⁴³¹, creates the foundational infrastructure necessary for cloud services, AI applications, and global BPO operations.

The talent development ecosystem encompasses Tripura University's expanding IT and Pharmacy departments alongside multiple engineering institutions. The Tripura Startup Policy 2024 allocates INR50 crore corpus specifically for IT/ITeS ventures, supporting 127 DPIIT-recognized startups⁴³². A comprehensive strategy could focus on key intervention areas such as establishing managed IT/ITeS parks leveraging TIIPS 2022 incentives, implementing skill accelerator programs through National Institute of Electronics & Information Technology (NIELIT) collaboration with targets for number of professionals in AI and cybersecurity and developing BPO clusters for non-voice services (finance, legal, GIS mapping) under the Northeast BPO scheme, etc.

⁴²⁶ Department of Industries & Commerce, Government of Tripura, *Natural Gas*, <https://industries.tripura.gov.in/natural-gas>

⁴²⁷ Press Information Bureau, Ministry of Petroleum & Natural Gas, *North-East Gas Pipeline Grid project: Total length of pipeline is 1,656 km with tentative project cost of Rs 9,265 crore*, 8 Jan. 2021, <https://www.pib.gov.in/Pressreleaseshare.aspx?PRID=1598709>

⁴²⁸ ONGC Tripura Power Company Limited (OTPC), *Plant Details – OTPC India*, <https://www.otpcindia.in/ourbusiness/plant-details>

⁴²⁹ Asian Development Bank (ADB), *Tripura Power Distribution Strengthening and Generation Efficiency Improvement Project: Sector Assessment* (ADB Loan 51308-009), <https://www.adb.org/sites/default/files/linked-documents/51308-009-id-03.pdf>

⁴³⁰ Government of Tripura, *Skills and Capacity Development Expert Final Report: Aug 23 – 02 Feb 2024*, Tripura Industrial Development Corporation Ltd. / Department of Industries & Commerce, Government of Tripura, 2024, https://industries.tripura.gov.in/sites/default/files/Skills%20and%20Capacity%20Development%20Expert_Final%20Report%20Aug%2023-02Feb2024.pdf

⁴³¹ Press Information Bureau, Ministry of Communications, *Augmentation of one additional 10 Gbps International bandwidth at Agartala to strengthen internet services in North Eastern States* (22 Apr. 2022), <https://www.pib.gov.in/PressReleaseSelfFramePage.aspx?PRID=1819074>

⁴³² Department of Information Technology, Government of Tripura, *Tripura Startup Policy 2024* (Pragna Bhavan: DIT, 24 Jan. 2025), https://dit.tripura.gov.in/sites/default/files/2025-01/Startup_Policy_2024_final_0.pdf

Tripura can consider focusing on consistent policy implementation, sustained infrastructure development, and effective talent retention strategies to capitalize on the states growing digital connectivity advantages and emerging technological capabilities.

#7 Rubber-based MSMEs (Footwear, Mats, Components)

Rubber-based manufacturing is a priority sector for Tripura as the state is the second-largest producer of natural rubber in India after Kerala, accounting for around 9% of national production, and hosts the second-largest rubber-growing area in the country⁴³³. Despite this scale, rubber value chains in Tripura remain concentrated at the raw and primary processing stages, with most downstream manufacturing located outside the state.

Rubber-based MSMEs – particularly in footwear, floor mats, molded consumer goods, and basic industrial components – offer a clear pathway for local value retention and employment generation through labour-intensive manufacturing aligned with Tripura's workforce profile. Proximity to raw material sources and existing processing units lowers input risk, while access to eastern Indian markets supports demand for standardized rubber products.

The sector warrants prioritization because it converts Tripura's comparative advantage in rubber cultivation into industrial value addition, without reliance on new resource inputs. The opportunity lies in MSME clustering, quality standardization, and buyer linkages, repositioning the state from a raw rubber supplier to a regional manufacturing base.

#8 Renewable energy

Tripura's abundant renewable resources (solar, biomass, and micro-hydropower) remain underleveraged despite urgent energy security and sustainability needs. As of mid-2025, solar capacity has risen from just 3 MW in 2018 to 26 MW, driven by small-scale SPV plants and solar lantern programs. Tripura has 9,191 MW renewable potential but just 31 MW solar installed.⁴³⁴

The Tripura Renewable Energy Development Agency (TREDA) has mapped nearly 2,000 government

rooftops, aiming to add 70 MW of rooftop solar by 2027⁴³⁵. Tripura's State Action Plan on Climate Change (2.0) identifies a total renewable energy potential of 2,132 MW, including 300 MW from biomass using forest and agricultural residues and 200 MW from small hydro projects across its 38,594 ha of reservoirs and streams⁴³⁶.

Strategic development requires fast-tracking announce programs such as the Tripura Renewable Energy Development Agency (TREDA)'s ambitious rooftop plan, aiming to produce 70 megawatts (MW) of power, and the 130 MW floating solar plant on Dumbur Lake.

Simultaneously, Tripura could explore implementing dedicated biomass gasification hubs, PPP-supported plantations, agro-waste collection networks, and multiple spread out micro-hydro projects. Policy alignment would benefit from tools such as coordinating subsidy schemes, introducing green bonds and fast-tracking PPP promotion.

