

### **Inclusive Growth in the North East**

- North Eastern Region of India, commonly known as North East, consists of eight states namely Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura.
- North East is connected to the rest of the country through a narrow corridor, generally called the chicken neck, near Siliguri region. North East is surrounded by five foreign countries. These are Bangladesh, Bhutan, China, Nepal and Myanmar.
- Only about thirty to thirty five percent of the area of North East is plane land, mostly in three valleys namely the Brahmaputra, the Barak and the Imphal Valleys. The rest of the area is hilly land. About three-fourth of the area of North East are yet to be brought under cadastral survey. For the vast un surveyed areas no proper and authenticated land records are available to show individual title over land.
- Very high rainfall, big size of the river basins (the Brahmaputra and the Barak) and narrow valleys are regularly causing sand deposition in the North East causing loss of huge areas of valuable agricultural land and reduction of the average size of land holdings in the region.
- It is stated that since the great earthquake (of intensity of 8.5 in Richer Scale) of 1950 in Assam, flood and erosion have increased in the state and till date about five to six thousand square kilometers of land have been lost due to erosion by rivers. This has made lakhs of people landless and homeless in the state.
- Rehabilitation of erosion and landside affected landless people of North East and bringing erosion within the definition of natural calamity in State Disaster Response Funds' guidelines for paying compensation, for urgently required in this region.
- The average per capita annual income of the region is about seventy per cent of the nation average. The literacy rate (74.48) of the region is at par with the national rate (74.08).

Despite these natural and manmade (migration) challenges the economic condition of the North East was almost at par with the rest of the country at the time of the country's partition. But from 1947 the following major historic events have changed North East dramatically and retarded its development in many sectors. These events are

- a) Partition of the country- When the major road, rail and river routes connecting North East to the rest of the country suddenly got snapped.
- b) The Chinese aggression of 1962 – When the Chinese army entered Arunachal Pradesh (called NEFA at that time) and returned of their own. This apparently created a feeling in the minds of some private investors, whether rightly or wrongly, that large-scale investment in North East should wait for some time.
- c) The Bangladesh Liberation was of 1971- When crores of people from Bangladesh entered some states of North East as refugees which changed the demographic situation in some state of North East bordering Bangladesh. From the end of the seventies of the last century problems of insurgency started in states like Assam, Meghalaya, Tripura and Manipur, Insurgency affected the present day Nagaland and Mizoram in the fifties and sixties of the last century. Now, of course, due to various actions taken by the Central and State governments insurgency in the region is not longer a matter of great concern.

In addition to the aforesaid natural and historical challenges some other major challenges some other major challenges of North East are the following:

- a) Low agricultural productivity, Low cropping intensity (about 1.5), Low coverage of irrigation
- b) Low application of chemical fertilizers, Low credit flow from banks, Credit deposit ratio is less than fifty percent in the North East.
- c) Inadequate availability of certified seeds and good quality planting materials, for all the farmers, Inadequate facilities for godowns, warehouses and cold storage etc.
- d) Absence of modern well equipped markets or mandis in the region, except in some few places.
- e) Very low per capita consumption of power compared to the national average.
- f) Very low use of power for irrigation, Non-availability of ores of industrially useful metals
- g) Non-availability of big reserve of good quality coal. Coal present in the North East often contains high percentage of sulphur which makes it unfit for use in industry.
- h) Inadequate number of polytechnics and higher institutions for engineering, medical and nursing studies etc.
- i) Teachers' Training in the whole of North East is another issue
- j) Absence of big industries except four oil refineries and two petrochemical complexes.

North East is comparatively backward even after seven decades of independence mostly due to the aforesaid challenges. In the absence of large scale manufacturing industrial base, the future of the region depends primarily on developing the following sectors-

- a) Agriculture including horticulture, floriculture and animal husbandry;
  - b) Tourism;
  - c) Sericulture and weaving and handloom and textiles through increasing production of yarns and improving designs of garments;
  - d) Production of organic tea, organic food, mushroom and honey;
  - e) Setting up small and medium scale industries based on huge quantities of bamboo, cane, jute, paddy husk and medicinal plants;
  - f) Developing industries for quality improvement and packaging of locally available ginger and turmeric;
  - g) Utilizing the huge amount of water available in local rivers and streams for generating hydel power and arranging irrigation facilities.
  - h) Setting up industries for making garments, pharmaceuticals, paper and sugar etc. (Due to high rainfall and moisture content in the soil, North East seems highly suitable for large scale production of sugarcane, pulses, oil seeds and costly flowers like orchids);
  - i) Setting up sufficient number of polytechnics and institution for nursing, paramedics, pharmacy, repairing transformers and items like television, air conditioners, computers, washing machines, motor vehicles and refrigerator etc.
- The number of bank branches and credit-deposit ratio also has to be increased in the region. There is also urgent need for improving tele connectivity in the region for bringing about complete financial and digital inclusion of the people of North East.

