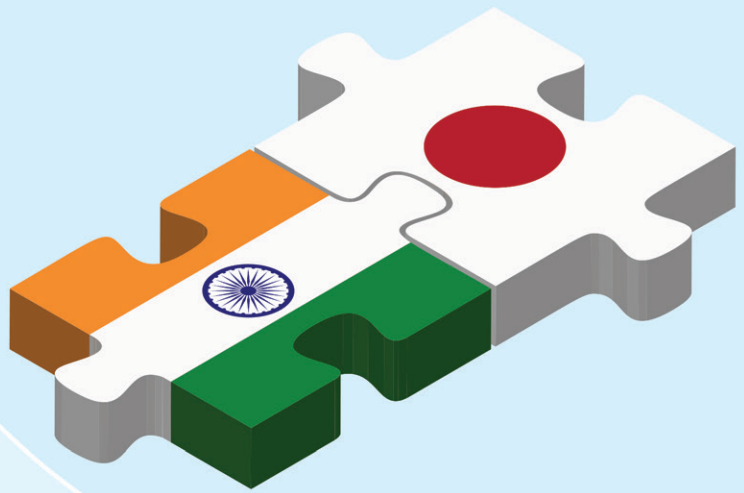


Editors

Prakash Panneerselvam

M. Amarjeet Singh



INFRASTRUCTURE AND INDUSTRIAL DEVELOPMENT IN NORTHEAST INDIA: EXPLORING THE POTENTIAL ROLE OF JAPAN



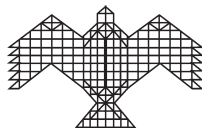
NATIONAL INSTITUTE OF ADVANCED STUDIES

Bengaluru, India

INFRASTRUCTURE AND INDUSTRIAL DEVELOPMENT IN NORTHEAST INDIA: EXPLORING THE POTENTIAL ROLE OF JAPAN

Sponsored by
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Editors
Prakash Panneerselvam
M. Amarjeet Singh



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INTRODUCTION

Dr Prakash Panneerselvam

India and Japan are very close strategic partners with relationship deeply rooted in historical linkages and more importantly, structurally free from any political impediment. Both considered each other 'indispensable partner' with shared values of democracy and the market economy. There is a great synergy between two countries today in the Indo-Pacific and global level. Development cooperation between the two countries is an important component of the Japan-India Special Strategic Global Partnership. In fact, Japan is India's one of the oldest and most important development partners and India is one of the largest recipients of Japanese Official Development Assistance (ODA). Japanese ODA act as a catalyst in accelerating economic development, particularly in the areas like power, transportation, and environmental projects. According to Government of India, the ODA plays an important role in transforming India through various infrastructure projects that are taken up and that are envisaged.

Japan Infrastructure Development Assistance to India

Japan's defines ODA as an essential element of nation's comprehensive security due to the changing political environment in the 1980s. These can be classified into two category i) to build cooperation with the Asian countries seriously affected by Imperial Japanese Army role during the World War Second, ii) Focus on those countries bordering

areas of conflict which is considered by Japan to be important for the maintenance of peace and stability in the world. Under these presumption, Japan extended ODA to Thailand, Pakistan, Turkey, Egypt, Oman, Yemen, Sudan, Jamaica and Indonesia. Prime Minister Kaifu Toshiki laid new guidance for disbursement of aid in which main consideration related to observance of Human Rights, military spending and proliferation of weapon of mass destruction in the recipient

countries. In the post-Cold War, Japan renewed its ODA policy which was based on four pillars: i) environmental protection, ii) no use of aid for military expenses in the recipient countries and production of development of weapon of mass destruction and missiles and in their imports and exports of arms; iii) promotion of market economy, democratization and human rights. The development assistance remains one of the key factor for Japan's foreign policy in building strong relationship with Asia, particularly with India the ODA have enriched the relationships between two countries and elevated into strategic partnership.

India has been major recipient of Japanese ODA. After Cold War, Japan relationship with India improved. On the development and infrastructure front, Japan's International Cooperation Agency – the JICA has been partnering with India for poverty alleviation, investment promotion and infrastructure development for more than 60 years. Nishtha Kaushiki, Ph.D thesis on *“Japanese Development Assistance to India: Role of Japan International Cooperation Agency: 1991 – 2006”* points out that JICA played an important role in country's economic growth and infrastructure development. Between 2007 to 2017, nearly 64 percent of Japanese ODA loans

have been directed to transportation sector. The Asian Development Bank (ADB), another Japan led institution in its Country operation Business Plan 2018 – 2020 specified that 84 percent of their focus would be on building effective infrastructure and transportation system in India. One of the key objectives of the Japan International Cooperation Agency (JICA) and ADB is to improve India's connectivity with South and Southeast Asia. Japan also view the cross-border connectivity project would enhance India's growth potential with South and Southeast Asian nations. Apart from infrastructure development, Japan's technical assistance in the area like sericulture for rural development, mass production of modern electronic materials in the field of education and health sectors are some of the major success stories in India.

Japan's development activity in the Northeast region of India got special attention after the launch of Act East Forum in December 2017. The main aim of the forum is to expand the cooperation between Japan and India in North East and to strengthen the relationship between Japan and North East, as well as that between Japan and India. In this regard, the Forum discusses cooperation in various fields and promotes Japan's cooperation in the region. The sixth India-

Japan Act East Forum (AEF) held on 15 March 2022 in New Delhi. The meeting was co-chaired by Foreign Secretary and Ambassador of Japan to India H.E. Mr. Suzuki Satoshi. It was attended by representatives of relevant Ministries and State Governments of the North Eastern Region of India. In addition, officials of the Japan International Cooperation Agency (JICA) and the Japan Foundation (JF) participated.¹ They reviewed progress of ongoing projects in various areas including connectivity, hydropower, forest management, water supply and sewerage, skill development and Japanese language education. They also exchanged views on possible new areas of cooperation.

North East India: An Overview

India's North East comprises of eight States, namely, Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura. These States have several features in common, and yet, each of them has a distinct identity and peculiar character - making the region distinct and unique with varied origins of people belonging to diverse cultures and languages. The region

represents multiple ethnic identities with competing ethnic aspirations that are distinct from the mainland Indian sub-continent. The majority of the population of India's Northeast belongs to the Mongoloid race and speaks languages of the Tibet Burmese family.

In addition, this region has about 7.76% of India's area, but only about 3.78% of the country's population. Thus, population densities are also much lower than the national average except in Assam and Tripura. According to the 2011 census of India, the total population of the region is 44,876,207. Geographically, India's Northeast that shares international boundaries sandwiched between Chinese-Tibet, Burma, Bangladesh and Bhutan is isolated from the rest of India and linked to the Indian mainland only by a narrow 21-kilometre wide "Siliguri Corridor."

The region has abundant forests, with flora and fauna that is extremely diverse and unique in nature and richly blessed with minerals, biodiversity and hydroelectric potential. The mighty Brahmaputra, one of the major rivers in Asia, with its innumerable tributaries flows through the region. There are also other rivers and water bodies that are potentially useful to the local sustainable development. Hitherto, the region is far behind in development. The vast majority of the people in the Northeast

¹ 6th Joint Meeting of the India-Japan Act East Forum, Ministry of External Affairs, India, March 15, 2022, URL: https://www.mea.gov.in/press-releases.htm?dtl/34953/6th_Joint_Meeting_of_the_IndiaJapan_Act_East_Forum

lives on agriculture and mostly depends on shifting cultivation or jhuming.

The most difficult terrains in terms of accessibility said to be a factor in slowing down the growth and expansion. Coupled with violence, ethnic conflicts, insurgency and cross border terrorism. As a result, increasingly, there is a feel among the locals as well in the policy making circle that it has not been given the required attention it supposed to have received comparatively to developments that took place in other parts of India. Its prospects for development and expansion remain curtailed with meagre opportunities for conveyance and communication. The measures taken by the Government of India to enhance the region are yet to yield the desired fruits. Apparently, the region desires today of new openings for its prospective growth and advancement in the economic and social sectors along with the plans for preservation of its culture. The external credible player like Japan's involvement could aid in developing it on par with the rest of the country as well with the Southeast Asia.

Northeast India Development: The Case for Japan's Role

Japan started financing development projects from 1980s onwards in the region. Japanese agencies have provided

aid to the region on issues related to health, women and child, people-to-people exchanges, and post-war reconciliation. A few examples are:

Japan's ODA played an important overall development of roadway connectivity, construction of a river bridge, and loans for providing electric-power to parts of the North-east region. Of late, in April 2017, the Japan International Cooperation Agency (JICA) agreed to provide over 67 billion Yen (\$610 million) for Phase I of the North East Road Network Connectivity Improvement Project,² which will focus on important projects in Meghalaya and Mizoram, apart from the renovation and modernization of Umiam-Umtru Stage III Hydroelectric Power Station in Meghalaya and for the Sustainable Forest Management Project in Tripura, etc.³ In 2021, foundation stone laid for NH208 from Kailasahar to Khowai, a 80KM long national highway funded by JICA

2 Road connectivity improvement throughout the region, starting from National Highway 54 in Mizoram and National Highways 40 and 51 in Meghalaya. NH40 runs from Guwahati through here in Shillong to Dawki, Indo-Bangladesh border. Japan supports the expansion and upgrading of Shillong-Dawki strip and the construction of a new Dawki bridge, which will sustain heavier load than the existing 90-year old bridge.

3 Takema Sakamoto, India-Japan Partnership for Economic Development in the Northeast, JICA, March 20, 2018, URL: https://www.jica.go.jp/india/english/office/others/c8h0vm00009ylo4c-att/presentations_18.pdf

Table 1 Japanese aid towards energy and agriculture

| | | | | |
|---|--|-------------|------|------------------------------------|
| 1 | Chandrapur Thermal Power Station Expansion Project | Energy | 1981 | Assam State Electricity Board |
| 2 | Umiam Hydro Power Station Renovation Project | Energy | 1997 | Meghalaya State Electricity Board |
| 3 | Manipur Sericulture Project | Agriculture | 1997 | Department of Sericulture, Manipur |

amounting to JPY 14, 926 million as part of regional connectivity improvement in the North Eastern states. JICA Chief representative Matsumoto Katsu said the project is aimed to strengthen road connectivity within northeast states and also cross border connectivity with Bangladesh. Japan believes this will improve socio and economic condition and facilitate movement of people and the flow of goods swiftly in the region. Subsequently, the Act East Forum⁴ has identified specific projects for “economic modernization” of India’s North Eastern region, focusing on connectivity, developmental infrastructure, industrial linkages, and people-to-people contacts through tourism, culture, and sports-related activities.

With technological and economic power, Japan’s role could be complementarity of India’s strengths and gaps in financial, technological and human resources.

⁴ Launch of India-Japan Act East Forum, Ministry of External Affairs, India, December 05, 2017, URL: https://www.mea.gov.in/press-releases.htm?dtl/29154/Launch_of_IndiaJapan_Act_East_Forum

Moreover, given the India’s averse to China’s greater role in the region, and Japan being the second largest economy and stock market capitalization in the world after the US apart from being a significant cooperation development aid sponsor, fits the proposal of being a credible investor and potential player in the development of Northeast India. Moreover, since, India is one of the important pillars of Japan’s Indo-pacific strategy; therefore it is in the interest of Tokyo to back New Delhi financially and technically to strengthen basic infrastructure and transportation in the Northeast region. In effect, Japan can be a significant player in filling a gap of credible sponsor in boosting physical connectivity and local sustainable industrial development, if invited. In turn, Northeast India would provide better opportunity for Japan to widen its economic capabilities, and greater accessibility to the subcontinent. There lies the prospect of greater India-Japanese partnership. The report has identified areas or sectors that Japan can further focus on in assisting the development in the region.

In this context, Japanese assistance would definitely be a game changer for the acceleration of development of the landlocked North Eastern states. The northeast region of India has huge potential to become one of the destinations for Japanese investment in the future. The infrastructural connectivity and industrial development in the region will strengthen India's linkages with ASEAN and in particular with its two immediate neighbors, Bangladesh and Myanmar. Incidentally, it can also boost connectivity between the member-states of the BIMSTEC sub-regional grouping. Also, Japanese investments in the region would help to spur livelihoods for the locals.

Potential Areas of Japanese Role

Infrastructure projects in the Northeast India could herald greater economic growth for the region and increase its geopolitical importance. Japan can focus on developing economic corridors such as a. Guwahati-Imphal—west to east—and b. Tinsukia-Lawngtlai—north to south—that would lead to both greater freight volumes from Assam to Manipur (to Myanmar) and Mizoram to Upper Assam. These corridor-based development projects may generate economic activities and regional development, which in turn will influence economic growth through higher production of locally produced at

one place to another and consumption. Particularly, Japanese technology and knowhow of building and maintenance of the roads in the tricky terrain would be the important area for consideration.

Other than small industries consisting of plantation and manufacturing of tea, mining of coal and oil, refining of oil, manufacturing of plywood and other forest resources based products in Assam, there is literally no major industrial development in the region. Identifying the areas and the sectors based on the local strengths and weaknesses will aid in new industrial ventures and sustaining the growth of industries. The research report aims to support the JICA and Japan in understanding the strengths and weaknesses of each state/province based on the available resources. The report elucidates on some of the crucial factors like (a) availability of raw materials and their proximity (b) availability of efficient economic labor force (c) existing network of transport system, (d) conducive natural and economic climate, (e) political and economic impetus, and (f) existence of complementary industries. The research report focuses on mapping capacity building, quality infrastructure and access to health and education etc. This will aid in the emergence of a group of strong and indigenous entrepreneurs.

DEVELOPMENT OF INDIA'S NORTH EAST: THE ROLE OF JAPAN

Prof. M. Amarjeet Singh

Japan has potential to become a natural partner for India for the development of Northeast India. The priority areas for Japan in the region should not only focus on connectivity but also on education, healthcare, and agriculture development.

The issues

There is a wide disparity in development between India's North East region and other regions of the country. The development disparity has actually been growing. Development of this landlocked region needs to be accelerated to catch with other regions. The main bottlenecks are said to be the inhospitable climatic conditions, remote location and inaccessibility of geographical locations.

In terms of hydropower, the region is said to have potential of about 58971 MW i.e. almost 40 percent of India's total hydro potential. But, it could harness merely 2 per cent of the total hydro potential. There are also abundant coal, oil and gas for thermal power generation. In spite of the potential the per capita energy consumption is the lowest in the country.

Despite sharing long land border with China, Bhutan, Bangladesh, Nepal and Myanmar, there are limited cross-border economic activities between North East India and these countries. Now there is an increasing realisation of enhancing cross-border economic activities for faster development. This is possible if there is better road connectivity.

This region is heavily dependent upon imports of essential goods from other regions. Majority of the people are engaged in agriculture and that too subsistence farming. Thus, the agricultural productivity is low. Food grains have to be imported. In fact, the agriculture has become unattractive. Thus, priorities should be given for modernising agriculture and related sectors.

Japan and India

India and Japan are important partners in strengthening democratic values. Their relationship has been cordial and has strengthened, particularly in regard to trade and investment, since the 1990's when India launched economic liberalisation policies. India is also an important partner for Japan's diplomacy in South Asia. Moreover, Japan also takes keen interest in supporting development works in India. The two nations claimed that their relationship has passed different phases from "global partnership between Japan and India" and "global and strategic partnership" to "special strategic and global partnership". The two is now committed to working together towards a free and open Indo-Pacific.

Japan provides financial and technical assistance to developing countries as part of economic cooperation under its Official Development Assistance (ODA) scheme. Developing countries have got this assistance. The assistance is not for the developed countries such as the United States, Germany, England, Spain and Netherlands. The ODA scheme can be bilateral aid: the financing and financial contributions provided to the international organisations, and multilateral/bilateral aid consists of technical cooperation, loan aid and grant aid.

Among the states in India, the main beneficiaries are Tamil Nadu, Delhi, Maharashtra, Andhra Pradesh (including Telangana), West Bengal, Karnataka and Gujarat. Interestingly, some of the bigger states such as Madhya Pradesh, Uttar Pradesh and Bihar are not the main beneficiaries. Granting of such assistance is found to be limited in conflict and disputed areas. Arunachal Pradesh and Jammu & Kashmir are not the beneficiaries of ODA. States affected by insurgency and conflict are disadvantaged situation to get such assistance. Significant ODA assistance came to India from the decade of 1981-1990 onward marking the strengthening of relationships between the two countries. No country has done more for modernising India's infrastructure than Japan.

The states of Northeast region of India are no different from other states of the country. But these states have strategic importance for India and Japan. As a result, increased attention is being accorded for enhancing connectivity and development of the region and for linking the landlocked region with rest of India, to South Asia and Southeast Asia. The Japan International Cooperation Agency (JICA) started financing development projects from 1980s onwards in the region. Other than JICA, several Japanese agencies have provided aid to the region

on issues related to health, women and child, people-to-people exchanges, and post-war reconciliation.

Road transport connectivity

By virtue of its location, the North East region came to occupy prominence in the Act East policy strategy. But the development is slow.

India realised the importance of enhancing physical connectivity in the region only recently. As a result, even the crucial roads could not provide smooth passage of goods and people. If these crucial important roads (the national highways) are still unsuited for movement of heavy and large vehicles what will be the conditions of other roads. The instances of local residents protesting against poor road conditions are a regular feature. Landslides during monsoon season are common in crucial roads disrupting road connectivity thereby causing shortages of essential commodities.

Most of the road projects under the Act East Policy are for the purpose of widening of some important roads (the national highways). Some of these roads are often projected the as the road of regional importance.

Development of new roads will have

more environment and social impacts. Several public and private agencies are involved in the implementation of several projects and each of them played different roles. The loan disbursing agencies have developed excellent rehabilitation and resettlement guidelines. But it is interesting to see how these guidelines are enforced on the ground. Are they actually been able to implement the provisions laid down for rehabilitation and resettlement in the environment impact assessment? How effective is the external monitoring of the resettlement action plan by an independent agency? Regarding the past road projects in Mizoram and Meghalaya, the local residents had raised several issues related to corrupt practices, delay or non-payment of compensation, difficulties faced by those households without proper land documents during compensation payment, soil erosion and dumping of surplus soil, need for proper shelter for construction workers, and lack of public trust in the implementing agencies.

Like other agencies JICA has developed excellent guidelines for rehabilitation and resettlement plan. But it will be interesting to see how these guidelines are implemented. Is the JICA able to fulfil all the provisions laid down for rehabilitation and resettlement in the environment impact assessment? How effective is the

external monitoring of the resettlement action plan by an independent agency?

In the implementation of the Act East policy, the local interests are in conflict with the national interests. The popular perception is that the policy does not take into account the ground realities and hence marked by a “lack of clarity”. The policy does not have any clear vision statement for the region and hence the local people are not well-informed about it. There is the fear that different projects undertaken under the policy would lead to large-scale immigration and identity crisis, exploitation of natural resources, human trafficking, and militarization.

In fact, India can pursue the Act East policy without involving the North-east region because most of the trade is conducted by sea route. The region is also certainly not the “central” to this policy. Whether or not, the policy benefits the region depends on how quickly the region can integrate and build land connectivity with the neighbouring countries. Merely being a corridor or gateway won't help. The region will not become a major gateway for trade with Southeast Asia as soon as the ground realities are awfully inadequate. It is more a mere propaganda since hardly anything concrete has been achieved. There has been too much talk with too little work. The promises

are “exciting”, but nothing substantial has been materialised. What the region got is some prioritised infrastructure development projects and opening of a few trade centres. These are welcomed by the local communities.

Although the local communities wanted better land transport with the neighbouring countries but their **immediate priority is better connectivity within the region and rest of the country**. There seem to be mismatch in priorities of the central government to that of the priorities of the local communities. It is important in mapping local perspectives. It will be interesting to know the concerns of the local communities.

The development of the Northeast region is also dependent on Bangladesh and Myanmar. Unlike in Bangladesh, the Indian-supported infrastructure development projects in Myanmar are not progressing satisfactorily. In such situation, the cross-border trade will continue to be sluggish but the ongoing infrastructure development is essential. But, the Northeast India and Myanmar should not be seen merely as a transit corridor between South Asia and Southeast Asia. The Northeast region of India won't get the benefits of the policy unless there is political stability and development in Myanmar. A peaceful

and prosperous Myanmar is very much in the interest of Northeast India given its landlocked location far away from rest of India. If rapid development takes place in Myanmar, the region will no longer be landlocked. At present, Myanmar does not accord due importance of better connectivity with the Northeast states of India given its domestic challenges and current state of development in these states. At the same time, Northeast India should not expect much from Myanmar.

Now, we realised that the region is not going to get benefitted from the policy because there are major challenges inherent to this region. The region is one of the most underdeveloped frontiers inhabited by poor and politically least influential sections of the population. As a result, in spite of sharing common border with Myanmar, the region has not benefitted from the policy. In fact, the policy has bypassed the region. In addition, the regional governments are not actively involved in designing the Act East policy. There were no meaningful consultations with the regional governments. The policy is imposed on them by the central government. As a result, they are only reluctant partners.

The regional governments could not utilize the available opportunities and convert them for actual development.

They could not attract attention of the Southeast Asian governments.

Almost all the infrastructure development projects under this policy are “not focus on development of local enterprises and local capital in the region but emphasizes singularly on creating an infrastructural condition for seamless transit of trade” (Barua 2020, 117). Thus, the region is merely seen as a “throughway” or “transit route” for trade between India and Southeast Asia. Thus, this policy prioritizes the development of physical infrastructures over social development (Barua, 2020, 101). If the region is “used as a corridor for transporting goods produced in other parts of the country, there will be some indirect benefits. There will be demand for some auxiliary services such as hotels, fuel pumps, and restaurants that will have some contributions to growth of the local economy” (Nath and Kumar 2017, 15).⁵

Education

One of the foremost societal problems of Northeast India is inadequate educational facilities.

While literacy rate is high, the skill

5 Nath, Hiranya K. and Kumar, Siddharth. 2017. “India’s Look/Act East Policy and the Northeast Region: A Critical Perspective,” *Space and Culture, India* 5(2), 7-20.

development is low. Unemployment is also alarming. The literacy may be relatively high, what about the quality of education? Has the high literacy rate been able to translate into higher employability and productivity? It is not. It is vastly influenced by the lack of skills. In the assessment of rankings of the universities in India in 2021, none of the universities of the region are placed in the 20 top ranked universities. Japan can play a strong role in upgrading educational development, both at primary and higher levels. Not only can Japan send primary and higher learning teachers to Northeast India to teach and engage in educational promotions but also to enhance social values and norms for both Japan and India in the longer term.

Modernise agriculture

Agriculture support livelihoods of majority of the region's population. But it is largely dependent of monsoon rain. Even, the food-grains production is alarmingly low and hence imported from outside. The agricultural sector has become unattractive to the people. Still priorities should be given to the modernisation of the agriculture and related sectors. It is also important that the government focus on border development of the region, not just undertaking widening and improvement of crucial roads and setting up trade centres.

Youth unemployment

Migration of young people from this borderland in search of jobs has risen ever more rapidly than before. In addition, a large number of students have been coming to bigger cities for studies for a long time. Obviously, the limited educational and job opportunities in the region are the most significant “push” factors while the availability of better educational and job opportunities in bigger cities are the most significant “pull” factors. Keeping aside the students, the majority of the migrant workers are engaged in different service professions such as hotel waiters, retail salespersons, front desk staff, domestic maids, watchmen and beauticians. Initially, a larger proportion of them were engaged in the information technology sector in Bengaluru and other cities. The trend has now gradually shifted towards hospitality, call centre, retail and security services.

While the literacy rate is high, the skill development is low. The rate of unemployment is also very alarming and as youth unemployment dominates with 40% of the total unemployment, this is becoming a serious and disturbing factor. The unemployment factor is contributed a lot by the high percentage of the school dropouts which is higher than the all India level.

Japan has reportedly shown interest in recruiting nurses from Northeast India. However, as of now we have not come across any development on the issue.