#9 Agarwood and Agar-oil

Tripura's agarwood sector presents a significant industrial and economic opportunity. The state is home to ~54 lakh agar trees spread over 2,000 hectares, with plans to expand to 4,000 hectares in 2025 under the Tripura Agarwood Policy 2021⁴³⁷. This aims to develop agarwood as a cash crop alongside rubber, bamboo, and pineapple.

Key developments include an estimated INR100 crore budget for agar cultivation promotion, supporting private land growers, contract farming, inoculation units, and value-added processing facilities for agar oil and chips. The Tripura government targets an annual economy of around INR2,000 crore in 2025 from agarwood, involving 50,000 employment opportunities⁴³⁸. Infrastructure development includes the proposed cluster processing centers at Kadamtala under North Eastern Regional Agricultural Marketing Corporation Limited (NERAMAC), the initiative is a proof-of-concept project intended to boost the local agarwood value chain and explore new market and export opportunities.

Technological breakthroughs in artificial inoculation have transformed sector viability, increasing infection rates enhancing resin yields and oil extraction

⁴³³ Department of Industries & Commerce, Government of Tripura. *Potential Sectors - Thrust Sectors: Rubber Sector*. Tripura Industrial Development Corporation / Government of Tripura. Accessed from <https://tidc.tripura.gov.in/potential/sector>

⁴³⁴ NITI Aayog, *India Climate & Energy Dashboard (ICED)*, <https://iced.niti.gov.in>

⁴³⁵ Tripura Renewable Energy Development Agency (TREDA), <https://treda.tripura.gov.in/>

⁴³⁶ Department of Science, Technology & Environment, Government of Tripura, *State Action Plan on Climate Change 2.0 2023-24* (Agartala: DSTE, 2024), https://dste.tripura.gov.in/sites/default/files/2024-07/SAPCC_2.0_2023_24.pdf

⁴³⁷ Government of Tripura, *Tripura Agarwood Policy Final* (Agartala: Government of Tripura, April 2025), <https://risingnortheast.in/wp-content/uploads/2025/04/Tripura-Agarwood-Policy-Final-1.pdf>

⁴³⁸ Government of Tripura, *Tripura Agarwood Policy Final* (Agartala: Government of Tripura, April 2025), <https://risingnortheast.in/wp-content/uploads/2025/04/Tripura-Agarwood-Policy-Final-1.pdf>



efficiency. Value addition strategies focus on public-private partnerships with fragrance and cosmetic manufacturers to develop downstream perfumery products and premium incense lines, capturing higher margins versus raw material exports. The sector is estimated to bring substantial economic impact, with reported potential income of INR15-20 lakh per hectare annually⁴³⁹.

However, success requires consistent quality standards, stable international demand, and robust supply chain management to position Tripura can be NER India's primary aromatic products hub with careful monitoring of global market dynamics and focus on environmental sustainability for long-term viability.

#10 Pharmaceuticals and medical devices

Tripura can capitalize on its strategic pharmaceutical policy frameworks, educational infrastructure, and biodiversity availability of medicinal plants (266 species documented) which create a strong potential for pharmaceuticals and herbal-based biotech industries. Despite having limited domestic drug manufacturing units, the state benefits from foundational policy frameworks: The Tripura Scheme for Development of Pharmaceuticals Industry, 2022 offers capital and interest subsidies for setting up formulation and ancillary units within the state. Further, the Medical Devices Rules, 2017 provide a

clear regulatory pathway for device manufacturers and startups to obtain licenses and approvals. *Tripura is well-positioned for the development of a medical devices cluster, leveraging its abundant natural rubber latex production, readily available inputs like electricity and natural gas, and the presence of a Rubber Park within the state. These factors provide robust raw material and backward linkages essential for establishing a manufacturing base. The cluster would benefit from strong domestic and international market linkages, with Agartala emerging as a hub for medical tourism, driving local demand for medical devices. Furthermore, its geographical proximity to bordering countries, coupled with export potential to Southeast Asia, Africa, and the Middle East, makes Tripura strategically advantageous. Tripura can strategically leverage existing advantages while addressing critical infrastructure and skill gaps. Establishing Pharma Parks through a cluster approach creates the critical mass necessary for sustainable pharmaceutical ecosystem development while reducing operational costs for individual manufacturers.*

Development of industry is supported by existing subsidies and incentives under Tripura industrial investment promotion incentive scheme (TIIPIS) 2022 and single window expedited regulatory approvals. Despite this strong foundation of incentives, bridging the current skill gap through academia-industry linkages are essential, enabling the industry has the talent needed to operate in the state.

18.3 Integration with regional value chains

Rubber

Tripura is a major natural rubber producer in India with extensive plantations that have become a key cash crop for tribal smallholders and rural incomes. Tripura is positioned as India's second-largest natural rubber producer after Kerala⁴⁴⁰, with FY24 production of 110,717 metric tonnes⁴⁴¹, indicating sufficient volume to justify deeper downstream investments in rubber-based manufacturing and industrial diversification.

~99% of natural rubber produced in the state is processed into marketable forms (sheet rubber, centrifuged latex) through numerous group

processing centres and units. However, value addition beyond raw forms remains limited. Strengthening processing scale, logistics, and specialised downstream facilities is critical to convert Tripura's climatic advantage into resilient agro-industrial growth.