Way Forward:

- At present, the Central government has taken several initiatives for all round inclusive development of the region. The Centre's renewed emphasis on translating the Act Easy Policy into reality has brought great hopes to the people of the North East.
- It has already been reported in the media that languages of eleven ethnic groups of the North East are staring at extinction as each of these languages are spoken by less than ten thousand people. It has to be specially ensured that the process of development does not by-pass the small and marginalized ethnic groups of the region.
- The population free atmosphere of the North East and the large number of youths who are very fluent in English can make the policy makers go a big way for setting up electronic industries and BPOs in the region.
- To solve the acute unemployment problem in the region there should be special drives for increasing the intake of North East youth in railways, nationalized banks, central paramilitary forces including Assam rifles, airlines, oil refineries and other big central public sector undertakings.
- Finally, to provide incentives to all the people of North East in developing agriculture, industry and business, immediate steps are necessary for land reform including cadastral survey of non-forest un-surveyed areas, preparation of land records and giving of ownership right of land to all eligible people as per provisions of relevant land laws.

### North East: An Economic Perspective

- It is worth mentioning that Tripura and Mizoram are two of the country's most highly literate states. The Assam tea industry is the second largest commercial producer of tea, next only to China. The first ever oil well of Asia, is in Digboi of Assam.
- Since the colonial period NE region has been a witness to highly inequitable rates of economic growth. There was a mass extraction of these resources which were then exported to other parts of the country for processing. This region, however, did not get benefit from this process as the British did not set up processing and manufacturing units here, nor did they pay any attention towards the development of transport and communication facilities in the region.
- With the partition of India, for a long period of time, trade with Bangladesh (East Pakistan) came to a stop which seriously damaged the economic and growth potential of the region.

The reasons behind the tardy progress of NER are attributable to the following factors.

- **Geographical Factors:** The hills account for about 70 per cent area of NER and accommodate about 30 per cent of the population and the plains consisting the remaining 30 per cent of area hold about 70 percent of its population. The region's accessibility has always remained weak due to geographical reasons and natural disasters like floods and landslides creates considerable strain on the economy of NER states.

- **Infrastructural Factors:** NER has about 6 per cent of the national roads and about 13 percent of the national highways. However, their quality is not good due to poor maintenance. The prominent indicators of shortfalls in infrastructure in this region are: increasingly congested roads, power failures, shortage of drinking water etc.
- **Constraints on Industrial Growth:** At the time of independence, there was a small but significant industrial sector in Assam in the form of plantation and manufacturing of tea, mining of coal and oil, oil refinery, manufacturing of plywood and other forest resource-based products. Post Independence, due to the partition of India, the industrial section in Assam received a serious set-back as its trade routes were cut-off from the rest of India. This, in turn, hindered economic integration with other parts and also reduced the attractiveness of the region as a destination of investment.
- **Agriculture:** The pace of agricultural growth in the eastern and North-Eastern regions has been slower than the rest of the country. The Green Revolution was largely limited to the North-Western part of the country and has not benefited the North-Eastern region. The agricultural productivity is the lowest, irrigation facilities are almost non-existent in some areas and consumption of fertilisers is extremely low. One of the most common agricultural practices in the North-East is shifting or “Jhum” cultivation. Approximately 1.7 million hectares of land is under it which leads to a large scale deforestation resulting in soil erosion and loss of soil fertility.
- **Natural Resources Base:** In spite of having a reservoir of natural resources-soil, water, vegetation and hydrocarbons, the NER is underdeveloped because the resources are being indiscriminately exploited and mismanaged. The bulk of natural resources degradation is being caused by coal mining, fertiliser, paper cement industry etc. and militant activities.
- **Transport and Communication:** Inadequate transport facility has been a serious drawback that crippled the development of the region for a long time. The region also faced serious problems in transporting essential commodities like cement, steel, foods grains, salt, etc.
- Another gigantic challenge of NER today is **globalization**. With India’s ‘Act East’ policy which heralded the tectonic shift of India’s west oriented stance towards east-oriented posture, it is extremely difficult for the NER to successfully compete with the MNCs and foreign entrepreneurs in business and trade.
- **Education system**, having miserably failed here, the well-to-do families send their children to some mainland cities for further education which gives a big economic blow to the local society.
- Another culprit here is, Substance Addiction. It is generally accepted that, more than 30 percent of its youth are narcotic drug abusers. In league with this, the pandemic of HIV/AIDS, spreading fast in Manipur, Nagaland and Mizoram, is a matter of grave concern.