Impart marketing skills

This region is heavily dependent upon imports of essential goods from other regions. For instance, different varieties of fish from far away Andhra Pradesh are available at the remotest villages of the region, but hardly anything goes out of there. Thus, the focus should be on imparting marketing skills to the people. The local traders must learn to compete to the emerging market forces. If goods can be imported from rest of India to any part of the region, but the region could not export anything. Thus, it is not just about connectivity but also the people's inability to actively participate in the economy.

Morality and social values

At the same time, it is important to find out how Japan and India cooperation can be enhanced within a people-centric cooperative framework, valuing the

needs, rights and autonomy of the people of the Northeast region. A morals-based society with societal values would require stronger people-centric developmental ethics to be indoctrinated into the overall partnership. Japan can be a partner promoter in this regard.

Environmental issues

The region possesses valuable forest reserves and rich natural resources. The lack of sound environmental standards, sanitation plans, conservation of drinking water, and inability in preserving the eco-system are known problems of the region. Japan can play a constructive role in these areas. Japan can possibly play a role, particularly in engaging with local agencies in eco-system restoration, preserving historical aesthetic resources, upgrading sewage disposal and refining the unplanned drainage system. Besides, tackling disaster management is one of the core areas where both Japan and India can cooperate in Northeast India sharing their experiences since both countries are frequent victims of natural calamities.

INFRASTRUCTURE AND INDUSTRIAL DEVELOPMENT IN ASSAM: AN OPPORTUNITY FOR JAPAN

Prof Gurudas Das & Bijoy Kumar Dey

Abstract: Economic development of Assam has become a hostage to partition induced connectivity bottleneck. Instead of Bangladesh, connectivity through Siliguri corridor has increased the distance between Assam and mainland India leading to robbing the former's comparative advantage. The loss of pre-partition communication channels has not yet been compensated. There exist huge inter-regional as well as intra-regional infrastructural gaps in terms of roadways, railways and power generation. In spite of some efforts to fill the gap, higher scale of financial, technical and managerial assistance is required to achieve this goal. Japan's engagement in India's Northeast provides an opportunity to bail out Assam from the connectivity induced underdevelopment.

Introduction

Assam is the gateway to India's northeast that comprises of 7 states. Besides Assam, other states are Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland and Tripura. The communication channels of the region—be it roadways, railways or waterways—passed through the East Bengal, the present day Bangladesh, during the colonial era. Partition of India in 1947 suddenly snapped all these communication channels, as East Bengal

became East Pakistan, and thereby made India's northeast landlocked. The distance between the capital towns of northeaster states and Kolkata, the nearest mainland metropolitan city, has increased 3-4 times robbing the region's comparative advantage due to higher transport cost (Das: 2012).

As a result, except a few resource based industries under public sector like oil refineries based on the crude oil of

Assam, thermal power stations based on the coal of Assam and Meghalaya, cement manufacturing based on the limestone deposits in Assam and Meghalaya, paper manufacturing based on the naturally grown bamboo plants in the hills of Arunachal Pradesh, Assam and Mizoram, no major industrial investment has taken place in Assam. Being a part of the bordering region that shares 98 per cent international borders with the neighbouring countries of Bangladesh, Bhutan, China and Myanmar and only about 2 per cent with the mainland India (Das: 2000), external security vulnerability stood on the way of both public and private sector investments. While the colonial structure of production centring on tea cultivation and mineral extractive and processing activities continued to play the dominant role in post-colonial era, some of the indigenous manufacturing activities like silk, bell metal and gold smithy for which Assam is known for centuries are in virtual decline (Goswami: 2005). In fact, Assam has experienced a sort of deindustrialization during the post-Independence period.

Under these circumstances, Assam needs to adopt a three-pronged strategy for its industrial development. First, building the infrastructure like roads, bridges, railways, electric generation, so that the domestic/

regional market (s) could be unified and transportation costs could be reduced that will make production competitive. Second, a road map needs to be chalked out for the development of resource-based industries particularly downstream petrochemical manufacturing. Third, traditional lines of manufacturing activities needs to be modernised so that they can participate in the national/international value chain besides identifying areas of manufacturing having potential competitiveness. In all these areas, Japan could play a decisive role and thereby can make an immense contribution towards the industrial development of Assam.

Status of Industrial Growth in Assam

Economy of Assam is essentially agrarian in nature. Agriculture contributed about 30.39 per cent of the gross value added (GVA) during 2019-20 at constant (2011-12) prices where tea plantation, developed during the colonial period, plays the dominant role. Although the contribution of the secondary sector accounted for 29 percent, the share of manufacturing amounts to 16.56 per cent. The tertiary sectors contributed 40.62 per cent of the total GVA during 2019-20.

The industrial structure of the state is rooted in resource-based manufacturing.

Activities relating to the extraction and processing of crude oil and natural gas under the public sector enterprises like Indian Oil, Oil India Corporation, and Numaligarh Refinery Limited constitute the core of the state's manufacturing sector. Besides refineries, a number of bottling plants have come up all over Assam. Besides public sector enterprises, a number of private sector players are also active in the oil sector. In fact, the private entities primarily play the ancillary role for the large scale public sector enterprises. Together, they formed an eco-system in which oil-based manufacturing activities thrive. According to one estimate, 25 oil-based enterprises, constituting about 23 per cent of the large scale enterprises (LSE), together invested Rs 26929.73 crores which is about a little more than 85 per cent of the total investment across all types of manufacturing under large scale in the state. ([shorturl.at/zIUX1](#))

Besides 1.6 billion tonnes of proven oil reserve ([shorturl.at/jpuFQ](#)), Assam is also rich in limestone deposits that occur in the hills of Dima Hasao and Karbi Anglong districts, estimated reserve is prognosticated at 178 million tonnes (GOI: 2018) and almost half of the reserve is of cement grade. A number of cement manufacturing enterprises, mostly under private sector have come up in Assam which is also utilizing the limestone reserves in neighbouring

regions like Meghalaya and Bhutan. In fact, the total investment by 20 cement manufacturing enterprises in Assam, constituting about 18 per cent of the LSEs, amounts to be around 3.88 per cent of the total investment of Rs 31624.97 crores under the large scale sector ([shorturl.at/zIUX1](#)).

Besides the mineral resource based oil and cement producing enterprises, a number of agro-forest based processing and manufacturing enterprises, constituting 23.64 per cent of the total LSEs and 5.19 per cent of the total investment under large scale category, have come up in Assam ([shorturl.at/zIUX1](#)). These enterprises deal with production of various types of food and beverages, paper, mosquito repellent coils, personal care products and medicines. It might be noted that the agro-forest based enterprises are subject to higher morbidity compared to their mineral based counterparts. For example, both the public sector paper mills viz. Cachar Paper Mill at Panchgram, Cachar and Nagaon Paper Mill at Jagiroad, Nagaon, subsidiaries of Hindustan Paper Corporation, have long been closed.

Industries under medium scale primarily produce demand-based manufacturing goods using the outputs of the LSEs as inputs and directly cater to the consumers. Manufacturing of various types of plastic goods like plastic bottles, caps,

PVC pipes, tank, plastic furniture, plastic tape, etc dominate the scene. A number of agro-forest based units produce plywood, bamboo floor tiles, craft paper, poultry feed, soya nuggets, biscuits and snacks. A few agro-processing units undertake rice milling and wheat milling. As per the Government of Assam, a total of 102 medium scale enterprises (MSE) together have invested Rs 739.93 crores which is about 2.34 per cent of the total investment of the LSEs (shorturl.at/yCL57).

Small scale enterprises (SSE) are basically footloose manufacturing units in Assam. SSEs dominate in ready-made garments, fabrication, woollen products, embroidery, bakery, silk, bell-metal, jewellery making, cane and bamboo products, and repairing and servicing. As per one estimate (GoA: 2021), as of 2018-19, there are 48514 SSE units in the state and together they employ 294114 workers. The total investment in them is amounted to Rs 8289.57 crores. As this sector is subject to very high morbidity and industrial sickness; data dished out by the government agencies on year-wise number of registered SSEs, employment and investment could hardly be comprehended for any meaningful analysis. Studies conducted at different points in time (Baisya: 1986, Nayak and Dey: 1996, Yasin: 2019) could hardly be understood in the absence of any

knowledge on their annual morbidity and the gap between proposed employment and investment and their actual counterparts. Nonetheless, SSEs fill the vacuum where LSEs and MSEs do not venture.

Major Challenges to the Industrial Development of Assam

Poor connectivity, power generation capacity, and managerial skill are the major challenges for industrial growth in Assam. As has already been mentioned, partition has made the North Eastern Region (NER) a periphery of the mainland India as the distance between them has increased four-fold. As a result, the region has lost its comparative advantage due to high transportation cost. Firms of this region could hardly compete with their mainland counterparts in national market centres. The partition-induced loss of region's communication channels, which hitherto passed through present day Bangladesh, has not yet been compensated by way of construction of adequate quality infrastructure (road, rail) enabling the economic entities (firms, industries, businesses) to move men and material faster and cheaper so that the comparative advantage of the region could be regained. In order to address the issues relating to connectivity, it is important to strengthen both the inter-

regional and intra-regional road and rail connectivity. While strengthening of inter-regional connectivity would ease out the access to national market, the intra-regional connectivity would facilitate the growth and organization of the regional market. The present status of connectivity is outlined in subsequent paragraphs.

Road Connectivity: Inter-regional

Currently, there are two overland routes that connect Assam with neighbouring West Bengal: Guwahati-Nalbari-Barpeta Road-Bongaigaon-Gossaigaon-Alipurduar-Falakata-Siliguri route and Guwahati-Hajo-Barpeta-North Salmara-Bilasipara-Golakganj Coochbehar-Falakata-Siliguri route. While the first route has recently been converted into four lane as part of the East-West corridor, one of India's mega road project which connects Porbandar (west end) in Sourashtra (Gujarat) to Silchar (east end) in Assam, and is used for heavy commercial vehicle traffic, the second one is currently under lane upgradation. On completion it will provide heavy commercial traffic an alternative inter-regional road connectivity leading to traffic decongestion on the first route. With the construction of Naranarayan Setu (bridge) over the Brahmaputra connecting Pancharatna (Goalpara)

and Jogigopa, a third route, Guwahati-Dudhnoi-Goalpara-Abhayapuri-Bilasipara-Coochbehar-Falakata-Siliguri, for inter-regional connectivity has opened up. While the first two routes run through the Northern Bank of Brahmaputra, the third one provides connectivity to areas lying along the South Bank. However, four lane of the third route needs to be done making it suitable for the movement of heavy vehicle traffic.

Road Connectivity: Intra-regional

As far as intra-regional road connectivity is concerned, Assam (Guwahati) needs to be connected with all the neighbouring states through four lane express ways so that seamless movement of men and material in all weather is possible. Presently, except Meghalaya, road connectivity with the neighbouring states is rather precarious particularly during the rainy season. Due to this connectivity bottlenecks, the regional market has remained segregated denying the firms cost-effective access to the customers in the interior areas.

Rail Connectivity: Inter-regional

There are two rail routes that connect Assam with neighbouring West Bengal: Guwahati-New Bongaigaon-Coochbehar-New Jalpaiguri route and

Guwahati-New Bongaigaon-Alipurduar-Siliguri-New Jalpaiguri route. Much of the traffic uses the first route which is getting double tracking and electrification. Till now, it is virtually a single track line. Moreover, while double tracking activities are going on from New Bongaigaon to New Jalpaiguri, Guwahati-Bongaigaon section is still under single track. Although, the gauge conversion from meter gauge to broad-gauge has been done only recently in case of the second route, double tracking and electrification are still far away. Completion of work on the first and undertaking the double tracking and electrification of the second would enable the railway to substantially contribute towards the economic development of the state.

Rail Connectivity: Intra-regional

There are two routes that connect Guwahati to Dibrugarh: Guwahati-Lumding-Dimapur-Amguri-NewTinsukia-Dibrugarh and Guwahati-Rangia-Misamari-Harmuti-North Lakhimpur Dhemaji-Dibrugarh. Much of the traffic from resource rich upper Assam takes the first route which was in existence since colonial period. However, both the routes are single track. Considering the traffic load, the first route needs to be brought under double tracking and electrification at

the earliest. Another route that connects Guwahati and Silchar in southern Assam, Guwahati-Lumding-Haflong-Badarpur-Silchar, is also serviced by a single track. Since Guwahati-Lumding stretch is common to both the rail traffic bound to upper Assam and southern Assam, this stretch needs double tracking and electrification on an urgent footing. However, while Assam is under extensive railway network, it has only a token presence in other neighbouring states except Tripura.

Power

In spite of being rich in mineral resources like oil, gas and coal as well as huge water resource in the Brahmaputra and Barak river basins, the state is not yet self-sufficient in power generation, a key input for industrial growth. While the average peak demand for power stands to the tune of 1956 MW, the availability is only 1500 MW (AERC, 2020).

Potential role for Japan for Industrial Development of Assam

Following are the sectors in which Japan can play a vital role for the industrial growth of Assam.

Power Generation

As has already been mentioned, if Assam were to adopt an industrialization-based

growth path, cost of production had to be brought down to such an extent so that it can offset higher transportation cost that the firms have to incur for accessing the national market. The policy of transport subsidy, adopted in earlier industrial promotion policy (NEIIPP, 2007) (shorturl.at/fpHJ4) could not break any ice due to different reasons prominent among them was the involvement of excessive bureaucratic control in managing such incentive scheme. One way to bring down the cost of production substantially is to ensure power availability at cheaper rate. Given the power generating resource base (coal, oil, gas and water) of the state, it is possible to attain such a goal. By leveraging 158.57 BCM of natural gas reserve alone (shorturl.at/asvI1), Assam could revolutionize the power generation scenario with the technological and financial assistance from Japan.

Oil and Gas based manufacturing

Availability of cheaper power will, then, facilitate the growth of resource-based industries in the state. Besides, the upstream activities relating to the extraction and refining of oil and natural gas, a number of downstream petrochemical manufacturing like plastics, rubbers, resins, synthetic fibers, adhesives, dyes, detergents, pesticides, and

petroleum-derived paints and coatings could be developed. In fact, in spite of having the comparative advantage, the petro-chemical industry has not yet developed in Assam to its full potential. Both technical and financial assistance from Japan could change the face of this sector and make Assam a major producer of a range of petrochemical products in the country. This will strengthen, otherwise weak, the resource-industry linkage in the state (Das: 2005).

Apart from the petrochemical industries, there is an immense scope to manufacture large scale nitrogen-based fertilizer using natural gas as inputs. Availability of fertilizer at a cheaper rate will enable the farmers of the state to scale up their production and thereby convert Assam from a food-deficit to a food-surplus economy, widen the access to food for the people below the poverty line, and boost the further growth of agro-horticulture based industries. Assistance from Japan will, no doubt, prove to be crucial in attaining this goal.

Forest-based manufacturing

With digitization rising at an accelerating space, demand for graphic paper is declining all over the globe. Two bamboo-based paper manufacturing units in Assam, viz., Cachar paper mill and Nagaon paper mill, has already

closed down. As a result, it is important to find out the alternative use of bamboo resources that are available in plenty in the hills of Assam as well as neighbouring Arunachal Pradesh and Mizoram. Japanese assistance for the alternative use of bamboo in emerging bio-technological fields like manufacturing of bamboo textile and bio fuel can certainly make a difference in this regards (Das: 2021).

Agro-Horticulture Based Manufacturing

Due to congenial climatic conditions particularly in the hills of Assam and neighbouring states, marketable surplus of a number of agro-horticultural products like pineapple (more than 48 per cent of the India's total), ginger (nearly 57 per cent of India's total), turmeric (about 8 per cent of India's total) provide an ample scope for the growth of agro-horticulture processing industries in Assam (Paul and Das: 2017; Das and Das: 2017). Currently a part of these products are sold fresh in the local market and some are exported to the neighbouring Bangladesh at low price without any value addition. Varieties of products like beverages, oil, facial cream, oleoresins, dyes, etc could be manufactured using these agro-horticultural products. Moreover, ginger and turmeric based products have wide range of applications in many industries like pharmaceutical, meat canning, confectionary, tobacco

processing, soap making and production of antiseptic creams. Japan can assist to strengthen this resource (pineapple, ginger, turmeric)-industry linkage and put Assam into the regional value chain in food processing industry (Das: 2021). This will help in raising the rural income as well as create rural employment in Assam.

Handloom and Handicraft

Three skill-based manufacturing activities, mostly organized under small scale sector, viz., silk, bell-metal and jewellery making, which were in existence through the ages, and employed thousands of rural artisans, are on the verge of stagnation, if not extinction (Goswami: 2005; Baishya: 2005). In spite of being ethnic goods, these products also have a wider market. Lack of technological up gradation, organized marketing and design mix, these industries still follow traditional method of production which deny their scaling up and be a part of regional/global value chain. As these skills, inherent within the family structure, are informally inherited from one to other generation, they neither get formal recognition nor figure into the schemata of state-driven industrial development. In fact, if Assam were to industrialize, this handloom and handicraft sector could play the second most important role after the resource-based industries under large and medium scale. Japanese assistance in this sector

would directly benefit the mass of rural artisans in Assam.

Managerial Skill

The Department of Industries and Commerce is entrusted with the creation of industrial infrastructure and promotion of industries in the state. Under this Department, District Industries Centres (DIC) was created in each of the districts. DICs are supposed to promote small scale industries at the district level by way of identifying potential industrial activities, training the entrepreneurs and helping to set up manufacturing units. A number of Industrial Estates (25), Mini Industrial Estates (7), Industrial Area (21), Integrated Industrial Development Centres (11), Industrial Growth Centres (5), Industrial Clusters (5), Industrial Parks (1), and Commercial Estates (64) have already been developed in the state under different schemes as and when made available by the Central/State Governments (GoA: 2020). But what is missing is the coordination among different government agencies in utilizing these industrial infrastructure to their fullest extent. The process appears to be top down and driven by bureaucratic procedures rather than driven by industry and business interests. Japan can extend managerial farsight in synchronising the state-driven efforts towards industrial development with ground-level business/industry requirements. As the staffs

managing the industrial infrastructure view their role as mere government employees and lend themselves to a routine work, it is a huge challenge to instil in them the professional values so that they perceive themselves as facilitators of private entrepreneurial and business activities.

Besides infrastructure and manufacturing, Japanese interventions in the areas like flood control, promotion of tourism and development of the information communication technology (ICT) based services can prove to be crucial for the overall economic development of Assam.

Conclusion & Recommendation

As has already been pointed out, given the geographical isolation, the edifice of economic development of Assam had to be built on resource-based industrialization. The current trend of industrial growth also points in this direction. The alternative option of demand-based industrialization is simply not available as the high transportation cost robs the competitiveness of the firms operating in Assam. Competitiveness of the firms might be somewhat regained if the cost of production could be reduced to such an extent so that it can outweigh the higher transportation cost. In case the reduction in cost of production could not offset the higher transportation cost,

a downward adjustment in both might produce the desired result. A diversion of goods traffic from roadways to railways would certainly be beneficial in this regards.

In view of this fact, Japanese investment in the following four areas might prove to be a win-win situation for both India and Japan.

Infrastructure, power generation and development of downstream petrochemical industries

Project 1: Double tracking and electrification of Guwahati-Tinsukia rail section will facilitate smooth communication between areas of production and consumption. This will dynamize the state economy.

Project 2: Construction of four-lane inter-state highways connecting Assam with neighbouring states of Arunachal Pradesh, Manipur, Mizoram, Nagaland and Tripura. This will play a critical role for the development of a regional market centring Assam where Guwahati will act as the hub in a hub and spoke model of growth.

Project 3: Gas-based power generation and development of downstream petrochemical industries. This will lead

to cheaper availability of power as well as strengthen the resource-industry linkage in the local economy.

Agro-forest based manufacturing

Project 4: As the hills in Assam and neighbouring states are rich in bamboo resources, following the closure of the two paper mills, already mentioned earlier, this resource is virtually left underutilized. Establishment of plants for producing bamboo-based textile and bio-fuel will be of immense benefit for both India and Japan.

Project 5: Hills of Assam and neighbouring states produce a significant marketable surplus of ginger and turmeric. Establishment of processing plants to produce value added items to be used as inputs by a range of other industries already mentioned earlier will certainly boost the rural economy of Assam.

Technical upgradation and global value chain linking of skill- based manufacturing

Project 6: The core of the small scale sector in Assam lies in the manufacturing of silk, bell and brass metals and jewellery making. Although age old and traditional, these activities engage thousands of rural artisans. Modernizing them and linking

them with the national/global value chain will immensely benefit the small entrepreneurs in Assam.

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INDUSTRIALIZATION AND ECONOMIC DEVELOPMENT IN SIKKIM: EXPLORING SPACE FOR JAPANESE INVESTORS

Prof. Komol Singha

Abstract: The secondary sector, particularly the manufacturing/ pharmaceutical sector, has made significant contributions to the Sikkim economy. Because the state is a small and reliant economy that relies on the central budget, it requires external funding for industrial and infrastructure development. Japan's role in this state's development will be to act as a state's magic wand. Buddhist tourist attractions can be popularised by improving connectivity and basic road transportation infrastructure. Basic road infrastructure, hydropower, tourism, especially Buddhist cultural and religious sites, organic farming, and the health and pharmaceutical sectors are all niche opportunities for the Japanese government and private investors in Sikkim.

Introduction

Sikkim, a former independent Buddhist monarchy founded in 1642 by the Namgyal dynasty, became an Indian government protectorate in 1950. With a special provision enshrined in Article 371(F) of the Indian Constitution, the kingdom merged with the Indian Union on May 16, 1975, and became the country's 22nd state. This small Himalayan state is sandwiched between India's West Bengal state in the south and three foreign countries on the

other sides: Tibet (China's Autonomous Region) in the north and east, Bhutan in the east, and Nepal in the west. Due to its geographical and socio-cultural proximity to the country's North-eastern region, Sikkim joined the North Eastern Council (NEC), a regional economic planning agency, in 2003 as the eighth member state of the region. The state is primarily populated by three major ethnic groups: Lepcha, Bhutia, and Nepali, as well as a few smaller ethnic groups. The Lepchas are believed to be

Sikkim's first inhabitants, with Nepalis arriving later. In 2011, the Nepali ethnic group accounted for approximately 65% of the state's population, followed by the Bhutia and Lepcha ethnic groups, which accounted for approximately 8% and 7%, respectively. The state's two major religions are Hinduism and Buddhism.

Sikkim is regarded as the most peaceful state in the region, with one of the fastest growing economies. Unlike other sister states in the region, Sikkim's secondary sector has grown rapidly and has contributed the most to its Gross State Domestic Product (GSDP) over the last few decades. Sikkim's high per capita income and low inequality rate have convincingly established it as one of the country's welfare states. Aside from its abundant natural resources and social capital, the state's good governance and political stability have aided economic development. There is no movement for a separate state or other forms of autonomy, as there is in other states. There are a number of active and inactive statehood demands in India. Sikkim, unlike other states, particularly those in the Northeast Region, is also devoid of separatist and rent-seeking organisations. This not only expedites the state's development programmes, but also ensures that the budgets allotted for specific projects are properly utilised. Following the launch of the government

of India's Look East Policy to develop the country by connecting it with East and South East Asian nations via Northeast region, many international organisations are looking for safer investments. For example, the Japanese government has attempted to invest in numerous infrastructure projects and to establish an industrial township in Northeast region. Sikkim appears to be one of the major foreign investment destinations because it is the most peaceful state in the region, free of any insurgency movement.

After understanding these potentials and development opportunities, the current chapter attempts to analyse the state's economic growth pattern and explore its future development opportunities. Which sector(s) will benefit from additional investment, and who can invest? Whether there is still any room for foreign investment, particularly from the Japanese government, in the state? These are just a few of the key research questions raised in this article.

