

Economic Growth in North-East India: Challenges & Strategies

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Abstract

North-East India is a region known for its rich natural resources, biodiversity, and culture. The unique geographical characteristics of the region pose several challenges for its economic prosperity. The paper is an attempt to analyse a few of these challenges and propose a set of recommendations to overcome them. A comparative analysis approach is used in this study to analyse the important roadblocks in the path of development in the north-eastern states of India. **The major challenges identified by the study are shortfalls in infrastructure, financial resources, quality education, and insufficient financial inclusion. The study proposes the following measures to tackle these challenges and promote economic growth in the region: These measures include the development of green infrastructure, tapping the potential of North East India in the renewable energy and tourism sectors, specific interventions like community involvement in building school infrastructure, incentivizing teachers to work in remote locations to improve school education and building banking infrastructure, and promoting financial literacy to ensure financial inclusion.** The paper also proposes a set of strategies to address certain state-specific challenges and promote goods and services in which a particular North-Eastern state has a comparative advantage. North-East India is an ecologically sensitive region and is vulnerable to climate change risks. Taking note of these environmental challenges, the paper presents a sustainable and inclusive development strategy to promote socio-economic growth in northeast India.

Introduction

North-Eastern India is a region known for its rich and diverse culture, history, and ecology. The region comprises the eight states of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, and Tripura. It constitutes around 8% of the geographical area, 4% of the population, and about 2.5% of the economy of India. Mountains account for 70% of the geographical area, comprising a sparse population of around 30%, whereas plains, which account for only 30% of the geographical area, are densely populated, having around 70% of the population. This distinct and varied geographical character and land-locked nature of the region pose several economic challenges for the region. The region is also home to a large number of scheduled tribe groups with relatively different cultures. The cultural differences, coupled with the complex history of migration, have often led to inter-tribal conflicts and ethnic tensions.

The Government of India, recognizing these distinct geographical, social, and economic challenges of the region and its strategic location along borders with neighbouring countries, formed the North East Council in 1971 by an act of Parliament. It is the nodal agency for the socio-economic development of the North Eastern Region. The North Eastern states are also classified as special-category states. The special category status is given by the Center to assist in the development of states that face geographical and socio-economic disadvantages. Special category states receive 30% of the Centre's Gross Budget and various concessions in the excise and customs duties, income tax and corporate tax.¹ The Central Government also covers 90% of the funding for centrally sponsored schemes in special category status states, compared to 60% or 75% for other states.

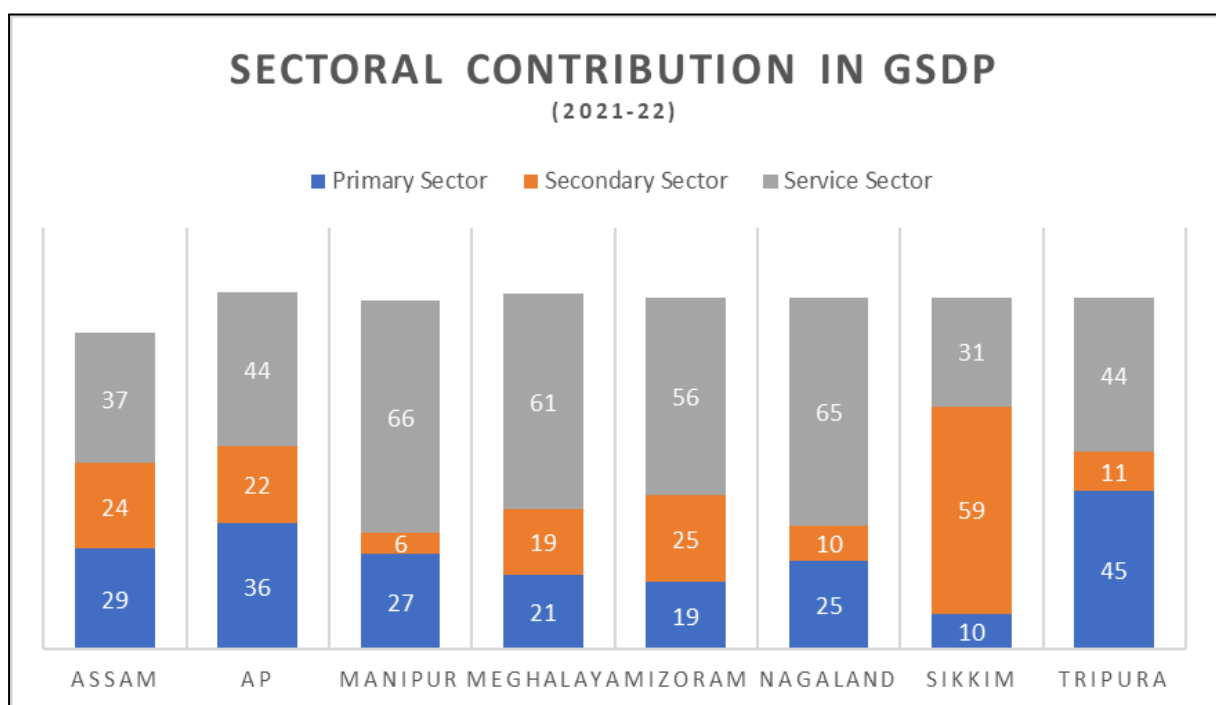
50 years have passed since the formation of the North Eastern Council. The region has definitely made economic progress, but it still faces several economic challenges like stressed state government finances, an infrastructure deficit, and an economy characterised by low per capita GDP. This paper is an attempt to analyse the current economic challenges the region faces and present a road map for the future.

¹ [Drishhti IAS](#)

Current Economic situation of North-East India

The north-eastern region of India actually exhibits an immensely diverse economy, although the mainstream perspective often views the northeastern states as a single entity. The sectoral contribution of the primary, secondary, and tertiary sectors is shown in [Chart 1]. It clearly shows the diversity in the economy of NE states. The economy of the states of Manipur, Mizoram, Meghalaya, and Nagaland is dominated by the service sector, with a smaller contribution from the primary and secondary sectors, whereas the states of Assam, Arunachal Pradesh, and Tripura have a mixed economy with relatively similar contributions from each sector. Tripura, on the other hand, is an economy dominated by the secondary sector, which is very surprising in a country that is struggling to increase the share of the secondary sector in the economy.