Tea

Tripura's tea value chain is rooted in a century-old plantation economy, with ~54 estates, making it one of the larger tea producers among Indian states. In FY24, Tripura recorded tea production of ~7.4 million kilograms⁴⁴², supported by 2,927 registered growers⁴⁴³, indicating a sufficiently broad producer

⁴³⁹ Government of Tripura, *Tripura State Profile* (Rising Northeast, May 2025), <https://risingnortheast.in/wp-content/uploads/2025/05/Tripura-State-Profile.pdf>

⁴⁴⁰ North Eastern Development Finance Corporation Ltd. (NEDFi). NEDFi Databank. <https://databank.nedfi.com/>

⁴⁴¹ North Eastern Development Finance Corporation Ltd. (NEDFi). NEDFi Databank. <https://databank.nedfi.com/>

⁴⁴² North Eastern Development Finance Corporation Ltd. (NEDFi). NEDFi Databank. <https://databank.nedfi.com/>

⁴⁴³ North Eastern Development Finance Corporation Ltd. (NEDFi). NEDFi Databank. <https://databank.nedfi.com/>

base to justify targeted investments in aggregation, quality improvement, and market-facing value addition.

Tripura's undulating terrain and smallholder model support both orthodox and CTC varieties that feed into the broader NER tea ecosystem and blending markets. However, production and quality remain modest relative to core tea hubs. Developing value-added tea products and strengthening auction and export linkages beyond traditional centres could improve income stability and sector resilience.

Pineapple

Tripura is among India's larger pineapple producers – the variety's distinct sweetness and aroma support wider domestic sales and limited exports, with ~73 MT shipped to Gulf markets over recent years and ongoing plans for processing expansion. In FY24, Tripura produced 174.0 thousand metric tonnes of pineapple⁴⁴⁴, anchored by the GI-tagged *Queen Pineapple*, indicating a scale and product differentiation sufficient to support organised processing, branding, and broader domestic and export market integration.

However, post-harvest infrastructure and market linkages remain underdeveloped. Strengthening

processing capacity and branded fruit products (juice, concentrates, canned slices) and improving logistics is critical to stabilise incomes and deepen value capture.

High mix Manufacturing

High-mix manufacturing in Tripura is positioned to support industrial diversification, anchored in rubber-based units within designated industrial parks and supported by policy incentives. Tripura has ~737 registered factories⁴⁴⁵, with key industrial activity concentrated in rubber processing, tea, and bamboo and cane products, indicating a foundation that can support selective scale-up into higher-value, diversified manufacturing segments with targeted interventions.

Despite this, the state exhibits signs of premature deindustrialisation, with agriculture still employing 35.6%⁴⁴⁶ of the working population (2022-23) and limited absorption into secondary sectors. Rubber and allied raw materials provide a natural base for higher-value processing, but downstream manufacturing remains shallow. Advancing skills, supplier networks, and logistics is critical to shift employment and value addition towards manufacturing.



⁴⁴⁴ North Eastern Development Finance Corporation Ltd. (NEDFi). NEDFi Databank. <https://databank.nedfi.com/>

⁴⁴⁵ North Eastern Development Finance Corporation Ltd. (NEDFi). NEDFi Databank. <https://databank.nedfi.com/>

⁴⁴⁶ NITI Aayog. (2025, March). Macro and fiscal landscape of the State of Tripura (Report). Government of India. <https://niti.gov.in/sites/default/files/2025-03/Macro-and-Fiscal-Landscape-of-the-State-of-Tripura.pdf>



18.4 Comparative advantage analysis

Tripura's comparative positioning is defined by a combination of energy surplus, natural resource concentration, human capital strength, and cross-border geography. These advantages operate across three layers: state level within the NER, regional level within India, and international level relative to South-east Asia and global markets.

State advantage versus NER

Energy security and surplus

Tripura has natural gas availability of ~400 billion cubic meters, with total installed power capacity of 648.68 MW⁴⁴⁷ ⁴⁴⁸. The state has energy surplus, a rare status within the NER, enabling power export revenues while ensuring uninterrupted 24 by 7 industrial power supply. Enabling power availability at competitive rates, with gas-based generation being more economical than diesel, lowers operating costs for energy intensive industries such as cement, ceramics, and food processing.

Natural resource production scale

Tripura is the second largest natural rubber producer in India and the largest bamboo producing hub in the NER, with 21 bamboo species covering 7,195 hectares⁴⁴⁹. This concentration creates value chain anchoring and critical mass for rubber processing and bamboo-based industries that are largely unavailable elsewhere in the region. Domestic raw material availability enhances supply chain security and reduces vulnerability for local industries.

Regional advantage versus rest of India

Human capital development

Tripura achieved a literacy rate of 95.6% in 2024-25, making it India's third fully literate state. The literacy rate of 87.2% recorded in the 2011 census was already higher than the national average of 73 percent⁴⁵⁰. Higher literacy levels support faster technology adoption and stronger process compliance, which are critical for manufacturing and services. Lower incremental upskilling investments

compared to states with 70 to 80% literacy further enable readiness for service sector expansion in IT, BPO, and financial services.

International border advantage

Tripura shares an 856 km international border with Bangladesh, accounting for ~84% of the state's total border length, the highest border to area ratio among NER states⁴⁵¹. This provides access advantages through multiple potential trade points, reducing inland transportation costs for cross-border commerce. The state's strategic location supports Bangladesh transit trade and positions Tripura as a gateway for servicing landlocked NER states.