Present Industrial Growth and Economic Development

Though economic growth in pre-merger Sikkim was slow, it picked up after the reform period, particularly with the implementation of the North East Industrial and Investment Promotion Policy 2007 (NEIIPP)¹. For example, in 1981, the GSDP per capita was around

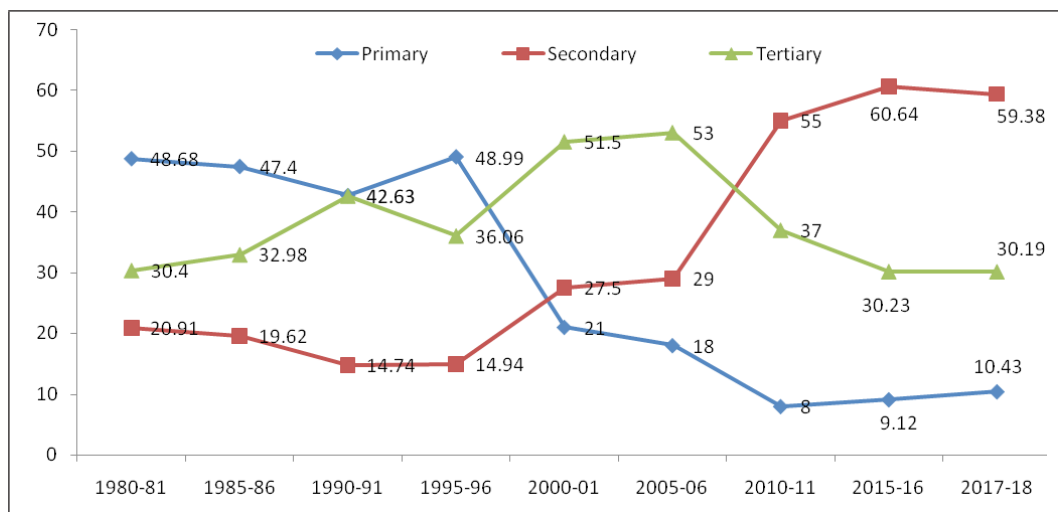
₹7500, and by 2012, it had risen to around ₹69000. The state's GSDP growth rate at constant prices (2011-12) reached 7.1% in 2018-19. Sikkim's GSDP per capita has risen from ₹1.82 lakh in 2010-11 to nearly five lakh rupees in 2019-20, a 167% increase in the last decade, compared to ₹0.72 lakh and ₹1.42 lakh at the national level (GoI, 2021). These figures reflect a significant increase in the state's income as well as a significant income disparity between Sikkim and the national average. Since 2007-08, a total of 55 industrial units have begun commercial production under the provisions of the NEIIPP 2007 (GoS, 2019).

In terms of sectoral contribution, the primary sector had a higher share of

GSDP from 1981 to 1989 than other sectors, despite falling from 36.50% in 1981 to 31.91% in 1989. The tertiary sector remained a major contributor after 1989 and until 2008. Since 2008-09, the secondary sector has accelerated and shifted the growth trend. The secondary sector's share increased after 2008, reaching 60% in 2015, while the tertiary sector slowed (refer Figure 1).

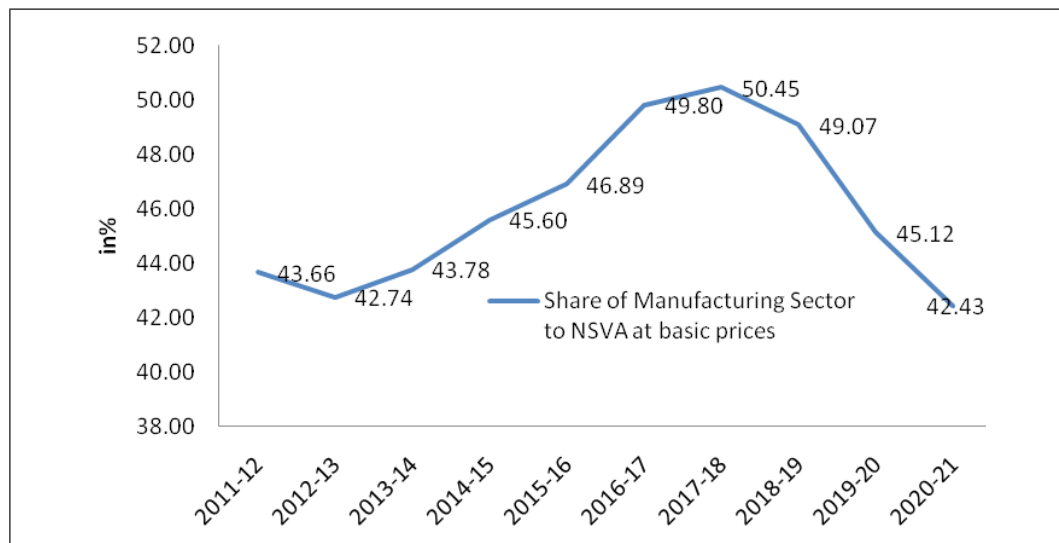
The growth rate of the secondary sector is estimated to be 33.91% of the annual compound growth rate from 2004-05 to 2017-18. Unlike in other NER states, Sikkim's secondary sector, particularly the manufacturing sector, has contributed significantly to its GSDP growth since 2008. It increased by 60% in 2015-16,

Figure 1 Sectoral Share of GSDP at Current Prices (in %)



Source: Author's estimation from different sources

Figure 2 Share of Manufacturing Sector to NSVA at basic prices



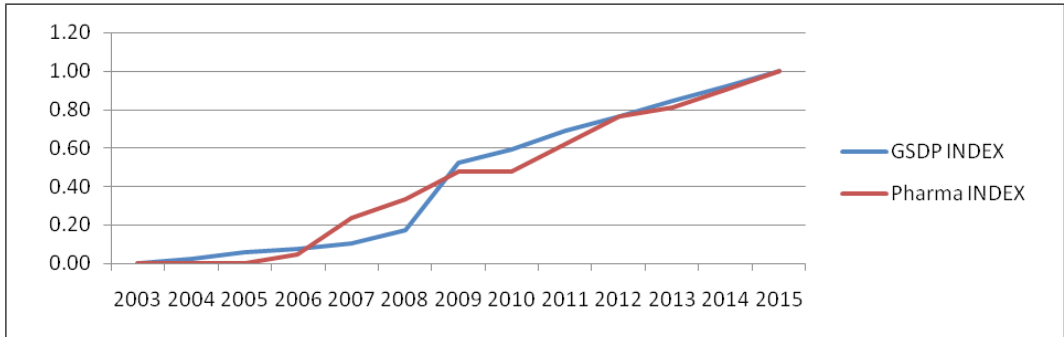
Source: Author's estimation from GoI (2021)

owing primarily to the pharmaceutical sector, which was aided by the NEIIPP 2007. The conventional narrative of the NER's industrial backwardness as a result of its hilly and landlocked terrain has been defeated. The manufacturing sector's contribution to Sikkim's Net State Value Addition (NSVA) has been significant; it has never fallen below 42%, even during the COVID-19 pandemic periods (refer Figure 2). According to the 2016-17 industrial survey, Sikkim has 52 manufacturing units (medium and large) that employ 9689 people directly (information on workforce was not provided by four firms) (GoS, 2018). In terms of public sector units, as of 31 March 2018, the state's total 19 Public Sector Units (PSUs) that carry out

economic and commercial activities were operating at a loss (GoS, 2019).

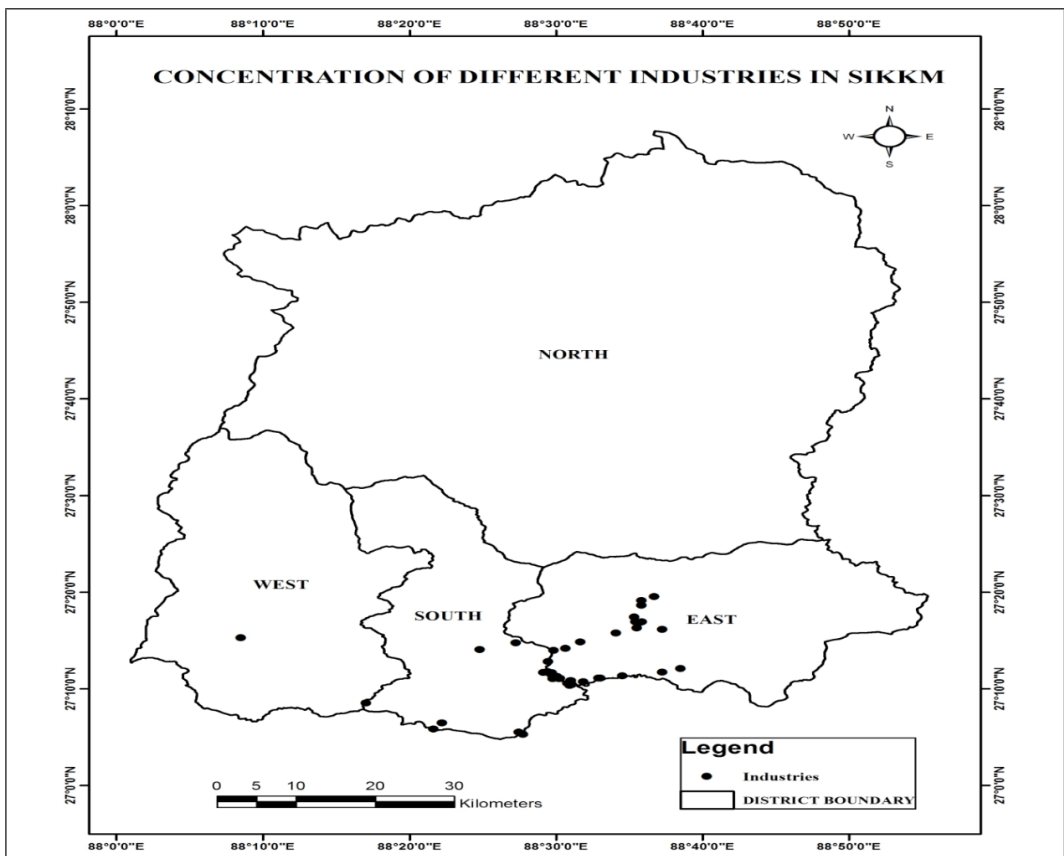
It is observed that the evidence of a significant increase in GSDP in Sikkim following the NEIIPP 2007 is primarily stimulated by the secondary sector. As a result, the state has seen the establishment of a large number of pharmaceutical industries. Sikkim had only one pharmaceutical industry in 2003. However, it increased to 11 pharmaceutical industries in 2009 and 22 industries in 2015 (refer Figure 3). Since then, the manufacturing sector's contribution to GSDP has increased from 3.7% in 2008-09 to 29.5% in 2009-10. This was the period when major pharmaceutical companies such

Figure 3 Growth trend: GSDP vs pharmaceutical sector



Source: Author's estimation from GoS (2018; 2017; 2015)

Figure 4 Concentration of Industries in different districts in Sikkim



Source: Author's Sketch from GoS (2018)

as Sun Pharma, Zydus, Golden Cross, Intas, Cipla, Alkem, and others began commercial production (GoS, 2019).

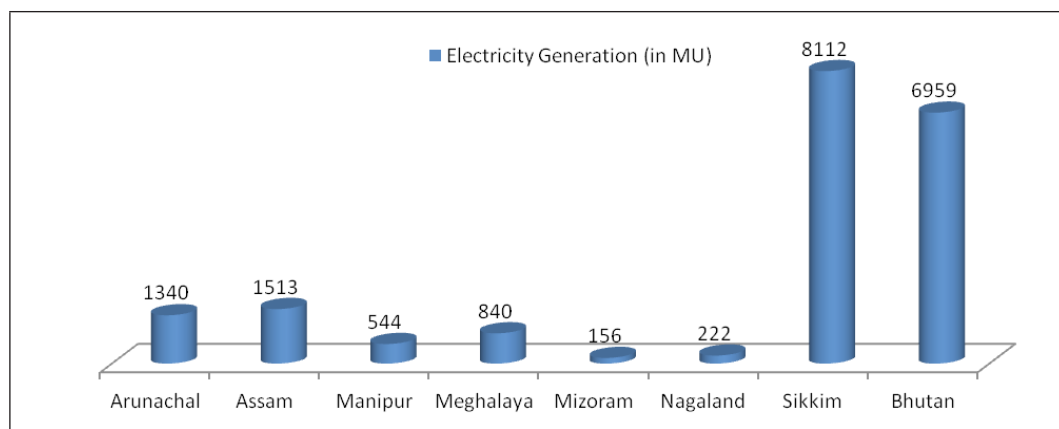
As expected, the importance of basic infrastructure, particularly the road network, is inextricably linked to the development of the state. The state's road network and economic growth have a significant and positive correlation. Most of the newly developed industries in Sikkim, particularly after the NEIIPP 2007, are primarily concentrated in the East (39 industries) and South districts (12 industries), which are the most developed districts in terms of road networks within the state (refer Figure 4).

In 2016-17, for example, 21 manufacturing units were located along the National Highway, primarily in the

urban centres of Ranipool, Singtam, and Rangpo (GoS, 2018). Sikkim, the region's smallest state, was able to generate 8112 MU, which was significantly more than Bhutan's (a hydropower economy) total hydropower of 6059 MU in 2018 (refer Figure 5). Sikkim's per capita electricity consumption (880 kWh) is not only much higher than that of its region's sister states, but also higher than the national average (819 kWh). In Sikkim, there are still a lot of opportunities for growth in this sector.

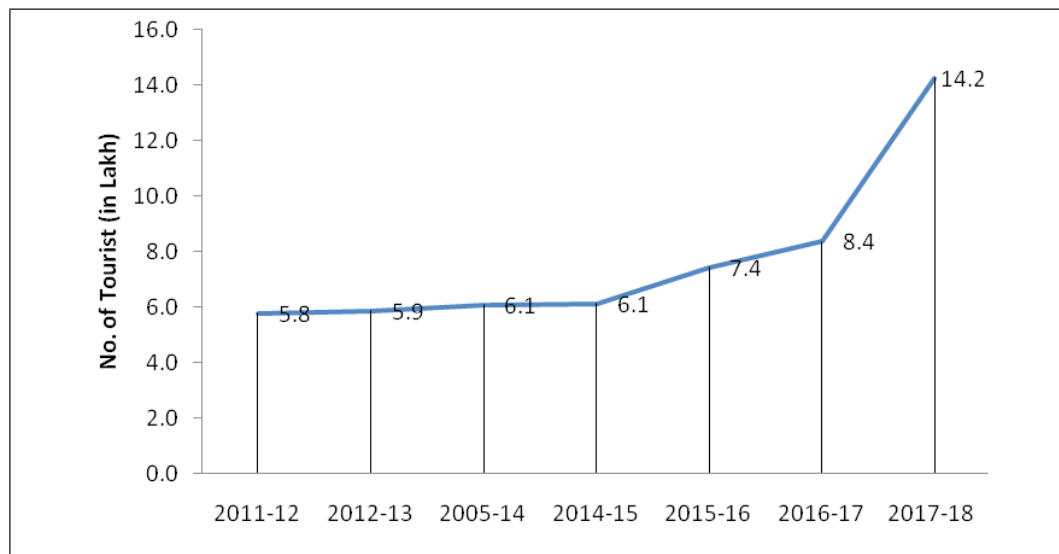
In terms of the tourism sector and its effects on economic development, it goes without saying that the sector is one of the fastest growing in the world, with a significant contribution to state's/ country's economies. Until the late 1980s, the tourist flow in Sikkim was

Figure 5 Hydropower by Large Project in Sikkim and its Neighbours in 2018



Source: Lok Sabha Starred Question No. 77, dated on 07.02.2019.

Figure 6 Tourist Inflow in Sikkim (Domestic & Foreign)



Source: Author's estimation from Das (2019)

minimal. However, the sector has seen a significant boost in recent decades, with tourist arrivals exceeding the state's population (refer Figure 6). For example, Sikkim's tourist inflow in 2017-18 was 14.2 lakhs, which is more than double the state's population of 6.07 lakhs in 2011 census. Domestic tourists account for approximately 95% of total tourist inflows in the state, with a 14% growth rate estimated between 2011-12 and 2017-18. Despite the fact that the proportion of international tourists to total tourist inflows in Sikkim is very low, the growth rate has been higher (16%) than the domestic tourist growth rate during the period. In a nutshell, the growth and development of this sector

in Sikkim is supported by the state's proactive tourism policy, as well as the state's endowed natural beauty.

Aside from the potentials mentioned above, Sikkim is well-known for its organic farming. There are also niche opportunities for horticulture crops, particularly large cardamom, kiwi, orange, and floriculture species.

Major Challenges to the Industrial Development

There are two ways to look at the major challenges to Sikkim's industrial development: natural/topographical difficulties and administrative hurdles. One of the most significant challenges

in Sikkim is transportation and communication. Aside from the narrow National Highways, there is no rail or air connectivity with Sikkim the rest of the country (Pakyong airport is not yet fully operational). Of course, the North-East Frontier Railway's General Manager has set a 2023 completion date for the ongoing Sevoke (West Bengal) to Rangpo (Sikkim's border town with West Bengal) rail line. Difficult hilly terrain, high attitude, and heavy rain in the monsoon, which causes frequent landslides, have been major impediments to the rapid development of major infrastructures. Roads are frequently blocked during the rainy season due to landslides, and in the winter, the tourists are frequently stranded in the high altitudes due to snowfall. All these have negative impacts on health and education sectors in the state.

The second major challenge in establishing industrial units in Sikkim is the time-consuming administrative and political processes. Sikkim is a small state, so basic infrastructure development is still lacking. The state's representation in the Union government decision making is very minimal. Major decisions for the development of the state cannot be made unilaterally by the state's leaders under the federal structure. Development policies appear to shift based on the needs of the

Union Government. For example, the Indian government has gradually reduced the availability of incentives for industrial growth in the state. Industry incentives were available for a ten-year period under the North East Industrial and Investment Promotion Policy 2007 (NEIIP) for commercial production up to 31 March 2017. Furthermore, beginning in April 2017 (under a new policy known as the North East Industrial Development Scheme), the periodicity of incentives was reduced to five years, extending through March 2022. Because industries were drawn to north-east India, including Sikkim, because of the benefits available under the central schemes (NEIIP), it is possible that such industries will close operations in Sikkim and relocate to locations better suited to them after the incentive schemes expire, as was seen in Uttarakhand.

Potential Role for Japan

Sikkim, as a small and impoverished state reliant on the Union budget, requires external funding for industrial development. Japan's role will be to act as a state's magic wand. Economic ties between Japan and India have grown steadily in recent years. In 2020, India was Japan's 18th largest trading partner, Japan was India's 12th largest trading partner, and Japan was India's 4th largest investor. The Japanese private sector's interest in

India is rapidly increasing (Ministry of Foreign Affairs of Japan, 2021). The socio-cultural resources of Sikkim may be very appealing to Japanese investors and industrialists.

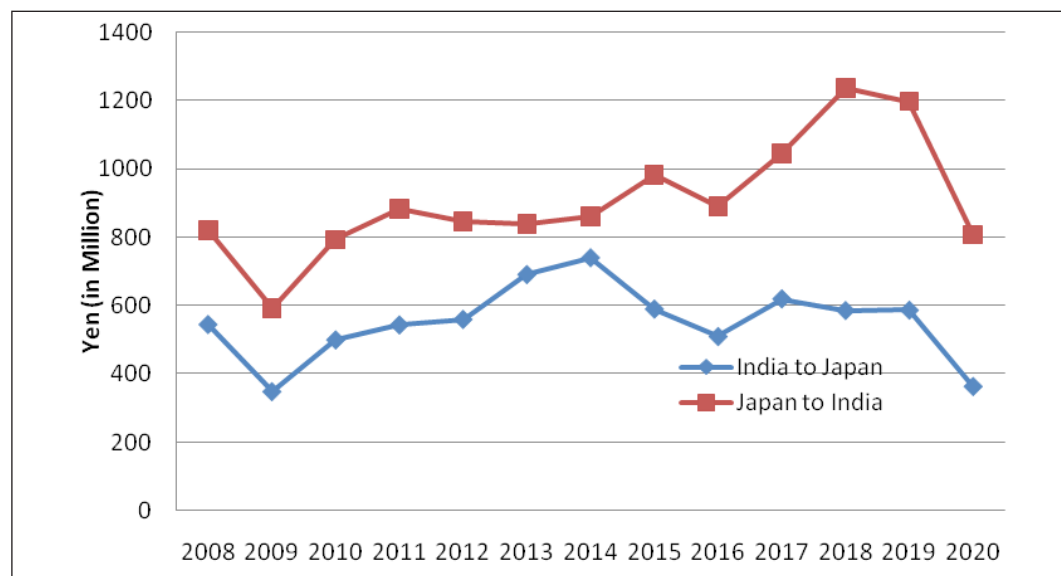
For the period 2008 to 2020, the growth rate of bilateral trade value running from Japan to India was estimated to be 3.34 percent. However, trade volume from India to Japan increased at a slow rate of 0.47 percent during the same period (Refer to Figure 7). Naturally, the slight decrease in trade volume in 2020 is well understood. For several decades, India has been the largest recipient of Japanese Official Development Assistance (ODA).

One of the most successful examples of this programme is the Delhi Metro (Ministry of Foreign Affairs of Japan, 2021).

Similarly, from 2008 to 2020, the growth rate of Japan's FDI to India increased at a tune of 2 percent. (Refer to Figure 8). Japanese FDI in India has primarily been in the automobile, electrical equipment, telecommunications, chemical, financial (insurance), and pharmaceutical sectors.

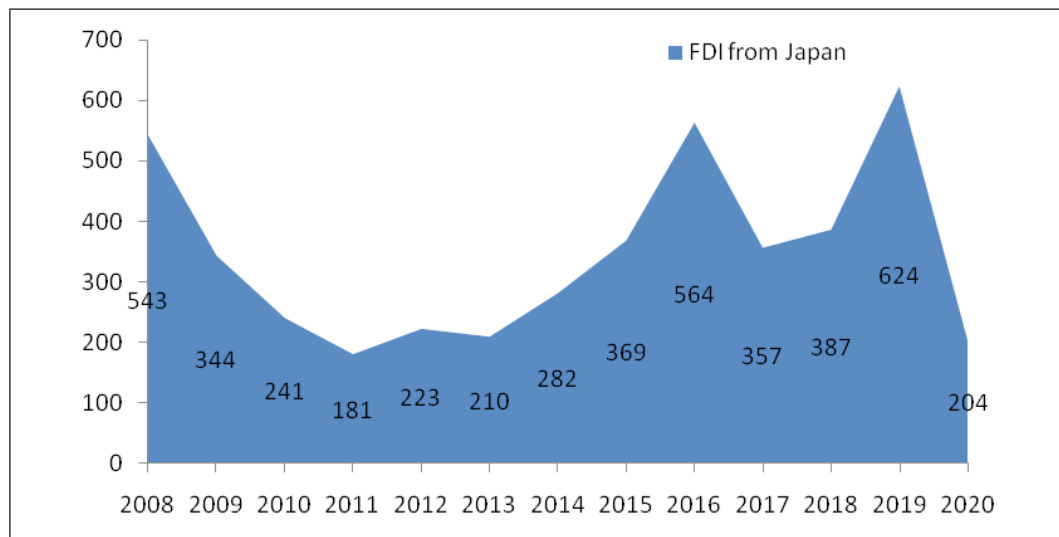
The major areas of Japanese investment through ODA in Sikkim may be road infrastructure, hydropower, tourism, particularly Buddhist cultural and

Figure 7 Bilateral Trade Volume between Japan and India (in Yen: Billion)



Source: Ministry of Foreign Affairs of Japan (2021)

Figure 8 Foreign Direct Investment from Japan to India (in Yen: Billion)



Source: Ministry of Foreign Affairs of Japan (2021)

religious sites, organic farming, and the health and pharmaceutical sectors. If the basic road and communication sectors are developed, the other manufacturing and tourism sectors may benefit greatly. Sikkim, in contrast to other states, particularly those in the country's north-eastern region, is devoid of separatist and rent-seeking organisations. This not only helps to accelerate the state's development programmes, but it also ensures that the budgets allotted for development projects are properly utilised. Foreign investors, particularly Japanese investors, need not be concerned about the bitter experience witnessed in the sericulture project funded in Manipur through Japan ODA.

