Strategic Roadmap for Bringing Investors from South East Asia (Cambodia, Laos, Myanmar, Vietnam & Thailand) to North East India: A Seed Project Approach

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EXECUTIVE SUMMARY

TITLE OF THE STUDY

STUDY ON BRINGING INVESTORS FROM SOUTH EAST ASIA TO NORTH EAST INDIA: SEED PROJECT APPROACH

India's North East Region (NER) is endowed with huge untapped potential of natural resources and is acknowledged as the Eastern Gateway for the country's 'Act East Policy'. However, despite being endowed with vast natural resources, widespread physical contiguity with the neighboring countries, diverse communities, rich human resources and once a major growth pole during pre - independence India, the NER has not experienced a relative robust growth as compared to many other regions.

The NER has been protected and promoted by some of the most effective, unique, and progressive constitutional, financial, institutional and governance provisions including various provisions under Article 370 and also, the Sixth Schedule of the Constitution. The special category states status from 1969 to 2014, setting up of a regional planning and development body viz., the North Eastern Council (NEC, 1971), an exclusively designed Ministry of Development of North East Region (MDoNER, 2004), and a range of regional and sector specific institutions like North Eastern Development Finance Corporation Ltd (NEDFi), North Eastern Regional Agricultural Marketing Corporation (NERAMAC), North Eastern Electric Power Corporation (NEEPCO) and North Eastern Handicraft & Handloom Development Corporation (NEHHDC) have triggered far reaching and broader space in the political economy of development in this region. The NER remained a fulcrum of the Special Category States (SCS) since 1969 and received consistently and hugely staggering 90:10 funding from the central government. Even after the provisions of SCS were discontinued by the 14th Finance Commission in 2014, the NER continues to enjoy the 90:10 funding pattern in Central Sector (CS) / Centrally Sponsored Schemes (CSS) schemes and 90 percent grant component in Externally Aided projects (EAPs) under 'special dispensations' categories. Besides, the NER draws huge chunk of funds from the Non-Lapsable Central Pool of Resources (NLCPR) under which 54 Central Ministries/Departments (54 at present) is mandated to spend 10 % of the annual Gross Budgetary Support (GBS).

The need for this study stems from the developmental needs of North-East Region, which is a crucial pre-requisite for the successful implementation of "Act East" Policy, a core foreign policy instrument of Government of India thereby finally transforming NER as a new 'growth pole' in the eastern periphery of India.

The primary objective of the study is to see collaborative projects actually happening at the ground level between local entrepreneurs and enterprises in the neighboring South East Asian countries particularly from the members of the Mekong Ganga Cooperation (MGC) initiative involving Cambodia, Laos, Myanmar, Vietnam and Thailand (CLMV-T). The idea is to attract investment and other forms of ventures from various investors /enterprises/ entrepreneurial units from the MGC countries to NER of India. However, this study would also substantively cater to the requirements of other ASEAN (including Malaysia, Singapore, Indonesia, and Philippines) and East Asian countries (including Japan and Korea) in their investment plans in the NER.

A critical aim of "Act East" policy (initiated in 1992) i.e., to stimulate economic growth in the NER, would not be attained unless certain issues hampering economic development in this region (infrastructure connectivity, identification of growth drivers based on local resource utilization, local capacity enhancement, institution building, internal security issues, demonstrative projects, entrepreneurial actions and investment and trade etc.) are addressed effectively.

North Eastern Development Finance Corporation Ltd. (NEDFi) opines that there is a need to

not just understand the opportunities lying in NER but also create some durable linkages with CLMV – T in South East Asia. These linkages can be of any variety, form, and tenor - economic, business, services, market, knowledge, technology transfer, capacity enhancement, management support, technical know-how, institutional etc.

1. CONTEXT OF THE SEED PROJECT STUDY

Some perceptible and far-reaching changes have been witnessed in the NER in the last decade or so in crucial areas like building of modern institutions, connectivity within the region and their inter-connections with rest of India and neighbouring countries, borderland infrastructures, and gradual emergence and participation of newer set of national and multilateral actors. The State governments are demonstrating remarkable degree of development reorientation as marked by steady progress in non-traditional sectors, substantive changes in industrial and investment policies and openness in engaging cross border development/investment partners.

On the other hand, there has been a remarkable shift in the very thought process of the Central Government in recognising the NER as a fast-emerging potential development pole and the role of the Eastern and South East Asian neighboring countries to inject versatility and robustness to this growth process. Along with the 'thinking big', 'liberal financing' and 'constant monitoring' and steady negotiation towards durable conflict resolutions, the two abiding principles in the foreign policy and national governance process viz., 'neighbourhood first' and 'cooperative-competitive federalism' have started making visible dents in inspiring the NER states and its communities to pro-act in diversifying livelihood avenues and make collective actions on larger regional issues like sub-regional cooperation, climate change and disasters (Government of India, 2021).

Borders and borderlands are being redefined as bastions of opportunities rather than the orthodox geometric lines focusing on national security threats. More importantly a new generation of educated, trained and resilient youths and promisingly vibrant entrepreneurs are now reasserting the idea of repositioning the NER in the development map of India and as geography of peace that coexist with harmonious communities and nature based comparative advantages. The civil society and private sectors are also in the fresh modes of bringing a new national narrative about the North East region as a theatre of positive-inclusive-tranquil-diverse demography rather than a protracted and superficial security and conflict centric discourse. In a way as mentioned in the '*North East Region Vision – 2035',* the process of 'reverse integration' has set in with North East region actually leading from the front (NITI Ayog, 2021).

In the last 29 year of enactment of *Look East Policy,* which has been rechristened as *Act East Policy* in 2015, a range of initiatives have been put into action. It ranges from connectivity projects (like Trilateral Highway between India, Myanmar and Thailand) with the neighbouring countries Bangladesh, Bhutan, Myanmar, Nepal, Thailand to letting the multilateral development agencies like the World Bank, Asian Development Bank, UN and others participate in the projects in the otherwise "no-go" north-eastern frontiers. It has also attracted Japanese participation in the infrastructure development projects.

Borders are relatively much softer today with sub-regional projects like Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC with Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka and Thailand), Mekong-Ganga Cooperation (MCG- with Cambodia, India, Laos, Myanmar, Thailand and Vietnam as members), Bangladesh, China, India and Myanmar (BCIM), Bangladesh Bhutan, India and Nepal (BBIN) and South Asia Subregional Economic Cooperation (SASEC) Program of facilitated by Asian development Bank. In all these sub-regionalism initiatives the NER of India has been the core and the center.

The last two Plan of Action (2010-2015 and 2016-2020) implemented under the ASEAN-India partnership for peace, progress and shared prosperity and the same for 2021-25 do very emphatically mention about promoting and facilitating "cross-border investment flows into ASEAN Member States and India through information sharing and exchange of best practices on relevant investment-related topics".

There have been several government level agreements, plethora of conferences, popular national initiatives like “Delhi Dialogue”, bilateral delegate visits, trade and investment marts, road shows and exhibitions, exchanges of officials and publications of literature, vision documents and reports, and various other investment promotion measures. However, amidst all these protracted engagements, the cross-border trade and investments between the states in the NER and the neighbouring MGC countries (CLMV-T) have not made much of headway. Despite huge scope, ever increasing opportunities and commitment and interests, there are hardly any projects/programmes that have attracted investors and entrepreneurs from the South East Asian countries in the NER of India. This study, therefore, approaches the entire NER-CLMV-T cooperation in trade, investment, cultural and other service sector cooperation from a practical Bottom-Up approach.

2. IDENTIFICATION OF GAPS

Though all these initiatives have generated interests, in most cases they are not generally taken toa logical end. In the absence of concrete, scientifically designed and commercially attractive follow up measures, these interests and enthusiasm displayed by the participating investors, entrepreneurs, businessmen, corporate houses from the foreign countries donot last long. On top of this, the priorities of the Governments change and the policy designers and implementing agencies also lose their interests.

It is here the stakeholders find that the Top-Down approach has somehow not been able to deliver the final goods and services. This has happened mainly because there are several gaps (as identified and addressed in this study) faced by these investors in their approaches to really participate in investment activities in the NER. These gaps actually explain the distance between the commitment to invest and final participation at the ground level. All these gaps as enumerated below make them apprehensive and skeptical. More than this, the narrative about investment atmosphere in the NER (both within the country and from the CLMV-T perspective) continues to be pretty isolated and negative whereas the situation in all spectrums has steadily shown improved and healthy development in the region.

These gaps relate to knowledge and information, seed projects, match making, policy coordination, start-up, steps, incentives awareness and confidence. For instance, knowledge and information gap exactly catering to the interests of the traders and investors are still limited. How do the investors get access to information, which are the institutions and facilitating agencies to be contacted, who are the local partners, what are the enabling norms, what are the attractions, which are the areas of concerns and apprehensions and how others have fared? How the socio-cultural affinities, ethnic compositions and borderland advantages remain and could be a major demographic and topographic incentives/attractions for the investors and other entrepreneurial activities triggered by the South East Asian countries in the NER? Answers to these questions are mostly available yet they are unorganized, scattered, not exact and not at one place. This very much discourages the potentially new investors. This study makes an attempt to bridge all these gaps.

Further, this report revolves round attracting investors in the Seed Projects i.e., first demonstrative activity in terms of investment collaboration that will actually trigger a chain of such activities. This seed project gap is widely felt as there is no example in place to convey the real pathways, approaches and instruments and contact details to any potential investors. Only a practical and successful demonstrative project (rather a real story) also called a Seed Project that could really test and experiment with the norms, practices, institutions and other nuances of cross border economic collaborations and linkages, would convince the potential investors. This study, therefore, approaches the entire NER-CLMV-T cooperation in trade, investment and other service sector cooperation from a practical Bottom-Up approach.