Steps Taken:

- With a view to give an undivided attention to the development of the region, in 1971, the Government of India set up the North Eastern Council. All the 8 states are its members. With head quarters in Shillong, it functions under the Ministry of Development of North Eastern Region (MDoNER).

- The council, initially set up as an advisory body, now has been sanctioned as a regional planning body since 2002.
- The North Eastern Development Finance Corporation Ltd. (NEDFCL) is a Public Limited Company providing assistance to micro, small, medium and large enterprises within the NER. Other organisations under MDONER include North Eastern Regional Agricultural Marketing Corporation Limited (MERAMAC), Sikkim Mining Corporation Limited (SMC) and North Eastern Handlooms and Handicrafts Development Corporation (NEHDC).
- The Ministry of Development of North Eastern Region established in September 2001, which functions as the nodal Department of the Central Government to deal with matters related to the socio-economic development of the eight States of NE.
- In December 2017, the centre has approved North East Special Infrastructure Development Scheme which will fill the gaps in creation of infrastructures in to sectors- One is physical infrastructure relating to water supply, power, connectivity and especially projects promoting tourism.
- The other is social sector projects of education and health. The remarkable feature of this scheme is that this is a 100 per cent centrally funded scheme as against the NLCPR, where 10 per cent contribution had to come from the State Governments.
- In addition, Tuirial Hydro-power projects is the first major Central Sector projects to be successfully commissioned in Mizoram. It will produce 251 Million Units of electrical energy every year and boost the socio-economic development of the State. With this, Mizoram becomes the third power-surplus State in NER after Sikkim, and Tripura.
- Keeping in view the fact that Bamboo is a source of livelihood for lakhs of people of NE region, Government has recently relaxed its restrictive regulatory regime. Now there will be no requirement of any permit for producing, transporting and selling Bamboo products. This will benefit lakhs of farmers and will add to the efforts to doubling farmers income by 2022.
- In the latest budget (2018-19), the Government has allocated funds for revival of 50 airports and improving aviation infrastructure. These include strategic airports like Pakyong in Sikkim, Tezu in Arunachal Pradesh etc., where civilian air connectivity will be provided for the first time.

**Way Forward:**

A six-fold strategy for the comprehensive development of the region has been proposed.

- Empowering people by maximizing self-governance and participatory development through grass-root planning to promote inclusive development.
- Creation of development opportunities for the rural areas through enhancing productivity in agriculture and allied activities such as animal husbandry, horticulture, floriculture, fisheries and generation of livelihood options through rural non-farm employment.
- To develop sectors in the region having a comparative advantage such as agro-processing, hydro-power generation.
- Enhancing the skills and competencies of the people and building the capacities for institutions with the Government and outside.
- Creating a hospitable investment climate to encourage investment by the private sector particularly for infrastructure.

- Harnessing the resources of the Government and the private sector to realize the objectives of the Vision.

The latest event of Global Investors' Summit in Gowahati held on February 3, 2018, itself evinces the sincere approach of the Central Government towards bringing overall prosperity in the NER.

### Governance Challenges in the North East

- 'The North-East Region (NER) is one of the backward region of India characterized by low per-capita income, lack of private investment, low capital formation, inadequate infrastructure facilities, geographical isolation, and inadequate exploitation of natural resources like minerals, hydro power potential, and forests. Its own tax collection and internal resources are quite meagre rendering the region totally dependent on central devolution.
- Except for Sikkim and Tripura and to some extent Mizoram, other states have not done well in improving their economic growth.
- Since Assam accounts for almost 70 per cent of NER population, and has been the laggard state on almost all development indicators, it has pulled down the overall performance of the region.
- These are the key factors impinging on development and social indicators that need to be reckoned with:
- **Fund Utilisation-** All non-exempt Union Ministries are required to mandatorily earmark 10 per cent of their Gross Budgetary Allocation (GBA) annually for the North Eastern Region. The unspent balances are transferred as Non-Lapsable Central Pool of Resources (NLCPR). While some projects are implemented on time, the other projects get delayed because funds are not transferred to them on time, the utilization capacity of these states is poor, and the works are hampered due to the short working season.
- Many external projects funded by ADB and the World Bank in NER are languishing for want of completion of various formalities, with the result that overall expenditure has not picked up in those projects.
- The DoNER Ministry has admitted that the delays are mainly due to time lag between release of funds and sanction of the projects, non-submission of utilisation certificates in time by the State Governments, problems related to land acquisition and forest clearance, prevailing law and order situation and limited working season due to high rainfall.
- **Improve M&E systems:** At present, officials at all levels spend a great deal of time in collecting and submitting information, but these are not used for taking corrective and remedial action or for analysis, but only for forwarding to a higher level. The data collected are not normally subjected to any regular checks.
- Process reforms are needed so that field data is authentic, reliable and tallies with the evaluated data. It appears that state governments actively encourage reporting of inflated