Conclusion & Recommendation

The hydropower, pharmaceutical, and tourism industries are the main contributors to Sikkim's economy. Unlike in other north-eastern states, the secondary sector, particularly the manufacturing/pharmaceutical sector, has contributed significantly to the state GDP in recent years. Sikkim, as a small and impoverished state reliant on the central budget, requires external funding for industrial and infrastructure development. Understanding Japan's volume of investment in India and the additional development potentials in Sikkim, Japan's role in this state's development will be to act as a state's

magic wand. With the emergence of the current government's Act East Policy, the Japanese private sector's interest in India, particularly the north-eastern region, is rapidly increasing. Sikkim's socio-cultural resources may be very appealing to Japanese investors and industrialists.

Buddhist tourist attractions can be popularised by improving connectivity and basic road transportation infrastructure. As previously stated, basic road infrastructure, hydropower, tourism, particularly Buddhist cultural and religious sites, organic farming, and the health and pharmaceutical sectors are niche opportunities in Sikkim for the Japanese government and private investors through ODA.

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End Note:

¹North East Industrial and Investment Promotion Policy (NEIIPP), 2007 was a revised version of the erstwhile North East Industrial Policy (NEIP), 1997, and was notified for a period of 10 years from 2007 to 2017 with the purpose to boost industrialization of the region. Under this scheme, the Government grants a package of fiscal incentives to eligible industrial units engaged in the manufacturing and service sectors. From 1 April 2017, after closure of NEIIPP 2007, the GoI introduced a new scheme with the objective of further catalysing industrial development in North Eastern Region including Sikkim. This new scheme, called 'North East Industrial Development Scheme' (NEIDS) was extended for a period of five years upto 31 March 2022. The NEIDS provided capital investment incentive for access to credit, central interest incentive, central comprehensive insurance incentive, GST re-imbursement, IT re-imbursement and Transport incentive at different rates.

DEVELOPMENT AND INVESTMENT ROLE FOR JAPAN IN NAGALAND

Dr Shonreiphy Longvah

Abstract: In India, the state of Nagaland, despite being a part of the Indian Union for 58 years, is one among the least industrially developed and economically backward states. This is a state more known for its insurgency problem, earning the epithet “the mother of all insurgencies in North-East India.” Through secondary source study and adoption of participatory observation method, this paper attempts to discuss and explore four potential areas where Japan’s investment can transform Nagaland – agriculture, human capital, forest resources, and environment of peace and stability. Of the four, the fourth area is held supreme, for what is industrial development and economic growth without a healthy, stable, and peaceful environment to sustain it?

Introduction

Nagaland, a land with 16,579 sq km, carved out from the middle of the approximately 120,000 sq km of compactly located “Naga country,” as commonly called by the British ethnographers, was created on December 1, 1963 as the sixteenth state of the Indian Union through political means for political reasons. It was created by enacting a special law in the Indian Constitution, Article 371A, apparently, with the hope and intention of ending the Naga political movement for external self-determination that had already begun

in 1918 with the formation of the Naga Club. Indeed, by the time of the World War II, the Naga political movement was occurring in tandem with India’s struggle for freedom from the same colonial rule, the British. On 15th August, 1947, India secured her freedom, but the numerically insignificant Nagas merely got their ruler “replaced”, despite declaring 14th August, 1947 as their independence day and reportedly, the declaration was wired to the UN and also the newly independent Indian Government. The new “occupying force,” the Indian Government, inherited

the Naga problem from the British and to this day, the Nagas are still staring to the far-away amiable resolution of their more than seven decades running political aspiration. The unresolved political problem has handicapped Nagaland's industrial and economic growth and development. There is already glaring evidence in Nagaland that it indeed had major industries running in the 1970s and 1980s but all these have become defunct today because of the political unrest and peaceful environment to sustain the growth and development of their industries.

In 1944, towards the end of the "Japan War" – the term the older generation Nagas used for World War II – a very fierce war between Japan and Britain was fought predominantly on the soil of the Nagas, back in the time when the land of the Nagas was yet to be demarcated into the presently four administrative units in India (Nagaland, Manipur, Assam and Arunachal Pradesh) and partly to Kachin state and Sagaing sub-division in Myanmar. Definitely, thus, there is a historical linkage between the Nagas and Japan. Not only do the Nagas have similar physical appearance and also share closer cultural affinities with South-East Asian people rather than with South Asia, there are also perhaps many undiscovered and unmarked graves of the Japanese

soldier in the Naga areas. Coming out from the huge negative impact of losing in World War II, Japan, today, is one of the most admirable and praiseworthy countries proactively engaged, indeed making it one of the primary aims of the country's Ministry of Foreign Affairs, to promote and maintain peace and stability worldwide, particularly through act of financially assisting the developing nations with the "infrastructure and industrial development." Dugay (2015) pointed out that since 1954, "Japan has provided ODA (Official Development Assistance) to help reduce poverty and spur sustainable growth in developing countries by building up their infrastructure and human capital." Keeping such noble aim of the Japanese Government in mind, this paper discusses the potential role of Japan's investment in Nagaland and how such investment can transform the state economically, socially, and politically as well.

Present Industrial Growth, Economic Development of the State

It is a familiar knowledge that the economy of the state of Nagaland has been and is still predominantly agricultural and forest based and ipso facto industrial growth and the concomitant economic development of the state is minimal when compared with other states in

India. This does not mean that Nagaland has no scope or potential for industrial growth and economic development. It, indeed, is endowed with resources (both natural and non-natural) that can make Nagaland self-reliant and prosperous. It has very rich natural resources – mineral, forest, flora and fauna. However, mineral resources like limestone, marble, petroleum and natural gas, nickel, cobalt and chromium are yet to be explored and exploited (Mishra and Nayak 2008, 377) and other natural resources are also yet to be properly utilized in line with the concept of ecological sustainability for benefits and equanimity of all living beings and not just humankind.

As of now what we usually talk and emphasize is the potential Nagaland has for setting up large scale industries. Ozukum (2016) pointed out that even after more than five decades of statehood and the subsequent “liberal funding by the Government of India,” it remains industrially one of the most backward states in the country largely because of its geographical, historical and political reasons. In the 1970s and 1980s, “there were some major industrial projects running like Nagaland Pulp and Paper Mills at Tuli with daily capacity of 100 MT, Nagaland Sugar Mills with distillery unit at Dimapur of a daily crushing capacity of 1000 MT and Plywood Factory at Tizit of 1.8 million square metre capacity,

exploration of oil by the Oil and Natural Gas Commission (ONGC), all of which are presently sick industries or simply put defunct for various reasons,” further stated Ozukum (2016). The lone heavy industry in Nagaland – Tuli Paper Mill – that has been lying in defunct since 1992 was by 2018 “staring at closure as all efforts to revive it bore no fruit,” stated Neiphiu Rio, Chief Minister of the state (PTI 2018). Although large scale industries are yet to come up in Nagaland, research by Mishra and Nayak (2008, 378) found that it has “achieved remarkable progress in small and medium scale industries;” with “30 industrial units, and over 300 small-scale industries.” “There are 3000 plus Micro & Small Enterprises (MSEs) registered with the State’s District Industries Centers, mainly of weaving & knitting, saw mill, furniture, handicraft, rice mills, bakery, blacksmith, steel fabrication, motor workshop and repair & service centers, etc. and of all these, weaving and knitting units account for the largest share followed by agro processing, mechanical and service based respectively” (Ozukum 2016). “The major possibilities of industrial development of the state lies in food processing, bio-tech industries, tourism, floriculture, agro-forest based industries, handloom & handicrafts, mineral based industries, electronics & IT, sericulture and petrochemicals” (Mishra and Nayak 2008, 378).

Of all the industries, Tourism Industry, particularly through promotion and creation of festivals, is where Nagaland is apparently thriving at present, although here too, the state is just in “infancy” stage, with the state government yet to capitalize out of it. For instance, the Tourism Department of the Government of Nagaland claimed that “The Hornbill Festival is now an international event and through this festival, Nagaland has made a mark in the world map and the Nagas are now known worldwide” (E-mail Interview of Tourism Officer). And the government up to some extent is also fulfilling its aim of “giving platform to the upcoming Naga entrepreneurs and businessmen to capitalize from the festival” – heavy investment in these arenas is one main reason why the government is unable to generate targeted revenue (ibid.). In 2019, it managed to attract more than “250,000 visitors” (Sharma 2021). The 2021 Hornbill Festival was also already underway with the right degree of pomp. There were 25,000 visitors in the first three days of the 10-day celebration; of which, only 2090 are domestic tourists and 35 are foreign tourists (Press Trust of India 2021). The unsettled political scenario that threatens the security, law and order situation of the state is one factor behind the few turn-outs of domestic and foreign tourists. Indeed,

the negligence of human security amidst the prevailing dangerous law and order situation in the state has claimed yet another 14 innocent Konyak Naga lives of Oting, Chi and Jakphang villages on December 4 & 5, 2021 in the infamous “botched-up” Indian Army operation, or simply the “Oting incident”, that has abruptly ended the Hornbill Festival of this year.

Major Challenges to the Industrial Development

In 2015, Development Cooperation Charter replaced the term ODA and with it Shinzo Abe’s government became determined to “ensure human security and alleviating poverty through ‘quality growth’” (Dugay 2015). “Human security” and “quality growth” of the human are key concepts that seem to have been intentionally abandoned in Nagaland for various political and apolitical reasons. Hence, while “exploring the potential role” of Japan’s investment in the state of Nagaland; these are some key issues that must be simultaneously looked into. In Nagaland, with regards to the management of natural resources, communities become the basic unit of analysis and the community looked at free-loading and beggary in negative light. It is the communities which control almost 80 per cent of the natural resources and this has

earlier robustly supported “a traditional self-affluent economy” of the Nagas that now is apparently losing its substance in the face of “a market oriented economy” (George and Yhome n.d., 1).

One of the primary reasons behind the non-development of the state is the ongoing Naga political movement for external self-determination. In 1963, the state of Nagaland officially became a part of the Indian Union but a kind of law – Armed Forces Special Powers Act (AFSPA) – that disrespect the human rights of the Nagas is still in place to date since 1958. Indeed, the latest sting of army rule through AFSPA was felt by the Nagas when in December 4, 2021, the innocent Oting village coal miners were attacked in a “botched-up” Indian army ambush. Altogether 14 Naga males who were all under 40 years became the latest victims of the AFSPA. The Naga people, who at one point of time lived a self-reliant independent life, had since India’s independence, come to live a whole different life lacked of political freedom and human security. In such a scenario, for meaningful and purposeful investment, for real development or “quality development” to take place in Nagaland, human security needs to be ensured first. “Promoting peace and stability,” as stated by Santos (2015), is the new mission of Japan’s foreign aid projects under the name Development

Cooperation Charter. Lack of the environment of “peace and stability” is indeed the main challenge to actively attract investment from Japan or any other foreign investment to Nagaland. Thus, stable and peaceful environment needs to be created first for quality growth and development to establish in the state.

Another major challenge to the industrial development in Nagaland is the lack of good governance. “Honesty, hospitality, austerity, self-sufficient and self-reliant economy and free political life” were characters popularly held to mark the Nagas’ life world in the pre-colonial and British period but such attributes are only recalled nostalgically by the 21st century Nagas. The onset of the Britishers and with them, modernization, westernization and Christianization permanently transformed their way of life, prompting them to think “inferior” of their once upon a time unsophisticated traditional living – but that which provided them with self-reliant, self-sustaining and independent living – in the face of various seemingly glittering foreign values. Indeed, by the early 20th century, Nagas’ thought process, behaviors and speech became more open and intertwined with various modern concepts and issues like collective identity, nationalism, self-determination, tribalism, factionalism, etc., setting the course of the Naga

people to unending political conflict particularly with the Indian government. With transformation in their ancient social, economic, political, religious and cultural affairs, various negative “isms” like favoritism, nepotism, tribalism, factionalism, etc., too became part of the Nagas’ life-world. Further, corruption has perched a permanent place in all of these games of “isms” in the society and such perching has intensified because of the un-resolved “Indo-Naga” political conflict. In Nagaland context, “Fighting for good governance is equivalent to fighting against corruption.” Corruption indeed has become prevalent in today’s Naga society and popularly, by corruption, they pinned it to activities involving the love and lust for money, most particularly, giving and taking bribes. In other words, for them, corruption is an uncomplicated idea involving practices like “bribery, cronyism and nepotism” which according to Mulgan are obvious indication of “abuses of power” (2012, 25). Good governance can actually enhance the truer goal of investing in the industrial development of the state.

Potential Role for Japan

Sharma (2019) pointed out that there are particularly three common areas the whole North-eastern states share that could attract Japan’s investment in the region – “Tourism Push”; “Diversified

Culture”; and “Low Population and High Literacy Rate.” Considered as a land of festivals occupied by people with festive culture, Nagaland, undoubtedly, fulfills all these criteria. But the un-resolved “Indo-Naga” political conflict strongly and almost always inhibits the growth of Nagaland. Therefore, for Japan’s investment in this state to be effective and the benefits of such investment to mould a “self-reliant” individual and thereby state, Japan need to focus on resolving the long drawn political conflict. Seeking for Japan or any foreign investment without the necessary concomitant of resolving conflict will not lead to fruition of any investment project.

This paper attempts to discuss and explore four potential areas where Japan’s investment can transform Nagaland – agriculture, human capital, forest resources, and environment of peace and stability.

Investing in Agriculture Industry

Since 68-70% in approximation of the population of Nagaland depends on agricultural cultivation for their livelihood (Mishra and Nayak 2008, 378; Economy of Nagaland 2013), therefore, various measures to upgrade cultivation have been implemented thus far by the government. For instance, according

to the Department of Agriculture, Government of Nagaland, the names of some of the schemes implemented in the state in order to advance agricultural activities are—Agriculture Census Scheme, Strengthening and Modernization of Pest Management Approach in India (SMPP), Women in Agriculture, Farm Mechanization Under SMAM & RKVY, Seed Production Programme (RKVY), Rashtriya Krishi Vikas Yojana (RKVY), Rainfed Area Development (RAD) under NMSA, etc. Despite the working of all these schemes, the output and the return of actual benefits of such schemes to the cultivating population are not impressive. Sizeable number of the cultivating population is still heavily dependent on traditional methods of cultivation.

The use of machines so as to help lighten the labour needs of the farmers is still scanty. For instance, in any given Naga village, while cultivating rice, since the timing for sowing, planting and harvesting of the rice become the same for every cultivators, therefore, getting the required number of labourers become a great headache for farmers. And majority of the farmers are financially extremely poor and not in a position to own machines but aside this grave problem of poverty, most paddy fields are located in hilly areas where there is no proper motorable roads yet. Therefore, upgrading and enhancing

cultivation is one area where Japan can invest in Nagaland. This is a prime issue to consider because if approximately 68-70% cultivating population of Nagaland became self-reliant, it will definitely boost the human capital of Nagaland and in return there will be quality industrial growth and economic development. Of all the crops, rice is the most grown with “80 per cent of the gross cropped area under rice cultivation” (Mishra and Nayak 2008, 378). “The area under Jhum (shifting) cultivation is about 87,339 hectares and under terraced cultivation is about 62,091 hectares,” stated Mishra and Nayak (2008, 378). Many Naga farmers are into subsistence farming and not market oriented in their approach. This is one reason why Nagaland, despite its majority population being engaged in agricultural work import huge agricultural products from outside the state, including rice. Another reason is that Nagaland has less cultivable area; therefore, the focus of investment must be on scientifically increasing the food products but that which would respect the objective of ecological sustainability for attaining self-sustaining and self-reliant economy.

Investing to boost Human Capital

The world today has reached the 4th stage of Industrial Revolution – the era of blockchain technology – but Nagaland

is yet to relate the term “industrial revolution” in their economic context. Industrial revolution still remains a concept learned only in educational institutions. In the 21st century, when Nagaland is yet to even acquaint itself with traditional mode of stock market exchange, the world is already getting set for blockchain technology. So for Nagaland to catch up with the economic pace of the world, prioritizing investment on developing human capital is the need of the hour. OECD defined human capital as “the knowledge, skills, competencies and other attributes embodied in individuals or groups of individuals acquired during their life and used to produce goods, services or ideas in market circumstances” (cited in Pettinger 2019). Focusing on skill development to equip the Nagas with the cognitive and socio-behavioral skills to stay connected and provided economically with the highly technological world is a very pertinent issue any investors in Nagaland must consider. Therefore, investing in the human capital development can be the real deal for bringing in sustainable economic growth of the state.

In Nagaland context, ensuring quality education is one major area that needs consideration for effective development of human capital. Although the literacy rate of the state at 80.11% as per 2021

census is higher than the national average literacy rate of 77.70%, it “ranks 7th out of 8 small states in overall Performance and Rank in School Education Quality Index 2019 recently released by Niti Aayog,” stated Yaden (2019). Aside quality education, effective quality healthcare services and nutrition beginning at early age, are keys to boosting human capital in Nagaland (ibid.). Since the educational system is not focusing much on quality output, employability of the students in the market is unquestionably a serious concern in Nagaland, and ipso facto adding more weight to the already grave societal issue of “Educated Youth Unemployment.”

The issue of educated youth unemployment is rising year by year in the state. “Youth of north-east needs upskilling, while people here are cultured and educated but unemployment is very high, we are keen to get associated with Japan to impart skill training to our youth especially in tourism and food processing sectors to utilize the vast potential of the region,” said Vincent, H. Pala, Member of Parliament, Shillong” (Sharma 2019). The root of this issue is the lack of skill development of the youth, the non-realization of the importance of entrepreneurship as a means of livelihood, the irrational obsession with the so called government jobs, etc. But

the deeper and firmer root of all these issues is the lack of quality education, corruption and bad governance.

Investing in managing Forest Resources

Since ancient times, Nagas have been sustained not just by agricultural activities but simultaneously by forest products, reflecting that huge majority of their population (71.4%) remains untouched by urbanization and industrialization. It is a land with sizeable forest area. Indeed, more than half of its total land area, 8,623 sq km out of 16,579 sq km, is covered by forest (India State of Forest Report 2019, 193). According to the “IRS Resourcesat-2 LISS III satellite data of the period Oct 2017 to February 2018, the Forest Cover in the State is 12,486.40 sq km which is 75.31% of the State’s geographical area. In terms of forest canopy density classes, the State has 1,273.19 sq km under Very Dense (VDF), 4,533.72 sq km under Moderately Dense Forest (MDF) and 6,679.49 sq km under Open Forest (OF)” (ibid.).

However, forest cover of the state is thinning year by year. According to the report given by India State of Forest Report (ISFR), since 2017, the forest cover in the state has decreased by 2.60 sq km (India State of Forest Report 2019, 193). One predominant reason

behind the decrease is “Jhum Cultivation, a form of traditional shifting cultivation, in which approximately 60% of the population is engaged and approximately 60% of food demand is met from” (JICA 2017). The Japan International Cooperation Agency (JICA), an independent administrative institution under the Government of Japan, is already investing an approximate amount of INR 400 crores for management of forest resources in Nagaland since 2017 and also to address the challenge of Jhum cultivation. “The JICA-assisted Project aims to improve forest ecosystem and support income generation by rehabilitation of Jhum Cultivation area and provision of livelihood support, thereby contributing to sustainable forest and environmental conservation and livelihood improvement in the target villages (185 villages in 22 Forest Ranges in 11 Divisions, covering approximately 80,000 ha for forestry intervention) in the state of Nagaland” (JICA 2017). “Nagaland Forest Management” is the only area so far where Japan has directly invested. But investing in forest resources management is just a launched venture, where Nagaland is given 40 years to repay the loan, and currently in its fifth year, the fruit of the project is yet to be seen, particularly in terms of strengthening the capabilities of the people in order to improve their livelihood and alleviate

poverty of the cultivating population in Nagaland. Takema Sakamoto, Chief Representative, JICA India Office said, “It is envisaged that by implementing the project, better nutrient recycling within forestry soil increased production of fuel wood, fruits and Non-Timer Forest products (NTFP) would decrease people’s dependency on Jhum Cultivation and improve their livelihood” (JICA 2017).

Investing for environment of Peace and Stability

Of all the areas where Japan can look to invest in Nagaland or to upgrade its investment, investing for the environment of peace and stability is argued to hold supreme position, for what is industrial development and economic growth without a healthy, stable, and peaceful environment to sustain it? It is argued that Japan provides aid to developing countries not for “altruism” but for national economic interests, that is, to build and strengthen its war-torn economy (Varma 2009, 238). But this academic exercise does not delve into such debate for it is too ideal to expect any countries to provide aid solely for altruistic purpose without expecting and calculating any returns for itself. Perhaps, Japan like many other countries is also concerned by China’s growing influence, therefore, venturing to invest in North-East India to serve

its strategic requirements, economic interests, to support Government of India’s Act East Policy that primarily “aims to ease flow of goods and people by developing infrastructure, and expand job opportunities,” in order to counter China, is rationally understandable (Varma 2009, 240-241; JICA 2020). “Leveraging development assistance to advance national interests is not new,” stated Santos (2015). Japanese Official Development Assistance (ODA), revised in 2003, stated that the new objectives of “Japan’s ODA are to contribute to the peace and development of the international community and thereby to help ensure Japan’s own security and prosperity” (Varma 2009, 241). Creating an environment of peace and stability in Nagaland comes under the ambit of Japan’s ODA objectives and prior focus on this has the potential to contribute to the win-win situation for both India and Japan bi-lateral relations.

Conclusion

There, in fact, are flooding narrations on the relationship between Japan (particularly Japanese soldiers) and the Nagas. My mother narrated many of such stories which were narrated to her by her mother who lived and experienced the “Japan War”. According to some of these narratives, Japanese soldiers were very quiet, determined looking and fierce

in comparison to the taller and noisier but friendlier British soldiers. That was why, initially, they gained an upper hand against the Britishers. Having no knowledge about the happenings in the world and its subsequent impact, the narrations were flooded with stories of the starvation of Japanese soldiers and how many of them had come out from thick jungles to the Naga villages using sign language asking for something to eat. For instances, there were many narrations of Japanese soldiers found in the pig sty, in the chicken coop, reflecting their dire struggle against starvation. Some were even found hiding at “*phungsar*,” a kind of place above the kitchen’s fire hearth installed back then in every Naga kitchen for the purpose of drying rice, chilies, and other domestic necessities particularly during rainy season.

Subsequently, Japanese soldiers were forced to run back to jungles because the British were victorious and began to occupy the Naga villages. In short, the state of Nagaland has historical linkage with Japan, although that linkage was marked by the ugliness of war. Today, if Japan would aid Nagaland and invest so as to secure “peace and stability,” a new historical linkage marked by quality growth, development, and prosperity could be created. Reflecting historically, Japan’s investment in Nagaland could

be read as honoring the souls of those several thousands of Japanese soldiers who never got a chance to return home from war. Perhaps, through “investment politics” Japan is competing for influence in the region and also in the international arena but as long as Japan remains committed to its noble objective of realizing and maintaining peace and security particularly in conflict ridden developing countries through financial investment, it can definitely transform the handicapped socio-political and economic situation of the state of Nagaland.

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URBAN PLANNING ISSUES AND CHALLENGES IN MANIPUR, WHAT JAPAN CAN OFFER

Dr. Yumlembam Khogen

Abstract: The North-eastern region of India can be a boon to strengthen India-Japan ties by providing ample grounds for partnership, and Manipur has incomparable strategic importance in this regard due to already existing socio-political, cultural, and historical relations. Urban planning is an area where the government of Manipur wants to work with total commitments due to several persisting issues and challenges of urbanization. The ‘law and order’ situation in Manipur has improved much during the last decade, and India-Japan strategic partnership also strengthened. Japan may be willing to extend some helping hands to Manipur in such a changed scenario. The government of Manipur can grab the opportunity by seeking Japan’s help in resolving several urban planning issues and challenges in the state. In this backdrop, Japan has huge potential to help by investing in areas like sustainable town planning in hill regions, vertical expansion of urban living and business spaces, conservation and tourism management projects in urban areas, development of sustainable public transport infrastructure like metro rails, designing an excellent war museum in Imphal city as a centre for Japanese education, cultural exchange and tourist attraction in this region, etc.