[Chart 1]

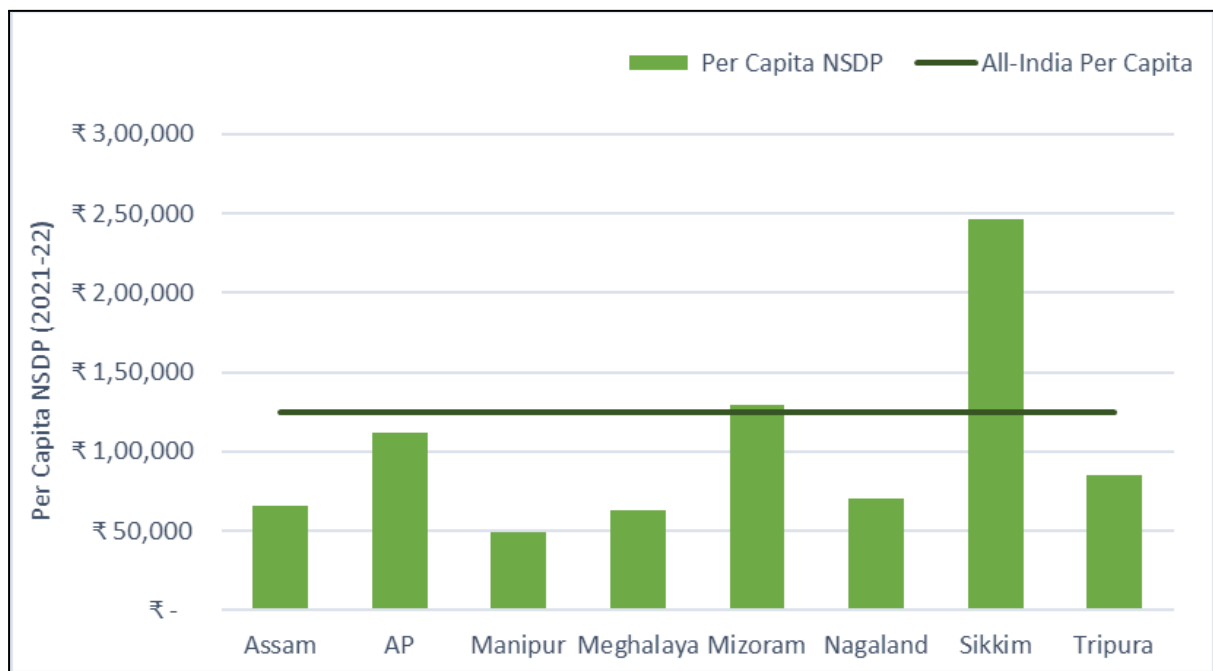


Data Source: State Budget Analysis of PRS Legislative Research

Considering the region's diversity and complexity, its issues cannot be simply categorised under the fixed notion of 'backwardness'. The key development indicators of the region make it clear that, first, all of northeast India is not uniformly backward in terms of all indicators of development (Mishra, 2013), and second, there are notable disparities within the region regarding the

performance of the states across various dimensions of development (Bhattacharya, 2011). The per capita net state domestic product in [Chart 2] also shows the significant variation in the economy. The per capita income ranges from a low of Rs. 50,000 in Manipur to Rs. 2,46,526 in Sikkim, nearly double the per capita income of the country. It is also evident from the per capita NSDP data that, except Sikkim, all the North Eastern States are behind the all-India average per capita income. This clearly indicates that the region has a significant distance to cover in its development journey and faces developmental roadblocks. This makes it critical to analyse the key challenges the region faces and propose recommendations to overcome these challenges and promote economic growth and development.

[Chart 2]



Source: RBI's Handbook of Statistics on Indian States

Data & Methodology

The study has used the RBI's Handbook of Statistics on Indian States as the primary source of data. The datasets used are:

1. Per-capita net state domestic product.
2. Gross State Domestic Product.
3. State-wise per capita availability of power.
4. State-wise length of national highways.
5. State-wise credit by scheduled commercial banks.
6. State-wise Distribution of Scheduled Commercial Banks.

In this paper, a comparative analysis approach is used to compare North-East India with the all-India average. The time period of analysis is 2004–2023, with a special focus on current issues.

Literature Review

There has been extensive research on the challenges faced by North Eastern states. In this paper, challenges concerning the sectors analysed as part of the study are reviewed. A study by De & Ghosh (2000) emphasised three deficits that hinder the economic growth of the region: infrastructure, resource, and geographical. Low private sector participation in the economy, high dependence on central tax devolution, and a lack of social and physical infrastructure are cited as major challenges for the region (Sinha, 2015). Poor education is an important factor that ails the growth story of the region. A shortage of vocational courses and a lack of clear educational goals are challenges that education faces (Taba, 2023). Despite these challenges, North East India has a huge natural resource, and strategies should be developed to make optimum use of these resources. Primary resources can regenerate secondary resources, creating additional employment opportunities for rural communities. Promoting sustainable development through natural resource management has significant potential to generate jobs. Furthermore, it aids in biodiversity conservation (Mahongnao and Kumar, 2017).

The research so far done on this topic has not integrated economic and environmental factors, and the environment is often neglected. With growing concerns about climate change risks and ecological sensitivity in North-East India, it is important to strike a balance between economic growth and environmental conservation. In this context, the paper presents an approach to sustainable development.

Analysis & Findings

The Northeastern states face several economic challenges due to their unique geographical location. This paper attempts to analyse some of these challenges, namely, infrastructure deficits, financial resource deficits, educational deficits, and financial inclusion.

Infrastructure Deficit

The remote location of the North Eastern states restricts the growth of the physical, social, and financial sectors. The inadequacy of physical infrastructure like power, roads, transport, irrigation, etc. holds back the economic growth of the region. In this paper, infrastructure deficits in the power sector and roads are studied. The paper provides a broad overview and challenges of the sector.

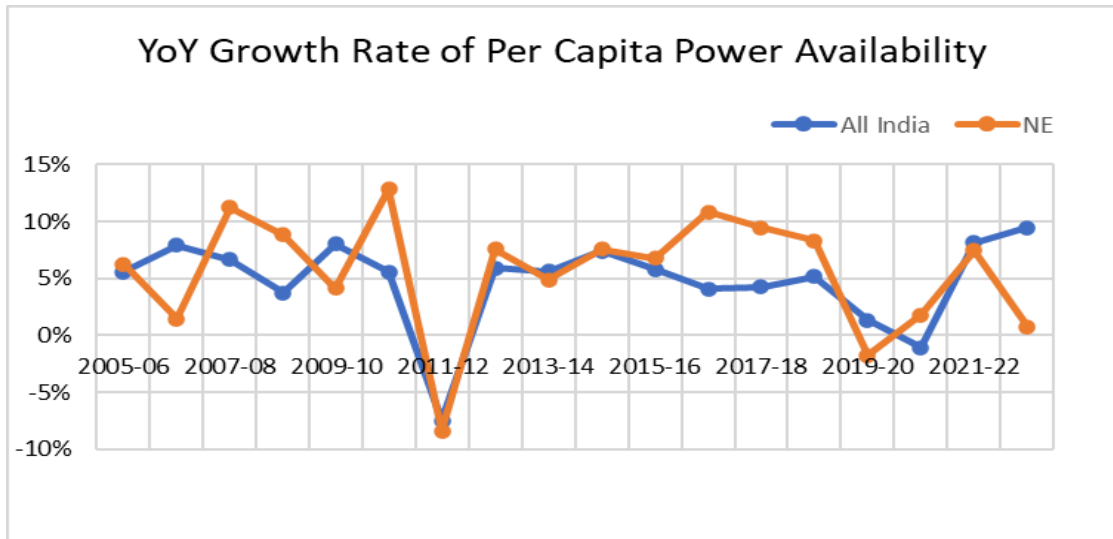
1. Power Sector

North-eastern states are very rich in resources like mines and minerals, water, and forest resources. One of the crucial things is water resources. **The hydel power potential of the northeast (38,000 MW, or 30 percent of the country's hydel potential) is large enough to meet a large part of the requirements of even the eastern states for many years to come (Datta, 2001). In fact, the region is blessed with an unrealized potential of 62,000 MW in solar energy and 56,480 MW in hydroelectricity².**

In the last two decades, steps have been taken by the government to realise this potential, which resulted in the rise in per capita availability of power in the region, both during the UPA and NDA regimes; however, the rise has been very volatile, as shown in [Chart 3].