figures from the districts, which renders monitoring ineffective and accountability meaningless.

- **Promote e-Government-** A World Bank report on Assam observed in 2014 that there was absence of a comprehensive ICT Plan, and there was no common framework for service delivery, including a strong and supporting ICT infrastructure.
- **Redundant Bureaucracy** – There are two specific constraints in the NER. One, the non-plan expenditure of NE states is quite high due to huge presence of group C and D staff, such as clerks, peons, etc who are not needed now. Because of this NE states end up with having insufficient funds for plan expenditure, despite liberal central devolution.
- A combination of misaligned organizational structures marked by overlap and duplication of functions across and within departments, poorly structured system and processes, poor human resources management and inadequate incentives has weakened administrative capacity to efficiently carry out core government functions.
- The other problems peculiar to the NER is the culture of 'bandhs' (State closure) widely prevalent in Assam, Manipur and Nagaland that goes against the motion of individual rights.
- It is no longer the availability of financial resources but the capacity of institutions and individuals in the North East to make effective use of available resources that is proving the critical constraints to growth.
- Institutions-building calls for strengthening State departments and agencies, as well as promoting fruitful partnerships between civil society and State Governments. Strengthening of institutions of local self-government is particularly important.
- Effective devolution, reinforced by social audit, will considerably strengthen monitoring and vigilance at the grassroots level and, hopefully, gradually impacts higher echelons of governance.

### **Providing World Class Logistics**

- The Indian Railways (IR), a 162-year-old national asset has the distinction of being the second largest railway system in Asia and the fourth largest railway system in the world, operating more than 19,000 trains and 7,112 stations.
- Railway Ministry in trying to restructure the Railways to make it more efficient-from upgrading the quality of coaches, adding Wi-Fi, running special trans like super luxury Tejas and modern Deen Dayalu unreserved coaches to reducing costs, speeding up project execution, and dreaming up new ways of raising finances. But Indian Railways still faces a lot of challenges.

#### **Challenges**

- **Slow Pace of Expansion and Modernization** - Indian Railways (IR) has added only 10,000 route-kms since Independence while China has added more than 50,000 route kms in the same period. Owing to the slow pace of expansion, the current infrastructure has reached

a saturation point and today, almost 40 percent of the 1219 section operated by the IR are running at more than 100 percent line capacity utilization.

- **Railway Accidents**
- **Travel without Tickets** - Indian railways have to bear extra loss of about Rs. 5 crore every year on account of travelling without tickets.
- **Fiscal Problems** - The working of Indian Railways is caught up between making it a self sufficient organization and serving as a transport system for the poor. The passenger fares usually remain static for year, burdening the Union Budget. In order to keep finances in check, freight charges have been raised in the past. But the discrepancy between freight charges and passenger fares seem to distort the Railways' performance. The recent decision of surge pricing of tickets in premium trains is a move in a right direction.
- **Operation Efficiency** - Indian railways has a huge employees base of 1.3 million, which includes powerful workers' unions. It has become a centralised organization with hierarchical decision-making. As a result, even simple decisions take years to resolve. Operating ratios are likely to get worse as costs pile up, including money for the 7<sup>th</sup> Pay Commission recommendations.
- **Finances and Accounting** - Indian Railways spends heavily on revenue expenditure-there is little left for capital expenditure.
- **Old Track and Poor State of Rolling Stock** - The tracks are old and outdated. These old tracks cause many serious railway accidents.
- **Lack of Modern Management**
- **Outmoded Technology**
- **Problem of Replacement**
- **Problem of Laying Double Lines** - Most of the railway lines are single lines which create great inconvenience to the railway organization and passengers.
- **Inadequate Investment** - The railway transport has lagged behind the requirement due to inadequate investment. The shortcoming has been highlighted by different committees, like the National Transport Policy Committee, the Rail Tariff Enquiry Committee and the Railway Reforms Committee.
- **Competition with Road Transport** - The lack of coordination between railways and road transport has lowered the earning capacity of the railways.
- **Economic Survey: Recommendations**
- **Tariff Rationalisation** - In a bid to make rail transportation attractive and arrest the declining trend of rail share, various initiatives were taken in FY2017 which includes tariff rationalization, new policy guideline for station to station rates, withdrawal of dual freight policy for export of iron ore and rationalization of coal tariff.
- **Station Redevelopment** - According to the Economic Survey 2018, the project of station redevelopment is the "biggest non-fare revenue generating" one.
- **Safety: World Bank Report** - As a measure to avert accidents, the trains are to be equipped with 'ditch lights' and painted bright yellow that will enable more visibility even during twilight hours; The rail employees should be garbed in "high-visibility' clothes that can be worn round the year.