Introduction

Northeast India can serve as the key to Japan’s missing link to ‘strategic partnership’ with South Asian countries. Alternative models of sustainable developments should be formulated so that both India and Japan can coordinate to meet the challenges of infrastructure

development in Northeast India. All the eight states in Northeast India have their unique roles to play, but this paper focuses on the case of Manipur with particular reference to what Japan can offer towards solving various urban planning issues and challenges in Manipur.

Manipur is the gateway to southeast Asia via the land route (Asian Highway 1) in India's Act East Policy. Manipur has incomparable strategic importance in India's Act East Policy. The success of India's Act East Policy also partially depends on how Manipur responds to and adapts to various facets of the policy. It is not that Japan has never invested in or helped Manipur. But Manipur is not among the north-eastern states getting lion's share of Japan's estimated Rs. 13,300 Crore Official Development Assistance (ODA) to Northeast India (see Embassy of Japan in India 2017, JICA 2018; JICA 2021b).

Once widely implemented 'Japan sericulture project'⁶ in Manipur had to be closed in 2008 due to violent activities like abduction and killing of officials. Afterward, Japan did not sanction any money for the project's second phase (The Sangai Express 2020). Such bitter past experience might be the reason behind Japan's apparent neglect of Manipur state from its major ODA and investment (see JICA 2019; Embassy of Japan in

6 The project was signed in 1997 and started in July 1998 after a loan agreement between GOI and Japan Bank of International Corporation. Initially first phase of the project was started with an outlay of Rs. 134.52 crore including Rs. 18.33 crore as state share.

India 2017; JICA 2021a; JICA 2021b). However, the state's 'law and order' situation has improved much better as claimed by the present government (The Times of India 2021). The last decade has witnessed a leap forward in the India-Japan strategic partnership, and in such a changed environment; Northeast India, including Manipur state, must grab the opportunities with both hands.

Japan had sponsored a project to promote primary health care in Imphal-West and the construction of Primary School for Scheduled Tribes students in Manipur. Japan invited youths from Manipur as part of people to people exchange programme in the Japan-funded Afforestation Project. In March 2021, the government of Japan gave assistance of \$ 65,225 to Shija Hospital under Grant Assistance for Grassroots Projects (GGP) to provide eye care medical equipment (The Sangai Express 2021).

A preliminary inquiry to the Town Planning Department, Government of Manipur hints that the Department is just focusing on executing the government of India's centrally sponsored schemes like JNNURM, AMRUT, etc. The department has not yet prepared any proposal for foreign funding in urban planning of Imphal or Manipur. However, as per the

FACTSHEET (Embassy of Japan in India 2017) on Japan's "Recent and Ongoing Projects in North Eastern Region of India" issued by the Embassy of Japan in India in August 2017; Japan has funded North East Road Network Connectivity Improvement Project (Phase 1) (I) NH-51 (Meghalaya), NH-54 (Mizoram), Umiyam Stage II Hydro Power Station Renovation and Modernization Project (Meghalaya), Guwahati Water Supply Project (Assam) and Guwahati Sewerage Project (Assam) (Chotani 2017). All such projects pertain to urban development and planning. As such, concerned stakeholders of the Government of Manipur must work on attracting Japan's interest in funding projects in Manipur similar to the above-stated projects in a well-crafted partnership mode.

Present state of Urbanization in Manipur

Manipur is one of the most fast-urbanizing states of India, but it is not in the top ten most urbanized states of India. Compared to other states of India, the level of urbanization in Manipur is still far behind with only 29.21 percent of the total population living in urban areas in 2011. However, Manipur has the second-highest level of urbanization among the north-eastern states of India only after the state of Mizoram. The trend of urbanization in Manipur

has been a point of academic attention because of the dramatic jump in the level of urbanization from a mere 0.50 percent in 1951 to 29.21 percent in the census year 2011. Therefore, over the last few decades, Manipur has witnessed a huge increase in percentile growth of urban population and it should be a concern for the planners given the small geographical area of the state where there is a high concentration of population in the small valley area at the center surrounded by sparsely populated hills (Singh 2020).

The pattern of urbanisation in Manipur is scarred by the disparity in the level of urbanization, particularly between hills and valley districts. In the last decadal census of 2011 when all the five hill districts had at least one urban area, the urbanization level in hill districts was far lower than in valley districts (Census of India 2011). An analysis of Census counts of 2011 reveals that 61 percent of the total urban population of Manipur is living only in the two Imphal districts (Singh 2020). Imphal West district is the highest urbanized district followed by Imphal East district and Senapati, a hill district is the lowest urbanized district in Manipur.

Eighteen new towns emerged in Manipur during the period 2001 to 2011 and some more can be expected to have grown

in the last decade also. Imphal city, the capital of Manipur is the biggest urban settlement in the state and acts as a center for all the urban areas and settlements surrounding the city. According to the 2011 census, there are 4.2 Lakh persons in Imphal Urban Agglomeration / Metropolitan region governed by the Municipal Cooperation and 2.7 Lakh persons in Imphal city alone (Census of India 2011a). Such a spatial pattern of urbanization in Manipur shows a mono-centric model of urbanization in the state with Imphal city at the center.

Major issues and challenges to Urbanization in Manipur

Apart from having an uneven pattern of urbanization, Manipur is having a single metropolis city called Imphal thereby attracting more migrants and leading to over-concentration of people and bringing numerous challenges to the urban life in Manipur. Manipur is rapidly urbanizing and as per one estimate (India Population 2020: 2019), the population of Imphal city alone is estimated to have crossed 3.8 lakhs by the end of 2020. The problems of urbanization in Manipur began to be visible in embryonic forms in the early 1990s only (Singh 1995: 213) and strains of urbanization in Manipur on harmful scales started in the late 1990s (Singh 1996). These days, the problems of urban sprawls in Manipur have taken

ugly forms bringing several challenges, particularly in Imphal, the capital city.

Imphal city is plagued with various socio-economic problems ranging from unplanned housing to unavailability and misuses of land, from inadequate drainages to lack of proper urban waste management, from pollution to heavy traffic congestion, and from lack of civic amenities to lack of employment, etc. which are greatly heightened by lack of industrialization, tardy economic development, sluggish growth in other towns and unplanned expansion of urban landscapes in Imphal city (Singh 2017). Such issues and challenges of urban planning in Imphal city have repercussions on the quality of life among city dwellers and daily commuters. Apart from these challenges, the ailing water supply service in Manipur even in the main Imphal area is an area where lots of work can be further taken up on top of the ongoing projects. The problem of vehicular congestion in Imphal is alarming and often visible during peak traffic hours, leading to worsening air pollution. A lot of work can be done on lighting up the streets, and many street lights are non-functional during the night time could have acted as a significant reason behind increasing road accidents in and around the Imphal area. As far as the factors responsible for traffic

congestion in Imphal city are concerned, some reasons like narrow roads, lack of classified roads designated for a specific type of vehicles, artificial road chaos due to lack of traffic control, and heavy traffic loads on odd hours, etc. can be cited (Singh 2017). The public transport system in the Imphal area is a complete failure. Public means of transport like buses are few as well as unpopular. Thousands of noisy diesel autorickshaws converge daily at the heart of Imphal city fetching people from surrounding towns and villages and there are no adequate parking areas for such vehicles. With more and more middle-class families resorting to private means of transport like cars and two-wheelers, the scene of vehicular congestion in Imphal city is becoming uglier day by day. Thus, it can be safely deduced that an inadequate and unappropriated transportation system is the primary reason for traffic congestion and other related problems in Imphal city.

If one walks through the narrow lanes of Imphal city, one can see many outdated, unplanned, and ailing buildings in the central city market areas. Such buildings in poor conditions are a significant threat to the safety and lives of the lakhs of Imphal urbanites if there happens any natural disaster like an earthquake. Streets, markets, and residential areas

in and around Imphal city face artificial floods during the monsoon season due to waterlogging resulting from a lack of adequate drainage system. The build-up area of the city has increased from a mere 24.77 % in 1970 to 83.27 % in 2015 out of the total 89.07 sq. km area (Tungnung and Anand 2017) and this has left the people and planners with no other option but to resort to the vertical expansion of the city. However, this is a big challenge to urban planners as Imphal city is located in an earthquake-prone area. Moreover, public services and amenities in the urban areas of Manipur could not meet the benchmarks set by concerned guidelines in various sectors like water supply, water waste management, solid waste management, education facilities, health facilities, etc. (Khwairakpam et al. 2015). As such, Imphal City is struggling with numerous problems and varied challenges. However, to expect that everything will come in place after Manipur Government's Imphal 'Smart City' Plan is too much. Here, the role of foreign funding and technological assistance from a country like Japan with tremendous experiences and lessons can help resolve such persisting urban issues and challenges ailing Imphal city.

Potential Role of Japan

Through several Official Development Assistance (ODA) Japan has been

providing financial and technological assistance to India with the prime motives of promoting self-help, sustainable economic growth, and human security in India (JICA 2018). Given the improved ‘law and order’ situation in the state and the preparedness of the people and government of Manipur, the government of Japan may be willing to extend some helping hands to Manipur in various areas. Some potential areas related to urbanization and urban planning in Manipur where Japan can focus in the future as part of its ODA are as follows:

- i. Manipur is rapidly urbanizing, and Imphal city, the only capital city of the state, is struggling with traffic problems. The problem is likely to be heightened in the near future. Here, Japan can provide ODA loans for infrastructure development addressing traffic congestion in urban areas, such as constructing overbridges, designing and installing anti-traffic congestion technology, and parking design in Imphal city. Japan can also render technological cooperation and human resources to Manipur in this regard as equal partners.
- ii. ODA loans/ grants can be invested in sustainable town planning in hills areas of Manipur. Roads will prove

to be critical infrastructure for urbanization in the hills of Manipur. Japan International Cooperation Agency (JICA) is known for its expertise in constructing durable and environmentally sustainable roads across rugged mountainous terrains, such as those in the Northeast. Such durable and ecologically sustainable roads shall address the social and environmental issues resulting from future rapid growth and urbanization in the hilly regions of Manipur and it will also release the development goals of poverty reduction, enhanced connectivity, and inclusive growth.

- iii. Imphal city is overcrowded with little room for horizontal expansion as such urban structures like market buildings and residential buildings have no other option but vertical expansion. Such may be the need in hilly towns in the near future. Japan is an earthquake-prone country due to its position along the “Pacific Ring of Fire” so Japan knows a lot about constructing earthquake-resistant buildings.

Manipur is also in India’s seismic Zone V (highest). Against this backdrop, Japan can collaborate with concerned stakeholders of the

- state by providing technological and human resource assistance in the vertical expansion of urban living and business spaces in Manipur.
- iv. Urban transport is a failed area in Manipur with consequential use of private vehicles (cars and two-wheelers) as primary means of conveyance leading to traffic congestion. As far as providing sustainable public transport infrastructure is concerned, the Jawaharlal Nehru National Urban Renewal Mission (JNNRUM) launched by the government was unsuccessful in Manipur for unknown reasons. JNNRUM has been succeeded by Atal Mission for Rejuvenation and Urban Transformation (AMRUT). Still, the public transport infrastructure is an area that continues to be in a pity state in Manipur. Here, Japan can offer various bits of help. Urban ring roads are under the conceptualization stage but the metro rails as a mass rapid transit system are yet to be conceptualized in Imphal/ Manipur. Here, Manipur can significantly benefit from Japan's financial assistance and technical know-how in the form of ODA loans and technical cooperation.
 - v. JICA (Japan International Cooperation Agency), as the biggest bilateral donor of India (JICA 2018) can sponsor some conservation and tourism management projects in urban areas of Imphal city. Many cultural heritage sites are located in urban areas of Manipur like the historic Kangla Fort, the world's oldest Polo Ground, and the largest women's market (Ema Market), etc. which forms an important cultural identity of the state. Japan may be interested in funding some projects for the conservation and tourism management of such places.
 - vi. As part of the post-war reconciliation effort, the construction of the Imphal Peace Museum (Manipur) is ongoing with financial support from The Nippon Foundation (Embassy of Japan in India 2017) and the Sasakawa Peace Foundation in Maibam Lotpa Ching (around 18kms from Imphal). However, Japan can play a significant role in designing such war museum/ cemetery as urban landscapes in Imphal city juxtaposing the Imphal War Cemetery which is maintained in memory of Commonwealth forces who died during II World War. Such an effort will make Imphal city a stronger tourist attraction.

- vii.** Imphal Sewerage Project with a treatment plant in the Lamphel area was launched in 2005 under French assistance but it was inaugurated only in June 2020 and the result is yet to be starkly visible. In this area also, Japan can be a boon to Manipur with some ODA loans/ grant aids towards the mechanization of waste collection and management in Imphal city.
- viii.** Government of India is focussing on promoting tourism in the north-eastern states of India. Manipur is becoming an alternative tourist destination in India mainly because of its natural beauty, culture, and sports. However, there is the absence of a significant urban landscape that can attract foreign and national tourists or represent this beautiful state in the north-eastern corner of India in this digital era where tourists love to take selfish or group photographs in front of a famous urban landscape. In this regard, Japan can invest in building giant urban structures as tourist attractions in and around Imphal city.
- ix.** People of Manipur have the potential for ingenious innovations. They are admired for their creative zeal, but due to the lack of proper training centers, no breakthroughs at large scales can be witnessed in raw material processing and product assembling. In this situation, Japan can train the locals of Manipur with product assembling skills and provide necessary equipment so that cheap raw materials from neighbouring countries can be imported and prepare to export quality goods. If Japan offers any grant or technical cooperation in such an initiative, the response of the people and local government shall be overwhelming. If Japan is willing, such a strategy will give opportunities to the locals of Manipur in providing a better means of income generation.
- x.** Imphal urban area needs multipurpose and sustainable urban canals. The ailing problems of polluted Naga Nala at the heart of Imphal city and the Nambul river running through Imphal city need to be solved through proper urban environment management. The project called 'Rejuvenation and Conservation of Nambul River' was launched in April 2019 and the Directorate of Environment, Government of Manipur is implementing the Rs 97.72-crore project under the National River Conservation Plan of the Union

Ministry of Environment, Forest and Climate Change (Govt. of India) along with four other state government departments namely urban development, water resources, public health engineering and state pollution control board with a phase-wise target. Japan can be the best partner in such a project.

- xi.** Manipur has more potential in solar than hydropower as a renewable energy source. Apart from this, Manipur has lots of windy highlands in surrounding hills. If these potentials are realized, the dark roads of Manipur can be lighted up easily. More effective wind-solar hybrid power projects can be installed in Manipur rather than solely depending on the controversial hydropower projects as the primary means of green energy. Here, Japan can invest in green electrification in urban spaces of Manipur in collaboration with the Manipur Renewable Energy Development Agency (MANIREDA), the nodal agency of the state of Manipur to develop better renewable energy sources.
- xii.** In 2017, Japan's PM committed to investing 17 billion to build high-speed rail lines in India (Wilkes and

Takenaka 2017). A high-speed rail line connecting Imphal and other cities of India's Northeast Region (NER) can be a major project where Japan can invest. Japan's technical and financial support towards increasing connectivity with high-speed railway lines to and within capital cities of north-eastern states of India shall act as a "cornerstone" policy in Northeast India by complementing India's Act East Policy.

- xiii.** Manipur is an Indian state with international borders. There are only a few lifelines of Manipur through which essential items are brought to the state but these roads are often not usable due to bad conditions during rainy seasons or blockades. On the other side, the railway line is yet to reach Imphal city. Although the state has an international airport it remained almost non-functional as far as international flights are concerned mainly because of the lack of adequate infrastructure or passengers. There are also some abandoned airfields in Manipur used during the II World War. But, if this only airport is damaged in case of any future eventuality, there seems to be no other option. So, Japan can help India build strategic roads and airfields in and around Imphal city

as joint ventures and it will in turn bolster the India-Japan partnership.

- xiv. The supply of potable water is an unresolved issue even in urban areas of Manipur. Imphal Water Supply Improvement Project (IWSP) is an integrated water supply project planned for Imphal city to provide safe drinking water to its 6 lakh population. However, the supply is short of demand as evident in the present boom of private water tanker suppliers' business in and around Imphal city. The project sponsoring agency the Japanese Cooperative Agency (JICA) can scale up the project by keeping in mind the ever-growing demand for safe drinking water in Manipur.

Conclusion & Recommendation:

North-eastern states of India can offer opportunities to strengthen India-Japan ties by providing ample grounds for partnership in different areas like road connectivity, health and education sectors, waste management, water, and environment management, clean energy, urban planning, Etc. However, Manipur has incomparable strategic importance in India's Act East Policy as the state is India's gateway to southeast Asia via the land route. Nowadays, urban planning is

an area where the government of Manipur wants to work with total commitment due to several problems and issues of urban sprawls in Manipur, particularly in Imphal city, the capital city. Persisting issues and challenges of urbanization in Manipur include unplanned housing, misuse of land, lack of proper urban waste management, air and water pollution, heavy vehicular congestion, lack of civic amenities, lack of public transport, lack of employment, unplanned expansion of urban landscapes, ailing water supply service, lack of adequate drainage system, etc. to mention a few.

During the last decade or so, the 'law and order' situation in Manipur has improved and India-Japan strategic partnership got strengthened. In such a changed scenario, Japan may be willing to extend some helping hands to Manipur; as such, the government of Manipur must grab the opportunity by seeking the help which Japan can offer in resolving several urban planning issues and challenges in Manipur. Japan has enormous potential to help India through its ODA projects in some areas related to urbanization and urban planning in Manipur like providing ODA loans, grant aids and technological cooperation for infrastructure development addressing traffic congestion, sustainable town planning in hills areas particularly construction of

durable and environmentally sustainable roads across rugged mountainous terrains, vertical expansion of urban living and business spaces by building earthquake resistant structures, providing sustainable public transport infrastructure like metro rails as mass rapid transit system, sponsoring some conservation and tourism management projects in urban areas, designing giant urban landscapes in Imphal city as tourist attractions, mechanization of waste collection and management in Imphal city, training the locals of Manipur with product assembling skills, building multipurpose and sustainable urban canals to combat ailing problems of polluted streams and rivers, green electrification of urban spaces, increasing connectivity with high-speed railway lines, building strategic roads and airfields, scaling up the integrated water supply project planned for Imphal city to provide safe drinking water in Manipur, etc.

Out of the many areas where Japan can invest in the state of Manipur as discussed earlier in the previous section, some priority areas can be identified. They are: investment towards sustainable town planning in hill areas through constructing durable and environmentally sustainable roads across rugged mountainous terrains as critical infrastructure for urbanization in the hill

areas of Manipur, collaborating as an equal partner with concerned stakeholders of the government of Manipur in providing technological and human resource assistance in the vertical expansion of urban living and business spaces in Manipur with earthquake-resistant buildings, investing in some conservation and tourism management projects in urban areas of Imphal city, investing in the development of sustainable public transport infrastructure like metro rails as mass rapid transit system in and around Imphal city, designing war museum/cemetery in a grand scale as an urban landscape in Imphal city juxtaposing the 'Imphal War Cemetery' as a centre for Japanese education, cultural exchange and tourist attraction, etc.

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DEVELOPMENT AND INVESTMENT IN MEGHALAYA: ROLE OF JAPAN

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Abstract: This paper attempts to highlight Meghalaya, one of the States of the Northeast India in the light of the Japanese interest to invest in the development of the region in which they already have started investing in few key sectors. Endowed with rich natural resources which are still mostly untapped along with its scenic landscape, Meghalaya offers rich potential to investors in the State. Despite the State having rich mineral resources and hydropower, industrial growth and development is yet to achieve a success story. This has been due to many challenges that the North east region as a whole and Meghalaya are particularly facing, where the rest of the country march forward towards industrialization while the region remains neglected and therefore mostly undeveloped. The paper will look into some of the main challenges that hindered growth and development and highlight key potential areas where the Japanese role and investment would be beneficial in contributing towards Meghalaya's strive for development and industrialization.

Introduction

Meghalaya also known as the 'Abode of Clouds' is one of the eight States of Northeast India. It was carved out by the merging of two districts of Assam, the United Khasi Hills and Jaintia Hills, and the Garo Hills and was officially declared as a State on 21st January, 1972. The State shares borders with Assam to the North and East, and with Bangladesh to the

South and the West. It covers a land area of 22,720 square kilometers with Shillong located in East Central as its Capital. Its geographical landscape is filled with waterfalls, hills and is the wettest region of the India. The State has about 1,170 km (730 mi) of national highways. It is also a major logistical center for trade with Bangladesh.

The State has forest cover of about seventy percent and is considered as one of the richest botanical habitats of Asia. It receives abundant supply of rainfall and support vast variety of floral and faunal biodiversity. Mawsynram and Cherrapunji located in the Southern part of Meghalaya receives about eleven metres of rain annually has been credited as the wettest place on Earth.

Meghalaya is a major tribal state and its population as per Census 2011 is 29.67 lakhs. Khasis, Garos and Jaintias are major tribes inhabiting the State. Other communities include Bengalis, Biates, Dimasas, Kukis, Boros, Nepalis, Lakhar, Hajongs, Koches, Tiwa and Karbi. Seventy five percent of its population practices Christianity. English is its official language while Khasi, Pnar and Garo are also spoken. One unique feature about Meghalaya is its practice of matrilineal system where the youngest daughter inherits the family's wealth and carries the lineage unlike the patriarchal system practice in most other states of India.

Meghalaya has predominantly an agrarian economy with a significant commercial forest industry. The important crops are potatoes, rice, maize, pineapples, bananas, papayas, and spices. The State is geologically rich in minerals and has abundant deposits of coal, limestone,

kaolin feldspar, quartz, granite, industrial clay and uranium, and a small deposit base of sillimanite, bauxite, base metals and apatite which has great industrial potential.

The service sector is made up of real estate and insurance companies. Meghalaya's gross state domestic product (GSDP) reached Rs.0.35 Trillion (US \$4.79 billion) in 2019-20. It increased at a CAGR of 6.74% between 2015-2016 and 2020-2021. (Meghalaya State Presentation and Economic Growth Report, IBEF)

Major Challenges to the Industrial Development

Despite more than seventy years of independence, the states in the Northeast Region still lack basic services like road connectivity, health and education when India has been lauded for achievements in many fields as a nation at par with many other developing countries. The NITI Aayog Report on Sustainable Development Goals (SDG) in the Northeast Region (NITI 2021a) is a testimony to that fact. Even though North East performs better than some of the major states in India (NITI 2021b) on the poverty front, it lags behind on the account of economic growth and contribution. Many factors contribute to this state of affairs. Some of the major constraints that hurdles growth and

development in the State of Meghalaya are:

Geographical Constraints

The entire north east region is landlocked and is connected to the Indian mainland by a small corridor – Siliguri Corridor also known as Chicken Neck – with a narrow width of only 23 kilometers. The region is surrounded by Bangladesh, Myanmar, China, and Bhutan. There is ‘Bangladesh to the west, Myanmar to the east and Bhutan and China to the north. The region remained geographically isolated from the rest of the country. And this geographical isolation resulted in the region being neglected and ignored and development of this region was a given step motherly treatment.