² [Invest India](#)

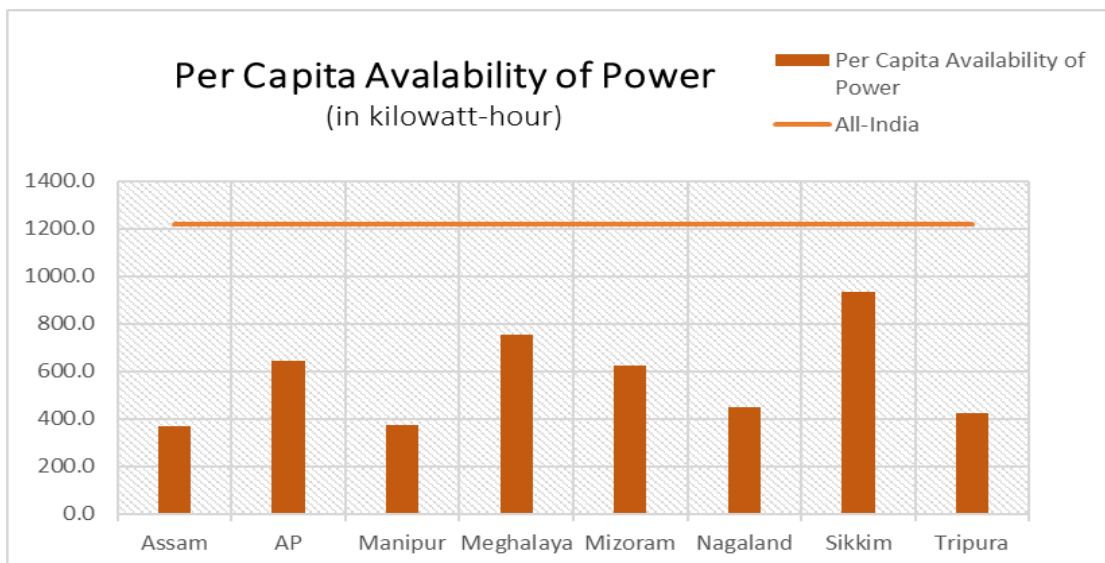
[Chart 3]



Source: RBI's Handbook of Statistics on the Indian States

Despite this growth in the last two decades, significant gaps still remain in the power sector. **Per capita power availability in all 8 states is much lower than the average per capita power availability in the country. In 2022–23, the average per capita power availability in India was 1221 kilowatt-hour, whereas the per capita power availability in the North East was significantly lower at 570.9 kilowatt-hour [Chart 4].**

[Chart 4]



Source: RBI's Handbook of Statistics on the Indian States

According to the report presented in the Lok Sabha on January 4, 2019 by the Standing Committee on Energy, the major challenges that restrict the realisation of the hydropower potential are fund constraints, land acquisition and clearance issues, and geological issues.

2. Roads

The 22-kilometre Siliguri Corridor, known as Chicken's Neck, is the only road connecting the North East and the rest of India. Economic growth, especially trade, has long been hampered in the north-eastern region due to extensive border delays, congested roads, and limited connectivity. **Lack of intra-regional road connectivity restricts trade ties within the states of North East India. Poor road connectivity and geographic isolation plague many parts of northeast India. This isolation makes it difficult for producers, especially farmers and artisans in remote villages, to access local and regional markets. The poor condition or complete absence of roads in certain areas leads to higher transportation costs for goods. The lack of road infrastructure discourages industrial investment in the Northeast.** Industries that rely on the transportation of raw materials and finished goods find it challenging to operate efficiently in regions with poor connectivity. This limits economic diversification and keeps the region reliant on traditional sectors like agriculture.

To address these challenges, the government has expanded the construction of national highways in the last two decades, especially during the NDA government. There was a 121% increase in the length of national highways in India from 2005 to 2013, and during the same time period, the growth in the length of national highways in the North Eastern states was 134%. During the UPA government, there was a 38% increase in the length of national highways in the North East, whereas during the NDA government, there has been a higher 48% increase in the length of the national highways [Table 1].

[Table 1]-Source: Author's Calculation based on RBI's Handbook of Statistics on Indian States

Year	All-India (in kms)	North East India (in kms)
2005	65569	6880
2006	66590	6880
2007	66590	6880
2008	66754	6880
2009	70548	8480
2010	70934	8480
2011	70934	8480
2012	76818	9525
2013	79116	9525
2014	91287	10905
2015	97991	12594
2016	101011	13082
2017	120493	13619
2018	120543	13619
2019	132500	13640
2021	136440	13913
2022	140995	14266
2023	144955	16125

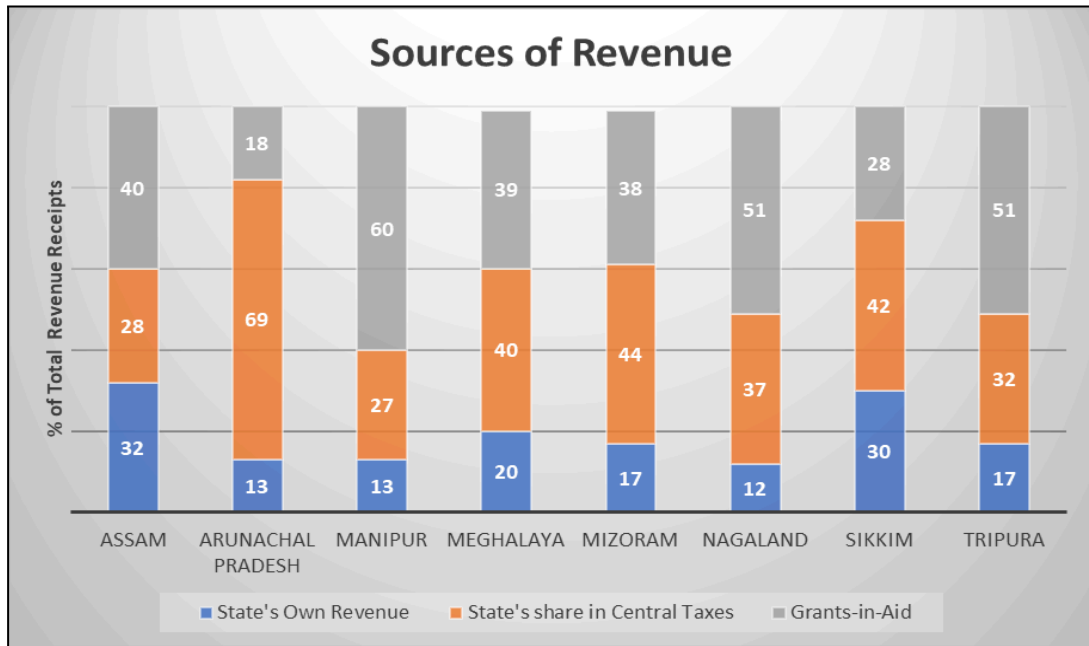
Climate change poses a severe challenge to the long-term sustainability of infrastructure development. Average temperatures are expected to rise in nearly all districts of the region, while annual rainfall is projected to increase in about three-quarters of the districts. Climate-induced natural disasters such as droughts, floods, and hailstorms pose significant threats, with the frequency of these events escalating in recent years across the region (Roy, 2021).