International advantage versus SE Asia and global markets

Natural Gas availability in an energy deficient region

South East Asia is expected to become a net LNG importer by 2032, with demand projected to increase by ~182% over the next decade⁴⁵². While Thailand, Malaysia, and Indonesia remain larger producers, Tripura's proximity to Bangladesh, which is transitioning to gas imports, and Myanmar creates opportunities for regional LNG and pipeline exports. Enabling gas supply at competitive prices enhances Tripura's attractiveness for energy intensive foreign direct investment that may otherwise locate in Thailand or Vietnam.

Rubber production in a supply constrained market

South-east Asia accounts for ~80% of global rubber supply⁴⁵³, with global buyers increasingly facing supply chain risks related to traceability compliance such as European Union Deforestation Regulation (EUDR), climate impacts, and labor constraints. Tripura offers a non-ASEAN alternative for rubber sourcing. Proximity to the Indian automotive market, the fourth largest globally, provides a strong domestic demand anchor while retaining export potential.

⁴⁴⁷ Tripura, India Brand Equity Foundation (IBEF), accessed December 21, 2025, <https://www.ibef.org/states/tripura>

⁴⁴⁸ Government of Tripura, *Notification – Tripura Industrial Investment Policy 2024*, Department of Industries & Commerce, Government of Tripura, October 7, 2024, <https://industries.tripura.gov.in/sites/default/files/Notification%20-%20Tripura%20Industrial%20Investment%20Policy%202024.pdf>

⁴⁴⁹ Department of Industries & Commerce, Government of Tripura, *Bamboo & Bamboo Handicrafts/Other Products*, <https://industries.tripura.gov.in/bamboo>

⁴⁵⁰ Press Information Bureau, Ministry of Education, *Tripura becomes third state in the country, after Mizoram and Goa, to achieve Full Functional Literacy*, 23 June 2025, <https://www.pib.gov.in/PressReleasePage.aspx?PRID=2139103>

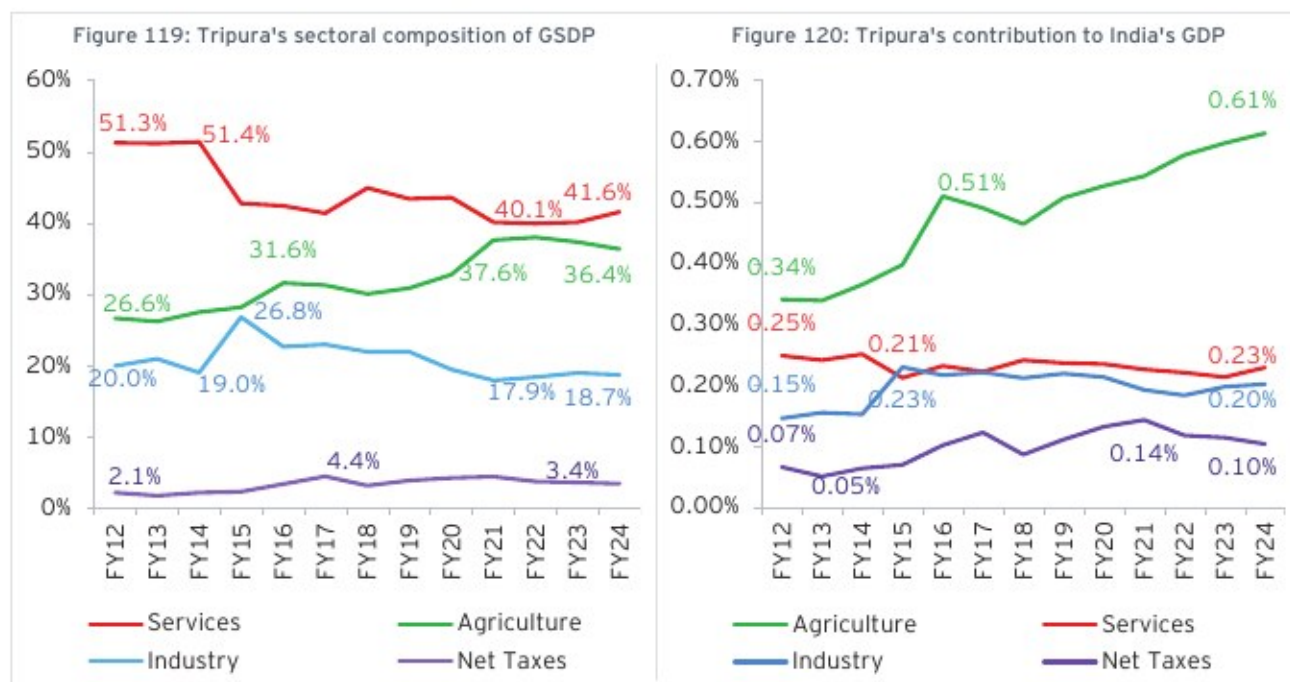
⁴⁵¹ About Us, Official Website of the Tripura State Portal, Government of Tripura, accessed December 21, 2025, <https://www.tripura.gov.in/about-us>

⁴⁵² Wood Mackenzie, *Natural gas demand to outpace oil and coal in Southeast Asia as region targets 30% share by 2050*, press release, May 4, 2025, <https://www.woodmac.com/press-releases/sea-gas-lng-demand-2025/>

⁴⁵³ What is Sustainable Natural Rubber? THE YOKOHAMA RUBBER CO., LTD., accessed December 21, 2025, <https://www.yokohama.com/global/sustainability/rubber/what/>

18.5 State economic analysis

Structure of Tripura's economy



Centre for Monitoring Indian Economy Pvt. Ltd. (n.d.). States of India [Database]. <https://statesofindia.cmie.com>

Source: MoSPI, EY Analysis

Tripura's economy shows a structural transition with agriculture gaining ground and services remaining dominant but slightly receding. Industry's persistent weakness underscores a structural imbalance, while rising slight net taxes reflect slight fiscal strengthening.

