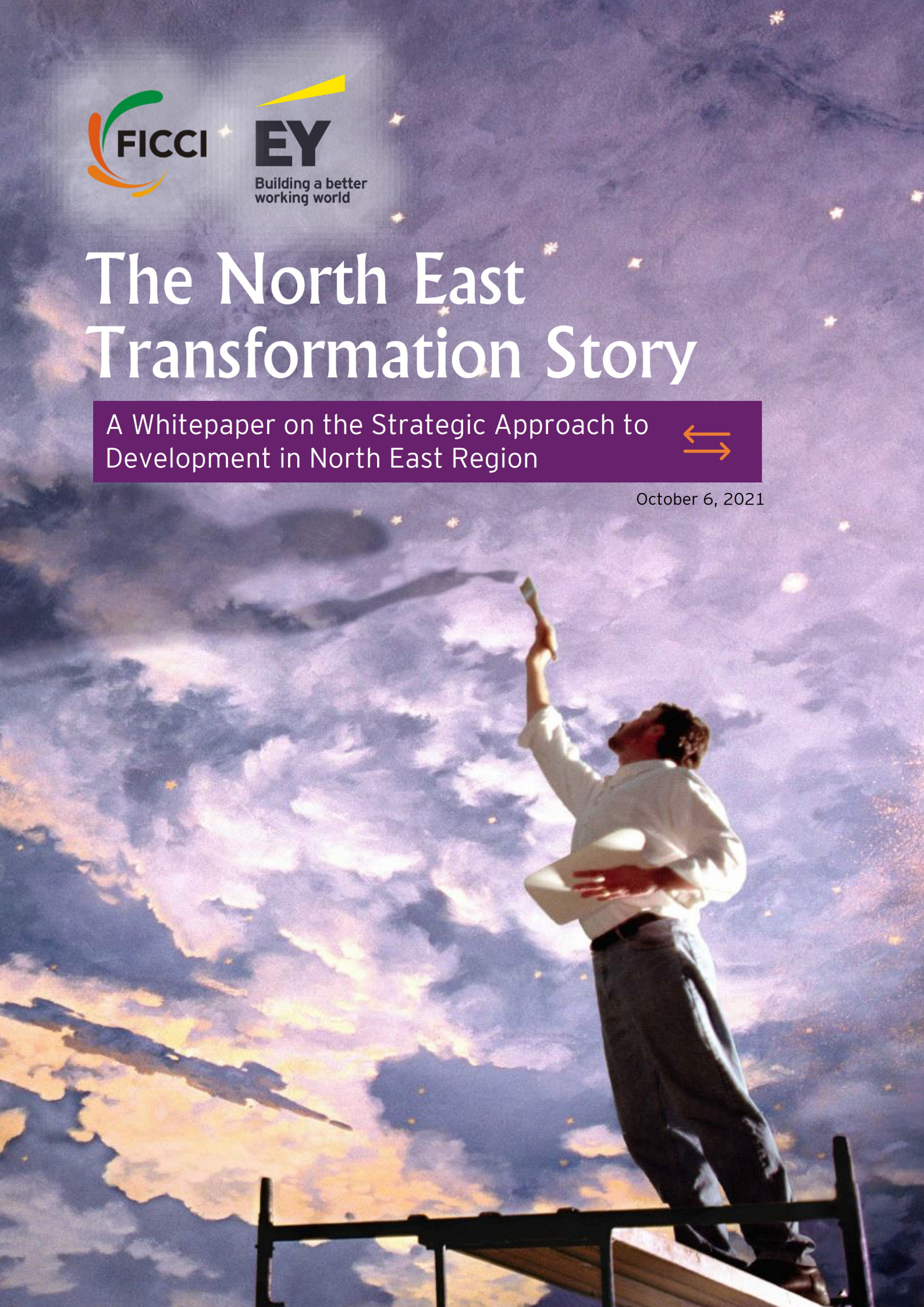


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The North East Transformation Story

A Whitepaper on the Strategic Approach to Development in North East Region

October 6, 2021

The North East Transformation Story

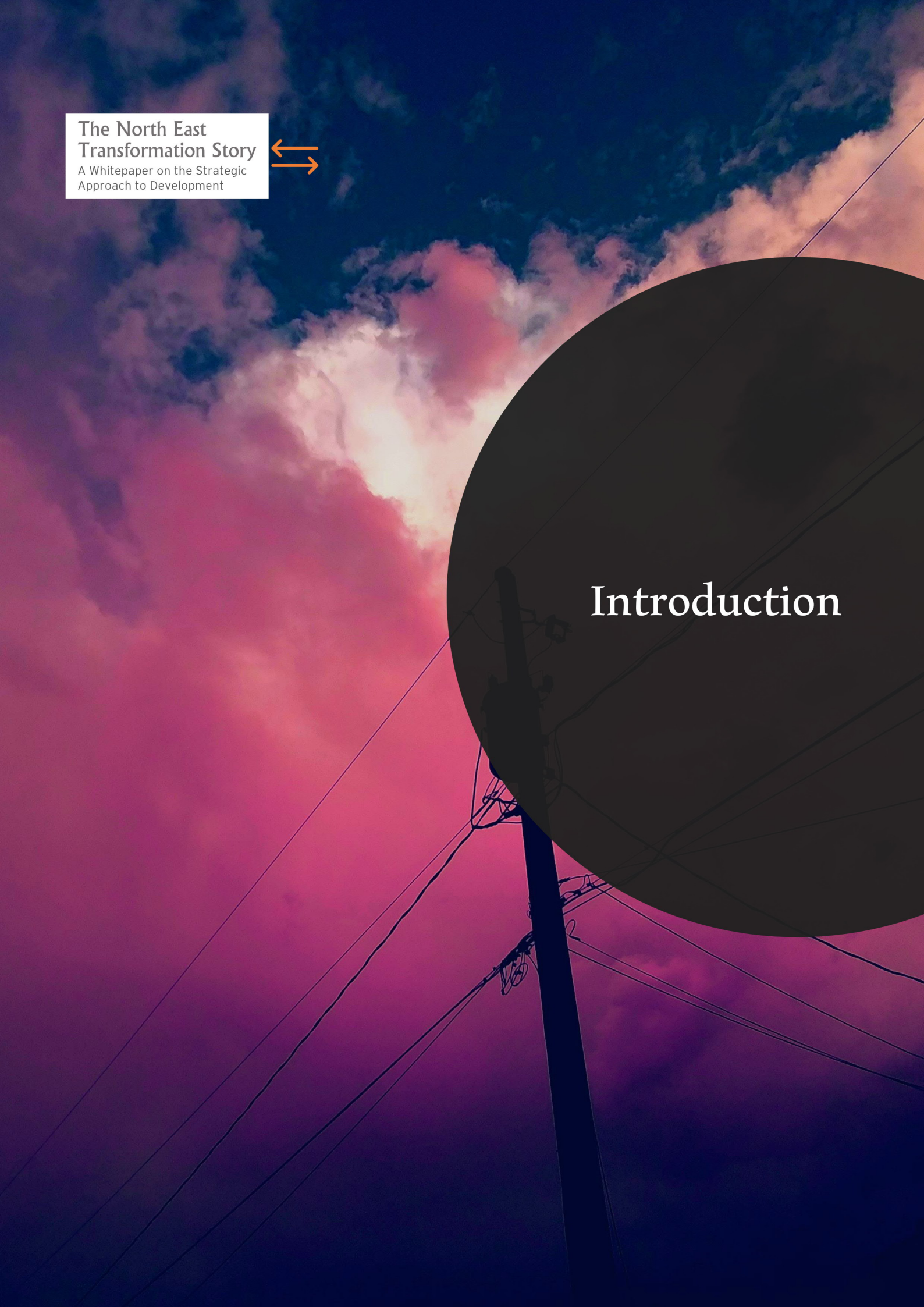
A Whitepaper on the Strategic Approach to Development