3. CRITICAL VALUE ADDITIONS

This study attempts to imbibe and inject higher and deeper level of confidence among the potential investors through citing specific examples of how the NER has undergone massive

structural changes in the last decade or so and how a new set of modern institutions are generating a dynamic conglomeration of skilled and promising entrepreneurs. This report also deliberates about how steadily improved law and order and security situations and access to modern communications (like social media) have raised the level of social and indigenous enthusiasm and economic acceptance of diverse and larger development partners. And finally, how the NER is likely to emerge as a new growth pole once again mainly triggered by India's core foreign policy actions under the Act East Policy.

Therefore, this study makes an effort to identify and address many of these gaps beforehand and also provide all varieties of facilitating information and interactive forums for the potential investors from the CLMV-T and other countries to invest in the NER. This report tries to provide a new, healthy and promising narrative and discourse about the NER, which is an emerging reality today. In addition, this study makes a modest effort to create an interface for the real investors to meet and interact and participate in the projects and ventures. It also makes an attempt to initiate a common platform for the match making of investors and other entrepreneurs on a cross border basis. This could even lead to making a permanent forum for investors to meet and interact.

For addressing the above-mentioned gaps, **project-based approach** with potential seed projects as demonstrative ventures is found to be the most suitable way forward between NER and CLMV-T countries. As these identified seed projects go through the entire drill of various steps thereby bridging all the perceived and misperceived gaps, blocks and hick ups, as the last mile approaches the level of confidence among the actors and stakeholders is likely to reach a newer height. These identified seed projects if operationalised in whatever form and scale, will have large scale demonstrative impact on the communities across the borders, trade and investment stakeholders, service sector actors, technology related agencies, governmental agencies, multilateral institutions and also among the political class, civil society and other decision makers.

Unlike the traditional framework of foreign direct investment, this study expects investment participation in various forms.

a) Units fully owned by individuals/companies/corporate house.
b) Joint ventures.
c) In specific and exclusive areas like management, technology transfer, supplier of raw material, infrastructure like cold chains, professional participation and expertise provider, finance, marketing, value chain, research and development.
d) And in specialised services like veterinary services, horticulture-floriculture nursery management, breeding and feed management, fashion and textile design interventions, travel agency inter-connections, institutional support etc.

The NER could become a core partner in the Trans-border Value Chain in organic farming, tourism, horticulture, floriculture, mineral and forest resources, tea, sericulture, rubber, bamboo, pharmaceutical, textiles and IT to fully harness the advantages of the India - ASEAN Free Trade, SAARC Free Trade and BIMSTEC market based and other bilateral and regional agreements. This will bring a new face to trade and investment cooperation in the Act East Policy and trade preferences would become a catalytic aid. This would also address some of the core concerns of India in the Regional Comprehensive Economic Partnership (RCEP), the mega Asian trade agreement between 16 countries including that of South East and East Asia.

4. SCOPE OF WORK

While presenting detail understanding of the economies of NER and CLMV-T in this study, most of the promising sectors are outlined with the help of both primary and secondary sources. Based on some of the major past studies that identified thrust areas in NER, governmental priorities expressed in various official documents, trade trends of NER and CLMV-T countries, and study of comparative advantages - the potential broad sectors/products for investments to and from NER and CLMV-T are triangulated.

This study has been designed in a four stage framework as follows. Each stage has its own

methodology primarily aimed at achieving the targeted goals and the expected outcomes. However, Stage 5 related to *Post Final Report: Actions and Operational Details* has been added in view of the unforeseen contingencies triggered by the Covid-19 related lockdown which affected the finalization of last mile actions in this report. This supply side information and interaction could not be conducted the way it was planned.

Stage 1: Inception Report **Stage 2:** Mid-term Report **Stage 3:** Draft Final Report

Stage 4: Final Report

Stage 5: Post Final Report: Actions and Operational Requirements

At each stage of the report preparation, the Study Team made a comprehensive presentation to the NEDFi Evaluation Team headed by the CEO of NEDFi and also comprising of senior officials from NEDFi, experts and officials drawn from various other institutions including the NEC, academic and research institutions like IIM and Central University of Manipur, private sector and others. The Evaluation Team made pertinently useful comments and remarks, pinpointed the gaps and lacuna and provided suggestions for effective way forward.

In various stages, following the results of the primary study continuously carried out in varied field locations across the NER, several action plans have been prepared for specific commodities. These are primarily aimed at bridging various Gaps. Potential interventions in the area of technology and knowledge transfer, joint collaborations, investment and joint ventures, market access, contract farming, logistics, etc. have been explored.

However, a major section of inputs from the agencies and institutions from the CLMV-T which had to be based on in-person visits, interactions and presentations could not be generated owing to the lock down and other travel restrictions imposed by the pandemic (COVID - 19). The Study Team fervently hopes to undertake this last mile action as soon as the travel and other restrictions are lifted and also funds are made available (Stage 5).

The post Final Report (as presented here) operational requirements (Stage 5) involve four crucial actions. These relate to

i) Consultations with the targeted stakeholders in the CLMV-T.
ii) Presentation of report to the MDoNER, NEC and the State Governments and other central agencies and private sector actors/institutions.
iii) A comprehensive stakeholders' consultations between identified investors/entrepreneurs and others from both the NER, rest of India and from the CLMV-T to be held in the NER.
iv) And finally, signing of agreements/MoUs for facilitating real time investments.

Altogether the Report has been prepared in three parts as follows:

PART I: Executive Summary

PART II: Strategic Roadmap for Bringing Investors from South East Asia (CLMVThailand) to North East India: A Seed Project Approach

PART III: Lay out of 15 Seed Projects

This Study has identified two sets of projects viz. i) broad yet highly potential list of projects in each of the sector/sub-sectors with brief descriptions and ii) sector/ sub-sector specific and exclusive **Seed Projects** in each of the eight sector/sub-sectors which provide comprehensive information, stakeholders matching, policy environment, steps forward etc. The sectors/sub-sectors eight (8) heads considered for the **Seed Projects** in this Study are as follows:

i) Food-fruit-spice processing,
ii) Bamboo and related Handicrafts
iii) Tourism
iv) Floriculture
v) Handloom and Handicrafts
vi) Piggery

vii) Traditional Medicinal Systems
viii) Palm Oil

Both these set of projects emerged out of intensive field visits by the researchers across the NER and also extensive consultations with the existing and potential stakeholders/entrepreneurs. This also puts in discussions held with various CLMV-T embassies in India and partly Embassies of India in CLMV-T and also preliminary deliberations with some of the potentially key investors in Myanmar, Cambodia and Vietnam. This also indicates an emerging interface and inter-connection with the two critical actors/potential investors from the NER and CLMV-T respectively.

Fifteen (15) ready to implement sector/ sub-sector specific Seed Projects identified and designed by this Study in various sectors and sub-sectors are enumerated below. For each sub-sector an exclusive and separate document/module has been prepared that provides broad operational designs (Part III).

Sector/ sub-sector specific identified Seed Projects

Serial Order	Sector/Sub-sectors	Identified Seed Projects with broad operationaldesigns
Part III. 1	Food Processing	Curcumin (Turmeric) Extraction Plant Oleoresin (Ginger) Extraction Plant
Part III. 2	Bamboo	Fibre Manufacturing Unit Bamboo Based High End Construction MaterialFor Building (Eco-Architecture)
Part III. 3	Tourism	War Tourism Circuit River Cruise Infrastructure Project Buddhist Tourism Circuit
Part III. 4	Floriculture	8. Integrated Nursery and Post-Harvest Management of Flowers to Increase Vase-Life Longevity of CutFlowers
Part III. 5	Handloom and Fashion Design	Sitalpati Craft Banana Fiber Extraction Plant Ethnic Fashion Design
Part III. 6	Piggery	Pig Breeding and Rearing Units with 1000+ Sowand 50+ Boars Pig Processing and Packaging Unit
Part III. 7	Wellness and Traditional Medicinal Systems	14. Herbs and Folk Medicines: Commercial Processing
Part III. 8	Plantation:Palm Oil	15. Small Sized Palm Oil Mill (Capacity 5 MT perhour)

5. HOW SEED PROJECTS ARE SELECTED?

Identification of these sector-subsector specific seed projects are broadly based on the readiness of specific venture's attractiveness, broad interests among the entrepreneurs/investors and current market acceptability for international / cross border collaboration. The gap analysis has been conducted based on various Centre and State policy regimes, scalability, availability of raw materials, infrastructure, location analysis, customer intelligence, market analysis, industrial development of NER, development of means and transport and technical capability and initiatives. Each identified seed project that spreads over the eight Sectors/sub-sectors and the related commodities – products has incorporated broad features clearly laid out in the **'Seed Project Manual'** especially designed for this Study. This Manual has been field tested and revised to solicit and generate most of the requirements of the potential investors.

Each Seed Project is a standalone document separately presented which can be studied, made use of, and implemented along with the information and database provided in the *South East Asia (CLMV-T)*

6. REPOSITIONING THE NORTH EAST REGION OF INDIA

The NER comprises of roughly 8% of India's total area and 3.8% of the population. Over 98% of NER border is international and shared with Bangladesh, Bhutan, China, Myanmar and Nepal. The NER has had protractedly and relatively lower and erratic growth equilibrium trap. Spurring growth from a multi-sectoral perspective would be the driving force. There are visible structural differences in the composition of GDP across the region.

The region once was well interconnected and central to many trade and economic linkages. This was lost during the partition of India in 1947 – the trade transport routes got disrupted making the region almost land-locked and relatively inaccessible to most parts of the world. For instance, while Agartala to Calcutta before partition was only 350 Kms away through East Bengal route, now through Siliguri corridor it is 1645 kms distant. The region lost access to much important seaports of Calcutta and Chittagong as the former became too far to reach and the latter became part of a separate country (earlier Pakistan and now Bangladesh).

In the last, decade or so, three consciously designed historic interventions have relocated the NER and repositioned its potentials in the national and sub-regional development map.

Firstly, the reconfiguration of India's Look East Policy (1991) as Act East Policy (2015) and upfront repositioning of the NER as the bridge between the bourgeoning South East (SE) Asia and emerging Eastern South Asia (along with Bangladesh, Bhutan and Nepal - BBIN) have put somewhat an onerous responsibility on the NER to be a hub of geo-economics. This injects a new dimension of inter-regionalism between eastern South Asia and SE Asia and also in sub-regional groupings like Greater Mekong Sub-region (GMS) and Mekong- Ganga Cooperation (MGC) and BBIN.