The Look East Policy was initiated in 1992 to promote economic strategic and cultural relations with the South East Asian region and much of the plans and programmes that focus on the North East Region centred around building connectivity mainly through construction of roads. By 2014, with its upgradation from Look East to Act East, connectivity is still one of the biggest challenge and it still is even today, and this continues to be a big hurdle in the process of growth and development in the entire region. The hilly terrain of the region and incessant rains during monsoon play spoilsport

in hampering road construction with landslides a common affair further delaying projects to fail its targets. Two big projects -the Kaladan Multi Modal Transport project and India Myanmar -Thailand Trilateral Highway which was conceived in 2003 and slated to be ready in 2015 have drastically fallen behind schedule despite repeated extensions of deadlines. (Bagchi 2018).

Security Issues

Meghalaya today is much more peaceful than most other Northeast States as insurgency issues are comparatively at a much lower scale. Insurgency in Meghalaya started as a movement mostly against the domination of outsiders (*dekbars*). The two main insurgent groups that were active in the State are the HNLC (Hynniewtrep National Liberation Council) and GNLA (Garo National Liberation Army). The HNLC fought for the Khasi tribe from domination from other tribes and outsiders from the State while the GNLA fought for sovereignty in the Garo hills. Most of their activities from extortion to bandhs, boycott of Independence Day etc . hampered economic growth and development in the State. Over the last several years, militancy in Meghalaya has been declining as the militant groups has been under an extended ceasefire agreement with the Government while the HNLC has been

trying to talk peace with the government but on a conditional basis. The withdrawal of Armed Forces Special Powers Act (AFSPA) from Meghalaya in 2018 after almost 27 years is a testimony to the fact that the State witnessed a decline by 80% in insurgency-related incidents.

On March 8, 2021, Meghalaya Chief Minister Conrad Sangma informed the State Assembly that the State Government had urged the Union Government to examine and consider the application of the ILP system to the State which would regulate all visits by Indian citizens from other states. Meghalaya has experienced a substantial consolidation of peace over the past few years. The substantial peace from militancy in the State has to be followed up with addressing the issues of ethnic insecurity. The prolonged ILP movement along with ethnic polarisation if not handled appropriately can give oxygen to low lying militancy to recreate trouble in the Hill State. South Asia Terrorism Portal, Meghalaya: Assessment 2021) A peaceful and secure environment would be most ideal for the Japanese investments in the State to come to fruition.

High Rate of Unemployment

Meghalaya's unemployment rate hit a 23-month high of 10.0% in Apr 2020, according to a survey conducted by the

Centre for Monitoring Indian Economy (CMIE). As of March 2018 there were 43,000 registered unemployed youth in Meghalaya. (Shillong Times, 2019) Despite being graduates and post graduates, many of the educated youths depend on Government services which alone is not sufficient to meet the high demands. The educated youths are also endowed with fewer skills leading to lesser experiences. In the absence of any industrial growth, this trend continues. The few cement companies and other industries can at best employ a few thousand skilled, employable youth.

Although young people are generally more highly educated than adults, they often lack the other two components of human capital: generic and job-specific work experience. This adds to another problem, i.e the mismatch between knowledge acquired through formal education and the skills required by the labour market. A good match between labour demand and supply mainly depends on school-to-work transition processes, which are quite heterogeneous among countries and change over time.

Lack of Good Governance

Another important challenge is to establish the institutional environment of governance. Empowerment of the people is possible only when participatory

governance and development is introduced. As mentioned earlier, inclusive governance is a pre-requisite for inclusive development. This is necessary for ensuring incentives for savings and investment, which is a precondition for the growth of the economy. (Vision Document for The State of Meghalaya 2030, National Institute of Public Finance and Policy, January, 2011)

Potential role for Japan in Meghalaya

Japan's involvement in the North East started during the UPA governance (2004-2014), with Overseas Development Assistance (ODA) in 2010 it became more substantive. Both India and Japan are committed to concretising the concept of a 'Free, Open, and Prosperous Indo-Pacific' by deepening convergence between the Modi government's Act East Policy and the Abe government's 'Free and Open Indo-Pacific Strategy'. In April 2017, the Japan International Cooperation Agency (JICA) signed an agreement with New Delhi to provide over 67 billion Yen (\$610 million) for Phase I of the North East Road Network Connectivity Improvement Project, which will focus on important projects in Meghalaya and Mizoram. This project is still underway, connecting Assam and Meghalaya, while the other project is the Project for Renovation and Modernization of the

Umiam-Umtru Stage III Hydroelectric Power Station.

According to the Department for Promotion of Industry and Internal Trade (DPIIT), cumulative Foreign Direct Investment (FDI) inflow in Meghalaya stood at US\$ 122 million, during April 2000 and September 2019. Identifying more Japanese investment potential in the State will definitely boost FDI inflow in the coming years as the Japanese interest in the region is a win win situation for both India and Japan.

Tourism

Meghalaya, one of the most picturesque states in the country, has 2 national parks and 3 wildlife sanctuaries. The state offers a variety for tourist attraction - adventure tourism like mountaineering, rock climbing, hiking and trekking, watersports, etc, rural tourism, homestays. In 2019, foreign tourist arrivals and domestic tourist visits in the state stood at 0.03 million and 1.25 million, respectively. (IBEF, Meghalaya State Report September 2021) Border Tourism can also be promoted to attract more tourist from Bangladesh by setting up Border Haats for conducting legal commercial activities from both sides of the border. Monsoon Tourism can also be promoted as Cherrapunji is famous for being the wettest place on earth.

Medical Tourism can also be another way of attracting neighboring countries for quality and affordable healthcare.

JICA in 2021 has granted an amount of 700 crores to Meghalaya for promotion and development of tourism in the State. The State Government has earmarked 350 crores each for both the Khasi Hills and Garo hills. The laying of the foundation stone by the Chief Minister for an eco-resort of the Tourism Department at Sakal A Duma village under the Nokrek Biosphere Reserve in West Garo Hills which would be undertaken with the Japanese grant. This resort would be a carbon neutral resort, a first of its kind in the region where solar and other renewable energy will be utilized. This promotes the Japanese interest in promoting sustainable tourism in the northeast. Already a tourist destination, Meghalaya still has a lot to offer as its potential is yet to fully develop and the Japanese contribution will definitely boost tourism and its allied industries. Japanese art and craft expertise can help design and create high value added cane and bamboo products with minimum ecological footprints that would promote entrepreneurship.

Soft power

Meghalaya started Cherry Blossom Festival since 2016, making India one

of the 28 countries that celebrates the Festival. The India International Cherry Blossom Festival 2017, which was held in Shillong to mark the International Year of Sustainable Tourism for Development, attracted more than one lakh visitors and boosted the local economy by 300 per cent. This can serve as a platform for the Japanese to build its soft power image in the State especially targeting the youths through its different form of art and culture. Ikebana (art of flower arrangement), origami (art of folding paper) shuji (Japanese Calligraphy), karaoke, manga, cosplay etc Japanese food, music and its costumes can be showcased during the festival to have a much larger appeal to the younger generation.

Education

Shillong the capital of Meghalaya has been an education hub for almost the entire Northeast. Quality education with ample number of colleges along with English as its medium has attracted students from neighboring States to pursue their academic careers. In this regard, Japanese expertise in science and technology, space science, engineering, robotics etc can further develop these educational centres by creating platforms for students through signing of MoU's between Japanese Universities and colleges in Meghalaya by offering exchange visits,

scholarship to Japanese Universities for higher education and skill training for professionals and entrepreneur. Further setting up of Japanese Language Schools in and around Shillong with job placement cells would be a good career opportunity for many graduates to work in Japanese companies. Opportunities if created and provided, many nurses and caregivers would want to build their career in Japan and therefore setting up of Japanese Language Schools would bridge the language barrier and signing of MoUs with the NE region in this aspect would help in a big way both the region and cater the Japanese demands of human resources in the hospitality sector.

Skilling Meghalaya/Human Capital

Under the One Meghalaya and Make in Meghalaya theme, the State targets to impart training of youths in skill development. So far skill development trainings imparted to the youth of the State comprises rural technologies skills like mushroom cultivation, compressed stabilized earthen blocks making, sustainable hosing technologies, solar lights assembling, installation and maintenance, leaf plate and cups making, handmade paper into value added products, honey processing and

packaging, food processing and packaging through solar dehydration, automobile mechanic, plumbing, hospitality, security and trade sector, construction sector, multi skill technician etc. Japan can aid the skill development programme through its technology that would improve the productivity and quality of many of its agro products. For instance, one such knowledge is digital farming which can be achieved through imparting of young educated unemployed youths on modern techniques of farming by employing IoT (internet of things) and AI ie Artificial Intelligence. Engaging youths through recognition of talents at a young age would also increase human capital by promoting sports.

Mining and Industries

Meghalaya has rich deposits of minerals including limestone, coal, clay, uranium, kaolin, glass sand, feldspar and sillimanite. Amongst these, coal mining is the most popular. Discovered by the British in Khasi Hills in the early 19th Century, coal mining in Meghalaya took off commercially soon after it attained statehood in the year 1972. (Syeda Ambia Zahan, 2021) The community-based mining before that – in which villagers extracted coal for household usages slowly got replaced by commercial coal

mining through rat holes⁷. This form of unscientific coal mining practices have been utilized so far, however with the recent approval of the SOP prepared by the State for granting prospecting license and mining lease is a significant step for beginning scientific coal mining in the State. This is an area where Japanese use of scientific technology can be employed. Mineral-based industries in the state so far are confined to the manufacture of cement, lime, small-scale steel plants, granite cutting and polishing.

Japanese assistance in setting up Coal Thermal Power Plant, Cement and Clinker manufacturing would promote regional economic integration with Bangladesh. Inter-regional transport of limestone and processed clinker/ cement would cater to the huge demand for both the domestic and export market. Japanese investment in other rich minerals like kaolin clay and glass sand could also bring in industries that could generate employment to the State. Not only this, uranium deposits in the State is third largest in the Country next to Jharkhand and Andhra Pradesh.

7 Rat-hole mining is the primarily practiced mining technique in Meghalaya in which deep vertical shafts with narrow horizontal tunnels of 3 to 4 feet diameter are dug and miners are sent down to extract coal till 100 to 150 metre and in some case even more than that. This process mostly involves children because of their small body frame.

Apart from exploratory drills, mining of uranium has not been undertaken which requires utmost

Disaster management

The fact that Meghalaya along with the entire Northeast falls under Zone V of the seismic map means the entire region is highly vulnerable and prone to Earthquakes. Meghalaya in 1987 and 1950 had experienced earthquakes of high magnitude that caused loss of human lives and properties. Also it is affected by a number of landslides, storms, flash floods, fire accidents, road accidents and other kinds of hazards. Japanese Government's experiences in executing different roles and responsibilities efficiently while addressing all of the disaster management, phases of disaster prevention, mitigation, preparedness, emergency responses, recovery and rehabilitation can be imparted through training and drills.

Agriculture and Horticulture

More than 70% of the population of Meghalaya is dependent on the primary sector for their livelihood and as such this sector needs a special attention to create more employment opportunities by harnessing the diverse potential of both agriculture and horticulture sector. This includes fishing, forestry, dairy and animal husbandry.

Meghalaya has a strong floriculture sector with plant diversity of 3,331 and more than 300 varieties of orchids. It is one of the leading states in the Northeast in terms of production and supply of cut flowers to mainland consumer markets. There is also a strong potential for medicinal and aromatic plants industry. Mention may be made of the Lakadong Turmeric which is famous for its high curcumin content of 7-12 % as against a mere 2-3% in most other varieties. The Lakadong Turmeric is indigenous to Meghalaya and it has obtained Geographical Indications(GI) tag by The Spices Board of India on 26th July 2015.⁸ Other products that are promoted by Zizira⁹ along with Turmeric are ginger, coffee, honey, tea blends, herbs and spices.

Japan can aid the State in many of its agro based projects and ventures promoting organic farming practices. Mushroom Mission¹⁰, Jackfruit Mission are projects undertaken by the State Government to create entrepreneurship to the

communities, process and add value to the crop to help improve livelihood of the farmers, help mitigate food and nutrition issues, planting in catchment areas for conservation purposes. Agro based or small scale enterprises can be set up with the aid of the Japanese to add value to most of the fruits and crops grown in the State and help create markets for the agricultural produce. Challenges like difficult terrain, distance from markets and inadequate availability of timely credit can be tackled collaborating with the Japanese expertise on usage of machines and technology to yield maximum benefit from agriculture without compromising with the ecosystem of the region.

JICA has taken up a project to enhance the quality of forest by implementing the participatory forest ecosystem conservation activities and creating the means for alternative livelihood of the people thereby contributing to the conservation of environment and improvement of livelihood of people in Meghalaya. The eco restoration project in Sohra area through dense plantations using the Miyawaki method¹¹, plantations

8 <https://www.zizira.com/pages/world-s-best-turmeric>

9 A local company that operates in Meghalaya promoting local products while educating the farmers on the importance of organic and sustainable farming practices.

10 MoU signed between YATS Corporation, a Japanese Agricultural Company, the Government and Hills Farmers Union for dissemination of Shitake mushroom cultivation technologies to farmers in Meghalaya.

11 A technique pioneered by Japanese Botanist Akira Miyawaki method involves planting two to four trees per square metre. Miyawaki forests grow in two to three years and are self-sustaining. They help lower temperatures in concrete heat islands, reduce air and noise pollution, attract local birds and insects, and create carbon sinks. (Stockholm Environment Institute)

of fuel wood and aromatic grasses along with soil and water conservation programmes is one such way of employing Japanese way of forest management.

Hydro Electric Power

The potential for hydropower in Meghalaya is estimated to be around 3,000 MW. As of April 2021, Meghalaya had a total installed power generation capacity of 616.03 MW, comprising 354.53 MW from state utilities, 13.92 from private utilities and 247.58 MW from central utilities. Of the total installed power generation capacity, 409.27 MW was contributed by hydropower, 160.31 MW by thermal power and 46.45 MW by renewable power. (Meghalaya, India Brand Equity Foundation, 2020). The Japanese company Toshiba Corporation, a global name for advanced technology and efficiency and always at the frontier of hydropower research has been associated with the hydro power sector in Meghalaya since 1965. Recent interests of Japan to invest in the North East Region gives a push to the already existing corporation to further enlarge its area of investment in harnessing the rich hydro power potential of the State.

JICA has been supporting the renovation and modernisation of Umiam Hydroelectric power station since 1997 in order to improve the energy situation

in the Northeastern part of India. JICA has been contributing to the inclusive development of Meghalaya through various projects. Earlier, it provided an ODA loan of 3,664 million Japanese yen (approximately Rs 200 crore) for the Umiam Hydro Power Station Renovation Project and the Umiam Stage II Hydro Power Station Renovation and Modernisation Project. In 2018, JICA announced to provide 315 crore for the renovation and modernization of Umiam Umtru Stage III hydroelectric power station in Meghalaya. This project is expected to contribute to the Japan-India Act East Forum, which aims to expand cooperation between Japan and India in the north-eastern region.

Conclusion and Recommendations

Excellent institutional support through various Central and State agencies namely North East Council, Ministry of Development of North Eastern Region and Meghalaya Industrial Development Corporation are already in place for all the three sectors-primary, secondary and tertiary sectors of the State. However, biggest challenge so to say lies in achieving targets on time without compromising on the quality of the things delivered.

Japan being the only foreign country to contribute in the growth and

development of the North East Region has ushered in new hopes and aspirations for the people of the region. Not only aid in terms of loans, but also sharing its know-how on industries, farming techniques, agro processing and horticulture, mineral based industries like cement and electronic based industries, Japan can take advantage in the State Government's bid to attract investment projects and help achieve the Meghalayan Decade¹² and contribute in the overall growth and development as envisaged in the Meghalaya Vision 2030¹³.

Even as the State Government promotes to attract investment projects in agro-processing and horticulture, mineral-based industries like cement and electronic-based industries, information technology and tourism, while Japan being the only foreign country allowed to invest in the region has make it advantageous not only for showcasing its high end use of technologies and quality maintenance in building infrastructure but more so in winning the hearts of the people of Northeast not through warfare like image of the past but by partaking

the journey of growth and development through economic upliftment and empowerment.

Few recommendations:

- Localization of programmes and policies and understanding people's sentiments and ground reality through awareness programmes before implementing projects would be beneficial and practical for all stakeholders. This can be applicable with mining and its related land and environmental factors.
- Inculcating the Japanese work ethics of discipline and punctuality right from the school might actually be of help in tackling delivery delays.
- Japan can help build, develop and modernize Meghalaya blending along with the rich customs and traditions of the State
- Finally progress towards sustainable growth and development without compromising with environmental challenges

12 The target to become one of the top 10 states in the country in the next ten years as announced by the Chief Minister Conrad Sangma in his Speech on 26th January 2022.

13 A long term vision of achieving happiness through peace and prosperity in sustainable manner. (Meghalaya Vision 2030), 2011

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A STUDY ON INFRASTRUCTURE AND INDUSTRIAL DEVELOPMENT IN TRIPURA

Dr. Arobindo Mahato

Abstract: Northeast Asia is a region with tremendous economic resources and potential. There is a complementary among developing and industrialized nations and countries with abundant resources, which can be mutually beneficial to all involved. On the other hand, because of its investment and technology potential, know-how, as well as geographical location and market, it is beyond doubt that Japan is an important country in Northeast Asia. Trade and investment between Japan and Northeast Asian countries intensify each year. Thus, the economic and political interests of Japan and Northeast Asia are becoming more and more tightly intertwined. Therefore, it is important to study Japan's role in Northeast Asian economic cooperation and industrial development and the bilateral and multilateral relations between countries involved in Northeast Asia, which especially characterizes the enormous differences and, therefore, the complementarities present in this region. Whereas, there have been remarkable changes in the international economy in recent years. We are no longer left with the concept of nation-states in the economic sphere. In the current decade, the world has been immensely shrinking; the international borders are losing their rigidity, where there is an interplay of global forces through the dynamics brought about through transport, trade and communications. This is all more related in the northeastern region, which is bound on virtually all sides with international borders. Researchers have often talked about the isolation of India's North-Eastern Region (NER), resulting in its economic backwardness and alienation from the mainstream.

Introduction

In recent years, there have been remarkable changes in the international economy. We are no longer left with the concept of nation-states in the economic sphere. In the recent decade, the world has been immensely shrinking; the international borders are losing their rigidity, where there is an interplay of global forces through the dynamics brought about through transport, trade and communications. This is all more related in the northeastern region, which is bound on virtually all sides with international borders. Often researchers have talked about the isolation of India's North-Eastern Region (NER), which has resulted in its economic backwardness and its alienation from the mainstream. The time has come for us to convert its backwardness due to geographical isolation into an opportunity. Such can only occur if the NER takes the conscious policy to improve and augment border trade and, above all, look outwards. Our strength lies in the international borders and beyond, and this is particularly true in the context of Tripura, which shares three out of its four sides with Bangladesh. Thus, in the context of Tripura, it is highly desirable to look outward towards neighbouring countries rather than only viewing inwards to marketing with the rest of the country. This is so because of

Tripura's unique geographical location. Besides this economic backwardness and alienation that comes with its geographically isolated position on the map comes another major problem, i.e., unemployment. Though unemployment is a national issue, it is particularly true in the case of NER because of its isolated location. Unemployment is a burning problem in the NER, where Tripura is no exception. The region is faced with an increasing number of unemployed and a lack of opportunities to remedy the same. Such unemployment can only be solved through the economic development of the region. Economic development will imply a flow of investment in the area, which can be made viable through cross border trade with the neighbouring countries. And nowadays it was observed that industrial estate is reducing these problems in Tripura. No doubt, the state has good communication links like road, rail, air and waterways with other State and international countries, which is the main reasons for industrial growth in the state.

The major industries are Natural gas, Rubber, Bamboo, handloom, handicraft, Sericulture, food processing, etc. Presently about ten Industrial estates are giving employment services to the people of Tripura in this sector.

The Micro, Small and Medium Enterprises (MSME) sector has the strength to build Tripura's economy. MSMEs can play a crucial role in providing large employment opportunities at comparatively lower capital costs than large industries. But it also helps in the industrialization of rural and backward areas, thereby reducing regional imbalances, assuring a more equitable distribution of national income and wealth. The Ministry of Micro, Small and Medium Enterprises has been implementing various schemes and programmes to promote Micro, Small and Medium Enterprise (MSMEs) at all Indian levels. The same has been reflected in budget allocation for FY 2021-22 for the MSME more than doubled to Rs. 15700 crore vis a vis Rs. 7572 crore in 2020-21 followed by Rs 21,422 crore 2022-23 (up by 26.71%). A closer look has revealed a mixed bag of The Prime Minister Employment Generation Programme (PMEGP), Incremental Credit to MSMEs, Guarantee Emergency Credit Line (GECL) facility, Entrepreneurship and skill development schemes, Mahatma Gandhi Institute for Rural Industrialisation.

2019-20 Budget Highlights for MSMEs:

1. An all-time high allocation of Rs.7011.29 crore has been made in the Budget of 2019-20.
2. The flagship scheme for employment generation of the Ministry, namely Prime Minister Employment Generation Programme (PMEGP) got an all-time high allocation of Rs.2327 crore. This reiterates government's focus on creation of sustainable employment in the non-farm micro enterprise sector.
3. For ensuring seamless credit guarantee to Micro and Small enterprises, Rs.597 crore has been provided under the Credit Support Programme.
4. To provide funding for the 2% interest rebate on incremental loan up to Rs.1 Crore for GST-registered MSME units, Rs. 350 crore has been provided under 'Interest Subvention Scheme for Incremental Credit to MSME.

Present Industrial Growth, Economic Development of the State

Industry Development always advances forever ruins a thrust section in the state-run government good policies. The State endeavours to make available able and expense in effect infrastructure, skilled being resources, perpetual environment and practical domination, which are the prerequisites for creating an investment environment for sustainable industrialized

growth. Unfortunately, Tripura as a state cannot catch the industrial development bus due to its inferior connectivity, mountainous terrain, weak store base, needy infrastructure, and shallow markets. The state has the potentiality for manufacturing opportunities and development, which will become more intense employment origination. One of the chief thrust areas of the state Industries & business subdivision is to promote and expound the rural, micro, little and mode enterprises, Agri based cuisine dispensation industries and promoting export and import company with the neighbouring country of Bangladesh. Tea, Rubber and Bamboo based industries are full into thoughtfulness for the stage of industrialized dishonourable in Tripura. The product of the 6th money-making Census-2013 reveals that near was 2,37,902 establishments in Tripura engaged in not the same financially viable actions other than crop creation and agricultural estate in the state. Of these, 144,674 (60.81 per cent) establishments were in rural areas and enduring 93,228 (39.19 per cent) establishments in urban areas. Around 2,46,565 (61.00 per cent) people engaged in the establishments which are tracked without any hired employees and leftover 1,57,650 (39.00 per cent) people involved in the system which is scamper with at slightest one hired human resources in the State hard work are minds ready to

promote entrepreneurship in the state. The out border investors in the open and confidential sectors are besides seen expectant mutually for their financial capabilities and specialized expertise for scenery up means and outsized dimension units.