- Every train must be equipped with fire extinguishers and the staff must be well guided on various fire prevention measures.
- The level crossings and paths are to be painted with a crosshatched pattern that can alert and highlight the dangers for people in the area.
- The investigators who have been assigned to investigate root-cause of accidents are to be trained for better analysis; The authorities have been that a maintenance block of four hours is provided weekly on all main lines as well as review safety performance in terminal operations with the intent of recognizing prevailing risks.
- An independent rail safety regulator is to be created by the railways to strengthen the powers of commissioner of railway safety and form a safety management system under the chairman, Railway Board; To address derailments, fires or any other possible mishaps, an emergency response plan is to be constituted.
- **Anil Kadkodkar Committee Report** - The Committee had made 106 recommendations covering various aspects viz. General Safety Matters, Organizational Structure, Empowerment at working Level, Safety Related Works and Issues Filling up of vacancies in critical safety categories and Manpower Planning Issues, Plugging the shortage of critical Safety Spares, External Interferences – Removal of Encroachment and Sabotage, Upgradation of Signaling, Telecommunication and Train Protections system, Upgradation of Rolling Stock, Track, Bridges, elimination of level crossings, Human Resources Development with emphasis on Education and Training Institutes on Indian Railways, Ecosystem and safety Architectures on Indian Railways.

#### **Future Vision –**

- Government support in liquidity crunch; Increased compliance with rail safety producers like LHB coaches, ultrasound based rail testing etc are some of the schemes that could be adopted. Other successful models can be studied like the Shinkansen of Japan. Merging of rail and union budget is a welcome step.
- Reforming the bureaucratic structure into a more open and inclusive structure will lead to quick results to different endeavors by the Indian railways; railway should put a system of online reporting of deviation, also there should be periodic analysis of safety investment made; summary of the findings of major accidents and follows up action taken should be put in public domain.
- Other recommendations by various committee like Bibek Devroy, Anil Kakokar, Sam Pitroda on Removal of Encroachment and Sabotage, Upgradation of Signaling, Telecommunication and train Protection System, Upgradation of Rolling Stock, Track, Bridges, Elimination of Level Crossings should be considered and acted on immediately.

#### **Bamboo Mission: A Toll for Economic Prosperity**

- Agriculture is certainly the mainstay of the people in the north east region - be it in hills or in valleys, The major positive feature of cultivation in the region is that the traditional practices are well adapted to the environmental conditions and the traditional knowledge of

indigenous communities growing rice, cereals and other agricultural crops. – These have enabled the people in these states to maintain the requisite ecological balance.

- Various ethnic communities, in general, follow two major types of agricultural practices such as Shifting cultivation and burn agriculture, and secondly the Terrace cultivation. The Terrace cropping is practiced in valleys and foothills while the Shifting methodology is practiced in and around forests.

### **Innovation is the key**

- Tribal farmers in the north east practice **Bench Terrace Irrigation practice**. Here, stones and gunny bags are used in an ingenious manner in the maintenance of terraces and to stop soil erosion problems. The hill streams are tapped and the water is channelled to accommodate a series of terraces. In this system, water flows continuously from the upper to lower terraces. This method of irrigation has been found much result-oriented in a non-fertile land – especially for raising rice crops.
- One key positive aspect of this practice is that the excess runoff from the upper portion of the slope is actually 'nutrient rich'. Predominantly used for rice cultivation, in the bench terrace, agriculture practice crops like maize, bean and potato are planted on upper slopes. Hence, for obvious reasons, the crop requiring more water such as rice and jute are grown on lower slopes.
- The 'Tree-based farming practice' too has been encouraged among the indigenous people-where trees are "integrated extensively" in the crop production practice. When it comes to sustainable practice and economic reforms, for ages, the northeastern people have been depending on Bamboos.