Secondly, "neighbourhood first policy" and reassertion of "cooperative and competitive federalism" propounded and practiced by the Union Government led by the Prime Minister Narendra Modi and initiated by the UPA Government led the then PM Manmohan Singh have galvanized the neighborhood and the NER in both synergizing collective initiative and building a robust interdependence. The land border settlement, construction of national electricity grid interface with and effective use of port facilities in Bangladesh; gigantic infrastructure projects including roads, railways, energy interconnections, gas pipelines and waterways with Nepal and Bhutan; trilateral highways with Myanmar and Thailand and development of Sittwe port and signing of Motor Vehicle Agreement among the BBIN countries and vast social infrastructure projects like universities, professional institutes, health facilities and sports stadia have forthrightly highlighted the criticality of the NER as a key factor in the emerging process of resilient new regionalism.

And thirdly, building comprehensive connectivity at all four levels – within a state, between the states, between the NER and the rest of India and between the NER and the neighboring countries- in a much speedier, accountable, and sustained manner through special purpose vehicle including North East Special Infrastructure Development Scheme (NESIDS- 2018) has been steadily injecting an unprecedented dynamism.

Connectivity to operationalise India's Act East Policy has recorded massive progress with alignment of Asian Highway 1 and 2 that connect India with Pakistan, Bangladesh and Mynamar and India with Nepal and Bangladesh which pass through the NER. This includes 834 km Moreh (Manipur) and terminate at Dawki (Meghalaya) on Indo- Bangladesh border; 1360 km Trilateral Highway connecting Moreh (India) – Mandalay (Myanmar)- Yangon - Mae Sot district (Thailand); Kaladan Multi Modal Transport Project between India and Myanmar (697 km waterway Kolkata to Sittwe port in Myanmar and 220 km roadway Paletwa to Indo-Myanmar Border Zorinpui) ; connectivity with Bangladesh through Sabroom in Tripura and Tura in Meghalaya under Bharatmala. The UNESCAP study on Southern Asian Container Rail Corridor (2019) connecting Istanbul–Tehran–Islamabad– Delhi–Kolkata–Dhaka-Yangon (ITI–DKD-Y) refocuses on Eastern South Asia as a new cost-effective transport option.

To effectively utilize 3839 kms of total navigable water ways, a range of inland water ways including 891 km Sadiya – Dhubri (Bangladesh border) under NW-2 and 121 km Lakhipur – Bhanga would bring new set of affordable transportation network. The third international internet gateway link (after Mumbai and Chennai) of high-speed bandwidth connectivity through using sea cables through Bangladesh is another major development. The leasing of 10 GBPS bandwidth to India by Bangladesh as a cooperation exchange of 100 MW electricity from Palatana gas based electricity project in Tripura has vital implications.

These far-reaching initiatives have led to higher level of confidence, deeper trust and ever surpassing aspirations among the people in the NER. A new set of young and dynamic indigenous development actors and entrepreneurs are fast emerging. At the national level, the narrative about the NER is steadily transforming from a bastion of conflict, violence, instability, and backwardness to a vibrant, peaceful and prolific destination for multiple layers of economic actions, growth ventures, social contacts and trans-border connections.

The immediate actionable east, therefore, is the ASEAN and the visible and crucial outreach is East Asia where Japan, China and Korea dominate nuances and matrices of India's bilateral and regional participation in what is called the emerging 'Asian Century'. These matrices revolve round multifaceted engagements including recognition of physical contiguity and reintegration initiatives, appreciation of cultural and intellectual linkages, harnessing of economic and commercial opportunities and deepening of strategic reach. China's freshly unfurled and steadily implemented "one belt one road" in the South and South East Asian countries bring altogether a new yet critical dimension of intra and inter- regional connectivity.

Therefore, a key challenge for the NER is to coordinate with and convince the national agencies in India about the feasibility and essentiality of integrating with cross border markets and also attracting investment partners from the neighbouring countries. While doing so, how does one marry and integrate special provisions like NER specific fiscal incentives (like NEIIPP, 2007 & NEIDS, 2017) led newer production bases with the sub-regional initiatives like BBIN, BIMSTEC and MGC. In case of the ASEAN, the member countries have already entered into such deals with China as reflected in arrangement like Growth Quadrangles. In other words, could these fiscal packages available to the NER be extended to the investors from the neighbouring countries from the ASEAN? How does one integrate their investment participation-based production with various intra-regional trade provisions within ASEAN and India-ASEAN Free Trade regime? In what form the principles and instruments of "cooperative federalism" [like autonomy to strike business deals] trickle down to these states in the NER and in what way they will be assimilated and practiced in their interactions with the CLMV-T?

Accepting the centrality of NER and re-energising and rebuilding its wherewithal to integrate with the ASEAN framework would make India's Eastern foray a great success. This will in a way inject process of 'reverse integration' as the actors and institutions of mainland India move more towards the NER. If we have this thinking inducted among the policy makers in Delhi and the political leadership and civil society in the NER, half of the battle is won.

7. THE ASEAN AND MGC PERSPECTIVES

India along with Cambodia, Laos, Myanmar, Thailand, and Vietnam initiated a path breaking Mekong Ganga Cooperation (MGC) Project in 2000, and initially identified tourism, culture, education, and transportation as the core areas of cooperation. Since then, MGC has evolved into a major sub-regional instrument of realizing objectives of India's Act East Policy. There have been significant initiatives both exclusively with the member countries like CLMV- T and also in the broader India-ASEAN framework. India has signed and implemented a range of bilateral agreements with CLMV-T. These agreements that are generating major exchanges range from trade and investment to culture and tourism, science and technology to environment and ecology and education and health to technical assistance and quick impact projects (QIPs). Thailand and Vietnam are the two largest exporters to India among the CLMV-T countries and

account for more than 90 percent of its imports from these five countries.

There have been several major Indian investments in and reverse flows from CLMV-T. India ranked 8th in FDI inflows into Laos with total 33 projects and investments of US$ 161 million. By the end of 2019, India merged as the 11th highest investor in Myanmar with an approved investment of US$ 771.488 million by 33 Indian enterprises and 13 Indian Public Sector Undertakings. On the other hand, Myanmar's investment in India stood at US$ 8.97 million. India's investments in Vietnam are estimated at around US$ 1.7 billion including investments routed through third countries. Vietnamese source states that India has 255 valid projects with total invested capital of US$922.34 million in areas like energy, mineral exploration, agro-processing, food processing, sugar, tea, coffee manufacturing, agro-chemicals, IT, textile accessories and auto components. On the other hand, Vietnam's total six investment projects in India (US$ 28.55 million) are in the areas of pharmaceuticals, information technology, chemicals and building materials.

During 2007 - 2017 investment application value from India in Thailand stood at US $ 1.301 billion in which the largest segment was taken by Indorama Group (US$ 1.28 billion). FDI from Thailand into India has also grown significantly from just USD 11.55 million in 2012 to USD 92.22 million in 2018. Leading Thai companies in the fields of agro-processing, construction, automotive, engineering and banking have their growing business presence in India. Major Thai companies active in India include –Charoen Pokphand Group, Thai Union Frozen Products PCL, Stanley Electric Engineering India Pvt. Ltd., Thai Airways International PCL., Minor Group of Companies, Rockworth PCL, Precious Shipping of Thailand, Delta Electronics (Thailand) PCL, Siri Thai Superware PCL, Bangkok Airways, Siam Cement Group, Ital Thai Development PCL, Dusit Group, Thai Air Asia, ONYX Hospitality Group, Pruska Reality, Thai Summit, etc.

Whereas in the larger India-ASEAN framework, the engagement varies from free trade and trade in services agreements, likely completion of India-Myanmar-Thailand Trilateral highway (1360 km) connecting Moreh in India to Mae Sot in Thailand via Myanmar, and eventually providing connectivity to Cambodia, Laos and Viet Nam. Building of this highway is expected to be completed by 2022. The US$ 1 billion Line of Credit (2015) by India for undertaking physical and digital connectivity projects with ASEAN and enhancement of the ASEAN-India Science and Technology Development Fund from the current US$ 1 million to US$ 5 million are going to be driving forces in their partnerships.

The Japanese MSMEs that are relocating themselves from China to other countries in South and South East Asia are potently attractive to the NER. Several studies on Japanese and Chinese relocations of firms in the ASEAN countries, (Kyaw & Lwin 2016, Berger-Thomson and Doylen 2013, Yang 2016, JLL 2019, ADBI 2017) do clearly demonstrate that the newer locations like Vietnam in Southeast Asia attracted more manufacturers mainly for its increasingly vibrant ease of doing business matrices, competitive workforce, lower tariffs, costs of overhead, logistics and large and growing consumer market.

For the India-Japan Act East Forum set up in 2017, the MSME corridor could be a major action-oriented goal. For instance, there is huge scope for inducting Sikkim's 60 plus pharmaceutical industries in this MSME corridor of value chain in Pharma sector that can supply to the global market. Some of the top brands including Sun pharma, Cipla, Alkem, Torrent, Macleods, Alembic, Unichem, Zydus and Glenmark already have such manufacturing arrangements in Sikkim. Could the product of collaboration between a Vietnamese investor anda Naga entrepreneur located in Kohima be given a green channel access to ASEAN market under the ASEAN-India Free Trade Agreement? Could this NER-Vietnam triggered 'Make in India' product be considered under Article 3 of this agreement which deals with national treatment? Article 17 provides for a Joint Committee that could examine this matter of collective interest.

There are several challenges that are emerging. For instance, the four-lane trilateral highway

(India-Thailand-Myanmar) could face high degree of underutilization. This is because this highway (unlike their easy access to sea routes) is in all likelihood not going to be utilized by industrial and commercially active states of South and West India to reach South East and East Asian countries. Therefore, besides the CLMV-T triggered broadening of production base in the NER, the countries in the Eastern South Asia like Bangladesh, Bhutan, Nepal, Myanmar and states like West Bengal, Orissa and Bihar would be the most prolific user of this trilateral highway. This will also pave the way for Bangladesh, Bhutan and Nepal to get durably integrated towards/with the South (north being China) and effectively participate in India's far reaching Act East initiative.