Tripura's strongest national comparative advantage is in agriculture, which is steadily increasing its national share. Services and industry remain relatively under-represented in India's economy, signaling a need for strategic interventions to scale efficiencies and drive competitiveness.

Agriculture: Rising national share

Agriculture's share of Tripura's GSDP rose from 26.6% in FY12 to 38.0% in FY25, driven chiefly by rural livelihood programs and diversification into livestock and forestry between FY

17 and FY21; the state's share of India's agricultural GDP nearly doubled from 0.34% to 0.63% over the same period. This growth is significant, especially given the state's small geographic and economic base, and highlights a comparative advantage in agriculture relative to the national landscape.

Industry: Persistently weak and contracting contribution

Industry has contracted from 20.0% of GSDP in FY12 to 16.5% in FY25, despite a transient peak at 26.8% in FY16, and its national contribution remains margin, slipping from 0.15% to 0.18% after a 0.23% high, highlighting a persistent manufacturing gap relative to India's 25-30% benchmark.

Services: Dominant but gradually declining contribution

Services, while still the largest sector, declined from 51.3% of GSDP in FY12 to 41.0% in FY25 reflecting a shift toward agriculture and slower service expansion – and Tripura's share of India's services GDP fell from 0.25% to 0.22%, indicating limited scale against major hubs.

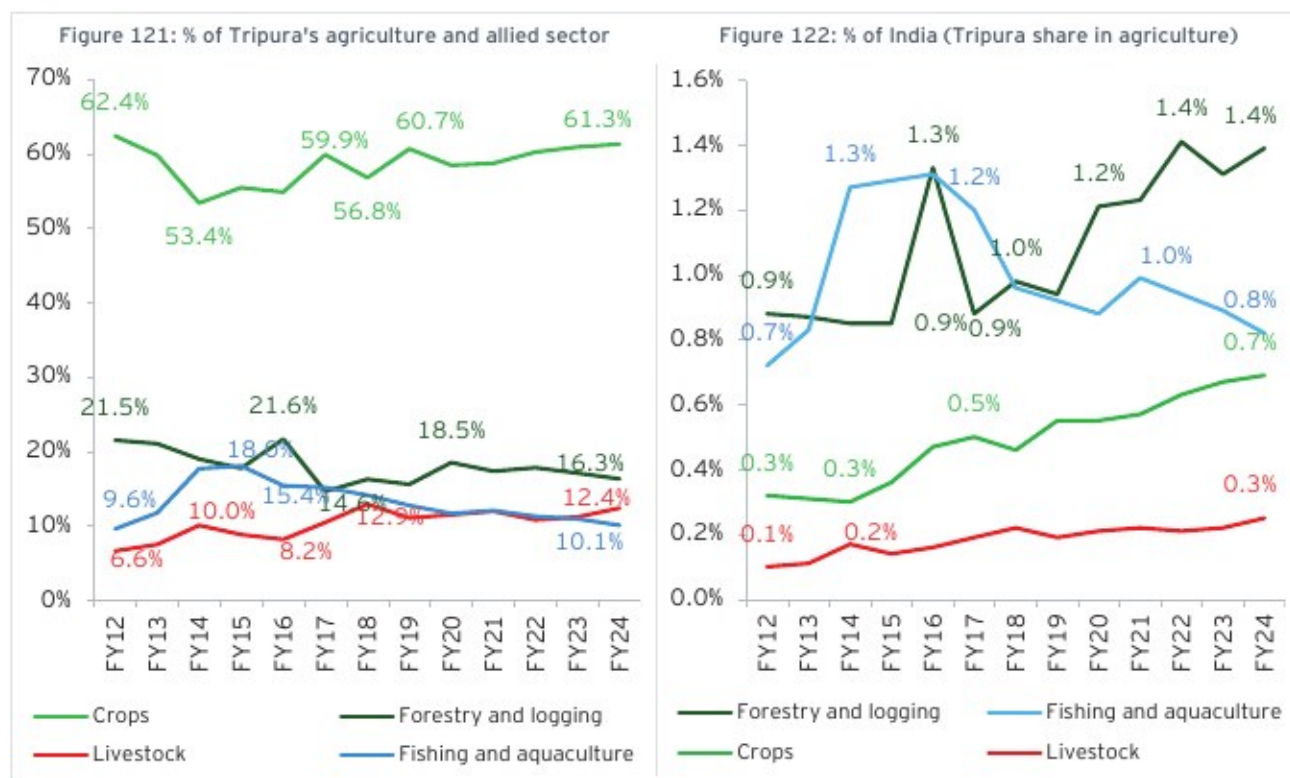
Net taxes: Small but gradually increasing contribution

Net tax revenue climbed from 2.1% of GSDP in FY12 to 4.5% in FY25, signaling stronger fiscal capacity, and its contribution to India's net tax pool rose from 0.07% to 0.13%, marking incremental gains in national fiscal participation.