### **National Bamboo Mission Strategy Focus**

- Efforts are being made for taking updated technology closer to bamboo growers. Demonstrations are made of planting or different species of bamboo by using different fertilizers and chemicals.
- Encouraging setting up of Bamboo Technology Parks.
- Help create outlets for both wholesale and retail markets.
- In rural pockets, bamboo bazaar would be set up.
- Provide guidance for Post harvest storage and treatment facilities.
- A few innovative interventions-like Agarbatti sticks for Jail inmates: This project has been initiated at Central Jail under Aizawl District in Mizoram.
- Strategies being evolved to build sustainable bamboo based livelihoods based on a cluster based approach.
- Develop an institutional structure owned and managed by grassroots producers and their federations.
- To make northeast the hub of bamboo based sustainable micro, small and medium industries in the country steps are taken to enable structured growth in the sector by strong institution building and market linkage.
- Sustained long term and short term measures to build the bamboo sector as a major livelihood provide employment opportunities.

**Green Gold**

- The Union Budget of 2018-19 rightly calls Bamboo the 'Green Gold'
- 'Bamboo' is essentially a type of grass, but its classification as a tree for about a century had prevented the northeast natives to make optimum use of the same commercially. North East India, in effect, grows about 68 percent of India's bamboo.
- India has 30 percent of the world's bamboo resources but contributes only four percent share of the global market. The issue is low productivity and here comes the significance of the Bamboo Mission launched by the Government of India. It is a centrally sponsored scheme with 100 per cent funding from the Government of India and in the coordination with states, it seeks to achieve certain objectives like promoting bamboo and bamboo-based handicrafts and generate employment opportunities for skilled and unskilled people- especially unemployed youth.
- Besides industries benefits, the communities have been using bamboo shoots as nutritious food. This also has medicinal values. Among tribal bamboo growers in states like Mizoram, Tripura and Nagaland- it is also well known that the bamboo also works for land protection; soil quality improvements including improved water holding capacity, higher water capture and recharge, benefiting agriculture and food security.
- In November 2017, the government removed bamboo from the list of 'Trees' and thereby relaxed rules on bamboo felling, transit and processing.
- In budget 2018-19, Union Finance Minister allocated Rs. 1290 crore to "restructure" the National Bamboo Mission with a 'Holistic approach".
- Northeastern region's farm activities are also known for organic cultivation. On January 18, 2016, the Prime Minister declared Sikkim as the Organic State of India. In the subsequent period, a Central Sector Scheme namely, Mission Organic Value Chain Development for North Eastern Region was launched for promoting organic farming in the region.
- The Government of India also laid attention on increasing the area under organic farming in the country under a programme called the Paramparagat Krishi Vikas Yojana.

**Giving Momentum to Skill Development**

- The 'demographic dividend' of a nation is defined as the growth potential of the nation that can occur due to the rapid increase in the percentage of working population (15 – 64 years), in comparison to the total population of the nation.
- Economists across the world have termed this as India's demographic dividend and a key factor in propelling India into a five trillion dollar economy within the next decade. It is here that the crucial concept of Skill Development comes to play.
- Today, a full-fledged Ministry of Skill Development and Entrepreneurship controls the pace and tenor of skill development in the country while similar nodal structures have been

replicated in the state levels as well in the form of State Skill Development Mission (SSDMs).

- In the past few years, North East has found much prominence in the governance paradigm of the country. The rebranding of North East as 'New Engine in New India' is a testimony to the prominence that North East India holds today. The trajectory of Skill Development in the region does not betray this new found focus in the region.
- In Arunachal Pradesh, recently the government coordinate with the North Eastern Development Finance Corporation Ltd (NEDFi) in preparing a study which would prepare the ground work for strengthening the foundation of skill development in the state.
- In Assam, skill development is imparted through EGM (Employment Generation Mission) as well as Assam State Livelihood Mission and Nation Urban Livelihood Mission (NULM).
- Manipur has set up a number of committees that are engaging with varied stakeholders to carry the idea of skill development forward.
- The Meghalaya State Skill Development Society has trained 7700 youths in skill development, in its first phase and has ensured their placement too in different industries and sectors.
- Both Mizoram and Nagaland have aligned their skill development schemes and goals within the gambit of broader skill development goals of the country. Tripura has set up a separate State. Skill Development Mission in order to give impetus to skill development in the state. Sikkim has inaugurated livelihood schools where skills are imparted to youth in different sectors including training them in arts and crafts.
- The eduwork Japan Centre of Excellence opened its first Skill Development Centre in Sikkim way forward.