Huge potential exists in the MGC initiatives. For instance, India's trade with the MGC countries except Thailand remains relatively low and its share in overall tourist arrival in and from Mekong countries is rather very insignificant. No direct connectivity exists between say Imphal-Hanoi or Delhi-Ho Chi Minh sectors. However top notches of Indian investors have already made inroads into all CLMV- T. Therefore, MGC is now in a crucial state and crossroads as far as their investment participation in the NER both because of geographical proximity and strong socio-cultural affinity and huge market access in India and its neighboring countries.

ASEAN Economic Community (AEC) blueprint 2025 sharply enhances scope of India-ASEAN cooperation as it envisages ASEAN Common Market that will facilitate seamless movement of goods, tariff rationalization and a more open and predictable investment regime in all ASEAN countries. This makes it possible for Indian companies to access the USD 2.8 trillion ASEAN markets through Thailand.

8. NER – INVESTMENT CLIMATE AND POLICY DYNAMICS

Since 1991, the regulatory environment and the process to get FDI has consistently been eased to make it investor-friendly, catapulting India into the position of one of the fastest-growing economies of the world. With the FDI inflows of $ 50.553 billion (3.3 % of the total global flows of $1539.88 billion), it has been ranked 10th in the global FDI inflows for 2019 by UNCTAD making it among the top attractive destinations for inbound investments.

Reforms have further been made with a new FDI Policy of 2020. Foreign investors can invest directly in India, either on their own or through joint ventures in virtually all the sectors except ina very small list of activities where foreign investment is prohibited. FDI in the majority of the sectors is under the automatic route, i.e., allowed without any requirement of seeking regulatory approval prior to such investment. Thus, the process to get FDI in most sectors does not require prior approval from the GOI. In sectors like, agriculture & animal husbandry sector, food processing, plantation, industrial parks, and pharmaceuticals, 100 percent FDI is allowed through the automatic route. Under the automatic route, the foreign investor or the Indian company does not require any prior approval from the Reserve Bank or Government of India. There are clear cut provisions in the FDI Policy 2020 on the issues of remittance and repatriation. Dividends are freely repatriable without any restrictions (net after Tax deduction at source or Dividend Distribution Tax, if any, as the case may be).

Most of the North East States have now prepared comprehensive industrial and investment policies mostly in line with the national investment policies. These policies have in them unique features of the state, the thrust/potential areas, policies related to land, locational advantages, finance, banking, infrastructure, connectivity, energy, incentive measures, market access, technology, environment, employment and also security and risks mitigation. All the states have uploaded these policies and norms in their respective websites. In the cost of doing business, many of the costs like energy, labour, office space, water, residential rents are much lower in all the states of the NER. On top of this, most of the units registered and that fulfil the conditions of the major policy incentives like NEIIPP (2007), NEIDS (2017) and NE States special incentives could access handsome subsidies, liberal tax and other attractive fiscal incentives.

However, in both the crucial indicators of credit-deposit ratio and ease of doing business, the NER has remained at the lowest echelons of national levels. Except Assam and Mizoram, all the

other NE states are the lowest ranked among 36 states and UTs. The NER therefore, is at the very initial stage of creating conducive environment and ease of doing business for attracting investments into the region.

Nevertheless, FDI in the NER of India has been negligible over the years. During the two decades period from 2000-01 to 2020-21 (upto December 2020), overall FDI in India touched $749.397 billion. The entire NER received less than 1 per cent of the total pie. Even during October 2019-December 2020, India received $ 75.352 billion of FDI in which Gujarat (31.92 %) and Maharashtra (27.65) had the highest share as against the total of 0.03 % share of the entire eight states in the NER.

However, there have been noticeable investments by domestic players in various sectors in a number of states in the NER. Among these states, Assam and Sikkim have recorded some tangible participation of various industrial units both in the manufacturing and the services category. This is to a large extent indicated by the steadily increasingly share of manufacturing in the net state domestic product of these states Both the Parliamentary Committee (2015) and DIPP (2016) Reports revealed that after the NEIIPP of 2007, investment of over Rs 11,466 crore were made to build 27644 industrial and service sector units in the NER. This generated over 2.28 lakh employment.

There are four types of subsidies being disbursed by NEDFi under NEIIPP/ NEIDS, viz Central Capital Investment Subsidy Scheme, Central Comprehensive Insurance Subsidy Scheme, Central Transport Subsidy Scheme, Central Interest Subsidy Scheme, Freight Subsidy Scheme. During two decades period of April 2000- March 2021 a sum of more than Rs 7965 crore has been expended by the Government of India as various types of subsidies to various industrial and other units in the NER. The third round of these special incentives has been extended as North East Industrial Development Scheme (NEIDS), 2017. As any company registered in India can avail all these incentives and subsidies the investors from the CLMV-T do qualify to utilize all these previsions. Some of the Bangladeshi investors in Tripura are already availing these incentives.

A new generation of fast learning and outward looking young and talented entrepreneurs, proliferation of higher education and professional institutions, determination of the communities to be flag bearers in sports, music, traditional medicinal systems, organic farming and energy production are the bright spots today. A new set of young and dynamic indigenous development actors and entrepreneurs are fast emerging. A range of professional and institutions of higher learning are galvanizing the youth population to undertake various start up ventures. A relatively much higher English-speaking population has provided a new twist as large number of youths from the NER has been engaged in various sectors in rest of India.

9. LAND FOR THE INVESTORS

In India's North Eastern region the land tenure system in the hill areas, inhabited mostly by tribal population, is markedly different from the system found in the plain areas and also in the rest of India. However, land ownership laws are being amended to protect the interests of the communities while at the same time encouraging infrastructural development. Most of the states in the North East region have now made liberal provisions for the availability of lands for the investors and other entrepreneurs. Primarily three approaches are adopted to provide land to the investors viz, i) outright purchase by investors and entrepreneurs, ii) making land available under various special arrangements like industrial estate, special economic zones etc and iii) acquiring land by the state government from various individuals, agencies and providing the same to the investors and other development partners under a long-term lease.

10. RISKS AND SECURITY

North East India, sharing boundaries with five countries carry in them in-built national security ramifications. As per the Ministry of Home Affairs, Government of India, North East India holds a significant place in the security of the country. This is unlike many other regions of the country, as the North East states share their 98 percent of their borders with other countries.

While the infrastructural developments like road, rail link, power supply, water supply etc. are dealt with by Ministry of Development of North Eastern Region (DoNER) and various other line Ministries, the issues relating to strengthening of security is dealt with by the Ministry of Home Affairs.

During the last two decades the region has witnessed robust political stability, higher degree of peace and tranquility and sporadic level of violence by insurgencies concentrated in specific locations. Though there are restrictions in free movements of people from both within and outside India in some states carried out through implementations of British India Government time legal provisions like Inner line Permit (ILP) and Restricted Area Permit (RAP), the concerned state government agencies in coordination with the Central institutions do provide access to economic-commercial-development partners like foreign investors, business houses to various project and market locations in the region and the states. Similarly, various state governments and their agencies have established institutionally resilient system in coordination with the Central Government to facilitate investments in various parts of the NER. Over the years, the negative narrative of security apprehensions has to a large extent been addressed.

The NDA Government led by Prime Minister Narendra Modi while highlighting the aspects of security in the NER aims to end all disputes in the North East by 2022 and usher in a new era of peace and development by 2023. The Union Home Ministry has set forth three objectives in the NER viz, i) preserving and protecting its dialects, languages, dance, music, food, culture and to create attraction for it all across India; ii) ending all disputes in the Northeast and make it a peaceful region and iii) making the Northeast a developed region and try to bring it back at par with the level of contribution made in pre-independence GDP. 'The security situation in the North-Eastern states has greatly improved since 2014. The year 2019 and 2020 saw the lowest number of insurgency related incidents and casualties of civilians and security forces during the last two decades.'

11. IDENTIFIED SEED PROJECTS : SUB-SECTOR, SCOPE OF SCALABILITY, PROSPECTS FOR INVESTMENT AND OPPORTUNITIES FOR CROSS BORDER EXCHANGES

A. FOOD PROCESSING

The identified seed projects in food processing sector are setting up of an oleoresin (Ginger) extraction plant as well as a curcumin (Turmeric) extraction plant. The rationale for setting up of oleoresin plant is the demand for spice oils and oleoresins which is increasing day by day. The ginger from NER from which oleoresin is extracted, especially the variety from Karbi Anglong has been given the Geographical Indication (GI) tags due to its high pungency and oleoresin content. Based on application, the oleoresin market is segmented into pharmaceutical, food, cosmetics, and fragrances. Ginger oleoresin is an important condiment in these industries due to its antioxidant and poly-phenolic compounds. Oleoresins have large domestic as well as export markets. The use of spice is being rapidly replaced with oleoresins and exports of these products instead of raw spices results in considerable value addition. India enjoys the distinction of being the single largest supplier of spice oleoresins to the world.

It is proposed to set up a ginger oleoresin extraction plant in Karbi Anglong district as it is the only district whose Ginger has got the geographical indication (GI) tag in the entire NER. The extraction plant will have a production capacity of 6 MT oleoresins per year and the estimated quantum of investment is approximately Rs 10.10 crores. The basis for choosing this location is that ginger-producing clusters abound in and around the region, which makes it cost as well as logistically efficient to source raw materials. India is also one of the largest producers and exporters of spice oleoresins. About 400 tons/year of spice oils, oleoresins, and blended seasonings are being sold in the Indian market today, which is about 8% of the total production. The presence of multinational and transnational players in the foods area has brought in huge investments and the resultant market expansion provides a lot of growth opportunities for

India’s spice oleoresin industry.