18.6 Sectoral structure of Tripura's economy

Agriculture and Allied Sector



Centre for Monitoring Indian Economy Pvt. Ltd. (n.d.). States of India [Database]. <https://statesofindia.cmie.com>

Source: MoSPI, EY Analysis

Internal structure of Agriculture and Allied Activities

Crops dominate Tripura's agriculture sector, consistently accounting for 53%–62% of the state's agriculture GVA over FY12–FY25.

Forestry and logging has seen a gradual decline from 21.5% in FY12 to 16.5% in FY25, though it remains a vital component reflecting Tripura's Forest resources.

Livestock contribution has gradually increased from 6.6% in FY12 to 12.4% in FY25, overtaking Fishing and Aquaculture in FY20.

Fishing and aquaculture showed strong growth from 9.6% in FY12 to 11.7% in FY20, but then declined to 9.5% in FY25, highlighting fluctuations likely tied to productivity and market integration challenges.

Tripura's share in India's agriculture

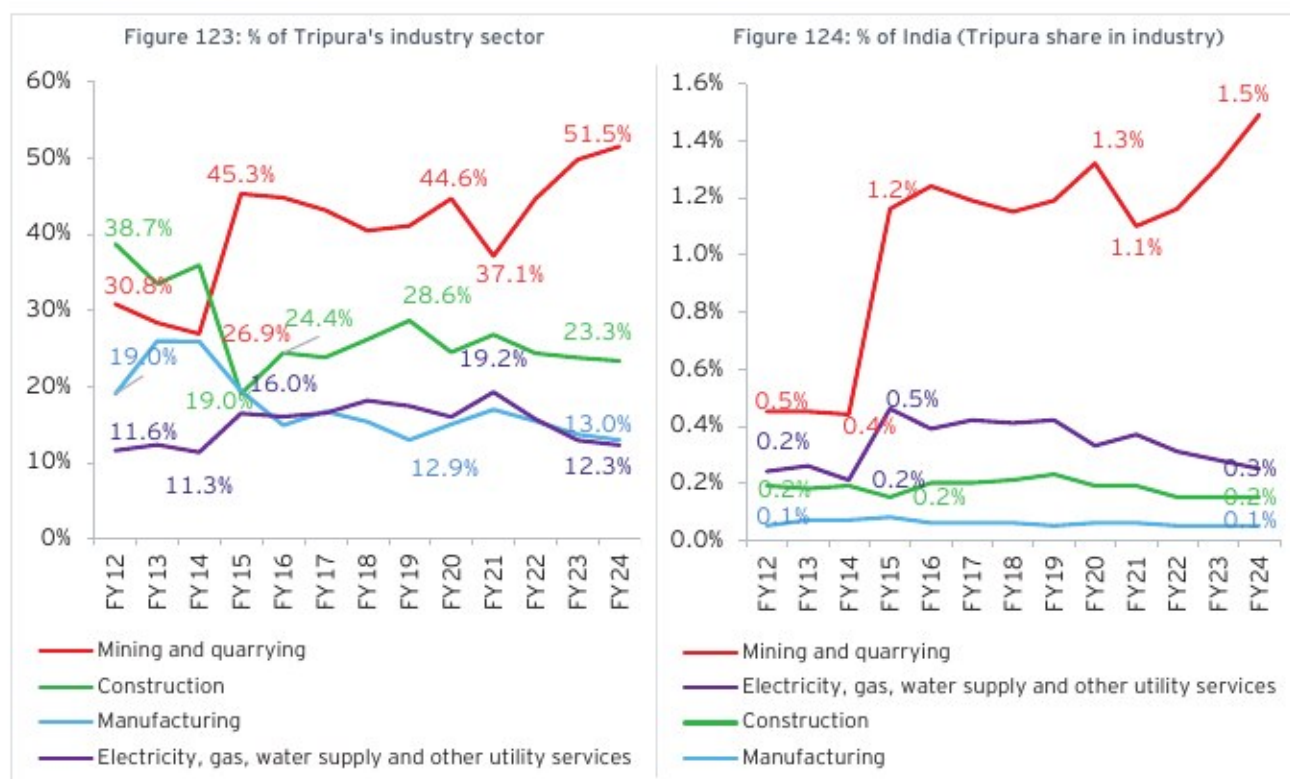
Forestry and logging: Tripura's national share has steadily increased from 0.88% in FY12 to 1.39% in FY24, indicating a strong comparative advantage with its natural resources.

Fishing and aquaculture: The state had a sharp jump from 0.72% in FY12 to 1.27% in FY14, peaking at 1.31% in FY16. However, its share later stabilized around 0.82% in FY24, showing early gains but recent flattening.

Crops: Share in India rose from 0.32% in FY12 to 0.69% in FY24, reflecting moderate but consistent strengthening.

Livestock: Contribution to India is relatively low, though increasing gradually from 0.10% in FY12 to 0.25% in FY24, showing potential but still limited scale.

Industry sector



Centre for Monitoring Indian Economy Pvt. Ltd. (n.d.). States of India [Database]. <https://statesofindia.cmie.com>
Source: MoSPI, EY Analysis

Internal structure of industry

Mining and quarrying emerged as the dominant sub-sector, rising sharply from 30.8% in FY12 to 45.3% in FY15, and stabilizing at 48.1% by FY25. This reflects Tripura's reliance on extraction-based industries, particularly natural gas and mineral resources.

Construction started high at 38.7% in FY12, but has since declined to 25.5% in FY25, indicating a slowdown in infrastructure-driven growth relative to mining.