Industrial Sector in Tripura:

a. Natural Gas:

Tripura has vast natural gas reserves. The gas is available in a non-associated form, with a high methane content of about 97.0%. Concessional gas-pricing vast reserves offer the potential for setting up industries in the sector. Natural gas is available in the Baramura hills; Rokhia. Natural gas-based thermal plants have been set up in both places. Natural gas is presently used mainly for generating power & to some extent in domestic, industrial, commercial and transport sectors. Emphasis would be given for setting up industries (e.g., ammonia, urea, methanol, methanol-based petrochemical industries), where the gas would be utilized as feedstock. In 2019-2020, the total revenue earned from Natural Gas was Rs. 10300 lakhs.

b. Food Processing:

The agro-climatic conditions in the state are favourable for growing various fruits and horticultural crops. Tripura's pineapple is known for its unique flavour

and organic nature. Major spices include ginger, turmeric, chilli, black pepper, cinnamon and tezpatta. The major spices produced in the state were ginger (15,041 MT), turmeric (14,875 MT), chillies (5,630 MT) and betel vine (7,507 MT). The state has around 55 food processing units and one operational mega food park located at Bodhjungnagar, West Tripura. An agri-export zone for pineapples is also being developed. The state also has potential in the meat processing sector. Tripura implemented the National Food Security Act 2013 in September 2015 and became the first state to implement the act in the entire North East.

c. Rubber:

Tripura is the second largest natural rubber producer in the country, after Kerala. The total area under plantations is 85,453 hectares, and the suitable area available for the plantation of the Rubber was 100,000 hectares. Keeping in view the area under plantation, growth potential and rubber production trends, the state has a vast potential for setting up rubber-based industries. Natural rubber-based activities have been declared as a thrust area due to their special significance to the state. There is a vast scope of investment in sectors like auto parts, footwear, tread rubber, vulcanized Rubber, rubber band, rubber cushion and mattress, latex thread, textile fabric etc. The state government has set up a rubber park at

Bodhjungnagar, with technical support from the Rubber Board, Government of India.

d. Tea:

Tea grown in Tripura is known for its good blending qualities. Organic tea and green tea production have been undertaken by some of the tea estates in the state. Tea production is a growing industry in Tripura and provides considerable scope for investment. There is a significant scope to increase the area under tea plantation and productivity in Tripura. There is considerable scope for investment in the tea blending units in state. Durgabari Tea Estate at Sadar, Manu Valley Tea Garden at Kailasahar, Ludhua Tea Estate at Sabroom and Devipur Tea Garden at Bishalgarh are some of the important tea gardens in the state. On the basis of volume of production, Tripura is the fifth largest among the 14 tea-producing states in India. Agro-climatic conditions in Tripura are suitable for tea plantation. With an average annual rainfall of about 210 cm. with a fairly even distribution over the year, state has a favourable environment for tea production. Tripura holds a strong tea plantation base in India, with 54 tea gardens, of which 3 Tea Estates are in the Public Sector (ITDC), 12 Tea Estates in Co-operative Sector and 39 Tea Estates are in Private Sector. There are 23 tea processing factories, of which 4 are in

the co-operative sector, 2 in the public sector and 17 in the private sector.

e. Bamboo:

Tripura is capable of luxuriant and diverse bamboo resources. It is domestic to 21 species of bamboo of the 130 species offered in India. The territory has a field of around 7,195 hectares for the agricultural estate of bamboo. About 6% of the entire country's prerequisite for bamboo brushwood for bamboo construction is met from Tripura. Bamboo is commercially second-hand for crafts, mats, infuriate sticks, furniture, back at the ranch decor, baskets and bags. Here is a possibility to make available new manufacturing goods based on bamboo. Tripura's strike and bamboo handicrafts are painstaking to be amid the per amount in the country for their superb designs, eclectic assortment of food and artistic appeal. This industriousness has terrific export potential. An enlightened bamboo tiles factory has been arraying up to boost the productive utilization of the huge source in the state. Industrial manufacturing products like covered products, ply boards, uneven sheets, etc., can be created and old as house materials. The factory is located in Bodhjungnagar, West Tripura.

f. Handloom and Handicraft:

Tripura's handloom represents an irreplaceable intermingle of three

traditions: tribal, Bengali and Manipuri weaving. Tripura is proven for its walking stick and rattan handicrafts. About 10,000 artisans are engaged in assembling over 200 handicrafts foodstuffs in the state. Sericulture is a weighty occupation in the state. Around 4,500 beneficiaries are unequivocally mixed up in this occupation. In 2015-16 (April - June), silk invention in the status stood at 15 MT. Further, the bloody silk assembly in the declare during 2015-16 was 52 MT. The complex of silk units is estimated to boost Sericulture in the express & engender employment opportunities. Under schemes such as Integrated Handloom promotion plan (IHDS), Marketing and Export Promotion format (MEPS) etc. hand has been a gradual mount in the income unconfined towards the expansion of the handloom commerce of the state.

In Tripura there are 1, 37,445 nos. Handloom weavers as per the National Handloom Census conducted by the Government of India. 22500 nos. Weavers are in 61 nos. of Handloom Clusters. Out of 61 nos. Handloom Clusters 17 nos. In West Tripura District, 7 in Khowai District, 9 in Sepahijala District, 7 in Gomati District, 8 in South District, 5 in Dhalai District, 4 in Unakoti District and 4 in North District. The State Tripura has some unique traditional design and arts in Handloom Textiles.

These earliest skilful arts have their place of pride; even today, these arts are survived despite all odds. The Handloom Industry plays a dominant role in the economic development of the rural people of Tripura.

g. Sericulture:

Sericulture is a significant occupation in the state. Around 4,500 beneficiaries are in a straight line occupied in this occupation. In 2015-16 (April - June), silk construction in the testify stood at 15 MT. Further, the untrained silk fabrication in the stately during 2015-16 was recorded to be 52 MT. In May 2015, a garb and article of clothing building centre foundation were resolute up in Agartala and silk doling out & printing item was inaugurated. The net of silk units is estimated to boost Sericulture in the state-run & cause employment opportunities. Under the once-a-year financial statement 2016-17, the unmitigated allocation for the handloom, craft and sericulture sector is recorded to be US\$ 6.24 million. Under schemes such as Integrated Handloom education plan (IHDS), Marketing and Export Promotion ruse (MEPS) etc. near has been a gradual expansion in cash at large towards the event of the handloom diligence of the state. The out income augmented from US\$ 0.11 million in 2012-13 to US\$ 0.58 million in 2014-15. Tripura's handloom represents

an exclusive tuneful intermingle of three traditions: tribal, Bengali and Manipuri weaving. Tripura is established for its strike and rattan handicrafts. About 10,000 artisans are engaged in the assembly of over 200 handicrafts food in the state.

State Plan Schemes are meant to supplement the efforts being made under the Central Schemes. Total budget provision for 2019-20 was Rs.26.70 lakh, out of which Rs.26.66 lakh was received, and expenditure incurred Rs.21.52 lakh. The fund is mainly utilized for providing support to 14 societies for purchase of planting materials, plant protection components, organizing awareness programmes, renovation of office buildings, stipend for training and development of Sericulture in the area of TTAADC.

h. Tourism

Tripura is a beautiful tourist destination with a fruitful cultural heritage. It is an integer of chronological Hindu, Buddhist sites. Also, state has the boundless ability for the educate of tourist circuits, connecting the northeastern states and Bangladesh entirely. This offers nice-looking opportunities for the warmth Industry. They testify a colossal likely in tourism, expressly eco-tourism, holy tourism, heritage tourism, prominence tourism, rural tourism, archaeological

seeing the sights and dampening tourism. Over the years, attendance has been a gradual intensification in the figure of extraneous tourists visiting the state. The digit of distant tourists grew at a CAGR of 50.4% from 2010-11 to 2014-15. Tripura's seeing the sights realm recorded revenues of US\$ 251.01 thousand during 2014-15, which was excluding than US\$ 313.98 thousand during 2013-14. The splendour leadership has done the manufacturing of Administrative and speculative construction during 2015-16, to fulfil the concept of magnificence Institute of inn Management Catering Technology in the state.

Moreover, the Bhramakunda's and Chhabimura's Destination occurrence Projects have been launched in the imperial during 2015-16. During 2016-17, the declared management would initiate the successful Destination improvement launch of Golaghati, Narikel Kunj, etc. As fully as the fun and announce performance in Agartala through ITDC.

i. IT:

Educated and low-cost human assets untaken in dignity accomplish it smart to the IT industry. In August 2015, the, in the beginning, IT Centre in the North East was commissioned in Tripura. As the nation is related to Bangladesh through a marine cable, the state-run will be witnessing prohibitive break the speed

limit internet connectivity. Tripura is, careful, the second greatest IT destination in the Northeast, after Guwahati, with an ability to background up IT-enabled services. The availability of IT qualified human resources has much enhanced over the years. The twelve-monthly intake amount of the IT courses self-train by universities and colleges in Tripura and no-one else machinery out to about 1500 persons. The commerce courses in IT explain for twelve-monthly intake facility of about 300 candidates. During 2015-16, 13 online air forces were inaugurated in the territory under the e-District project. Further, an incubation centre is too nature collection up for heartening the IT entrepreneurship in the state. During 2016-17, an advantage given out based on the cloud will be reputable in Tripura nation facts Centre, which will release enhanced management, on-demand self-service, etc., across different departments of the state.

Moreover, the extra time of broadband internet connectivity across a number of Tehsil offices of the say will be made in 2016-17. From January 2017² onwards, completely command correlated transactions and payments would be ended online. The rearrangement is likely to assist in the chance up of mass financial records of the 15000 workers operational in the tea gardens of Tripura. Two software technology parks (STPs)

to unwrap in next to no time in Agartala to come the northeastern region's IT industry. In April 2017, North East India's biggest IT Centre was inaugurated in disarray in classification to boost e-governance employment and export software technology. The IT hub, 6th of it's in the Northeastern region, cost around US\$7.43 million.

j. Medicinal Plants:

Tripura has about 266 remedial plants, 379 species of trees, 581 herbs, 320 shrubs, 165 climbers, 16 climbing shrubs, 45 epiphytes. here are around 18 juicy plants & 266 species of healing plants (68 trees, 39 shrubs, 71 herbs and 88 climbers) in the national. The related stifling climatic setting in the status funds the boom advance of a variety of types

of medical plants and other woodland funds scattered every single one over the state. The dignity leadership has constituted the curative deposit embark of Tripura. The Municipal Government has besides affirmed a curative hide document. Tripura plant advancement Plantations Corporation Ltd. is engaged in marketing healing plants, with the key objective of escalating the pay packet of community growers, ensuring sustainable money-making growth through the development of curative plants. In 2014, inhabitant AYUSH Mission (NAM) was launched by India's direction to redistribute the technique apparatus of AYUSH (Ayurveda, Yoga, Naturopathy, Unani, Siddha Homoeopathy) system strengthen the AYUSH institutions with required infrastructure.

Status of Industrial areas in the state:

Figure 9 Industrial Areas and location in Tripura

| Name of the Industrial area | Area (in acres) | Location |
|---|-----------------|------------------------------|
| Arundhutinagar industrial estate | 9.39 | Arundhutinagar, west Tripura |
| Badharghat industrial estate | 20.32 | Badharghat, west Tripura |
| Dukli industrial estate | 37.50 | Dukli, west Tripura |
| Bodhjunnagar export promotion industrial park | 123.20 | Bodhjunnagar, west Tripura |
| Food processing technology park | 25.00 | Bodhjunnagar west Tripura |
| Kumarghat industrial estate | 45.66 | Kumarghat, north Tripura |
| Dharmanagar industrial estate | 5.00 | Dharmanagar, North Tripura |
| Dhajanagar industrial estate | 18.79 | Dhajanagar, south Tripura |
| Bodhjunnagar growth centre | 238.53 | Bodhjunnagar , west Tripura |

Source: Economic Review of Tripura, 2019-2020

Major challenges to industrial development

Industry Development always advances forever ruins a thrust section in the state-run government good policies. The State endeavours to make available able and expense in effect infrastructure, skilled being resources, perpetual environment and practical domination, which are the prerequisites for creating an investment environment for sustainable industrialized growth. Unfortunately, Tripura has not been intelligent to magnetize much loved exclusive reserves in this modern sector from taking a break of the country and, therefore, remained a scientifically backward position correct to its inimitable money-making disadvantages arising out of diffidence and inferior connectivity, mountainous terrain, weak store base, indigent infrastructure, as rising as shallow markets and etc. The state has the potentiality for manufacturing opportunities and development, which in try will become more intense employment origination in the state. One of the chief thrust areas of the state Industries is business subdivision to promote and expound the rural, micro, little and mode enterprises, Agri based cuisine dispensation industries plus promoting export and import company with the neighbouring country of Bangladesh. Tea and rubber-based industries are full into thoughtfulness for the stage of industrialized dishonourable

in Tripura. Even if the magnificence is backward in industrialization but has the potentiality for industrialized opportunities and step up, which in good turn will raise the employment age bracket in the state. Economic development is normally interrelated to its industrialization development. The confusion is scientifically backwards, and major reasons for its backwardness are geographical isolation as able-bodied as connectivity with the mainland of India. The product of the 6th money-making Census-2013 reveals that near was 2,37,902 establishments in Tripura engaged in not the same financially viable actions other than crop creation and agricultural estate in the state. Of these, 1,44,674 (60.81 per cent) establishments were in rural areas and enduring 93,228 (39.19 per cent) establishments in urban areas. Around 2,46,565 (61.00 per cent) people engaged in the establishments which are tracked without any hired employees and leftover 1,57,650 (39.00 per cent) people involved in the system which is scamper with at slightest one hired human resources in the state. Hard work is mind ready to promote entrepreneurship in the state; the out border investors in the open and confidential sectors are also seen expectant mutually for their financial capabilities and specialized expertise for scenery up means and outsized dimension units.

The need for basic infrastructure is intense on account of the historical underdevelopment of infrastructure, the setback at the time of partition, and the physical location of the state. The importance of infrastructure for sustainable economic development is well recognized. Inadequate and inefficient infrastructure can prevent the economy from realizing its full growth potential regardless of the progress on other fronts.

The various major challenges are as follows

- **Power:**

Electricity plays an important role in economic & social development. The progress in Power Sector in Tripura despite geographical, economic and infrastructural hindrances has been quite encouraging. Performance of all important sectors, ranging from agriculture to commerce and industry, as also the performance of social sectors like health, depends largely on the desired availability of quality and quantity power. In the modern scientific world, electricity consumption is the index of development or standards of living of the citizens. The state has two sources of generation, mainly hydro and thermal. The state is endowed with natural gas, which enhances potentially thermal power generation. Out of the two major

power generation sources, thermal power accounts for 93.11%, while the remaining 6.89% is generated from Hydel Power (namely Gumti Power Project).

Ongoing projects for Development of Power Sector in Tripura

- R-APDRP
- RE-DDUGJY (12th Plan RGGVY)
- Integrated Power Development Scheme (IPDS)
- Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY)
- North Eastern Region Power System Improvement Project (NERSIP)

- **Railway:**

Since 2016, the rail connectivity has been extended to the capital city of Agartala through the broad gauge. Before that, no railway connectivity was there in Tripura. The major problem of the Indian Railway in Tripura is the quality and quantity of infrastructure. In Tripura, the infrastructural status of the railway is far below the national standard. Meter gauge line, single track, old signalling system, inadequate platform length, insufficient lighting in the platform, non-electrification, poor passenger service etc., are the major issues.

Agartala-Akhaura Rail Link Project (12.03 km) was sanctioned during 2012-13 as a follow up to the Memorandum

of Understanding (MoU) signed between Govt. of India and Bangladesh for linking the Indian Railway network with the Bangladesh Railway network. But till now, the work is going on, affecting the industrial development in Tripura.

- **Airway:**

Very recently, the Agartala Airport has been named Maharaja Bir Bikram Airport, situated in Singerbhil, is the second busiest airport in northeast India after Guwahati. Newly, the new Integrated Terminal building as the existing terminal building was saturated, and there was no further scope of expansion. But Passenger helicopter services are not available between the capital and major towns (Kailashahar, Dharmanagar) as well as to more remote areas such as Kanchanpur, Belonia and Gandacherra, neither with the other states of the Northeast and other states of India. The helicopter services which is available is only for VIPs.

- **Roadway:**

Roads comprise over 85 per cent of the road network. They're being kept in serviceable condition is crucial to the industrial growth and affording means of access to millions of rural people to social facilities viz., employment, medical, education, and education market. Lack of maintenance affects

the poor people badly as the time for access to markets and another social infrastructure increases. Then, there is a potential danger of these assets falling into disuse and eventual disintegration. Establishing new connectivity will also become more difficult as many of the easier habitations have already been connected. Increasingly, the new roads will serve communities in more remote and difficult terrain requiring special considerations regarding planning and program implementation. There will also have to be a greater emphasis on the States that have lagged in implementation performance. The connectivity that has already been created will also require much more attention in its long-term maintenance.

- **Waterways:**

Recently the waterways have been launched in Tripura, which has readied a floating jetty on River Gomati in Sonamura of Sipahijala district, 60 Km from Agartala, as part of the Indo-Bangla international inland waterways connectivity project. The jetty would connect Sonamura with Daudkandi of Bangladesh. But due to various reasons, it has been stopped working between the two countries, i.e., India and Bangladesh, which is a major obstacle for the industrial sector.

- **Communication:**

Allied to the transport system is the communication system. Communication facilities in the state have been growing steadily in recent years, and one is due to innovation in communication technology. The telecommunication facilities in the state have expanded in the remotest areas. But the situation is still not up to the mark.

- **Human Resources:**

Human resource development faces various issues like workforce shortage and various recruitment challenges they need to meet. Likewise, training and development are critical in developing the personal and professional growth that creates greater levels of employee satisfaction and stimulation. Along with the much-needed changes that need to occur in recruiting procedures, employee retention, and worker engagement, efficient and effective training and development systems are at the top of the list of things that must concentrate on for the manufacturing industry to stay competitive within the global marketplace.

Poor Productivity

This occurs from a wide range of issues, including:

- Idle time due to late or insufficient supply shipments;

- Construction vehicles breaking down;
- Frequent inclement weather;
- Design complications arising midway during construction;
- Friction between the different stakeholders (e.g., owner and contractor);
- and others.

Though poor productivity cuts across many areas, the net result is invariably the same: dwindling profitability and rising costs. Thus, despite the demand potential for the new construction industry worldwide.

Technological Development:

Technological development plays an important part to influence industrial productivity. “The application of motive power and mechanical improvements to the production process has accelerated the pace of industrialization to an unprecedented degree and has given us the vision of the vast and unexplored frontiers that still lie ahead of us in the realm of applied science and technology.”

The technological factors include the degree of mechanization, technical know-how, product design, etc. Improvement in any technological factors will contribute to the increase in industrial productivity. In Tripura, the application of mechanical power, the introduction of semi-

automatic and automatic machines, improvements in the production processes, better Morale and Productivity integration of production processes and a higher degree of specialization have contributed a lot towards the increases in industrial productivity.

Quality of Human Resources:

For Industry development, the workforce plays a significant role in raising industrial productivity in most industries. If the labour force is not adequately qualified and/or is not properly motivated, all the steps taken to increase the industrial productivity will have no result; the employees' performance and attitudes have an immense effect on the productivity of any industrial unit. Three important factors which influence the productivity of the labour area are (a) the ability of the worker, (b) the willingness of the worker, and (c) the environment under which he has to work.

Availability of Finance:

The ambitious plans of an industrial unit to increase productivity will remain mere dreams if adequate financial resources are not available to introduce technical improvements and give appropriate training to the workers. The greater the degree of mechanization to be introduced, the greater is the need for capital. Capital will also be required for investment in

research and development activities, advertisement campaigns, better working conditions for the workers, up-keep of plant and machinery, etc.

Managerial Talent:

The significance of managerial talent has increased with the advancement in technology. Professional managers are required to make better use of the new technological development. Since modern enterprises are run on a large scale, the managers must possess imagination, judgment and willingness to take imitative.

The managers should be devoted towards their profession, and they should understand their social responsibilities towards the owners of the business, workers, customers, suppliers. Government and society this is essential if the managers want to manage their organizations effectively. The managers should have conceptual, human relations and technical skills in order to increase the productivity of the enterprise.

Government Policy:

The industrial policies of the government have an important impact on industrial productivity; The Government should frame and implement such policies which create favourable conditions for saving, investment, the flow of capital

from one industrial sector to another and conservation of national resources. Certain industries may be granted protection, and incentives may be given to others to develop in view of the national interest. The government should flow the taxation policy, which does not discourage the further expansion of business. The government also must check the growth of monopolistic enterprises so that the interest of the consumers and the workers, are not jeopardized.

Potential Role for Japan:

Infrastructure Drive in Northeast India:

One of the main reasons for New Delhi's infrastructure building drive in Northeast India is its 'Act East' policy, through which India is reaching out to the ASEAN region and beyond. Northeast India is the bridge between India and the Southeast Asian region, given the fact that some of the northeastern states share an almost 1600-km long border with Myanmar. Second, one of the biggest challenges for India is how it has to deal with Beijing and its growing assertiveness. New Delhi and Beijing have a disputed border, although relations with Beijing have cooled down after the standoff between the two sides. Following China's road construction activities in the Doklam region of Bhutan

in 2017, there are still many issues that bedevil the ties between the two, especially New Delhi's refusal to join the Beijing-led Belt and Road Initiative (BRI). Indian Ministry of External Affairs statement on the BRI notes that India is ".....of the firm belief that connectivity initiatives must be based on universally recognized international norms, good governance, the rule of law, openness, transparency and equality, and must be pursued in a manner that respects the sovereignty and territorial integrity."

Third, the regional allies have made inroads into the Northeast using their infrastructure development plank, whereas the region had not seen much development in the period after India's independence in 1947.

Fourth, Northeast India is critical for New Delhi since it shares borders with Nepal, China, Myanmar, and Bangladesh from a security perspective. As the Doklam crisis in 2017 showed clearly, it would be foolish to underestimate the threat from China, especially now, given the fact that India has not joined the BRI, which has already ruffled quite a few feathers in Beijing.

Fifth, the extended neighbourhood in South Asia demands New Delhi's attention as China has been rapidly

making inroads into what New Delhi has traditionally seen as its backyard. Though there has been some push against China's growing influence in countries like the Maldives and Sri Lanka, New Delhi faces huge challenges in these countries as a cash-rich Beijing increases its clout in the region, especially in the light of its BRI. However, things are slowly picking up pace. Last year, the Assam government organized the first Global Investors Summit in Guwahati. It is also building a 65-storey Twin Towers in Guwahati. In the immediate neighbourhood of Northeast India, things seem to be working out with regard to countries like Bangladesh and Myanmar. The re-election of Sheikh Hasina in Bangladesh has made New Delhi's task easier, as she has been a strong ally to India in economic cooperation and the fight against terrorism. In Myanmar, things are proceeding much faster under a civilian government. India, Myanmar and Thailand are engaged in the construction of the India-Myanmar-Thailand trilateral highway, while New Delhi is involved in a series of infrastructure development projects in Myanmar. In addition, in 2018, the Heads of State of all the 10 Association of Southeast Nations (ASEAN) attended India's Republic Day celebrations in New Delhi, reflecting India's proactive desire to engage the region. Then, there is the tourism factor. The northeastern states

of India are breathtakingly beautiful. The Mawlynnong village in Meghalaya has been listed as the cleanest village in Asia by BBC Travel. Tourism can be a big draw to the region, especially given the deep Buddhist heritage in some parts of Northeast India. Besides, tribes like the Nagas are found across both sides of the border, in India as well as in Myanmar. Meanwhile, two land border crossings were opened last year between India and Myanmar (in the northeastern states of Manipur and Mizoram).

Major Japanese Projects in Northeast India

Japan has played a very important role in many infrastructure projects in Northeast India. As part of India's Official Development Assistance (ODA) commitment, it has contributed ODA loans for the North East Road Network Connectivity Improvement Project (which includes the National Highway 51 in Meghalaya and the NH54 in Mizoram). This will support the expansion and upgradation of the Shillong-Dawki strip in the northeastern State of Meghalaya and the construction of a new bridge in Dawki (on the border with Bangladesh). In addition, private Japanese organizations, such as the Nippon Foundation, have financed the construction of the Imphal War Museum in Manipur in Northeast India, in memory of the nearly 70,000

Japanese soldiers. They perished in the Battles of Imphal and Kohima during the Second World War. In addition, in a significant development, India and Japan have also established the India-Japan Act East Forum and the forum's first meeting in December 2017. The former Indian Foreign Secretary S Jaishankar and Japan's Ambassador to India Kenji Hiramatsu, this meeting was co-chaired.