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Introduction

Introduction

The North Eastern Region (NER) of India occupies a unique place in terms of natural beauty. The natural beauty, the environment, the unique flora and fauna of the region, its large bio-diversity, rolling hills, green valleys, virgin forests and diverse culture and tradition can make Northeast, the Paradise for Tourists.

North East India, popularly known as North East (NE), comprises the eight States of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Tripura and Sikkim and geographically situated in the North East corner of India, at Latitude 21.57°N - 29.30°N and Longitude 88°E - 97.30°E with an area of 25.5 million Sq. Km. It comprises 7.97% of the land area of the country. NE shares the international boundaries of India with China to the North, Bangladesh to the South West, Bhutan and Nepal to the North West and Myanmar to the East. This region is connected with the rest of India only through a narrow corridor in North Bengal, known as Chicken Neck, having an approximate width of 33 km on the eastern side and 21 km on the western side.

In 2014, the Look East Policy (LEP) was elevated to the Act East Policy (AEP), which brought a paradigm shift and marked a significant change in the role assigned to NER. Emphasis was laid on enhanced connectivity, security, stability and development of the NER, located strategically between the edge of South Asia and Southeast Asia. Unlike under the LEP, the focus was on improving the potential for industrial and infrastructural growth in the NER. This enabled the region to steadily veer away from a developmental deficit that had set in due to remoteness from the industrially advanced parts of India and communication and infrastructural lapses in the region. In a departure from the traditional foreign policy imperative, the AEP aims to focus on the development of connectivity infrastructure and transportation routes in the Northeast and across neighbouring transnational regions, thus improving the geographical connectivity of the NER. The development of connectivity in turn will aid in making the region a strategic nodal trade hub in the country and raise the NER to a global significance.

This report aims to highlight some of the major initiatives undertaken by the Government of India under the leadership of Prime Minister Narendra Modi. The Government of India's focus on the NER makes it clear that the region has great potential to develop not just as a self-sustaining economic unit but also contribute to the success story of the country.



The North East Transformation Story

A Whitepaper on the Strategic Approach to Development

Infrastructure

Infrastructure

Except Sikkim, all the North-Eastern States bordering Assam are connected with the mainland India vide routes that passes through Assam. Even Assam is connected with the mainland India through a constricted passage known as the Chicken's Neck corridor which restricts surface transport in a big way. As such the North East has been trying to strengthen its connectivity infrastructure for quite some time.

While Assam is fortunate to have been blessed with all the four modes of connectivity like Airway, Waterway, Roadway and Railway, other states in the region are also transforming in connectivity spectrum with several initiatives being carried out to reinforce multi modal connectivity.

Several connectivity Infrastructure projects have in been taken up in the last few years in the North Eastern Region which include projects of road and rail connectivity: modernization and development of new airports etc.

When the second term of the government led by the visionary leadership of Shri Narendra Modi, Hon'ble Prime Minister of India started in 2019, 49 Projects worth Rs 1231 crore were taken up by the Ministry of Development of North Eastern Region (MDoNER) in NER in the first month of a 100 Days Action Plan of the Ministry. The projects included sanction of eight new projects for Rs. 586.3 crore under North East Road Sector Development Scheme (NERSDS) and North East Special Infrastructure Development Scheme (NESIDS) schemes. In addition, 36 on-going projects during that time under various schemes like NLCPR, Special Packages, Schemes of NEC etc. have been completed with approved cost of Rs. 529.18 crore. Works of two projects for Rs. 89.63 crores got started and 3 projects for Rs. 26.83 crore have been operationalised during this period[1]. A Bamboo Industrial Park was also planned as a part of the Ministry's 100 days action plan which was to be set up in Manderdisa in Dima Hasao district of Assam in an area of 75 hectares at a cost of Rs 50 crore. Hon'ble CM of Assam recently in July 2021 laid the foundation Stone of the Bamboo Industrial Park at Manderdisa in Dima Hasao which was being funded by the Ministry of DoNER[2]. This showcases the commitment of the Government of India in planning and implementing projects in the North East Region and the cascading effect on State Governments.