Financial Resource Deficit

Many of the present-day North-Eastern states were Union Territories or part of the erstwhile Assam and North East Frontier Agency until the 1970s and 1980s. With the North-Eastern Areas (Reorganisation) Act of 1971, Manipur and Tripura transitioned from union territories to states. Meghalaya was formed from two previously autonomous districts within Assam, and the union territory of Mizoram was established. The former North East Frontier Agency became the union territory of Arunachal Pradesh. Both Mizoram and Arunachal Pradesh were granted full statehood in 1987. Full statehood was granted to give cultural and administrative autonomy to these states. Although the region has cultural and administrative autonomy, it has yet to realise financial autonomy.

North Eastern states have a very small revenue pool and are heavily dependent on the central government for financial resources. Around 70% to 90% of the total government revenue of these states comes from the centre in the form of the state's share in central taxes and grants [Chart 5].

[Chart 5]



Source: Author's Calculation based on PRS Legislative Research's State Budget Analysis

The low state revenue generation and heavy dependence on the Center have resulted in a prolonged fiscal crisis (Sarma, 2005). Northeastern states rank among the most indebted in the country. Additionally, these states have high levels of committed expenditure, leaving them with limited funds for capital creation. The outstanding liabilities of these states as a share of GSDP are higher than the recommendation of the 15th Finance Commission, except for Sikkim, Tripura, and Assam. This creates concerns related to the debt sustainability of the North Eastern States, which is crucial for long-term economic growth.

Educational Deficit

Human development should be the central theme of any development strategy, as it can lead to the social upliftment of marginalised sections of society. Education and skill development are important aspects of human development. **The state of education in the northeastern part of India is a significant concern. The region faces multiple challenges, including inadequate infrastructure, a lack of facilities, a shortage of trained teachers, and limited access to quality education. Many children in remote areas struggle to access schools, and those who**

do often have to travel long distances. The dropout rate is high, with many students leaving school early to help their families with farming or household work. Regional schools frequently lack basic amenities such as classrooms, furniture, and toilets. The shortage of trained teachers is another major issue, with some areas having a single teacher responsible for multiple subjects, making it challenging to deliver quality education to students³.

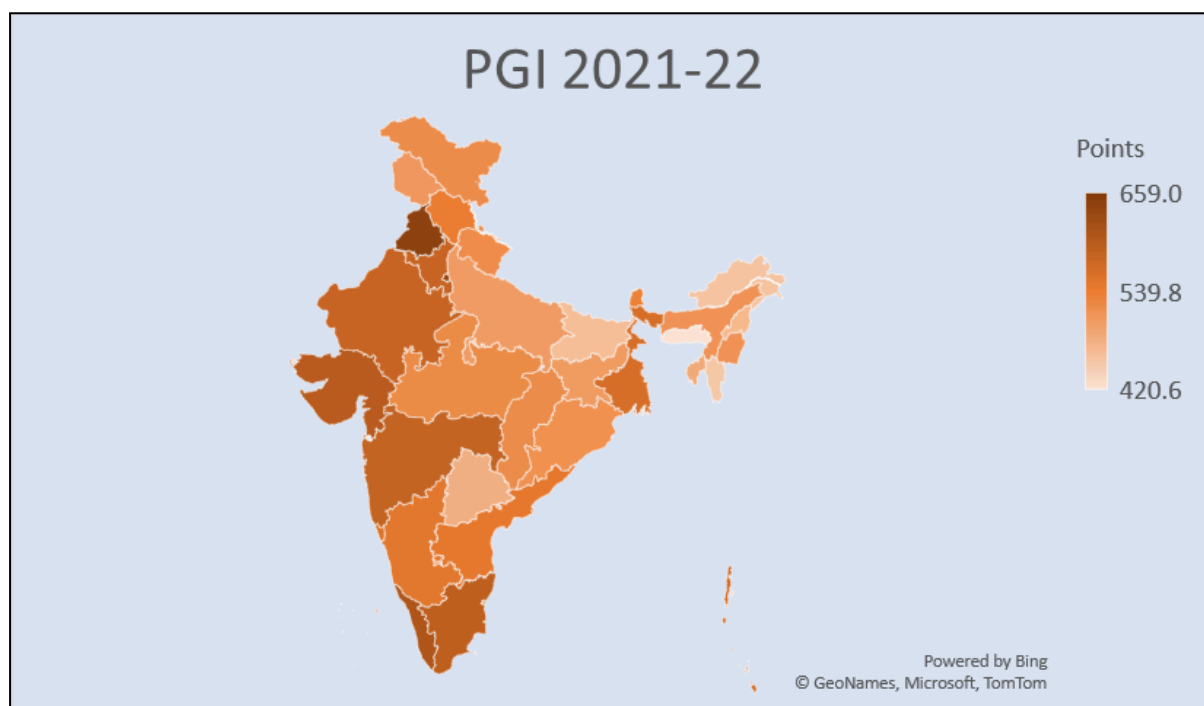
The Performance Grading Index computed by the Government of India is a comprehensive index to assess school education. It ranks states & union territories on the basis of following parameters:

1. Learning Outcomes and Quality.
2. Access.
3. Infrastructure & Facilities.
4. Equity.
5. Governance Processes.
6. Teacher Education & Training.

Performance of North Eastern states in this index is extremely poor & they are among the lowest ranked states [Chart 6]. Improvement in school education is a serious challenge in front of these states as it is school education which forms the base of higher education & skill development.