#### Way Forward:

- One of the first steps that can be taken would be a comprehensive skill mapping of each state. Skill mapping would encompass the harnessing of traditional knowledge of a particular area and develop it into a skill which can be redesigned as a source of employment. Tripura can harness its immense potential of becoming a rubber giant. The rubber manufactured in Tripura can also be exported to neighbouring countries. Nagaland can focus on tourism centred on the Hornbill Festival.
- A second measures that can give further impetus to making skill development more meaningful is its integration with the international market by identifying new areas where traditional domain knowledge of these areas can be harnessed to create a market for certain products in neighbouring countries. This model has been replicated by Pran Foods in Bangladesh. The food processing company from Bangladesh has created in niche market for itself in North East by introducing products like Litchi Juice.
- The third measure that can be taken in shifting to outcomes-based approach by adopting the National Skill Qualifications Framework (NSQF) standards.
- There is also a need to catch aspirational youth at a young age to prevent a high dropout rate. Vocationalisation of school education is a welcome step in this regard.
- It must be remembered that, while the task of skill development is huge, the infrastructure available is finite.

- The revised National Policy on Skill Development gives guidance to the question of leveraging the existing infrastructure to its maximum use. The presence of private training providers in the region must also increase, perhaps new ways could be found to linking CSR for companies present in the region and acting as a training provider for that particular sector.

### **Gender Mainstreaming in the North East**

- In many respects, gender indicators in North Eastern states compare very favorably with the average Indian situation. This, however, does not convey the whole situation.
- Women in the North East have taken on themselves the mantle to take care and feed their children and make their household done heart burning. This they have not done out of any choice but out of certain historical and traditional reasons. Their role in decision making is completely absent, as their presence in the traditional institutions is almost non-existent. Exclusion from political and Social decision-making makes women have an inferior position in society in comparison to men.
- Women play a major role in agriculture and livestock development but are excluded from the traditional institutions, which are mostly regulatory bodies and look after land management, enforcement of traditional and customary laws, settlement of disputes, management of forest and collection of revenues etc.

### **Nercormps Initiatives**

- North Eastern Region Community Resources Management Project for Upland Areas” (NERCORMP) came into being in 1999 as a joint initiative of the North Eastern Council, Ministry of DoNER, Government of India and International Fund for Agricultural Development (IFAD) with an overall objective ‘To improve the livelihoods of vulnerable groups in a sustainable manner through improved management of their resources base in a way that contributes to preservation and restoration of the environment.
- The approach of the Projects is to build up women’s friendly activities through women’s groups in order to increase their confidence and managerial capabilities and to improve their voice in the community gathering.

### **Reaping Benefits of Artificial Intelligence**

- Artificial Intelligence (AI) is defined as the ability of a machine to perform cognitive functions we associate with the human mind, such as perceiving, reasoning, learning, interacting with the environment, problem solving, and even exercising creativity.

**How can AI help India?**

- India has less than one (0.725) physician per thousand persons and the number is even worse for the number of specialists per thousands persons.
- Hence, a large number of rural healthcare centres face shortage of doctors and function with only nurses on the ground – the condition can be even worse in remote and tribal areas.
- Here big data based artificial intelligence can help in bridging the skills gap and empowering the medical staff on the ground.
- Judiciary can use AI based systems to reduce pendency in court cases, education can develop learning modules which are in sync with the pace of the student's learning or in agriculture AI based systems based analysis of satellite imagery can provide early estimates of crop yields.
- In the manufacturing sector, AI can lead to automation moving people from low productivity jobs to high productivity roles.
- Lack of appropriate skilling along with new technology adoption often leads to the failure of such programs and the new technology. This, in, turn is made responsible for the job loss due to this re-skilling gap.

**AI Ecosystem in India**

- Initiatives such as Digital India, Start Up India, Make in India would help India establish itself as a knowledge and digital society. NITI Aayog will initiate a national program to direct our efforts in the area of artificial intelligence. Including research and development of its applications.”
- Today, AI is viewed as a strategic technology that would lead to accelerated economic growth and development of nations.
- Currently, India is not considered as a leader in the AI space, in-spite of having leadership position in IT services` and services around AI/Big Data.
- One major stumbling block towards accelerated AI adoption is the lack of long sustainable collaboration between these players.
- The key pillars for developing a vibrant ecosystem in India are Universities. Start-ups companies, Policy Makers and multi-stakeholder partnerships – India has strong potential across many of the pillars. Universities and research labs in India have been involved in cutting edge AI research for the last 40 years. India is home to some of the largest IT companies of the world along with all the global MNCs having their development or research centres already based in India. India has a very vibrant start-up ecosystem with a large number of venture capital funds based in India and the government is very supportive of start-up initiatives in the country. The policy making body NITI Aayog, has already embarked upon the mission of accelerating the innovation ecosystem in India. Through the flagship Atal Innovation Mission (AIM) program it promotes tinkering labs in schools and incubation centres to help start-ups.
- The AI ecosystem in India can see tremendous growth through partnership and collaborations.