ISRO Will Use Space Technology to Help Develop Infrastructure Projects in India's Northeast

The Country's premier space research organisation will contribute to the Infrastructure growth story in the North Region by offering optimum utilization of satellite imaging and other space technology applications for the better accomplishment of infrastructure projects in all eight states of the region. ISRO is already monitoring and geo-tagging 67 projects at 221 sites in all the 8 States funded by MDoNER/North East Council. This is a first-of-its-kind initiative in the whole country, where there is an institutionalized involvement of ISRO in mapping and sharing of data for developmental projects and can become a model for other states too

Important infrastructure projects completed during the last two years since 2019 includes Pakyong Airport (Sikkim), Rupsi Airport (Assam); Lumding- Hojai Rail line doubling project (45 Km) in Assam; 300 MW Kameng and 110 MW Pare Hydro Power projects in Arunachal

[1] https://pib.gov.in/PressReleseDetailm.aspx?PRID=1580448

[2] https://www.sentinelassam.com/north-east-india-news/assam-news/assam-cm-lays-foundation-stone-of-bamboo-industrial-park-at-manderdisa-in-dima-hasao-548215

Pradesh; ICP at Moreh and 1819 km of road length covering all North Eastern States. Under North Eastern States Roads Investment Programme (Externally Aided Project), construction/upgradation of three roads (Kalitakuchi to Barpeta-58.5 km, Tamulpur to Paneri-43 km and Paneri to Udalgiri-18.4 km) along with five major bridges in Assam and one road (Garobada to Dalu-93.4 km) in Meghalaya have been completed.

The projects completed in Tripura include Agartala - Sabroom new Rail line project (112 km); 2-laning with paved shoulder of Udaipur- Sabroom Section of NH-44 from km 55.00 to km 128.712; and strengthening and widening works of NH-8 (old NH-44) from km. 284 to km 318; Waterway on river Gomati (Tripura)[3].

Transforming Roadways and Inland Waterways

Ministry of Development of North Eastern Region has also taken up projects for filling gaps in infrastructure through its schemes such as NLCPR-State, North East Road Sector Development Scheme (NERSDS), Schemes of North Eastern Council (NEC) and North East Special Infrastructure Development Scheme (NESIDS).

For improvement of connectivity and road infrastructure in the North Eastern Region, under Special Accelerated Road Development Programme for North East (SARDP-NE) a length of 6418 km was approved and about 5273 km road was sanctioned for execution at an estimated cost of Rs.57,518 crore. Out of total length of 5723 km sanctioned, a length of 3029 km (as on 31.3.2019) has been completed against total expenditure of Rs.30,315 crore. Under Pradhan Mantri Gram Sadak Yojana (PMGSY), a length of 23093.39 km of rural roads has been constructed in North Eastern States in last five years with an expenditure of Rs.10731.99 crore[4].

The Ministry of Development of North Eastern Region has pursued key projects for removing road infrastructure gaps which include the following

- under NLCPR-State 624 nos. of road and bridge projects for Rs.6474.00 crore with approximate road length of 8400 km),
- under NERSDS (13 projects having total length of 329.72 km of road worth Rs.1120.41 crore),
- under schemes of NEC (180 projects having a total length of 11000 km of road worth Rs.6580.00 crore)

The focus on improving connectivity in the North East connectivity and leveraging synergies with Inland Waterways has also enhanced with the announcement of programmes like Bharatmala Pariyojana.

The ambitious Bharat Mala programme subsumed all the then existing Highway Projects including the flagship National Highways Development Project (NHDP), launched by the former Prime Minister Atal Bihari Vajpayee government in 1998

North East Economic corridor (EC 44)[5] has been planned as a part of the grand scheme of things for enhancing connectivity to state capitals and key towns in the NER. This corridor is expected to connect 7 state capitals and 7 multimodal

[3] https://pib.gov.in/Pressreleaseshare.aspx?PRID=1697154

[4] https://pib.gov.in/Pressreleaseshare.aspx?PRID=1577192

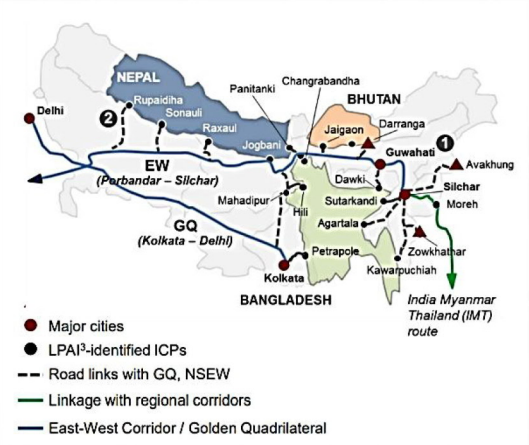
[5] https://archive.pib.gov.in/documents/rlink/2017/oct/p201710250 3.pdf

waterways terminals on Brahmaputra on the Bharatmala route.

The 7 Waterway terminals on River Brahmaputra in the Bharatmala programme are in Dhubri, Silghat,



Biswanath Ghat, Neamati, Dibrugarh, Sengajan & Oriyamghat in Assam



Boost to Rail Connectivity in North East

During the last 6-7 years, more than INR 27,655 crore of Capital Investment was made by Indian Railways in North East Projects which in itself is a 160% increase over the capital investment of Rs 10,610 made during the period of 2009-14. The increased investment highlights the undercurrent for strengthening the Rail infra in the North East. While in 2014, only Guwahati had broad gauge linkage, the entire region has now finally been converted to Broad Gauge to enable seamless connectivity. Assam, Meghalaya, Nagaland, Tripura, Mizoram, Manipur and Arunachal Pradesh are all now connected by Rail Network. India's tallest bridge being constructed under Jiribam-Tupul-Imphal new line project underlines one of the flagship projects for strengthening the infrastructure in Railways.

The development of infrastructure in India's northeast is also a key derivative of the Act East Policy, focusing on southeast Asia. North East Region is inevitably a beneficiary of the initiatives of Government of India which has been working on several road and bridge projects to improve connectivity with Bangladesh, Nepal, and Myanmar -countries which border the North East Region. These benefits are likely to be in the shape of improving economic and cultural ties with these countries with which the North East Region has a historical linkage that unfortunately was impacted during the partition era. Now the relationship seems to be on a path of resurgence with concerted efforts of the Government of India.