³ [Education For All in India](#)

[Chart 6]



Source: Performance Grading Index (PGI): 2.0 Report, Ministry of Education

Insufficient Financial Inclusion

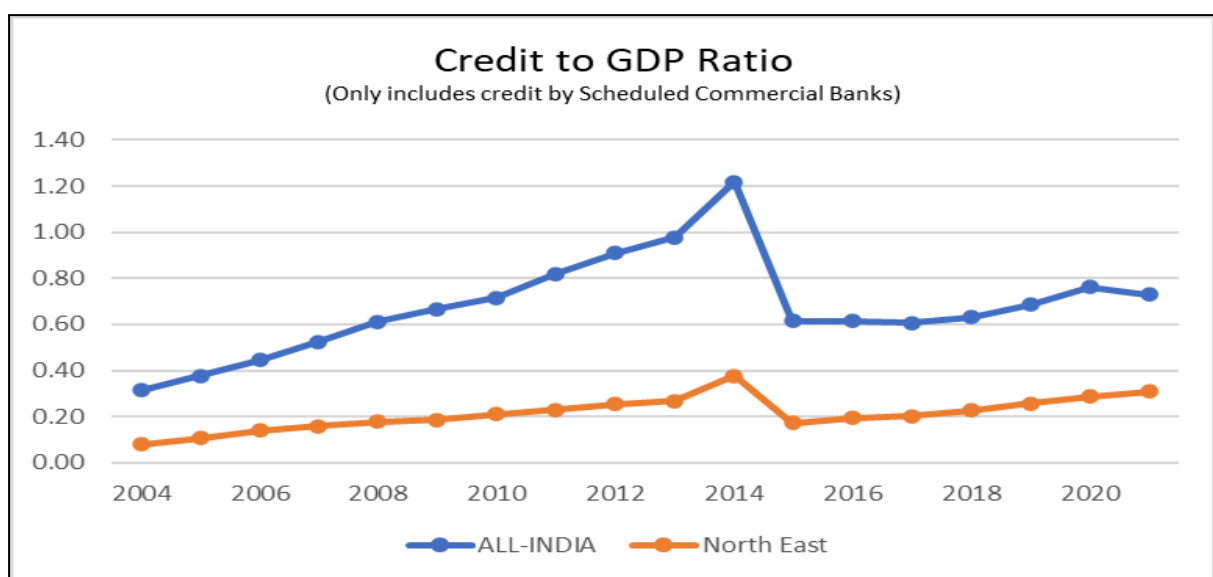
Access to finance is essential for creating employment opportunities, fostering economic growth, reducing poverty, and promoting social cohesion, particularly for the poor and marginalised sections of the population. Access to affordable finance makes it easier for marginalised sections to start an income-generating economic activity, which would ultimately lead to the social and economic upliftment of these sections of society. Greater access to financial services can lead to a reduction in poverty (Kaur, Kapuria, 2021). One of the important aspects of financial inclusion is access to credit. Financial services like credit can make significant positive differences in improving the lives of people, particularly marginalised sections (Dupas & Robinson, 2009).

The growth of cooperatives, which play an important role in the rural economy, is also limited in north-east India. The main factors responsible for this are a lack of awareness and education among people about the benefits of cooperatives, limited government support and policy action for

cooperative development, a lack of social cohesion, and a weak institutional framework and governance.

The penetration of the banking sector in North-East India is low, recognizing the poor state of banking. RBI had set up a Committee on Financial Sector Plan for the North Eastern Region in 2006, chaired by the Deputy Governor, to formulate a master plan for financial services development. Committed to the goal of financial inclusion, the RBI had adopted financial inclusion as a policy objective and thrust of banking policy in the Annual Policy Statement of 2005–06. **This led to the expansion of banks in the Northeast region; the number of scheduled commercial banks in the region increased from 1918 in 2004 to 4918 in 2023. The expansion of banks has led to the expansion of credit in the region.** The credit given by scheduled commercial banks as a share of GDP has increased from a meagre low of 0.11 in 2004 to 0.31 in 2021. **However, the credit-to-GDP ratio in the region has been very low compared to the all-India credit-to-GDP ratio for the last two decades [Chart 7]. The lower access to credit has translated into low economic activity in the region.** Improvement in credit growth is a challenge for the region; it is also crucial for financial inclusion and to boost economic activity.

[Chart 7]



Source: Author’s Calculation based on dataset obtained from RBI’s Handbook of Statistics on Indian States

Impact of Cross-Border Migration

Cross-border migration has had a significant impact on the economic progress of India's Northeast region. The Northeast shares international borders with countries like Bangladesh, Bhutan, Myanmar, and China, making it particularly vulnerable to cross-border migration.

The influx of migrants has increased pressure on land resources, particularly in areas where agriculture is the primary livelihood. This has sometimes led to disputes over land ownership and usage, as well as overexploitation of land, leading to environmental degradation.

Migration has altered the demographic composition of many parts of the Northeast, leading to changes in the ethnic and cultural makeup of the region. This has sometimes resulted in social tensions, with indigenous communities feeling marginalised or threatened by the influx of outsiders.

The rapid population growth due to migration has also strained infrastructure, particularly in urban areas. This includes challenges related to transportation, water supply, and sanitation, which hinders economic development by reducing the quality of life and making the region less attractive for investment.

The Northeast has faced security challenges related to cross-border migration, including issues of illegal immigration, smuggling, and insurgency. These security concerns create an unstable environment, deterring investment and slowing economic growth.

The local governments have often had to extend welfare services and subsidies to migrant populations, adding to the economic burden on the state. This limits the funds available for local development projects and reduces the overall economic progress of the region.

Recommendations

North-East India is a unique region with its own distinct geography, culture, and history. The economic challenges faced by the region are also distinct, and it is necessary to incorporate a distinct, comprehensive approach to tackle these challenges. The paper proposes four sets of strategies that would lead to faster economic growth and ultimately boost revenue generation for state governments by easing their fiscal issues.

1. Development of green infrastructure.
2. A Special thrust on the Renewable Energy Sector.
3. Promotion of Ecotourism.
4. Focus on Education & Skill Development.
5. Enhancing Banking Infrastructure & Financial Literacy.

Development of Green Infrastructure:

In the last two decades, there has been improvement in infrastructure development in the NorthEast region, but substantial gaps still remain, as pointed out in the paper. **In the future, there should be policy continuation as far as infrastructure development is concerned. Infrastructure development in the future should go hand in hand with environmental sustainability, given the ecological sensitivity of the region. In this regard, the creation of green infrastructure and integrating it with current urban planning and physical infrastructure development would be a step in the right direction.** Green infrastructure refers to a network of natural and semi-natural systems that provide environmental, economic, and social benefits by preserving and enhancing ecosystem functions. Unlike traditional infrastructure, which often focuses on grey, man-made solutions like pipes, roads, and concrete structures, green infrastructure emphasises the use of vegetation, soils, and natural processes to address urban and rural challenges. Green infrastructure will help to mitigate climate change risks and ensure the long-term durability of physical infrastructure development. The paper presents the following steps for green infrastructure development:

1. Creation of well-planned urban green spaces, such as parks, gardens, green roofs, and allotments, would protect biodiversity while addressing climate change, cooling cities, reducing flood risks, and improving the health and well-being of urban residents.
2. Restoration of wetlands as a cost-effective alternative to constructing new water treatment plants. This approach not only saves money but also offers additional natural benefits, such as providing habitats for migrating birds which might become a tourist attraction.
3. Restoration of floodplains is often more cost-effective and more efficient at preventing floods than constructing new, taller dykes.