Manufacturing has remained relatively marginal, moving between 11%-20%, and declining to 14.0% in FY25, suggesting weak industrialization and limited value-addition within the state.

Electricity, gas, water supply and other utilities increased steadily from 11.6% in FY12 to 16.0% in FY20, before moderating slightly to 12.4% in FY25, showing gradual improvements in energy and utility sectors.

Tripura's share in India's industry

Mining and quarrying: The most prominent contributor, with Tripura's national share growing from 0.45% in FY12 to 1.32% in FY25. This marks the state's strongest Relative Comparative Analysis RCA within industry.

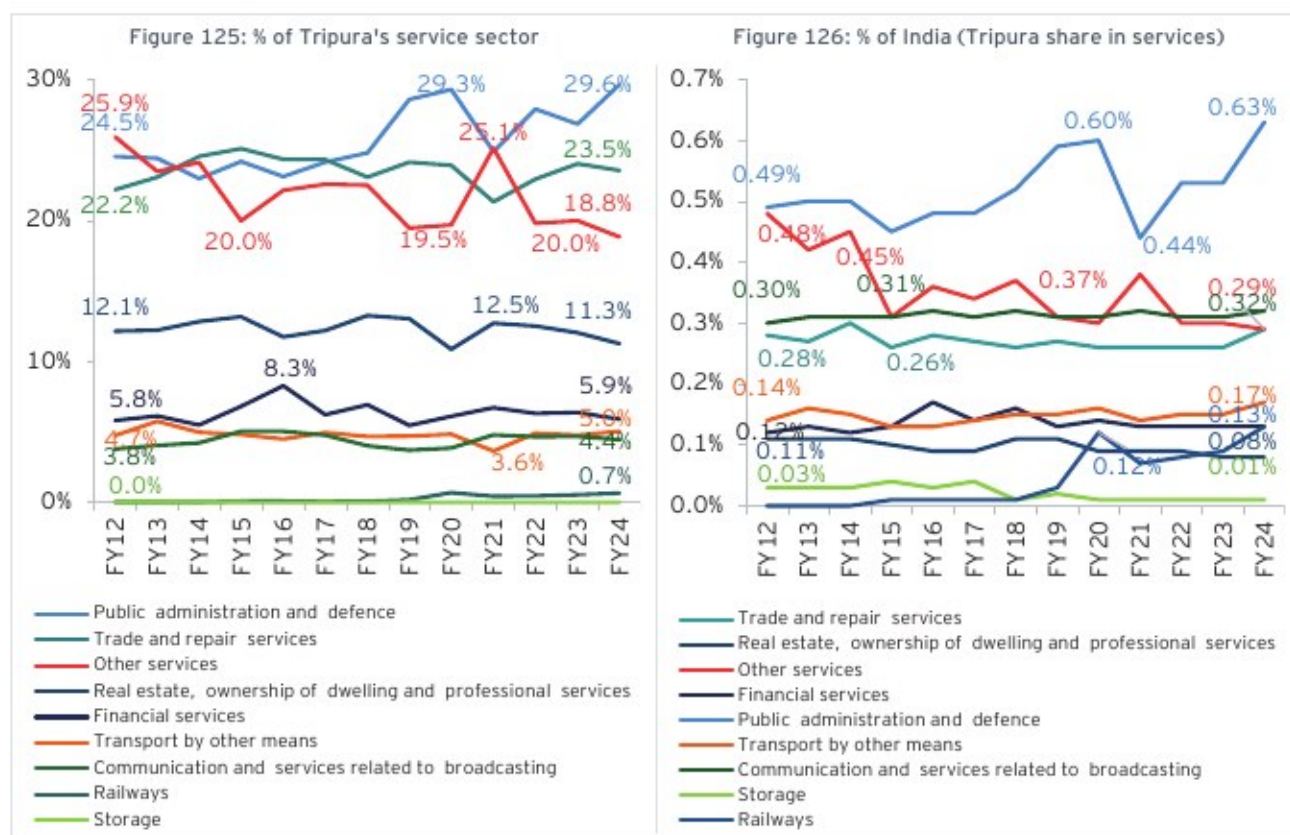
Electricity, gas, water and utilities: Share increased from 0.24% in FY12 to 0.46% in FY15, stabilizing at 0.23% in FY25, showing steady but moderate presence at the national level.

Construction: Tripura's share remains very low, between 0.14% and 0.19%, highlighting limited comparative advantage.

Manufacturing: Almost negligible share, fluctuating around 0.05% in FY25, confirming structural weakness in industrial production and lack of competitive scale.



Services sector



Centre for Monitoring Indian Economy Pvt. Ltd. (n.d.). States of India [Database]. <https://statesofindia.cmie.com>

Source: MoSPI, EY Analysis

Internal structure of services

Public administration and defence is a key driver, though declining over time: from 24.5% in FY12 to 28.0% in FY25, reflecting reduced proportional dependence but still a significant share.

Trade and repair services have grown steadily from 22.2% in FY12 to 23.1% in FY25, maintaining a strong role in Tripura's service economy.

Other services (education, health, social) saw a surge, rising from 25.9% in FY12 to 18.8% in FY25, becoming one of the largest sub-sector within services.

Real estate and professional services remained stable at 11%–12%, with 11.5% in FY25, showing consistent contribution.