Leveraging opportunity in Food Processing

The Ministry of Food Processing Industries has been providing financial assistance for setting up of Mega Food Parks (MFPs) in the North East Region. So far, out of 41 MFP projects in the country 7 have been approved in the North East Region of which 6 are either operational or under implementation while one has been approved in principle. Except Assam and Tripura all the others have been sanctioned or implemented after 2014[6].

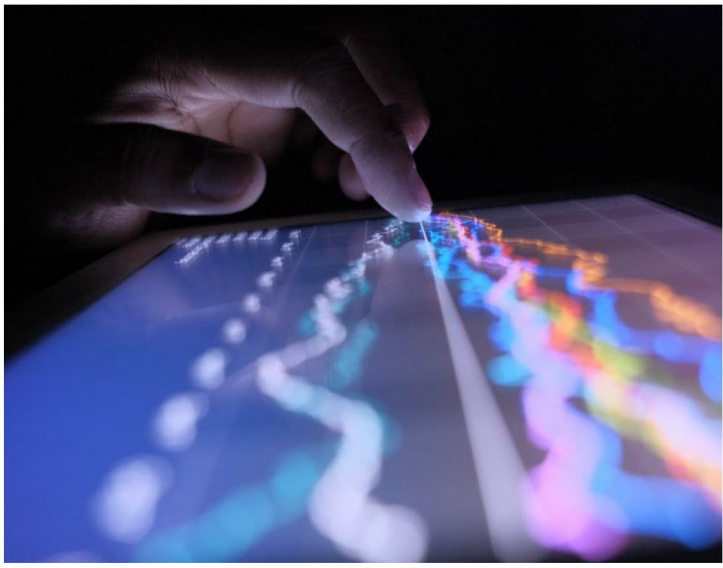
Status of Implementation of Mega Food Park Projects

SN	State/UT	Project Name	Status
1.	Arunachal Pradesh	Rongoge Mega Food Park, Pvt. Ltd, Papum Pare	Under Implementation
2.	Assam	North East Mega Food Park Ltd., Nalbari	Operational
3.	Manipur	Manipur Food Industries Corporation Ltd., Kakching, Manipur	Under Implementation
4.	Meghalaya	Meghalaya Industrial Development Corporation Ltd. (MIDC), North Garo Hills	In-principle approval
5.	Mizoram	Zoram Mega Food Park Pvt. Ltd., Kolasib	Operational
6.	Nagaland	DoysAgri Resources Pvt. Ltd., Dimapur, Nagaland	Under Implementation
7.	Tripura	Sikaria Mega Food Park Pvt. Ltd., West Tripura	Operational

Institutional Framework for Entrepreneurship Development

The Government of India has focused on the development of Entrepreneurship in the region under the overarching theme of "Atmanirbhar Bharat". A strong institutional framework has been developed for promotion of entrepreneurship in the North East region which includes several institutes like Indian Institute of Entrpreneurship (IIE), Guwahati; three Indian Institutes of Information Technology(IIIT) in NER, Institutes of Hotel Management at Guwahati and Shillong, Film and Television Institute at Jollang-Rakap (Jote), Arunachal Pradesh, and National Institute of Design (NID), Jorhat, Assam.

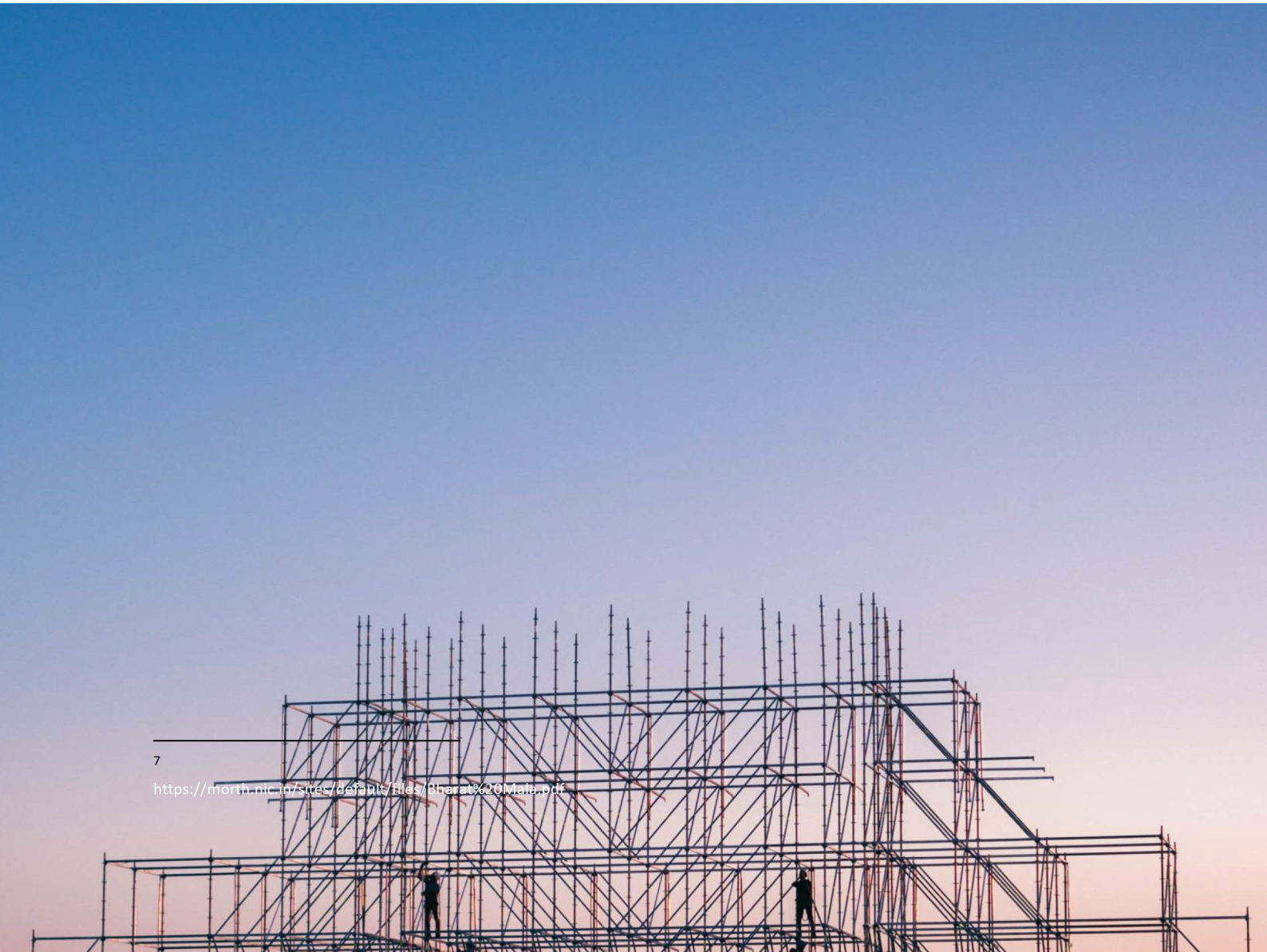
Further, Krishi Udaan Scheme to evacuate local produce, 586 Van Dhan Vikas Kendras and Zoram Mega Food Park etc. will boost entrepreneurship, trade and commerce. In Assam and Meghalaya, the PMYUVA Pilot is being implemented in selected Industrial Training Institutes (ITIs), Polytechnics, Pradhan Mantri Kaushal Kendra (PMKKs) centres and Jan Sikshan Sansthan (JSS). Under PMYUVA, 25 project institutes have been selected for the pilot project on Entrepreneurship Development in Assam and Meghalaya.