A Thrust on Renewable Energy Sector:

It is estimated that 1,28,962 MW of renewable energy potential exists in the North-East region as against the current installed capacity of 4,834.58 MW⁴. **The promotion of the sector is crucial for ensuring India's energy security, given its dependence on fossil fuels and its impact on import bills. At the same time, it will also help boost economic activity and job creation in the North-East region.** In 2021–22, the renewable energy sector experienced a hiring surge, with the number of hires being eight times higher than in 2020–21. According to a report by CEEW-NRDC and the Skill Council for Green Jobs, the solar and wind energy sectors alone recruited nearly 53,000 workers for project development roles during this period⁵. India has the potential to generate approximately 3.4 million jobs, both short-term and long-term, by installing 238 GW of solar power and 101 GW of new wind power capacity⁶. **The paper advocates for the following measures to realise the renewable energy potential:**

1. **Development of small-scale hydroelectric projects that have minimal ecological impact are highly recommended.**
2. **Public-Private Partnership, tax incentives & issuance of Green Sovereign Bonds will ensure the financial viability of the projects & participation of the private sector in the projects.**
3. **Utilisation of small-scale decentralised renewable energy microgrids.**

⁴ [PIB Press Release](#)

⁵ [The Economic Times](#)

⁶ [Council for Energy Environment & Water](#)

4. **Upgradation and expansion of the transmission and distribution infrastructure to integrate renewable energy sources efficiently.**
5. **Establish mechanisms for regular monitoring and evaluation of renewable energy projects to ensure they meet set targets and are aligned with regional development goals.**

Promotion of Ecotourism:

Prime Minister Shri Narendra Modi, during his address at the 65th Plenary of the North Eastern Council on May 27, 2016, emphasised that the North Eastern states are endowed with vast natural landscapes and a unique blend of historical, cultural, and ethnic heritage. He highlighted the immense potential for tourism in the region, including mountaineering, trekking, and adventure tourism. Prime Minister Modi stated that with proper development and promotion, tourism could become the largest employment sector in the region, significantly contributing to its economic growth and income. The Government of India, along with state governments, has promoted tourism in the region by providing financial assistance under various schemes such as Swadesh Darshan, PRASHAD, Assistance to Central Agencies for Tourism Infrastructure Development, Domestic Promotion and Publicity, including Hospitality (DPPH), etc. However, compared to its potential, the penetration of tourism in the region is low. The share of tourist visits in the region compared to the total number of tourists visiting the country is very low (Chaudhary, 2023).

The promotion of ecotourism would be key to the rapid progress of the region, which would boost local economic activities and serve as a source of revenue for state governments facing fiscal constraints. Ecotourism is the promotion of tourism through nature-based activities that leverage the scenic beauty of nature. It ensures economic, ecological, and social sustainability and conservation of the region without affecting the local customs and cultures and ensuring the well-being of the locals. The benefits of ecotourism are not only conservation of natural biodiversity and increased environmental awareness; it also helps in revenue generation and job opportunities (A Zimik, A Barman, 2023). North-eastern states can draw lessons from Odisha's Mangalajodi, an exemplary ecotourism destination. It is a famous example of a community-based conservation model. The revenue generated from ecotourism is used to

support education, health, and infrastructure development that is beneficial for the local communities⁷. **The paper puts forward the following strategies for the development of Ecotourism:**

- 1. Adoption of low-impact wildlife tourism that preserves the ecological integrity of forests and wildlife areas, safeguarding the natural values of the destination and its surroundings.**
- 2. Highlighting the richness of biodiversity & heritage value NorthEast India's wildernesses & protected areas.**
- 3. Using indigenous, locally produced and ecologically sustainable materials for tourism activities to provide livelihood opportunities to local communities.**
- 4. Creating a dedicated state-specific promotional campaign for positioning NorthEast India as an adventure tourism destination.**

A Novel Approach for enhancing Education & Skill Development: Lessons from Himachal Pradesh:

Lack of funds is often cited as a major reason for the poor state of education in India. Although resource constraint is one of the reasons for the current state of education, the vast disparities among states in educational indicators that have similar funding patterns highlight that it is the efficient use of these funds that is the root cause of the poor state of education, not the lack of funds.

Himachal Pradesh, a special category state with similar geographical characteristics as the North-East region, has witnessed significant progress in its educational indicators over the last couple of decades. Himachal Pradesh has the lowest proportion of individuals without education among all social groups in rural areas. The state made significant strides in enhancing primary and secondary schooling outcomes between 1993–94 and 2004–05. This progress continued in post-secondary education, with attainment doubling across all social groups. By 2011, less than one-third of Himachal Pradesh's rural population lacked education, compared to nearly two-fifths

⁷ [Times of India](#)

or half of the population in most neighbouring states. Additionally, Himachal Pradesh had the highest overall proportion of residents with post-secondary education in 2011 among northern states (excluding urban Haryana), with nearly 15–17 percent of the rural population and 31 percent of the urban population having received post-secondary education. Community involvement in the maintenance and improvement of school buildings, a low student-teacher ratio, more active parent-teacher associations, better teaching standards, a committed and dedicated bureaucracy, and political leadership cutting across party lines are cited as the major reasons for these improvements⁸.

North Eastern states can draw parallels from Himachal Pradesh's success story as they have similar geographical challenges and financial resource constraints. **Promoting community involvement in building school infrastructure and incentivizing teachers to work in remote locations, along with a strong bureaucratic and political commitment, would be a step in the right direction to transform education, especially school education.**

Enhancing Banking Infrastructure & Financial Literacy:

Two important aspects that will facilitate financial inclusion in Northeast India are improving the digital banking infrastructure and promoting financial literacy. **Leveraging telecommunication and internet services to facilitate digital banking and conducting workshops, campaigns, and training sessions to educate people about financial products and services would be required.**

⁸ [World Bank Report](#)

State-wise Recommendations:

There are vast economic and geographic diversities among the Northeastern states, with each state having a unique comparative advantage in the production of a particular good. In this regard, the paper proposes a set of recommendations to address the challenges and promote the production of the product, which has a comparative advantage in each state of North-East India.

Assam: The state of Assam is the gateway to north-east India. It is also the largest economy in North-East India. The paper provides recommendations for key sectors and industries essential for the development of the state.

- **Agro-based Industries-** **The contribution of the tea industry to Assam's GSDP is nearly 5%. India is the 4th largest exporter of tea, and the state of Assam plays a major role in the exports. The demand-supply imbalance poses a critical challenge for the industry. Although tea is a highly preferred beverage in India, per-capita tea consumption has stagnated at 750 gm/year. Thus, export demand is vital against the backdrop of high supply. Another challenge the tea industry faces is the escalating cost of production due to rising labour wages, which affects the competitiveness of tea in the global market. Around 95% of tea growers have small-land holdings, which results in high- costs per hectare as they can't reap the benefits of economies of scale as in the case of large-land holdings. In this regard, the promotion of contract farming would be an important strategy to ensure cost-effectiveness and global competitiveness. Global competitiveness can also be strengthened through the promotion of 'Brand Assam Tea'. The unique history of Assam tea can be used to develop a branding strategy to promote global outreach of Assam tea.**