The rising demand for ginger oleoresins in pharmaceutical and healthcare sector owing to its therapeutic benefits has bolstered the market growth and growing use of spice oleoresins for coloring and flavoring is projected to drive the market growth. Rapid growth of the packaged and processed food, as well as the nutraceutical industries, is expected to be the key factor further driving the growth of the oleoresin industry. Improvement in extraction technology as well as rising investment in research and development for developing new oleoresin products and its blends for meeting specific requirements of the clients is further expected to propel the growth of the industry. Increasing consumer consciousness toward the consumption of natural ingredients in food products, cosmetics, and medicines is expected to help Asian market players to exploit lucrative opportunities in this sector.

Similarly, Turmeric powder is an essential ingredient in the Indian kitchen and as a result, the domestic consumption itself is very high. The turmeric from the region, especially the lakadong variety from Jaintia hills in Meghalaya have a curcumin content above 7, due to which it is in high demand with buyers across the world. However, there is no curcumin extraction unit present in the region. Apart from that, the turmeric from the region is valued for its higher quality and ‘organic by default’ production practices. The processing of turmeric into curcumin extract provides a much better option and after processing the products can be exported resulting in higher gains to the producers and others along the value chain.

Based on application, curcumin market is segmented into pharmaceutical, food, cosmetics, and others which includes cyanide detection and dye. Among these, pharmaceuticals accounted for a larger share of the global curcumin market in 2019 on account of increasing demand for curcumin-based supplements and is expected to rise further. The pharmaceutical industry is further anticipated to generate high demand for curcumin in the near future as well.

India is the largest manufacturer of curcumin with production exceeding 80 percent of the global market. And even though NER produces almost 7 percent of the country’s total production of Turmeric amounting to 81.42 thousand MT, very little value addition is being done in the region. Most of the processing units are smaller ones run by individuals or Self-Help Group producing mainly powder and dry turmeric fingers & slices. It is proposed to set up a curcumin extraction plant in East Jaintia Hills as it is the highest producing district of Lakadong variety of Turmeric in the entire NER, and sourcing of raw materials would be both cheaper and logistically efficient. The quantum of investment required for setting up the plant with a capacity of 350 kg/day production of curcumin and 350 kg of Turmeric Oil is approximately Rs.10 crores.

Global Curcumin market is expected to witness high growth on account of its increasing demand in food, cosmetics, and pharmaceuticals. According to an estimate by Global market insights (2017), the curcumin industry is set to reach 100 million USD in revenue by 2024. In addition, increasing consumer consciousness toward the consumption of natural ingredients in food products, cosmetics, and medicines is expected to help Asian market players to exploit lucrative opportunities in the Curcumin market.

B. BAMBOO

India is the second richest country, after China, in terms of bamboo diversity with 136 species (125 indigenous and 11 exotic). According to reports of Forest Survey of India (FSI), bamboo is grown across approximately 14 million hectares of forest area which is about 12% of total forest cover. The NER accounts for more than 22 % of the bamboo resources of the country and harbors nearly 90 species of bamboos, 41 of which are endemic to the region.

The Global Industry Report valued the global bamboo market at USD 72.10 billion in 2019 which is expected to reach over USD 98.75 billion by 2026, growing annually at around 5.5% during the period from 2020 to 2026. Although India has 30% of the world's bamboo resources with the world's largest growing area of more than 15.69 million hectares, the country taps only one-tenth of its bamboo potential contributing to only 4% share of the global market for bamboo products. According to reports of Ministry of Agriculture and Farmers Welfare, the

bamboo and rattan industry of India in 2019 was worth Rs. 28,005 crore. But the export of bamboo & bamboo products in 2015-16 & 2016-17 was only Rs. 0.11 crore and Rs.0.32 crore respectively as compared to import of Rs 148.63 crore and Rs 213.65 crore during the same period.

Bamboo being a priority sector of the Govt. of India, a lot of emphasis has been given on its development and National Bamboo Mission has been envisaged for promoting holistic growth of bamboo sector by adopting area-based, regionally differentiated strategy and to increase the area under bamboo cultivation and marketing. There are vast untapped resources of bamboo that can open several avenues for utilization for many productive works apart from employment creation and livelihood generation.

A seed project that is firmed up in this study is about the potential of bamboo plants as a resource for making textile fabrics. Bamboo fiber is a unique biodegradable textile material. As a natural cellulose fiber, it can be 100% biodegraded in soil by micro-organisms and sunshine. It is commended as the natural, green and eco-friendly new-type textile raw material of the 21st century. Bamboo is 40% more absorbent than even the finest organic cotton, wicking moisture away from the skin much faster and keeping the body dry and comfortable easier. This leads to a great potential for bamboo fiber in the textile industry in coming years.

The study provides a brief on the process of conversion of raw bamboo to fiber by mechanical as well as chemical procedure. It also gives a gist of the various utilities of bamboo fiber viz intimate apparels, non-woven fabric, sanitary material, bathroom, and decorating series.

Currently no bamboo fibre production plant is established in NER, and hence the sector is still unexplored and is in the initial stage. Foreign collaboration with established players from CLMV-T and Japan can be explored in terms of technology transfer and seed investment for the establishment of a manufacturing unit in NER. The initial investment for the project of 10MT daily production capacity is approximately INRs 12 crores and expected rate of return is 29% which serves as a lucrative opportunity for joint venture investment of an Indian enterprise witha foreign collaborator for the project.

In the 2nd seed project, the potential of bamboo based high end building construction is explored. Bamboo as a building material, with its high compressive strength and low weight, has been one of the most used building materials in support of concrete. Bamboo, like wood, is a natural composite material with a high strength-to-weight ratio useful for structures.

Today, sustainable architecture is not just a trend but an architectural style that has become a "revolution." Utilizing locally available natural material is a key element in any Green Architecture approach. Bamboo, which is an extremely fast-growing species of giant grass, grows abundantly, quickly, and cheaply in India has potential to be utilized as a building material for scaffolding, bridges, bridges, pavilions, outdoor structures, houses and buildings.

The report gives a brief of the bamboo tiles and false ceiling market and its use in construction industry. Taking the example of firms in Thailand and Vietnam it also shows the potential of bamboo based high end construction in different parts of the world and its scope to replicate the same in NER. The seed project suggests setting up of a pilot bamboo infrastructure showcasing the potential of the bamboo sector in urban architecture which can be scaled to multiple residential projects. The project can be developed in joint venture modes between a foreign anda local partner with technology and design being provided from abroad and project execution done by the local entrepreneur.

C. TOURISM

Under the tourism sector, 4 different types of seed projects including river cruise tourism, religious tourism, war tourism and traditional medicine tourism have been explored and studied.

River Cruise Tourism - River cruise is a voyage along the inland waterways, which constitutes of multiple ports among the waterways. It is among the fastest growing sectors of the global travel industry. Over the last decade, cruise industry revenue grew to 37 billion US dollars, marking it the most successful and perhaps most transformative period in the industry's history.

In the year 2019, the average passenger capacity of the global cruise market reached an all-time high. The Global Cruise Tourism Market is expected to grow at a CAGR of 10% during the forecasted period (2020-2027).

There are 5 major ports in India – Mumbai, Cochin, Goa, New Mangalore, and Chennai, where most of the international cruise vessels use it as port of call. There are 111 National Waterways (NWs) declared under the National Waterways Act 2016, 13 NWs are operational for shipping and navigation and cargo/passenger vessels are moving on them. National Waterways 1 & 2, i.e., Brahmaputra and Ganga, are the only waterways where domestic operators offer River cruises.

India is amazingly becoming an epicenter for luxury travel and luxury cruises. Luxury River Cruises in India is the most remarkable experiences for the tourists because the travelers cash the opportunity of exploring the scenic beauty and amazing geography of the country. These river cruises are spectacular in India because the country has long coastline surrounded by three water bodies, which are Indian Ocean, Bay of Bengal and Arabian Sea.

There are 20 National waterways in NER, out of which only 4 are operational. Among those, the National Waterway 2, which stretches on Brahmaputra River from Sadiya to Dhubri is the most important waterway from economy perspective. It has a total length of 891 km. Brahmaputra, considered as the longest river in India, is an ideal introduction to the river cruise in the country.

It is one of the most thrilling experiences for river journey. It runs through the exotica of Arunachal Pradesh and Assam. Travelers can have the glimpse of the incredible scenic beauty i.e., wildlife safaris, village walks, tea gardens and other attractions.

There are few existing routes in the Brahmaputra River, which has been discovered by tour operators. This study gives one such river cruise circuit from Dibrugarh/Jorhat to Guwahati, which is a 4 days-3 nights tour. It covers some of the other sub-sectors of tourism like, religion tourism, Buddhist tourism, Handicraft tourism, wildlife/nature tourism, tribal and Village tourism.

This study found that 80% of the cruise companies build their cruise in Kolkata, which is a big investment for the companies. Hence, the proposed seed project also displays upon developing infrastructure to build ship/cruises in Assam. At present, there are very few players in the ship building sector in Assam. The cruise vessels sailing in Brahmaputra have a capacity of about 12 to 40 people. These cruises are mostly made of wood, steel or composite. Most of the cruises are made in Kolkata, except 2 or 3. According to an entrepreneur, the vessel made of wood, with a capacity of 15 people can cost around Rs. 25 lakhs. Another vessel made of composite, which has a capacity of about 40, cost around Rs. 1.3 cr.

There has been lot of effort given by government in the river cruise industry. Government has initiated promotion in investment in “Luxury cruise vessel cruising between Guwahati and Dibrugarh on the Brahmaputra River”. It has also been seen that there is an average employment generation on a cruise ship is 1 job for 3-4 passengers. With India having the potential to cater to 700 cruise ships per year as against 158 handled this year, the cruise industry can generate more than 2.5 lakh jobs for ten lakh cruise passengers, giving a big boost to the country’s economy.