6 http://164.100.24.220/loksabhaquestions/annex/176/AS36.pdf

These infrastructure development initiatives also come in the backdrop of Japan partnering with India to aggressively catalyse development in strategically placed states like Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura.

IMPACT[7]	
Bhupen Hazarika Setu also known as Dhola Sadia bridge in Assam operationalised India's longest river bridge which opened in May 2017 under the umbrella program of Bharatmala	
Length of Bridge	9.15 km
Total cost	INR 2,056 Cr (BOT)
Reduction in distance from Rupai to Meka	165 km
Connectivity	24*7
Fuel savings	Rs. 10 lakh / day
Reduction in travel time	6 hrs to 1 hr



7 https://morth.nic.in/sites/default/files/Bharat%20Mala.pdf

Recent Projects in Connectivity Infrastructure[8]

Railways

Projects Completed

- Belonia-Sabroom (39.12 Km) line in Tripura - easy access to Southern Tripura and Chattogram Port in Bangladesh
- 25.05 Km doubling of Hawaipur-Lumdig Section of New Jalpaiguri-Lumding
- Project – Increased line capacity of trunk line

Projects Sanctioned

- Doubling – New Bongaigaon to Agthori via Rangia (142 km at cost of Rs.2042.51 Cr)
- Bridges on River Brahmaputra
  i. Saraighat Bridge Estimated Cost Rs.888 Cr.
  ii. Tezpur-Silghat Bridge Estimated cost. Rs.3512 Cr.
- Electrification of entire Railway Network in NER – Length 2352 km, estimated cost Rs.2293 Cr.

Highways

- 35 Projects – Costing Rs.7707.17 Cr and 536 Km length
- Important Projects 4 Laning of Imphal-Moreh – Pkg I (20 km)- Rs.762Cr – Connectivity for India- Myanmar -Thailand Trilateral Highway
- Aizwal Tuipang Pkg –I (57 km)- Rs.678 Cr – to provide access to Kaladan MMT Project
- 3 Projects completed in Arunachal Pradesh – 66 Km length
  - Hunli to Anini (16 km) NH313
  - Singer River to Sizoh Nallah (23 km) NH 513
  - Pasighat to Pangin (27 km)

Inland Waterways

- Bulk cargo and container movement from Kolkata and Haldia Ports to Pandu (Guwahati) Terminal via Indo- Bangladesh Protocol (IBP) Route
- Development of IBP Route in Bangladesh at estimated cost of Rs.305.84 Cr.

Other Major Projects

Greenfield Hollongi Airport Capital Connectivity to Arunachal Pradesh

- Estimated Project Cost Rs.955.67 Cr.
- Work started on the Project
- Likely Completion – December, 2022

[8] Major Achievements (May 2019- May 2020), Ministry of Development of North Eastern Region



Policy Initiatives

Policy Initiatives

The Government of India has taken several steps to plan and strategize way forward and policy prescription for North East Region. As a part of these initiatives, the NITI Forum for North East was constituted in February 2018 under the chairmanship of Vice Chairman, NITI Aayog and co-chairmanship of Minister of State (IC), DoNER. The members of the forum include CEO, NITI Aayog, Chief Secretaries of North Eastern States, Secretaries of key Ministries/ Departments, retired bureaucrats, economists and academicians. The Forum focuses on identification of various constraints on the way for accelerated, inclusive but sustainable economic growth in the North East Region of the country and to recommend suitable interventions for addressing identified constraints.

North East Industrial Development Scheme (NEIDS) was announced as a step towards promoting the industrial development in the North East Region including Sikkim and came into effect on 01-04-2017. The Scheme is targeted at new units in manufacturing and services sectors providing Central Capital Investment Incentive for access to credit, Central Interest Incentive, Central Comprehensive Insurance Incentive Incentive, Reimbursement of Goods and Services Tax and Income Tax, Incentives in Transport and Employment. Under North East Industrial Development Scheme (NEIDS), 2017, 202 units have been registered.