Assam has a diverse range of climates and soils that support the cultivation of numerous horticultural crops, including fruits, vegetables, spices, potatoes and other tropical tuber crops, mushrooms, ornamental plants, medicinal and aromatic plants, plantation crops, cashew, and betel vine. The horticulture crops suffer from huge post-harvest losses and price volatility due to poor cold storage infrastructure. Rapid

investment in setting up the cold storage infrastructure by the state government is essential to reducing this post-harvest loss. The horticulture sector also requires proper maintenance of soil fertility and crop health. **It is recommended to develop crop-specific soil health cards.** These would help in timely assessing nutrient constraints in the field, preventing nutrient depletion, and improving the soil's capacity to support crops. **Along with this, an emphasis on R&D innovations like microbial bioformulations and synthetic microbes that mimic plant defence mechanisms is necessary to ensure the resilience of horticultural crops against environmental stressors.** For this purpose, the Tea Board of India provides financial assistance to three research institutes in India, namely the Tea Research Association (TRA), the Darjeeling Tea Research and Development Centre (DT&DC), and the United Planters' Association of Southern India-Tea Research Foundation (UPASI TRF). A report by CAG revealed significant deficiencies in the Tea Board's research and development activities, including poor performance of research projects, a lack of scientific staff, and inadequate support for the Darjeeling Tea Research and Development Centre (DTR&DC). Moreover, 93% of the ₹66.62 crore provided to Tea Research Associations was spent on administrative costs, with only 7% used for research⁹. The paper recommends increasing the share of funds used for research work out of the total funds spent.

- **MSMEs-** The state has been at the forefront in the production of various items, particularly in handloom, sericulture, and handicrafts, which constitute a significant portion of the small and micro enterprises sector, offering substantial employment opportunities with minimal investment. **In 2019, Assam ranked 20th in the Ease of Doing Business Rank, which indicated that significant improvements in the sector are required.** Recognizing this, the state government introduced the Assam Ease of Doing Business (Amendment Act), 2020, and the Assam MSME (Facilitation of Establishment and Operation) Act, 2020. This would help in the creation of simple, effective, and efficient institutional mechanisms. **In addition to simplifying regulatory processes, the state government should work on the following strategies:**

⁹ [CAG, 2023](#)

1. **Strengthening the export infrastructures of the state such as Inland Container Depots(ICDs), Border Trade Centres, Common Facility Centres, Integrated Cold Chain, Logistic Park, River ports.**
2. **Establishing a product specific park viz.- Tea Parks, Bamboo Parks, Food Park, Pharmaceutical parks, Plastic parks, etc. are also recommended.**
3. **Encouraging MSMEs to leverage e-commerce platforms for broader market access, both domestically and internationally. Many small businesses struggle to transition to e-commerce due to GST registration challenges & time-consuming compliance requirements.** Currently, the GST Council has exempted small businesses engaged in intra-state supplies through e-commerce platforms from GST registration, as long as their turnover is below ₹40 lakh for products and ₹20 lakh for services. **The paper recommends to review & exempt the GST registration rules for inter-states supplies through e-commerce platforms for small businesses, encouraging them to leverage e-commerce platforms.**
4. **MSMEs often rely on old technologies which affects their cost-competitiveness in the global market. State government should incentivise them through low interest loans to invest in R&D & adoption of new technologies to ensure cost-competitiveness crucial for long-term export growth.** Further, raising awareness about programs like Google India's initiatives 'Google Advantage' and 'Google My Business' which are designed to help MSMEs tap into the growing online market and succeed digitally is vital for encouraging MSMEs to adopt new technologies.

Arunachal Pradesh: It is a border state with a strategic location. It has borders with China, Bhutan, and Myanmar. The border with Bhutan is 160 km, the China border is 1,080 km, and the Myanmar border is 440 km. Out of India's total border with China (3488 km), Myanmar (1643 km), and Bhutan (699 km), Arunachal Pradesh shares 30.96%, 26.78%, and 22.89%, respectively. **Given its strategic location and bitter India-China relations, it is important to focus on**

the development of the state, especially infrastructure development.

Historically, development in the border areas was often neglected; border districts have a lower life expectancy and a lower literacy level compared to non-border districts in the state. Also, border districts have a lower road density than the state average of around 17 km per 100 sq. km. (Mitra, 2020). In the last decade, steps have been taken by the Central Government to address the challenge of infrastructure development in the state. Various central government agencies, including the National Highways Authority of India (NHAI) and the Border Roads Organization (BRO), constructed 2,731 kilometres of national highways across the eight Northeastern states between 2014 and 2019. Despite various efforts to upgrade transport infrastructure in Arunachal Pradesh, the execution of projects has been sluggish. Highway development in the region faces significant challenges, including delays in land acquisition, lengthy environmental and forest clearance processes, and underperformance by government agencies and contractors (Bhattacharjee, 2021). Some of the others include difficult terrain, incessant rainfall, and ecological issues. **The paper proposes the following measures to expedite land acquisition and forest clearances for border area development, balancing development needs with environmental and social considerations:**

1. **Establishing a single government body to handle all approvals related to land acquisition, forest clearances, and other necessary permissions.** This can significantly reduce bureaucratic delays.
2. **Formation of task forces at the state and central levels to fast-track the approval process for border area projects.** These committees should include representatives from all relevant departments to ensure quick decision-making.
3. **Developing and implementing SOPs for land acquisition and forest clearances specifically for border areas.** These SOPs should outline clear timelines and responsibilities for each stage of the process.
4. **Granting special exemptions or expedited clearances for projects deemed to be of strategic importance.** This could involve setting up special zones where environmental regulations are relaxed under strict guidelines.

Meghalaya and Tripura: North-East India shares an 1880 km-long border with Bangladesh. Out of which, 443 km and 856 km of border are shared with Meghalaya and Tripura, respectively. **The NorthEast region is home to a great variety of natural resources, which are primary exports from the NorthEast region to Bangladesh. NER exports to Bangladesh include raw materials like coal, limestone, stone chips, and bamboo. Bamboo, in particular, has significant untapped potential to contribute to the trade from NER.** India possesses 30% of the world's bamboo resources and has the largest growing area globally, covering more than 15.69 million hectares. However, the country utilises only a tenth of its bamboo potential, contributing just 4% to the global bamboo product market. The North Eastern region accounts for 28% of India's bamboo stock, with Tripura boasting 2,397 square kilometres of bamboo forests, covering approximately 23% of the state's total geographical area. Meghalaya too has a significant stock of 247.4 lakh metric tons of bamboo, which is 6.1% of the total stock of the country. As bamboo also serves as an essential raw material for many products and has a vast potential for employment creation, it is essential to develop a strategy to make use of this resource. **In this regard, the paper proposes the following strategies:**

1. Currently, the bamboo resource is available primarily in the forests, thus, **it is recommended to focus on increasing the bamboo resource base by promoting bamboo plantation on a large scale.**
2. **Incentivizing the establishment of bamboo processing units for value addition,** which includes manufacturing products like bamboo flooring, furniture, handicrafts, and bamboo-based panels.
3. **Providing financial incentives, subsidies, and credit facilities would be crucial to expand bamboo cultivation and the establishment of bamboo-based industries.**
4. **Development of the necessary infrastructure for bamboo cultivation, processing, and marketing.** This includes establishing bamboo clusters, providing transportation facilities, and setting up common facility centres.
5. **Training artisans, entrepreneurs, and workers in modern bamboo processing techniques and entrepreneurship.**

6. **Strengthening institutional frameworks and ensuring effective policy interventions to support the bamboo sector. This includes setting up Bamboo Development Boards, for providing financial support and implementation of policies.**
7. **Improving supply chain management** by enhancing transportation & warehousing infrastructure.
8. **Developing branding strategies for bamboo products** by creating awareness about the environmental benefits of bamboo.