Tourism - The Buddhist circuit is a globally important route for over 500 million Buddhists along with the life of Buddha across Nepal and India, from Lumbini, where he wasborn; Bodh Gaya where he attained enlightenment; Sarnath where Buddha gave his first preaching to five monks to Kushinagar, where Buddha achieved salvation. There are about 450 to 480 million Buddhists across the world. The Asia Pacific region has demonstrated itself to bea firm favorite for international travelers, with 170.6 million international tourist arrivals in theNortheast Asian region alone in 2019. The Southeast Asian region followed in close second with just under 139 million international tourist arrivals. It is estimated that out of the 600 million religious and spiritual voyages undertaken worldwide, 50 percent were to Asia.

Tourism in India, especially Buddhist tourism has the potential to deliver socio-economic benefits in developing states. There is an existing Buddhist circuit starting from Lumbini in

Nepal, where Buddha was born, to the sites in India he traversed, including Bodh Gaya, Sarnath, Kushinagar, Rajgir, Vaishali, Sravasti and Sankasia (in UP and Bihar). There are 11 Buddhist destinations in India, which contribute a considerable share (6.46 percent) in the nationwide foreign tourist visits. This inbound flow also features prominently in Uttar Pradesh's 35.56 million annual foreign tourist visits and Bihar's 10.82 million, making these states the third highest and ninth highest, respectively, in numbers of foreign tourist visits in the country in 2017.

The Indian Railway Catering and Tourism Corporation Limited (IRCTC) have developed a Buddhist circuit covering the main hotspots of Buddhist sites in Bihar, Uttar Pradesh and Nepal.

The Buddhist tourist train takes to these places: where Buddha was born (Lumbini), gained enlightenment (Bodhgaya), first taught (Sarnath), and attained Nirvana (Kushinagar). It is an 8 day-7-night tour, which starts from Delhi Safdarjung Railway station.

North-East India is an abode of vibrant ethnic communities having distinct cultural pattern and way of life. Among the ethnic communities of the region the Sherpas, Monpas, Sherdukpens, Khambas, Membas, Nahs, Meyors, Zakhrings etc are followers of Mahayana form of Buddhism while the Tai-Khamtis, Tai-Phakeys, Tai-Khamyangs, Tai-Turungs, Tai-Aitons, Singphos, Tikhak-Tangsas, Chakmas, Moghs, Boruahs etc are followers of Theravada form of Buddhism. The Tai-Khamtis are one of the significant ethnic communities of North-East India professing Theravada form of Buddhism. Some of the prominent Buddhist related institutions are Soka Gakkai, North-East India Buddhist Sangha Council and International Buddhist Confederation (IBC). Most traces of the great Mahayana Buddhism are now erased from modern Assam - what remains are just some relics, legends, and historical analyses.

This report shows that there is a most potential Buddhist circuit from Nepal to Mandalay in Myanmar. The circuits can enroute from Limbini in Nepal to Mandalay in Myanmar, covering 3 countries, 7 states (amidst India) and 11 Buddhist sites. This circuit touches Bihar, West Bengal, Sikkim, Bhutan, Assam, Arunachal Pradesh, and Manipur. This report also magnifies an untouched Buddhist circuit at Assam, which is home to the Tai community. This tai community attracts tourist/researchers from Thailand and Myanmar.

The opportunities for Buddhist tourism can be in the form of investment in development of connectivity route, as North-East landscape constituents of the region – hills (60%), plateaus (12%) and plains (28%) along with river systems contribute substantially in enriching its scenic component. Investment in publicity or advertisement is another opportunity, as the world still needs to know about the existence of North-east India and its beauty. One of the major problems in North-East India is lack of infrastructure/amenities near the tourist sites. There are less than five number of 5-star hotel in North-east India. This shows the condition of infrastructure. Government of Assam has initiated a scheme known as 'Aamaar Aalohi' - Rural Homestay Scheme, which gives a new dimension and thrust to the Rural Homestay Facilities in the State of Assam and creation of self-employment opportunities for educated youths in rural and semi-urban areas of tourism potential and importance.

War Tourism - War tourism gained its popularity over the last decade in the Western Countries and has attracted a growing number of curious, adventurous and well-off tourists to areas afflicted by violent clashes. War tourism, in its benign form, has always existed. Thousands of tourists agglomerate in areas that have such a past; thousands of curious people routinely visit places such as the war cemeteries to commemorate their ancestors, heroes, family and countrymen.

India is a country rich on its cultural and historical front. The wars and battles taken place in the country has left its mark all over the nation like a shadow. The valour displayed by Indian soldiers on battlefields around the world is legend. Indians have fought with honour and glory in the two world wars and in numerous wars and conflicts since Independence. They have served in

France and Flanders, Gallipoli and Mesopotamia in the First World War, and in Dunkirk, North Africa, and Myanmar in the second. In WW-II, the strength of the Indian army rose to 2.5 million men making it the largest volunteer army in the history of human conflict.

Till date, Manipur and Nagaland feature in the World War tourism map and a large number of tourists, particularly from Japan visit the Imphal War Cemetery in Manipur and the Kohima War Cemetery in Nagaland every year. There are eight major war cemeteries in North-East India, which are taken care and maintained by "The Commonwealth War Grave Commission". The CWGC cares for cemeteries and memorials at 23,000 locations in 154 countries.

War tourism localizes the global by bringing different countries together, it also explores the unknown geographies, connects cities, and provide a platform for exchanging and understanding of different cultures.

The likely location for the war tourism is the Myanmar-Manipur-Nagaland war cemetery circuit, which can be linked to Myanmar, through Moreh situated in Manipur. This circuit has a potential to attract investment in development of infrastructure, connectivity, venturing on publicity and advertisement companies in North-east India to create awareness of the existing cemeteries. There are very few travel agencies who are specifically working on war tourism. The lack of physical infrastructure like hotels and other amenities near to the existing war sites further offer investment opportunity. War tourism has lot of scope in North-East India.

The war memories of World War II and the India-China war can boost the nostalgic tourism in the NER if those border areas are promoted as tourist spots in the borderland. The famous Steelwel Road connecting India-Myanmar and China built during the Second World War could be one of the most attractive ventures of war tourism-based adventure activities. Some of the fiercest battles of the Second World War were fought in the proposed BCIM (Bangladesh, China, India and Myanmar) Corridor. This shows the scope of collaboration between India and the ASEAN countries.

D. FLORICULTURE

The NER is a region that abounds in a phenomenal variety of flower species. Various types of orchids, rhododendrons, anthuriums, primulas, lilies, etc., are widely produced both at the community level and commercial level across the eight states. However, there has been very little organized farming of flowers or production of other value-added products derived from the flowers industry. Despite the diversity in the region, commercial cultivation of flowers in the NER is negligible. Currently, the main flowers being commercially cultivated are Anthurium, Cymbidium orchids, Gerbera, and Lilium.

The NER – especially Arunachal Pradesh, Meghalaya, and Sikkim – provides a natural habitat to more than 500 varieties of chiefly epiphytic orchids. Out of these, cymbidium and dendrobium orchids are popular varieties that have huge commercial potential. Orchids are climate-specific crops and require constant monitoring for temperature, humidity, air, water, and nutritional requirements. Orchids grow best in the evergreen and semi-evergreen forests and to some extent in moist deciduous forests.

Currently, the only value addition that is being done in the NER is in the form of bouquets, corsages, and other arrangements that are used for decoration purposes. Flowers are sought for interior as well as outdoor decorations as cut flowers and potted plants. Cut flowers for decoration purpose for special occasion or festivals, offices and potted plants for its aesthetic values in houses and gardens.

Cymbidium has been considered as the top commercial orchids in Europe for many years. They fetch the highest price in the international markets of which major Asian markets are Singapore and Japan or the Dutch market. In India, Arunachal hills, Sikkim, and Darjeeling hills with cool summer night and monsoonal summer rain are ideal for cymbidium cultivation. The growth of orchid exports from the north-eastern hill region especially Sikkim would provide opportunities for employment and also for development of supporting industries like packaging, cold storage and transportation. East Sikkim has been declared as Agri Export Zone exclusively for

production of cymbidium orchids. In Sikkim, more than 350 hybrids of cymbidium orchids are commercially cultivated in an around 25 ha of land and about 5 lakhs spikes are produced annually.

The identified seed project for floriculture is 'Integrated nursery and post-harvest management of flowers to increase vase life longevity of cut flowers' with a focus on Orchids. Orchids account for a large share of global floriculture trade and are estimated around 10% of international fresh cut flower trade. They have taken a significant position in cut flower industry due to its attractiveness, diversity in forms, shape, and color, high productivity, right season of bloom, and easy packing and transportation. Postharvest life of orchid cut flowers is influenced by pre-harvest factors like varietal or species differences, light intensity, sugar level of flowers, temperature and water loss. It is also affected by harvest factors such as time and stage of harvest and postharvest factors viz. ethylene production, precooling, pulsing, use of preservatives, packaging and storage.

It is proposed to set up a nursery along with an integrated post-harvesting facility in Ziro in lower Subansiri district of Arunachal Pradesh with an approximate investment of Rs 14.25 crores. The basis for choosing this location is that Arunachal Pradesh is home to more than 50 percent of the Orchid species variety found in India i.e. 612 species of orchids are found in Arunachal Pradesh out of 1256 orchids recorded in India. In a book titled 'Orchids of Ziro' by Naresh swami, he reports that his findings reveal that Ziro is the place with the largest concentration of various orchid species in India, if not on Earth. In addition, Orchid Research Center (ORC) is located at Tipi, near Ziro. The ORC is a beautiful research center for the rare orchids of Arunachal Pradesh. Such investments could be profitably done in Sikkim and other states also.

Thailand is among the world's largest exporters of cut flowers and orchids with deep expertise and technical know-how in providing end-to-end cold supply chain logistics and management for cut flowers to import destinations. Their technology, expertise and experience could be harnessed by the flower growers of NER through a transfer of technology, knowledge, management and shared resources. It could also be in the form of direct investment in setting up orchid export hub which entails setting up the entire cold supply chain in the identified location, and providing training and technical know-how to the local entrepreneurs.