Entrepreneurs in NER have also been benefitted under various credit related schemes. Under Stand Up India Scheme, 3,449 loan accounts of SC/ST/Women beneficiaries were sanctioned for Rs. 714.83 crore and under Pradhan Mantri Mudra Yojana, a total of 1,07,26,209 loan accounts were sanctioned for Rs 48,868 crore in the 8 North Eastern States. Under Prime Minister's Employment Generation Programme 24,455 units were set up and employment for 1,95,640 persons was generated from 2017-18 to 31.12.2020; under Credit Guarantee Trust Fund of Micro and Small Enterprises (CGTMSE), an amount of Rs.4684.55 crore was approved towards 98569 guarantees. An amount of Rs.21.26 crore was settled for 83393 beneficiaries under Interest Subvention Scheme for Incremental Credit to MSME since its inception in November 2018[9].

The Start-up India Initiative of the Government of India has also fructified in the North East Region. This initiative which aims at fostering entrepreneurship and promoting innovation by creating and enabling eco-system enabled 408 start-ups to be recognized in the NER.

In addition to this, the North East Venture Fund which is the first and the only dedicated Venture Fund for the North Eastern Region was introduced by the present government for promoting Start-Ups and young entrepreneurs. The Venture Fund Scheme launched by the Ministry of Development of North Eastern Region (DoNER) intended to promote growth of business ventures and skill development in the region. The Ministry of DoNER joined with North Eastern Development Finance Corporation Ltd (NEDFi) to set up the North East Venture Fund with an initial corpus of Rs. 100 crores. The fund targets to invest in Start-Ups and unique business opportunities to provide resources for new entrepreneurships. The focus of North

[9] http://loksabhaph.nic.in/Questions/QResult15.aspx?qref=18895&lsno=17

East Venture Fund (NEVF) is mostly on the enterprises involved in Food Processing, Healthcare, Tourism, segregation of services, IT, etc.

The investment size with the Venture Fund Scheme ranges between Rs.25 lakhs and Rs. 10 crores with a long-term horizon of five to ten years.





Tourism

Tourism

Background

The North Eastern Region (NER) of India occupies a unique place in terms of natural beauty. The natural beauty, the environment, the unique flora and fauna of the region, its large biodiversity, rolling hills, green valleys, virgin forests and diverse culture and tradition can make Northeast, the paradise for tourists. Unlike other tourist destinations of the country, the North East presents conditions to attract tourists throughout the year.

Among the North Eastern states, Assam took the pioneering step to recognize tourism as a sector of economy in as back as 1958. When the British declared Kaziranga a game reserve in 1916 and wildlife sanctuary in 1950, Assam was projected as an attractive destination for tourists, particularly those who are interested in nature and wildlife observation. Apart from it, Shillong, the administrative headquarter of the Assam province during the British period witnessed an environment of outdoor recreation initiated by the colonial ruler.

Since then significant changes have taken place in the region's tourism sector because of the efforts made by the central and the respective state government in this direction.

Tourism is envisaged as one of the prospective sectors of industry in the Northeast. The economic development of NER is expected to be greatly influenced by the tourism. The tourism industry has also been able to generate large scale employment opportunities and the development of the region.

Tourist Arrival Statistics

However, tourism as an industry is of recent origin in Northeast India and despite a long history of both international and domestic tourists, tourism sector of this region is still in its early stages, witnessing 0.57% and 0.62% of the domestic and foreign tourist arrivals respectively of the country in 2018-19.

NE States	Rank of NE States	
	National Ranking Domestic Tourist Visits in 2019	National Ranking Foreign Tourist Visits in 2019
Tripura	32	18
Sikkim	26	21
Assam	22	27
Meghalaya	27	28
Arunachal Pradesh	30	31
Nagaland	36	34
Manipur	34	30
Mizoram	35	35

Recent Tourism Development Initiatives by Government of India in NER

In past 7 years, Ministry of Tourism, Government of India, has introduced several scheme and initiatives for both development of tourism infrastructure as well as promotion of tourism in the North eastern region.

Under its schemes viz., Pilgrimage Rejuvenation and Spiritual, Heritage Augmentation Drive (PRASHAD) and "Integrated Development of Theme Based Tourist Circuits in the Country, Swadesh Darshan (SD)" Ministry of Tourism provides Central Financial Assistance for infrastructure development and beautification of pilgrim centres/tourist places. Details of the projects sanctioned

by Ministry of Tourism for NER are mentioned below.

List of Circuits in NE sanctioned under Swadesh Darshan Scheme since 2014			
State	Circuit	Sanction Year	Sanctioned Cost (INR Cr)
Arunachal Pradesh	North East Circuit Bomdila - Bhalukpong- Tawang	2015	49.76
	Integrated Development of New Adventure Tourism	2015	97.14
Assam	Heritage Circuit (Tezpur-Majuli-Sibsagar)	2017	98.35
	Wildlife Circuit	2015	95.67
Manipur	Spiritual Circuit	2016	53.79
	Tourist Circuit: Imphal-Khongjom	2015	72.23
Meghalaya	North East Circuit	2016	99.13
	North East Circuit II	2019	84.96
Mizoram	Eco Circuit I	2015	94.90
	Eco Circuit I	2017	99.07
Nagaland	Tribal Circuit (Mokokchung - Tuensang - Mon)	2016	99.66
	Tribal Circuit (Peren- Kohima-Wokha)	2015	97.36
Sikkim	Sikkim North East Tourist Circuit I	2015	98.04
	Sikkim North East Tourist Circuit II	2016	95.32
Tripura	Tripura North East Circuit	2015	99.58
	Tripura North East Circuit 2	2018	64.99

For promotion of tourism in North Eastern Region, Ministry carries out special promotion in domestic and international markets highlighting region's diversity, tourism products and its rich culture. The Ministry organizes International Travel Mart (ITM) every year in one of the North Eastern States, with the objective of providing a platform to them to showcase their tourism potential to prospective international and domestic buyers and opportunity to interact with them. The last edition of ITM was held in Manipur.

To further develop tourism sector, Ministry of Tourism also provided Central Financial Assistance under the relevant Scheme guidelines for proposals submitted by State Governments/Union Territory administrations for organizing fairs/festivals/events in NER.