Financial services grew gradually from 5.8% in FY12 to 7.2% in FY25, indicating increased penetration of banking, insurance, and financial inclusion.

Transport by other means stayed steady, growing from 4.7% in FY12 to 5.1% in FY25.

Railways, storage, and communication services remain very small contributors, each below 1% in recent years.

Tripura's share in India's service sector

Other services: A notable presence, contributing 0.48% in FY12, declining to 0.28% in FY24, yet still among the higher contributors for Tripura.

Trade and repair services: Share rose steadily from 0.28% in FY12 to 0.26% in FY24, showing gradual improvement.

Financial services: Marginal but growing, increasing from 0.12% in FY12 to 0.15% in FY24.

Public administration and defence: Contribution fell from 0.49% in FY12 to 0.56% in FY24, reflecting declining relative importance nationally.

Transport by other means: Small but steady presence, reaching 0.16% in FY24.

Real estate and professional services: Weak, declining from 0.11% in FY12 to just 0.08% in FY24.

Railways, storage, communication services: Very limited contribution, almost negligible (<0.1%).

18.7 SWOT analysis

Tripura's strategic outlook is shaped by a strong resource base and cross-border positioning, counterbalanced by infrastructure and structural constraints. The SWOT assessment provides a consolidated, strategy-led view to inform prioritization under the state's vision framework.

Strengths

- Gateway for Northeast India's trade with Bangladesh and Southeast Asia
- 95.6% literacy rate
- Strong production base in bamboo, rubber, tea, and agarwood

Weaknesses

- Gaps in export supply chain readiness including logistics, cold chain, processing infrastructure, testing facilities etc.
- Declining services share and a weak manufacturing base.
- Heavy dependence on primary agriculture, with limited value addition.

Opportunities

- Expansion of value-added export processing across food, rubber, bamboo, tea, and agarwood.
- Leverage surplus natural gas and renewable energy potential to develop power exports; invest in solar, biomass, and micro-hydro.
- Scaling fisheries, hatcheries, and organic production clusters.

Threats

- Exposure to trade and tourism risks, non-tariff barriers.
- Climate variability and post-harvest losses affecting productivity.
- Vulnerability to commodity price volatility due to export basket.



18.8 Strategic recommendations

Despite its relatively small geographic size, Tripura has tremendous potential to be a key anchor for the NER GVA acceleration story with critical mass in population and activity across many sectors.

Key challenges and strategic approach

Table 69: Key challenges and strategic approach (Tripura)

Key Challenge	Context	Strategic Approach
Poor connectivity	Landlocked geography and difficult terrain create high logistics costs. Badarpur-Agartala line (152 km) broad-gauged in 2016; Agartala-Sabroom (112 km) extends to Bangladesh border; network electrified; doubling works to Agartala planned.	Accelerate rail doubling to Agartala and expand freight capacity; develop multimodal logistics hubs. Leverage Bangladesh border for cross-border trade.
Industrial infrastructure	Limited industrial estates, unreliable power, weak infrastructure; low manufacturing and value addition	Fast-track industrial infrastructure, ensure reliable power and digital backbone, simplify compliance
Enterprise infrastructure and urbanization	Lack of modern office and enterprise spaces; constraints on BPO, IT, AI-ML growth	Develop enterprise parks, promote integrated urbanization, scale PPP-led infrastructure
Underemployment	High youth and women underemployment despite literacy; outward migration	Accelerate job-creating infrastructure, attract labor-intensive industries, strengthen startups and local entrepreneurship
Agriculture-dependent economy with low value addition	~44% population dependent on agriculture; weak processing, branding, and market access	Promote high-value agriculture, food processing and cold chains, build "Brand Tripura", strengthen export linkages
Financial inclusion and limited credit flow	Declining credit to productive sectors; limited rural financial access	Expand digital banking, deploy targeted MSME and agri-credit schemes, strengthen cooperatives

Strategies for Tripura

- **Agartala as urban hub:** Agartala, NER's second largest city, can reach 3 million+ if it takes an early lead in urbanization. As India's third international internet gateway, it needs massive talent pool expansion to attract BPO and technology anchors like Bengaluru and Hyderabad. Integrated plans for Grade A residential/commercial space and attracting external talent can catalyze IT hub development.
- **Manufacturing integration:** Integrating flatted factories enables high-mix manufacturing across categories, with flexible floor space allocation between manufacturing and services based on relative success and external factors.
- **Regional connectivity:** High-frequency linkage to Guwahati, Aizawl, and Silchar boosts Agartala's density and utilization, especially with cross-NER institutions like museums, convention venues, and specialized bazaars. While Bangladesh connectivity carries risks, focus could be on improving those linkages while de-risking through stronger, faster Indian market connections.
- **Rubber and Bamboo value-add:** Well-suited for value-addition units. At present, NER does not have tire manufacturing despite increased rubber cultivation and sulfur production, largely due to limited regional automotive OEMs after Hindustan Motors' decline. However, Bangladesh's growing assembly and expanding aftermarket provide sufficient scale for competitive tire production. High-mix manufacturing could include rubber parts for automotive and construction industries.
- **Pharmaceutical and fragrance industry synergy:** These industries share ecosystem portions that deliver better economics and competitive scale when collocated. Agar is deeply entrenched in Tripura's culture and folklore - and reflected in the name of its largest city. A thrust on the perfumery and pharmaceutical industry would contribute to a symbiotically stronger share for Tripura within NER.