Nagaland: The state of Nagaland has a rich and diverse flora, which provides an ideal environment for apiculture (beekeeping). Nagaland's moderate climate, with well-distributed rainfall and relatively stable temperatures, creates a conducive environment for bee colonies to thrive. The climate supports year-round foraging, which is crucial for maintaining healthy bee populations and consistent honey production. The state is home to a variety of flowering plants, including both wild and cultivated species, that offer abundant nectar and pollen sources. The presence of forests, orchards, and agricultural crops contributes to a continuous supply of forage for bees throughout the year. Apiculture in Nagaland is largely organic; this creates an ideal setting for producing organic honey, which is highly valued in both domestic and international markets. **Out of Nagaland's total area of 16,579 sq km, there is significant potential for beekeeping across 10,942 sq km. If the entire potential is realised, the state would be able to generate Rs. 100 crore annually.** To realise its complete potential, the state would have to tackle the challenges faced by the industry. These challenges include a lack awareness of modern beekeeping techniques and scientific practices, insufficient access to modern beekeeping equipment, such as honey extractors, protective gear, and storage facilities, and a lack of access to credit and financial assistance. **The paper proposes the following measures for the promotion of the apiculture industry in Nagaland:**

1. **The Nagaland government should collaborate with NGOs to take training programs to educate beekeepers on modern apiculture techniques, disease management, and the importance of maintaining bee health.**

2. **Establishing beekeeping cooperatives or common facility centres that provide shared access to modern equipment.**
3. **Provide financial support through microfinance, government subsidies, and low-interest loans specifically for beekeepers.** Encourage the formation of beekeeping cooperatives to pool resources and improve access to financial services.
4. **Implementing standardised processing and quality control measures across the industry.** Training in proper honey extraction, filtration, and storage methods can ensure a consistent, high-quality product.
5. **Developing branding strategies to create “Brand Nagaland Honey”.**

Sikkim: In 2003, Sikkim made the decision to shift towards organic farming; in later years, it completely banned the usage of chemical fertilisers and pesticides. It was declared as India’s first fully organic state in 2016. The transition towards organic farming in Sikkim is inspirational; however, there are concerns over the long-term sustainability of organic farming due to several challenges. Farmers have witnessed reduced earnings due to lower yields and a lack of premium pricing for organic products. There are viability issues regarding the reach and profitability of organic farming due to high production costs, a lack of infrastructure, and poor marketing, storage, and transportation facilities. Farmers rely heavily on imported organic fertilisers, increasing costs. **The paper proposes the following strategies to ensure the long-term sustainability and profitability of organic farming in Sikkim:**

1. **Government investment to improve storage, transportation, and processing facilities to reduce post-harvest losses and maintain quality of organic produce.**
2. **Sikkim Government should collaborate with Indian Council for Agricultural Research to develop local organic fertilisers and pesticides to reduce dependency on imports.**
3. **Sikkim Government should collaborate with NGOs to enhance the ongoing training and technical assistance provided to help farmers adapt to organic practices effectively.**

- 4. Promotion of Sikkim's Organic Brand to ensure higher market demand & accessibility to organic produce which will help farmers to earn premium prices.**

Manipur: Social harmony is one of the most important prerequisites of economic progress. Manipur has been witnessing unprecedented ethnic clashes in the last year. This has been the result of decades of long-standing conflict between the Meitei and Kuki communities. The Meitei majority's demand for Scheduled Tribe (ST) status has further exacerbated tensions, with Kukis fearing marginalisation. The state's political structure is seen as favouring the Meiteis, creating a sense of exclusion among the Kukis and Nagas. The distribution of resources has been uneven, with accusations of favouritism toward the Meitei-dominated Imphal Valley. The hill districts, predominantly inhabited by Kukis and Nagas, feel neglected in terms of infrastructure and development. The rise in illegal immigration, drug trade, and poppy cultivation in the hilly areas has fueled ethnic tensions. The porous borders with Myanmar have made these activities difficult to control, further destabilising the region. It is very important to build a culture of respect and cooperation, which is vital for long-term stability and progress. **The paper proposes the following measures to tackle these challenges:**

- 1. Reviewing the current allocation of legislative seats and resources to promote equity.**
- 2. Coordinated efforts with neighbouring countries like Myanmar to tackle illegal immigration, drug trade, poppy cultivation & arms trade.**
- 3. Initiating a comprehensive dialogue process involving all ethnic communities to address their grievances.**
- 4. Enhance the capacity of local governance institutions in the hill areas to manage resources and deliver public services efficiently, ensuring equitable development.**
- 5. Formation of independent conflict resolution mechanisms that involve neutral mediators to address disputes impartially and effectively.**

Mizoram: The valleys of the state, with their perennially clear water streams rich in oxygen, provide an ideal environment for the intensive cultivation of various freshwater fish species. **Mizoram receives abundant rainfall, which makes it highly conducive to commercial fish farming. It is estimated that an area of around 24,000 hectares is available for pisciculture in the state, of which only 22.1% has been developed.** The limited availability of high-quality fingerlings hampers fish production. Lack of proper market linkages affects the timely sale of fish. Fish farmers often lack training in modern aquaculture practices, leading to low productivity. **The paper proposes the following measures for the development of pisciculture in Mizoram:**

- 1. Establishing government-supported hatcheries in Mizoram to produce high-quality fingerlings locally.**
- 2. Investing in cold storage, ice plants, and processing units to minimise post-harvest losses.**
- 3. Organising regular training programs on advanced aquaculture techniques, disease management, and water quality monitoring.**
- 4. Facilitate easier access to credit through microfinance and government schemes targeted at small-scale fish farmers.**
- 5. Formulation of a comprehensive fisheries policy for Mizoram with a focus on sustainable development is crucial to implement above mentioned measures & for the overall development of pisciculture in Mizoram.**

Conclusion

India is a country with a diverse culture, geography, and history. It also has a diverse economy characterised by vast inter-state disparities, which have aggravated since the 1991 economic reforms. The western and southern states are much ahead of the eastern and north-eastern states on many developmental parameters. This growing socio-economic disparity has caused distress migration from the eastern and northeastern regions to the west and south of the country. In this context, it is important to analyse the economically backward regions of the country and develop a more inclusive developmental strategy to address the inter-state economic disparities. In this paper, North-East India, which is one of the economically backward regions, is analysed.

Although there are inter-state socio-economic differences within the North-Eastern region, the paper has discussed issues and challenges that have an adverse effect on the economic growth of all the states in this region. The paper also presents a set of recommendations to address these challenges. The recommendations proposed have taken into account the ecological sensitivity of the region, climate change risks, and a way to balance economic growth and environmental conservation. It is very critical to understand the ecological and geographical limits of the region and develop a strategy that lays down a path towards sustainable development in north-east India.

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