Energy

Energy

Background

Given its geo-strategic positioning, the North East region is an important part of India's growth story. The region has certain distinct advantages. It is strategically located with proximity to the major states in the east and adjacent countries such as Bangladesh, Bhutan, China and Myanmar. The states comprising the North East region, while unique, have similar developmental needs that merit special public and private sector interventions. While the region has been above all India average of literacy rate, it has lagged as compared to national average in per capita income and consequently has had lower per capita energy consumption. Energy and hydrocarbon resources and its development hold an important key for unlocking the potential of the region.

Hydrocarbon Vision 2030

Ministry of Petroleum and Natural Gas, Government of India has released the Hydrocarbon Vision 2030 for north-east India, outlining steps to leverage the hydrocarbon sector for development of the region

The focus is on pipeline connectivity for carrying liquefied petroleum gas (LPG), natural gas, and petroleum products, oil and lubricants (POL); building refineries and import links; and development of compressed natural gas (CNG) highways and city gas distribution network.

The production side emphases include production enhancement contracts, technology deployment and fast-track clearance, and development of service provider hubs.

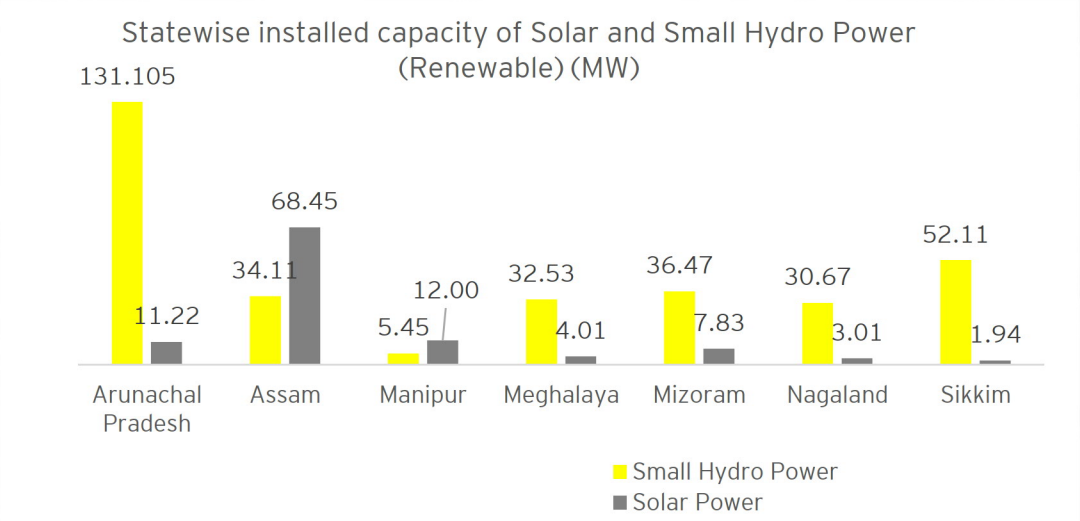
Beyond production, the focus areas include exploring hydrocarbon linkages and trade opportunities with Bangladesh, Myanmar, Nepal & Bhutan; implementation of 'Make In India' in the region; development of health & medical facilities; industrial policy & infrastructure related action points; focus on skill development; and employment generation requirement in the region. The vision statement lays out a detailed roadmap for the entire hydrocarbons value chain, covering upstream, midstream, and downstream segments.

The Vision aims at doubling Oil & Gas production by 2030, making clean fuels accessible, fast tracking projects, generating employment opportunities, and promoting cooperation with neighbouring countries.

Renewable Power

The Ministry of New and Renewable Energy, Government of India has taken a series of steps to promote development of Small Hydro Projects in NER in a planned manner and improve reliability & quality of the projects.

The Ministry is also giving special emphasis to promote use of new and efficient designs of water mills for mechanical as well as electricity generation and setting up of micro hydel projects up to 100 KW for remote village electrification. Total Installed capacity of Small Hydro Projects in NER stands at 322 MW



The estimated potential for renewable energy in the North Eastern Region from Solar, Small Hydro and Bio Energy is around 65,837 MW, a substantial part of which is suitable for grid connected applications. State-wise potential from Solar, Small Hydro and Bio Energy is 10723 MW for Arunachal Pradesh, 14182 MW for Assam, 10745 MW for Manipur, 6103 MW for Meghalaya, 9261 MW for Mizoram, 7482 MW for Nagaland, 5209 MW for Sikkim and 2132 MW for Tripura. Arunachal Pradesh has the highest potential of 2064.92 MW for Small Hydro Power projects while Assam has the highest potential of 13760 MW for Solar projects.

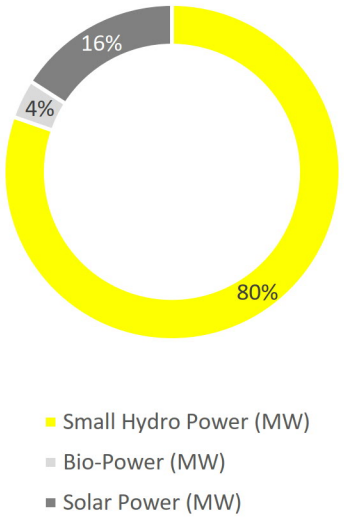
The government has planned development of small hydel projects in the North Eastern states. The major Small Hydro Power Projects which are currently under implementation in the region are – 8 projects in Arunachal Pradesh with a total capacity of 9.65MW, 2 projects in Meghalaya with a total capacity of 25.5 MW, 2 projects in Mizoram with a total capacity of 8.5MW, 1 project in Nagaland of 1MW and 1 project in Sikkim of 3MW.

The Central Government is implementing a scheme for development of Solar Parks and Ultra Mega Solar Power Projects. The main objective of Scheme is to scale up setting up of solar projects in a short span of time. Solar Parks of 20MW each have been approved in the states of Arunachal Pradesh, Manipur, Meghalaya and Mizoram.

The Government has also launched the Grid-connected Rooftop Solar (RTS) Programme. Under the Phase II of the program, Central Financial Assistance (CFA) upto 40% of the benchmark cost is provided for RTS projects up to 3 kW capacity and 20% for RTS system capacity beyond 3 kW and upto 10 kW in residential sectors. During the year 2020-21, a total of 77.8 MW capacity has been allocated to Electricity Departments or DISCOMs of various NE States.