The exports of orchids from India is very low at a measly 2.54 MT valued at Rs.4.89 lakhs rupees in comparison to imports especially from Thailand. It can also be observed that while exports has not seen any real rise during the years, imports has also gradually steeped downwards in absolute value terms from a high of Rs 34.26 crore to 11.94 crore i.e. almost 60 percent from its high of 2013-14. This dwindling imports is attributed to larger number of entrepreneurs entering the floriculture industry sector in India, as well as increased government support to the sunrise sectors.

The flowers grown in NER have an international appeal and can be marketed regionally, domestically or internationally. The main regional markets are in Aizawl, Guwahati and Shillong in the NER. Main inter-state markets are located in Kolkata, Delhi, Mumbai and Pune. Some sporadic exports have been undertaken by a few entrepreneurs to Bangladesh, Bhutan and UAE. However, these have been in low volumes.

E. HANDLOOM, HANDICRAFTS AND FASHION DESIGN

- The handicrafts sector of India is one of the largest employment generating sectors in the country. The state and regional handicraft clusters contribute significantly to handicrafts export. But the Indian handicrafts industry is fragmented with more than seven million regional artisans and over 67,000 exporters/export houses promoting regional art and craftsmanship in the domestic and global markets.

The NER is rich in traditional arts and crafts. The handicraft items produced in the region are both eco-friendly and unique in design and utility. There are more than 19 varieties of crafts in the North-East which are developed in various cluster areas i.e. Bell Metal Industry of

Sarthebari, Brass metal, Fireworks Craft in Barpeta, Craft on Jute, Bamboo & Cane, Sitalpati Craft, Water Hyacinth, Areca Nut Leaf, Pottery Craft, Wood carving, Decorative Candle, Thanka Painting, Carpet Craft, Black Pottery, Manipuri Jewelry, Nagaland Beads, Kauna Craft, and Assamese Jewelry Terracotta Craft.

Sitalpati is one of the handicrafts of NER which is produced in Assam. The name 'sitalpati' is an amalgamation of 'sital' or cool and 'pati' or mat. The 'sitalpati' or cool-mat is essentially a mat that is created by interlacing fine slivers of the Maranta dichotomacane. Sitalpati is made from cane or murta plants, known in different places as mostak, patipata, patibet, and paitara. The murta plant grows around water bodies in Sylhet, Sunamganj, Barisal, Tangail, Comilla, Noakhali, Feni, and Chittagong.

The production of sitalpati is a household industry in Assam. Generally, men prepare the cane slips, while women do the weaving work. People from Goalpara and Cachar district of Assam are mainly involved in this craft. The villages of Assam famous for the production of sitalpati are Dubapara, Katakhal, Kaliganj, Basigram, Karimpur, and Sridurgapur.

The sleeping or sitting mat is the main product. Other than this there are some other products like ladies' handbags, Sling bags, Airbags, file folders, hats, mobile cover, table mats, coaster, lampshades, panels, and other home décor items. The sitalpati products are marketed through exhibition, trade fair, Govt. Emporium which has helped to create a niche market in Urban India, where more people are attached to the cool comfort of this mat. The products are mostly marketed through exhibitions in metropolitan cities like Delhi, Bangalore, Mumbai, Chennai, Bangalore, etc.

The products that are being developed in the production cluster area are traditional and outdated. Hence technology upgradation of Sitalpati clusters craft is proposed with an estimated investment of Rs. 2.7 crores. Sitalpati is a natural product, and it is biodegradable. Raw materials are always available as cultivation is done in the cluster area. Sitalpati bag is a good alternative to rexine bags. Sitalpati is eco-friendly, chemical-free, non-toxic, and odor-free. It also has water resistance properties. There is an increasing demand in the fashion world as lots of good designers around the world are coming forward to use sitalpati in bags and accessories.

Technology upgradation and design intervention are very much needed in this sector which can create a new market for sitalpati product. The setup may be in the production cluster area of Dubapara, Goalpara, Assam. There are more than 500 active sitalpati artisans. The mat braiding has been practiced for decades, but till now weaving of sitalpati in handloom has not yet started. There is a good potential of creating a new variety of home furnishing range from weaving process like- curtain, cushion cover, runner, etc.

For technology up-gradation, it could be achieved with a four-step strategy:

i) Technical up-gradation of the cluster with the Design firm of Thailand (CLMVT).
ii) Setting up of Sitalpati Craft Center Hub.
iii) Linking cluster with Emporiums and Design House in big metros/ cities.
iv) Linking cluster with the export market.

Banana Fibre: There is an increasing demand in the global market for banana fiber due to its high strength and stiffness and being environmentally sustainable compared to textiles and leathers. The fiber is extracted from the banana stem by banana fiber extraction machine. The fiber is than converted into yarn by various fabrication method. Banana fiber is widely used as blending material in the textile sector. There is a good demand in countries like United States of America, Malaysia, Korea, European Union and Philippines. Japan's currency, the Yen, is made out of banana fiber. So, exporting banana fiber will bring substantial foreign exchange to India. A proper coordination with manufacturing units and exporting countries needs to be established.

Many value-added products are developed from banana fiber. Handloom products like Fabric, Saree, runners, and mats are developed from banana fiber. Lots of Handicraft items like coasters, mats, planters, light shades, handbags etc. are developed from banana fiber in different parts of

the country. In North-east very little number of products are developed with banana fiber. Recently some steps have been taken by ICAR- National Research Centre for Banana, Tamil Nadu to develop banana fiber products in Nagaland and Manipur.

As banana fiber is biodegradable, it has very high value in the market and gradually its demand is increasing in the fashion world. A range of good designers around the world are coming forward to use the fiber and the banana fabric. Banana fiber is a good alternative to all the synthetic and natural fibres, and instead is eco-friendly, chemical-free, non-toxic, and odour-free. The natural coolant and medicinal property of banana fibers helps in the health of its user and is 100 per cent safe as no harmful chemicals and colours are used. Fabric made from banana fiber can be termed as the next green apparel of the future. The banana fabric can be cheaper than cotton and linen ifit is produced in large scale.

It is proposed to set up the banana fiber to yarn plant in Darrangiri, which is the largest banana market of Asia, and is located at Goalpara district of Assam. The quantum of investment required to convert banana stems to yarn and then onto fabric is approximately Rs 10 crores. Some of the advantages of setting up the plant in the area is that diverse varieties and good quality of Banana species are found in the region which enables to produce good quality yarn. In addition, manpower is also easily available in the village area. The Darrangiri village is surrounded by highly skilled weavers and a range of community-based ventures in banana fibre production and its conversion into fabrics

There is not a single banana fiber extraction plant in the entire North-East. Darrangiri can be raw material bank, and investors and technical experts from CLMVT countries can be partnered to set up the banana fiber plant. Vietnam produces various products from Banana fiber like- Handicraft products, Fabrics and Papers. So, Vietnam could be a major investor country to develop products from the fiber.

Hub: North-east India occupies a unique and important place in the indigenous textile culture of India. Traditional dress of an ethnic group plays a major role in showcasing the ethnic identity. Each ethnic group has its own designs and colour combination. Different motifs and designs of textiles have relationship with the rituals and religious life of the people of North- east India. The method of weaving also varies according to region and ethnic groups. The materials used for textiles has a varied range - cotton, wool, Endi, Muga, animal hair which areused by different ethnic group.

As there is a growing competitiveness in the textile industry both in the national and international markets, a growing need is felt to facilitate handloom weavers to meet the challenges of a globalized environment.

There exists a huge variety of designs, motifs and colours across different tribes of North- East. These designs can be commercially marketed to the global audience in the form of contemporary products. Some of the designs have Geographical Indication registration, and these designs of the tribes hold tremendous social significance and usage of each design and garment is governed strictly by the tribe rules. Adapting these designs to contemporary forms will require in-depth research so as not to misuse and offend any long-held cultural sentiments. There are design and training centres set up by the state governments under the textile departments. However, there is not much design intervention being done at the local entrepreneur level and the focus has remained on using traditional colours and motifs only.

Assam is the leading state accounting for 46.8% of the total number of handlooms in the country. And Guwahati is the fashion center of Assam with five to six Fashion Institute. So, the design hub may be set up in Guwahati. Hence Commercialization of the traditional motifs and designs will create a new market which can be technically developed and marketed by the CLMVT Countries.

F. PIGGERY

Pig farming is one of the most sustainable industries in India. Pigs are very hardy and thrive

under extreme conditions. The pig's ability to digest a broad range of food sources makes it so unique. Improved germplasm, productivity enhancement with good healthcare and nutritional management, strengthening market linkage and supportive policies by the government all contribute towards a great prospect in coming days for the piggery sector.

Among the meat producing animals, pigs occupy a unique position as pig keeping is socio-culturally intermingled with the livelihood of tribal people of the region. Compared to the other states of India, Assam and other NER states are performing well in pig production. As per the 2019 Animal census Pig population of NER is 5.6 million out of 9.06 million total pig population of India. The estimated meat production from pig in NER for 2018 -19 is 81.5'000 tonnes.

The pig population in NER is comprised preponderantly of non-descript local varieties and genetically graded pigs and hybrids. Local pig breeds are highly adaptable to the harsh management conditions but these animals are not profitable as they are small sized with low prolificacy. Crossbreds and graded pigs are, therefore, slowly gaining popularity among the pig farmers of the region.

In India, majority of the exotic high yielding breeds of pig are raised in the North and Eastern States like Punjab, U.P and West Bengal but are sold directly to the North East region of the country. This shows the potential of piggery sector in the region which provides a direct market for it. The second segment of the pork market deals with high-value processed products. These products include cured meats such as sausages, ham, bacon and canned meat products as well as small quantities of frozen meat. The Indian market for treated pork products is niche, and the majority of this market is accounted for by imports. In year 2018-19 pork meat worth 2.28 USD million has been imported by India.

With the emergence of African swine flu and imposition of restrictions on the import and export of pork the domestic market provides a good opportunity to develop the pork processing sector in NER.

In the piggery sector, 2 (two) seed projects have been identified i.e. 1st seed project is the setting up of Pig breeding and rearing units with 1000+ Sow and 50+ boars. The project is designed with the primary objective of increasing the animal productivity and also reducing the cost of production by implementing scientific rearing practices like artificial insemination and precision feeding. The suggested location for these units are also based on its distance from veterinary support, pig feed supply, availability of man power and primary market of pork meat.