- Advancement of research in AI can be promoted through partnership between the academia/ researchers with the industry and start-ups using the research findings. Similarly accelerated adoption of AI can happen by partnership between industry and academia with the sectors – healthcare, agriculture, education etc. technologies as services, applications or embedded hardware can be promoted by connecting the industry players with the venture capitals and trade bodies.

### **Moving Towards Integration**

- “How can be mainstream the North East?” is a question often asked about the North East Region of India.

#### **A Perspective on Mainstreaming:**

- The North Eastern region which has a better literacy rate than many other regions of the country can be said to be more mainstreamed in that aspect whereas it may compare poorly in terms of infrastructure facilities like road and rail connectivity, power, industrial development, etc. The people of North East India are also perceived to be relatively alienated from the rest of the country in the socio-political spectrum.

#### **Migration Scenario**

- The last three decades have seen a remarkable growth of migration from the North East to different parts of the country mostly in search of higher education and job opportunities. This has enabled intermingling and interaction in a process that has thrown up a host of issues and puts to test long held notions on both sides.

#### **Factors of Migration**

- The Shukla Committee concisely pointed out that the region is confronted with four deficits, ‘a basic needs deficit, an infrastructural deficit, a resource deficit, and, most important, a two-way deficit of understanding with the rest of the country which compounds the others’.
- An intricate interplay of the first three deficits creates an atmosphere in the socio economic fabric of the region to provide a big push for migration. The main push factor has been the lack of quality educational infrastructure which forces parents to look for better educational avenues. Besides, the spectre of insurgency and socio political unrests that disturbed peace in the region vitiated the atmosphere.

#### **Life of a Migrant**

- Most students hail from small villages and towns with strong community bonding. Suddenly, he is left to fend for himself in a totally different environment and way of life. While trying to

cope by seeking out people from similar backgrounds, they often end up ghettoizing themselves. Their different physical appearance and social mores also make them stand out and become vulnerable targets for social profiling and discrimination, Increasingly, case of abuse, molestation, rape, racial attack, and killing started surfacing in some cities like Delhi and Bengaluru. Reports of human trafficking from the North East also become a pressing concern. There was a risk for the 'deficit of understanding' to be widening over time rather than being bridged.

### **Safeguarding the Vulnerable Migrant**

- The murder of Nido Tania, a 19 year old student from Arunachal Pradesh in Delhi in September 2014 proved to be watershed moment.
- Government of India set up the **Bezbaruah Committee** to look into concern of the persons hailing from the North-Eastern states who are living in different part of the country, especially the Metropolitan areas, and to suggest suitable remedial measures which could be taken by the Government.
- Welfare Committee formed in many cities across the country on the basis of the committee's recommendations are today functioning as a channel of communication as they jointly work with local authorities in dealing with issues concerning migrants from the North East.
- Such safeguard mechanisms are, by themselves, unlikely to completely stop crimes against migrants but it will act as a deterrent to potential lawbreakers.
- Secondly, it also generates awareness about the underlying issues and the necessity for concerted efforts to narrow the two-way deficit of understanding. Increasing intermingling and interaction between people groups can aid in bridging gaps if it is allowed to happen within a framework with adequate safeguards.
- Involvement of social organisation and change imperative, with the government machinery and law enforcement agencies acting as facilitators.

### **The Way Forward**

- Setting up of Department of North Eastern Region and the North Eastern Council by Government of India has been instrumental in forging a concerted effort to look into developmental issues of the North East. The current focus of the government to upgrade infrastructure in the region through various projects for improvement of roads, rail, and inland waterways and air connectivity and communication network is a welcome change.
- Besides, Government is implementing various schemes for development, upgradation and promotion of micro, small and medium enterprises in the region. The Look East policy of the government has a huge potential to transform the development landscape by providing the growth engine and ensure that the states fully partake as growth centres and not merely participate as a conduit for flow of trade from other parts of the country.