Under Off- grid and Decentralized Solar PV Applications Scheme Phase-III, Solar Study lamps, solar streetlights and off-grid Solar Power Plants (upto 25 kW) are being installed in North Eastern Region. Under PM-KUSUM Scheme, grid-connected solar

Grid Connected Renewable Energy Installed in North East (as on 31.12.2020)

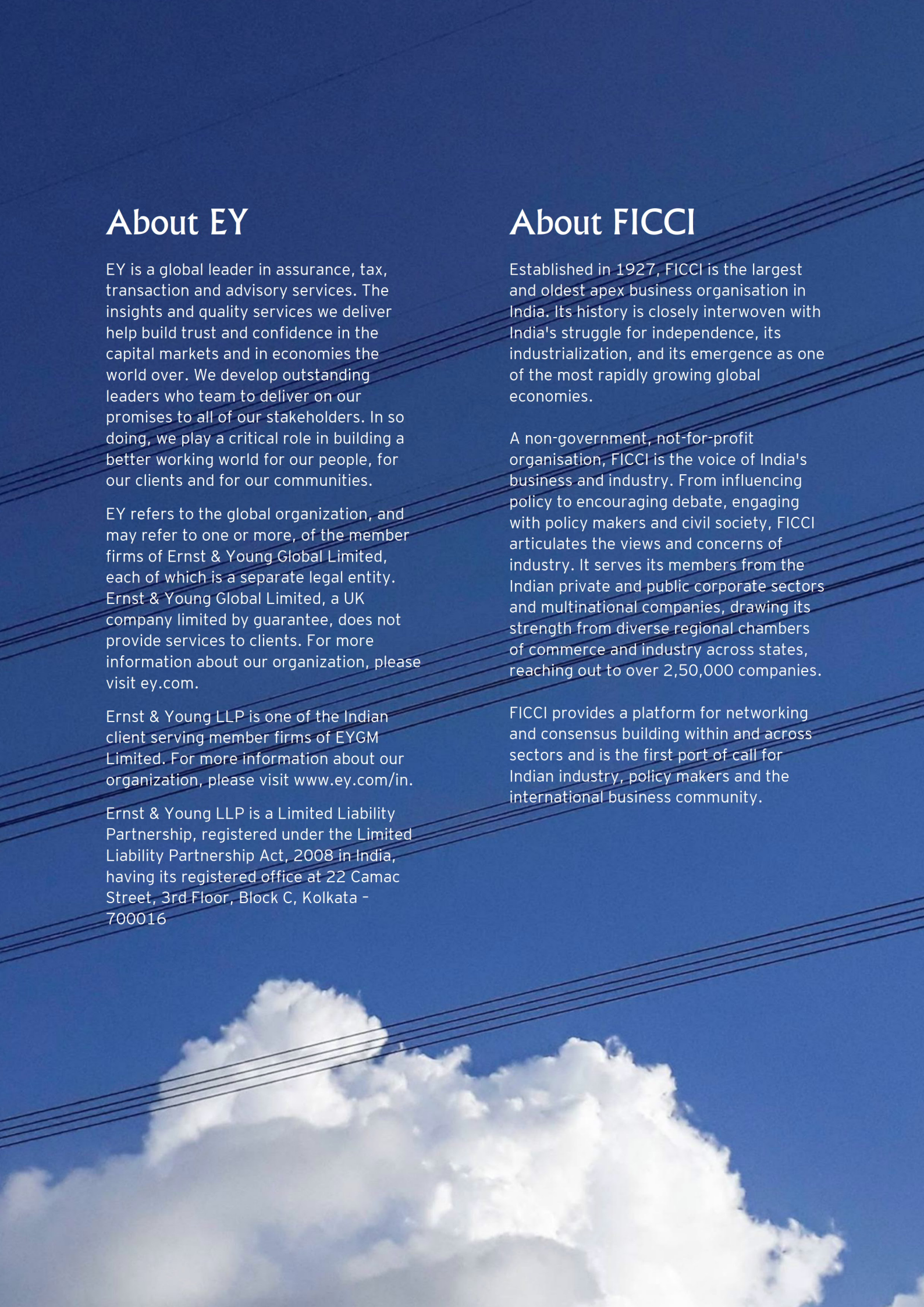


power plants upto 2 MW, standalone solar pumps and solarization of existing grid-connected agricultural pumps are being supported.

Under the National Biogas and Organic Manure Programme (NNBOMP), a target of 5,400 Biogas plants are being set up in the North Eastern region for the year 2020-21.

The Government has been initiating multipronged reforms to boost ethanol usage in the country. Apart from sugarcane, modern technology-based ethanol plants are being set up across the country to convert agricultural waste to ethanol. In 2018, Government of India notified the National Policy on Biofuels 2018 and has since been promoting use of ethanol as a blend stock with main automotive fuel like petrol under the Ethanol Blended Petrol (EBP) programme in line with that Policy. On 9th February 2019 PM Modi laid the foundation stone for India's first Bio Refinery in Assam. It will produce Bio Ethanol from Biomass of Bamboo which is abundantly available in the North-east.

Inclusive growth and rural development have been the prime focus in the government's development plans. For implementing this, the Central government since 2014 has launched numerous programs, portals and schemes. Some of the major projects which have positively influences the common masses of the North Eastern states include the SAUBHAGYA Scheme launched in 2017 and the UJALA Scheme launched in 2015. The SAUBHAGYA scheme, one of the world's biggest universal electrification initiative with collaborative and concerted efforts of Centre and States focusing on last mile connectivity and electricity connections to all the unelectrified households has benefitted the citizens of all the states in the Northeast. The energy efficient UJALA Scheme has been the world's largest LED distribution program. Total LEDs distributed as on 05 OCT 2021 for NE States are - 4,99,498 LEDs in Arunachal Pradesh, 71,83,705 LEDs in Assam, 2,99,934 LEDs in Manipur.



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