The initial quantum of investment is estimated to be Rs 11-12 crore approximately. With the projected output in terms of sales of piglets, breeding stock, meat stock and prevailing market rate of these outputs the project provides a lucrative investment opportunity in the Piggery Sector. The project can be executed as a tri- party joint venture where a foreign collaborator can contribute in terms of technology knowhow and initial seed investment, the local entrepreneur can contribute in terms of manpower requirement as well as livestock requirement and the government can contribute by providing the required land and infrastructure for the project on lease which would lessen the initial fund capital requirement.

In the 2nd Seed Project , it is proposed to setting up of a Pig processing and packaging unit in NER. In India and specifically NER, there are very few modern state-of-the-art mechanized abattoir cum meat processing plants. To meet the increased requirement we need more scientifically designed abattoirs and meat processing plants are required. A number of points is taken into consideration while suggesting the location for the processing unit which includes, availability of raw materials i.e. livestock for slaughter or cut meat, distance from the market (retail outlet where processed meats are sold), logistic facilities available for transportation from production unit to market (including cold storage transfer) and availability of infrastructure,power, manpower in a competitive cost. Initial investment for a green field project in pork processed meat unit would be approximately Rs 3.5 Crore (exclusive of land cost).

With the projected output in terms of sales of end products like sausage, bacon, frankfurter, salami and prevailing market rate of these outputs the project provided a lucrative investment opportunity in the Piggery Sector. The project can be executed as a Tri party joint venture wherein a foreign collaborator can contribute in terms of technology knowhow and initial seed investment. The local entrepreneur can contribute in terms of trained manpower as well as raw materials requirement. The government can contribute by providing the required land and infrastructure for the project on lease which would lessen the initial fund capital requirement.

G. WELLNESS AND TRADITIONAL MEDICINAL SYSTEMS

According to the International Union for Conservation of Nature (IUCN) and the World Wildlife Fund (WWF), there are between 50,000 and 80,000 flowering plant species used for medicinal purposes worldwide. Traditional medicines (TM) based on medicinal and aromatic plants (MAP) are age old and practiced by using old methods and the medicines are extracted from natural elements and also focus on overall wellness. TM can be considered to belong to three main categories. These are (i) codified medical systems, (ii) folk medicine, and (iii) allied forms of health knowledge.

Codified medical systems include great traditions, which have evolved over 3-4 millennia and include Ayurveda, Siddha, and Unani in the Indian subcontinent and traditional Chinese medicine and acupuncture in China. These medicines are not only used by the rural masses for their primary health care in developing countries but are also used in developed countries where modern medicines dominate. The Indian sub-continent is a vast repository of medicinal plants that are used in traditional medical treatments.

Ayurveda, yoga, naturopathy, Unani, Siddha, and homeopathy (AYUSH) are a system of alternative medicines in India. Given its ancient scientific knowledge, India is a hub for alternative medicines like Unani, Ayurveda, Siddha, and homeopathy. India's domestic herbal industry is representing by 8610 licensed herbal units spread across the country.

The major commonality of the Indian classical and the folk health care traditions is their dependence upon the raw material derived from a large diversity of plant species, which is estimated to be about 6,500. India ratified the Nagoya Protocol (2002) on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity (NP) in October 2012. This Protocol also aims at ensuring access to and transfer of technologies, recognizing the role of traditional knowledge with informed participation of local and indigenous communities in decision making processes.

A number of NER states have started repositioning themselves in this huge commercial space. There has been rush from the United States, Slovenia, Germany, and other countries to avail of these herbal medicines and treatments. The NER shelters over 50% of the country's total biodiversity. It has 130 major indigenous communities and has been a home to a number of archaic indigenous societies like Abor, Khasi, Mishing, Rabha, Naga, Apatani etc. The traditional communities of North East living here for thousands of years have built a precious knowledge base about the use of the rich bio resources of the region. There is a vast variety of medicinal herbs and plants in the hills and forests of Assam. About 300 types of medicinal herbs and plants are known to exist in abundance in the state. However, only about 5-10% of the plants and herbs are commercially cultivated for extraction purposes.

At present, the raw material produced (unprocessed medicinal plant parts) from the region is traded mainly in the markets of Delhi, West Bengal, and Bihar (Shankar and Rawat, 2013). Pseudobulbs of Dendrobiumdenudans (Bare Dendrobium), D. eriaflorum, D. transparens (Translucent Dendrobium) and D. devonianum (Devon's Dendrobium) orchid are exported from Manipur and Mizoram to Myanmar. Root of Paris polyphylla (Himalayan Paris) are collected from Manipur, Nagaland, Arunachal Pradesh and Meghalaya and exported to Myanmar (Mao et al., 2009). The medicinal plant sector has great potential to boost the economy of Northeast India.

In case of traditional medicine, this study found that cultivation of traditional medicine and value

addition into it has a large scope in the NER, which can be attractive investing project for CLMVT. There is a large scope of setting up a manufacturing unit setup in NER with the help of foreign collaboration from the CLMVT countries. The Indian partner suitable for the joint venture would be the existing herbal products manufacturer which could provide land and building required for the unit, active participation of the local faith healers and documentation of their traditional knowledge would play a crucial role in this setup. The research institute of the region can provide the required laboratory facility and technical knowhow for herbal drug documentation and validation. The foreign collaborator can contribute in terms of initial investment, machinery support and transfer of technology in terms of best industrial practices.

H. PLANTATION: PALM OIL

Oil Palm is a species of palm that best grows in the humid tropical areas of the world. It yields fruits in bunches, called the Fresh Fruit Bunches (FFBs) in industry parlance. Palm oil can be obtained from the oily layer that encloses the kernel. Originally found as scattered groves in the wilds of western and central Africa, oil palm has been adapted for growing as a plantation crop. The specialty of oil palm is that it gives the highest yield of edible oil per hectare of crop as compared to other oil crops. Apart from this, derivatives from oil palm find a wide range of uses; cooking and other food uses, along with many non-food applications.

This seed project covers the establishment of a small sized Palm Oil Mill (with capacity of 5 MT per Hour) along with development of about 1,500 hectares of oil palm plantations around the mill under the 'Smallholder Model'. It may be noted that this model is being practised in India for the development of oil palm. Under this model, the crop is grown on small-sized holdings and sold to companies for processing in their Palm Oil Mills.

The global production of palm oil had reached 73.02 million MT in 2019-20. Indonesia and Malaysia dominate the global output of palm oil, accounting for 84%-85% of the world production in the recent years. The top consuming nations include Indonesia, India, European Union, China, Malaysia, Pakistan and Thailand. These countries account for over three-fifths of palm oil consumption across the globe.

India is the second largest consumer of palm oil. It consumes about 12% of the global output of palm oil. In addition, the country is the largest importer of palm oil. India has to import almost 97% of its requirements of palm oil, as it produces very little (below 0.30 million MT) in comparison to its requirements. It has been reported that 350,000 hectares were under oil palm in India, as on 31st March 2019. About four-fifths of the planted area in the country is located in the South Indian states, especially Andhra Pradesh which accounts for almost half the area under oil palm in India.

The Northeastern Region of India includes the eight eastern-most states of the country. These states are: Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura. They include an area of 262,179 sq. km and have a total population of 45.77 million persons (as per the Census of 2011). The region covers almost 8% of India's area but has less than 4% of its population. The North Eastern (NE) Region offers large scope for the cultivation of oil palm, as the crop can provide a steady source of income for the small landholders. In addition, fallow lands and wasteland can be used for this purpose.

149 All states of the NE Region, excluding Sikkim, have been identified as having potential area for growing oil palm. As per an assessment made in 2012; 218,000 hectares had been identified in the region as being 'potential area' suitable for its cultivation in the region. About 17.60% of this area has been covered under oil palm as per the latest reports. However, till 2018-19, only Mizoram has reported the production of Crude Palm Oil (CPO). No Palm Oil Mill has been established in any other state of the region till date.

A small sized Palm Oil Mill of capacity 5 Metric Ton (MT) per Hour will need about 22,000 MT of FFB if it is to operate at 50% of capacity. Higher utilization willrequire additional amounts of FFB. Assuming 15 MT per Ha as the average yield, the area underPalm Oil needed to support the above unit is about 1,500 hectares. Hence, the seed project consists of: (1) Palm Oil Mill of

capacity of 5MTPH (MT per Hour), and (b) associated area under oil palm of 1,500 hectare or more. The Report may be examined for the pertinent detailsin the above connection.

Suitable locations for Palm Oil Mill in the NE Region include (a) Dudhnoi in Assam, about 110 km west of Guwahati, (b) Dimapur in Nagaland, and (c) Pasighat in Arunachal Pradesh. Each location has a sizeable growing belt around it, where oil palm has been established.

The approximate investment in a Palm Oil Mill of capacity 5 MT per Hour is around Rs. 100 million ($ 1.35 million). This includes investment in building, plant and machinery (including installation and commissioning), and other fixed assets. Land costs are extra and can vary depending upon the location and type of land title. In addition, working capital requirements will be needed. These can about Rs. 8 -10 million (about $ 110,000 – 130,000) extra for a three-month cycle.

Further, there will be additional investments in areas like awareness creation amongst growers, cost of establishment of nursery, purchase of germinated seeds, extension support to growers (to ensure the adoption of proper growing practices), support to growers for some of the common infrastructure costs etc. These costs can be properly quantified based upon a study of the ground position at the selected location(s).

This report also examines aspects like Government Incentives and facilitating measures including Subsidies to investors, apart from the Ease of Doing Business (EODB) parameters.

The EODB parameters covered briefly include the areas like Norms and essentials for Investment activities, Land, Finance, Technology, Exports, and Imports (including agreements with the ASEAN countries), Management and Consultancy, Environment, Training and Skills, Research and Development, Taxation, Remittances, Risks and Security and Legal Regimes. The pertinent details are available in the body of the Report.