Conclusion & Recommendation:

However, the road ahead is not a smooth one, given that the terrain in this part of India is difficult, with tall mountains and wide rivers cutting through the region. In addition, the region gets copious amounts of rainfall. Mawsynram in the northeastern State of Meghalaya is the rainiest place globally, with an annual rainfall of 11,871 millimetres. There could also be problems in coordination between the state governments in this region, the central Government and the Japanese Government. Hence, the key issue will be to coordinate the efforts and interests of the key stakeholders as New Delhi and Tokyo join hands in developing infrastructure in India's northeastern region. Some of the areas where the investment can be made are as follows:

- **Garments Manufacturing Hub:** Bangladesh is the world's second-largest exporter of garments and textiles after China, making it one of the most important players in the global textile industry. More than 4.5 million people in Bangladesh work in the textile industry, the majority of who are women. The Bangladesh garment manufacturing hub has been established in the last two decades. Eighty-four per cent of Tripura's total border share with Bangladesh. The garment hub is just 70 km away from Tripura, located in Bangladesh. The skill-based similarity and Diaspora encouraged the Tripura population towards the garment industry as an attractive income generation activity. It has become the heart of Asia's garment manufacturing industry. By bringing together information, expertise and knowledge, the Tripura Garment manufacturing hub will become the 'go to' destination on sustainability and supply chain governance issues.
- **Rubber Based Infrastructure:** Rubber plantation has Ensured livelihood to thousands of families, raising their income from Rs 300-400 per month to Rs 10,000 - 30,000 per month. It has generated direct employment @ 1,000 man-days per ha during an immature

phase. In the mature stage, a year-round job is ensured for 70 persons per 100 ha.

- **Advantages of Rubber Plantation Socio-Economic**

- Impacts :**

- Rubber plantation has the potential for employment of women as a skilled workforce. Rubber Plantations are sources of Ancillary income like Wood, Honey, Seeds, Seed oil, Cover crops, Intercrops etc. It can usher in Industrial Development in the state. Area Under Rubber In Tripura Year Cumulative Total is around 63,794 hectares. It has the Status of Rubber In Tripura 2nd in terms of Area in India (63794 ha.) and terms of Production in India (53000 MT).

Marketable Forms of Rubber Available in Tripura is Ribbed Smoked Sheets, Crepe Rubber, Centrifuged Latex, Indian Standard Natural Rubber (ISNR) / Block Rubber, Preserved Field Latex.

- **Block Plantation Project:** There are 55 Block Plantation units across the state covering 3800 ha of the plantation, out of which 3725 ha in yielding stage with another 75 ha immature. Most of the Block Plantation units have been raised for ST beneficiaries, whereas 4 units are for SC beneficiaries.
- **New Planting:** There has been 415.63 ha of new planting during 2019- 20. The total area under Rubber in the state is now 85453.63 ha.
- **Production:** Total production of natural Rubber in Tripura has been estimated to be 83701.23 MT.
- Rubber-based industrial units for products like rubber thread, tread rubber, rubber compound, rubber band etc., have already come up in the state. In order to further accelerate the process of setting up Rubber based industries in the state, a Rubber Park with a project cost of Rs. 23.00 crores has been established at Bodhjungle Nagar over an area of about 60 acres of land with technical support from Rubber Board.
- The response from potential entrepreneurs has been very encouraging so far. 14 units have got land allotment in Rubber Park, and 6 Units are located at Growth Centre and EPIP.
- To upgrade the quality of rubber sheets and fetch better market price, the State Government has taken special initiative to offer financial assistance through different Self Employment

Schemes like Swabalamban, Prime Minister's Employment Generation Programme (PMEGP) for setting up of modern Rubber processing units including smokehouse. During 2019-20, out of a total of 634 sponsored cases, the Banks have sanctioned 63 Smokehouses.

- **Bamboo Based Technology and Infrastructure:**

Endowed with rich and diverse bamboo resources with traditional usage, Tripura is home to 21 species of bamboo out of 130 species available in India. The Cane & Bamboo Handicrafts of Tripura – are among the best in the country. 60% of the requirement of the entire country for bamboo sticks for Agarbatti-making is met by the state. Tripura Cane and Bamboo handicrafts are considered among the best in the country for their exquisite designs, wide range of products and artistic appeal. This industry has great export potential as well. Industrial products like bamboo tiles, laminated products, ply boards, corrugated sheets, etc., can be produced and used as building materials for furniture manufacture etc. Bamboo is a very effective substitute for timber and is, in fact, better in many respects.

While rampaging inflation and adequate government policies are contributing

factors to the upward growth of the state from the last few years, the researchers are witnessing some energy in reviving domestic growth in the recent past. The government seems to be acting purposefully on all fronts where it has leverage, livelihood for the poorest of the poor, dictated by international and cross-border factors. In this circumstance, some global input, particularly from Japan, a country known for its' technological superiority, will give an impetus for Tripura. A technology and commercial endeavour to the Garments, rubber and bamboo craft triple effect will lead the economic status of Tripura at an upward structure.

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DEVELOPMENT AND INVESTMENT IN MANIPUR: POTENTIAL ROLE FOR JAPAN

Dr. Loitongbam Bishwanjit Singh

Abstract: This paper explores whether and how Japanese investment promotes economic development in Manipur. There is an urgent need of investing a considerable amount of investment on social overhead capital in the State. Japan should invest in improving road transport, particularly in rural areas. Other focus areas of cooperation include the development of MSMEs and entrepreneurship, sports and education. Japan should help Manipur to develop its export manufacturing and capitalize its strategic geographical location and infrastructure into a regional trading and transportation hub. Japan can invest in Manipur in rural infrastructure, textile and clothing industry, bio-fuel industry, and mandala tourism.

Introduction

Manipur is one of the eight States of Northeast India¹⁴, which is located at the extreme North Eastern corner of India. Manipur covers an area of 22,327 sq. km. It is bounded in the north by Nagaland, in the East and South by Myanmar, in

the Southwest by Mizoram and in the West by Assam. Out of 1643 km long India-Myanmar borderland, Manipur shares a 390-km-long porous border with Myanmar which is about 24 per cent of the total India-Myanmar borderland. There are three major ethnic groups. The Meiteis resides in the valley and the Naga and Kukis-Chin at the surrounding hills of the State.

Northeast India shared about 99 per cent of its total geographical boundary with China, Myanmar, Bangladesh, Nepal and Bhutan. However, it contributed roughly 2 per cent to the country's total exports

14 Northeast India comprises eight states namely Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura. These eight states cover an area of 262,179 sq. km constituting 8 per cent of the country's total geographical area. Manipur was once an ancient independent Kingdom, which was taken over by the British in 1891 and became part of Part C State of India in 1949. In 1956, Manipur was made a Union Territory and a fully-fledged State in 1972.

in 2018. Therefore, the integration of the Northeast Indian economy within and outside the Indian market should be the key policy towards enhancing regional economic development. Here lies the importance of Manipur.

Manipur can catalyse regional market integration by developing value chains linked between their economic activities. Such a regional economic linkage can be developed through the setting up of border development zones at the India-Myanmar border areas. Development of border development zones at the India-Myanmar border areas may turn the arbitrary Northeast India into a rich periphery Northeast India. India must devote itself to taking advantage of region's geographical location, deepening links with East, Southeast and South Asia, developing long-standing friendly relations with neighbours, increasing trade, expanding outward investment and building infrastructure.

With the opening up, the region will come into more contact with foreign companies, new ideas, and new people. It will lead to the emergence of new trade and industry and efficient competitors from the integrating countries. This process stimulates specialisation depending on the respective region's comparative advantage and eventually

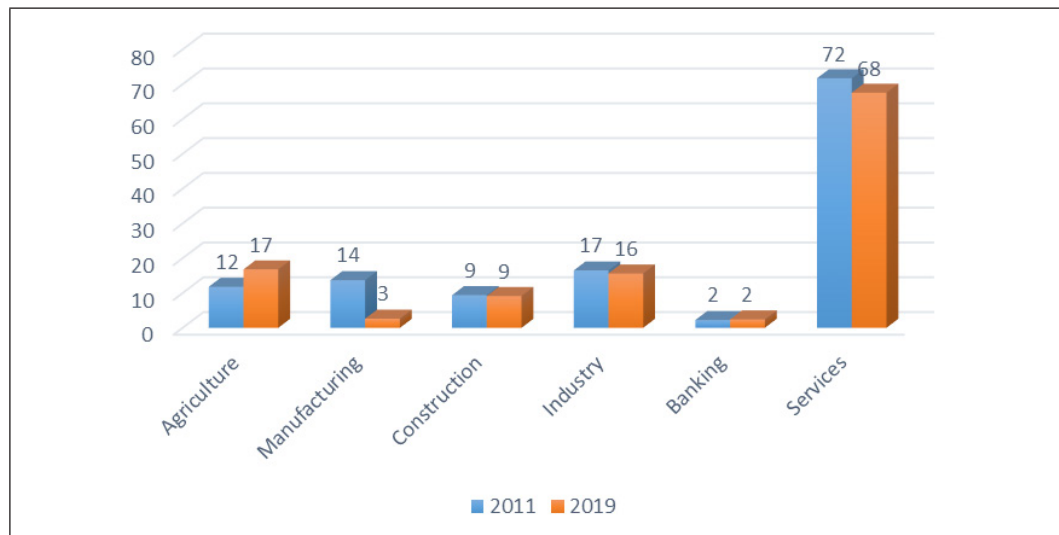
higher growth and welfare through scale economies resulting from a larger market linkage (Sharma and Chaudhury, 2018: 35).

This paper explores whether and how Japanese investment promotes economic development in Manipur. Japanese investment can be defined broadly as foreign direct investment (FDI) and the intermediate forms of investment, such as technology agreements, licensing, and machinery sales that yield knowledge-based assets. The second section discusses the present industrial growth of the State. The third section highlights the major challenges to the industrial development of Manipur. The fourth section examines the potential role of Japan in promoting the economic development of the State, and the fifth section concludes.

Present Industrial Growth, Economic Development

Manipur has been a poor agrarian economy and slowed in the industrialisation process. After three decades of reform, even though the tertiary industry had expanded in the State, the manufacturing sector remained almost constant. Therefore, the prime concern for Manipur is that the manufacturing sector cannot make big progress. The share of the agriculture sector had also decreased (see Figure 1). The services sector alone

Figure 10 Manipur’s Net States Value Added* by Economic Activity: 2011-19



*Constant Prices; Based Year 2011-2012

Source: Author’s calculation based on Handbook of Statistical on Indian States, RBI

could not absorb all the unemployed labours in the State.

The share of agriculture to the Net State Domestic Product (NSDP) declined, whereas the shares of services and manufacturing increased. Agricultural share increased from 26 percent in 2004 to 39 percent in 2018. Until recently, agriculture and its allied activities were the engines of growth, contributing more than 50 per cent to the composition of NSDP, but they have been overtaken by the services sector. Agriculture’s share contributed to NSDP has decreased from 22.3 per cent in 2004 to 14 percent in 2018. Though its share

has played a dominant role, the share of the services sector decreased from 52.13 percent in 2004 to 48.2 percent in 2018. This share is mainly due to a rise in State-sponsored public administration expenditure. Therefore, it does not create any additional employment or income-generating opportunities, and its basic structure has not changed (Bishwanjit, 2018).

According to the Directory of Micro, Small and Medium Enterprises (MSMEs) Manipur, Volume I and Volume II Reports (2013-15), there are 1078 MSMEs in Manipur. The total gross output of these MSMEs was 427.9

crores. The fixed investment was 108.49 crores. These MSMEs created 11,794 employment. Out of 1078 MSMEs, 860 are manufacturing based MSMEs and 218 services based MSMEs. Micro enterprises dominated manufacturing based MSMEs, accounting for 94.3 per cent of the total, whereas small enterprises and medium enterprises accounted for 5.8 per cent and 4.3 per cent, respectively. In case

of services sector, micro and medium enterprises dominated, accounting for 92 per cent and 20 per cent, respectively, whereas micro enterprises accounted for only 8 per cent.

Table 1 gives the top 15 MSMEs of Manipur in terms of the number of units filed under Entrepreneurs Memorandum (EM) Part I & II filed during the year

Table 2 Industry-wise distribution by 2-digit industry group (NIC-2004) for Manipur: 2013-2015

| Sl. No. | NIC 2004 | Description | No. of EM-I & EM-II filed during 2013-15 |
|---------|----------|---|--|
| 1 | 36 | Manufacture of Furniture | 261 |
| 2 | 17 | Manufacture of Textiles | 186 |
| 3 | 15 | Manufacture of Food Products and Beverages | 124 |
| 4 | 18 | Manufacture of Wearing Apparel | 61 |
| 5 | 26 | Manufacture of Other Non-Metallic Mineral Products | 59 |
| 6 | 20 | Manufacture of Wood and Wood Products | 43 |
| 7 | 72 | Computer and Related Activities | 39 |
| 8 | 28 | Manufacture of Fabricated Metals Products | 34 |
| 9 | 50 | Wholesale and Retail Trade and Repair of Motor Vehicles and Motorcycles | 34 |
| 10 | 22 | Printing and Reproduction of Recorded Media | 30 |
| 11 | 01 | Agriculture, Hunting and Related Service Activities | 26 |
| 12 | 92 | Recreational, Cultural and Sporting Activities | 24 |
| 13 | 52 | Repairs & Maintenance of Personal & Household Goods, Retail Trade | 22 |
| 14 | 14 | Other Mining and Quarrying | 17 |
| 15 | 24 | Manufacturing of Chemical and Chemical Products | 15 |

Source: Department of Commerce & Industries, Government of Manipur

2013 to 2015. As far as Manipur’s industry-wise distribution is concerned, these top 15 industrial units occupied 90.5 per cent of the total MSMEs units in Manipur. Some of these units might be found to be sick or dead. However, it is no doubt that these 15 industries are the most vibrant industry of Manipur. This is also consistent with the Annual Survey of Industries (ASI) Report 2018-19.

ASI Report 2018-19 highlighted the top 13 emerging industries of Manipur in terms of having major percentage share in the total output (Table 2). The top five emerging industries included the manufacture of non-metallic mineral products (54.4%), manufacture of grain mill products, starches and starch products (21.2%), other (13.6%), manufacture of beverages (3.4%), and manufacture

Table 3 Top Emerging Industries of Manipur by 3-digit industry group (NIC-2008) having major percentage share in the total Output

| Sl. No. | NIC-2008 Code | Descriptions | Total Output (in Rs. Lakhs) | % share |
|---------|---------------|---|-----------------------------|---------|
| 1 | 239 | Manufacture of Non-Metallic Mineral Products n.e.c. | 25,423 | 54.39 |
| 2 | 106 | Manufacture of Grain Mill Products, Starches And Starch Products | 9,917 | 21.22 |
| 3 | Other | Other | 6,348 | 13.58 |
| 4 | 110 | Manufacture Of Beverages | 1,598 | 3.42 |
| 5 | 107 | Manufacture Of Other Food Products | 982 | 2.10 |
| 6 | 181 | Printing And Service Activities Related To Printing | 564 | 1.21 |
| 7 | 222 | Manufacture Of Plastics Products | 551 | 1.18 |
| 8 | 103 | Processing And Preserving Of Fruit And Vegetables | 433 | 0.93 |
| 9 | 131 | Spinning, Weaving And Finishing Of Textiles | 357 | 0.76 |
| 10 | 162 | Manufacture Of Products Of Wood, Cork, Straw And Plaiting Materials | 357 | 0.76 |
| 11 | 310 | Manufacture Of Furniture | 192 | 0.41 |
| 12 | 161 | Saw Milling And Planning Of Wood | 22 | 0.05 |
| 13 | 108 | Manufacture Of Prepared Animal Feeds | 0 | 0.00 |
| | | All | 46,744 | 100.00 |

Source: Author’s calculation based on Annual Survey of Industries, 2018-2019

of other food products (2.1%). Table 3 gives the top emerging industries of Manipur by 3-digit industry group (NIC-2008) having a major percentage share in the Gross Value Added (GVA). In terms of having a major percentage share in GVA, manufacture of non-metallic mineral products predominated the list contributing 70 per cent of the total followed by other (14%), manufacture of beverages (4.3%), manufacture of grain mill products, starches and starch

products (3.5%) and manufacture of other food products (2.1%) (Table 3).

Major challenges to the industrial development

The basic economic indicators of Manipur, such as transport and communication facilities, power, and social infrastructure (like healthcare, education, etc.), are below the national standards. Connectivity infrastructure in Manipur is the worst among the Northeast states of

Table 4 Top Emerging Industries of Manipur by 3-digit industry group (NIC-2008) having major percentage share in the Gross Value Added (GVA)

| Sl. No. | NIC-2008 Code | | GVA | %share |
|---------|---------------|---|--------|--------|
| 1 | 239 | Manufacture of non-metallic mineral products n.e.c. | 7,742 | 70 |
| 2 | Other | Other | 1,502 | 13.58 |
| 3 | 110 | Manufacture of beverages | 471 | 4.26 |
| 4 | 106 | Manufacture of grain mill products, starches and starch products | 390 | 3.53 |
| 5 | 107 | Manufacture of other food products | 232 | 2.10 |
| 6 | 181 | Printing and service activities related to printing | 212 | 1.92 |
| 7 | 162 | Manufacture of products of wood, cork, straw and plaiting materials | 150 | 1.36 |
| 8 | 103 | Processing and preserving of fruit and vegetables | 109 | 0.99 |
| 9 | 222 | Manufacture of plastics products | 106 | 0.96 |
| 10 | 310 | Manufacture of furniture | 79 | 0.71 |
| 11 | 131 | Spinning, weaving and finishing of textiles | 52 | 0.47 |
| 12 | 161 | Saw milling and planing of wood | 15 | 0.14 |
| 13 | 108 | Manufacture of prepared animal feeds | 0 | 0.00 |
| | All | | 11,060 | |

Source: Author's calculation based on Annual Survey of Industries, 2018-2019

India. The fixed investment of the State was below 2 percent of the national level. Urbanisation and labour participation are also below the national levels. The unemployment rate is higher than in all other Indian regions, but in contrast to mainland India, the unemployed here are mostly literate (Srivastav and Dubey, 2010).

On the contrary, the central government neglects Manipur in promoting development and infrastructure investment. The share of Manipur in the country's development investment had decreased during the past decades. Development investment in Manipur had increased in absolute terms (Table 4). However, State's share of this total

expenditure sharply decreased from 0.39 percent in 1990 to 1.36 percent in 2019, an almost one percent decrease. Similarly, although the central government had pledged to boost regional development, basic infrastructural investment (i.e. transport and communication) in Manipur had also decreased from 1.64 percent in 1990 to 0.43 percent in 2019, a 1.2 percent decrease (Table 5). It is quite unexpected. Similar patterns have been found in the case of NEI as a whole, too.

In Manipur, the main towns are small, and there are only a few regional district hubs. Any small market town can provide chain markets to commercial farmers for their produce. The region also has limited access to information concerning market

**Table 5 Development investment in Northeast India:
1990-2019 (in Rupee crores)**

| States | 1990 | 2000 | 2010 | 2019 |
|----------------------|--------------|---------------|-----------------|-----------------|
| Arunachal | 120 | 245 | 1,577 | 4,188 |
| Assam | 242 | 554 | 1,950 | 14,311 |
| Manipur | 122 | 146 | 1,653 | 2,118 |
| Meghalaya | 69 | 218 | 538 | 1,610 |
| Mizoram | 57 | 158 | 592 | 543 |
| Nagaland | 84 | 311 | 906 | 1,020 |
| Sikkim | 48 | 146 | 394 | 1,053 |
| Tripura | 84 | 338 | 932 | 2,723 |
| NEI | 824 | 2,116 | 8,543 | 27,566 |
| All India | 8,961 | 30,228 | 1,45,254 | 5,39,550 |
| %share of NEI | 9 | 7 | 6 | 5 |

Source: Reserve Bank of India

Table 6 Infrastructure development (Transport and Communication)

| States | 1990 | 2000 | 2010 | 2019 |
|----------------------|--------------|--------------|---------------|-----------------|
| Arunachal | 50 | 94 | 578 | 2,076 |
| Assam | 68 | 222 | 459 | 5,550 |
| Manipur | 22 | 23 | 290 | 521 |
| Meghalaya | 26 | 92 | 236 | 740 |
| Mizoram | 17 | 31 | 149 | 122 |
| Nagaland | 23 | 63 | 326 | 245 |
| Sikkim | 12 | 40 | 99 | 600 |
| Tripura | 19 | 51 | 229 | 513 |
| NEI | 237 | 616 | 2,365 | 10,368 |
| All India | 1,342 | 6,000 | 34,862 | 1,22,008 |
| %share of NEI | 18 | 10 | 7 | 8 |

Source: Reserve Bank of India

trends and product-related information. Local markets are small, and there is limited access to the same. There is not only a lack of local entrepreneurs but also a dearth of professional support services for businesses such as banking, insurance, courier firms, etc. (Bruner, 2010: 18). As market size matters for innovation and productivity growth, the region must increase its market size in all possible ways. It indicates that the centre created no or less open area for foreign business and investment in Manipur.

To end the region's geopolitical isolation and to enhance social and economic mobility and market integration, improving connectivity is an important precondition. Northeast India needs

innovation. To promote innovation, Northeast India needs to bring about a significant cultural change from the top down. It must embrace external innovation and talent and avoid the 'not invented here' syndrome. Introduce reward and recognition for value-adding behaviour and align open innovation to organisational strategy and track the value created.

Potential role for Japan

There is an urgent need of investing a considerable amount of investment on social overhead capital in the region. The maintenance of law and order also requires the expansion of social overhead capital, i.e., the development of transport, communication, roads, etc. It

is essential to take a longer-term view of regional development. For that matter, the prevailing education system must focus on innovation, skill development and job market requirements. A better education system makes people resilient to shocks.

Furthermore, agriculture continues to play a major role in supporting economic growth, in maintaining food security, and developing the rural economy including addressing poverty in Manipur. However, this sector remains dependent on a fragile subsistence rain-fed system, centred on paddy rice production and with poor access to irrigation. Despite significant improvements, the low level of overall productivity, both in terms of labour and land utilization remains a basic feature of the sector, especially in rice production. Consequently, the sector's challenge is to increase production by being more productive and competitive rather than through cultivated land expansion.

Japan can help Manipur as part of its Official Development Assistance (ODA) to transform the agricultural sector from one primarily depending on expanded use of available resources and traditional agricultural inputs into one driven by new technologies, mechanization and irrigation for improving the yield rate, and diversifying activities into high

value crops, livestock, and aquaculture in an environmentally sustainable manner. Japan assistance should focus on areas that include the expansion and improvement of support services, including research, new technology dissemination, the distribution of seeds, fertilizer and agricultural materials, rural loans, localities built and upgraded reservoirs, pumping stations, irrigation culverts, canals, etc.

Road networks dominate transport infrastructure in India. Road transport accounts for 65 percent of freight movement and 80 percent of passenger traffic in India. According to Report of the Working Group on Central Roads Sector, national highways constitute about 1.7 percent of this road network, carrying more than 40 percent of the total traffic volume. Road improvements increase ward-level employment and the number of establishments. For example, a 1 percent increase in accessibility leads to a 0.3–0.5 percent increase in establishments and employment (Gobbins, et al., 2019).

Similarly, Manipur's landlocked situation makes it heavily dependent on road transport. Its transportation links are poor and inadequate. The State faces structural constraints and vulnerabilities such as a narrow economic base, a weak

business climate, and poor financial assistance. Therefore, the cost of doing business in Manipur remains high. To improve the business environment and supporting diversification, in line with the ODA, Japan should invest in improving road transport, particularly in rural areas. Good transportation infrastructure can be advantageous for accelerating the economic development process in Manipur.

First, transportation infrastructure is one of the key factors in creating more cities, which then turn into engines for promoting growth. Transport improvements decrease transportation costs and improve access to markets and labour, which may foster economic integration, stimulate competition, generate agglomeration economies and other 'wider' economic benefits. Second, roads and railways can aid development by facilitating trade and migration and reducing barriers to the spread of new technologies. It is easier to migrate to the city if one can return easily whenever needed. It is easier to lend to a borrower whose project you can visit. It is easier to deposit your savings in a bank if the bank is more accessible. Freer movement of people and goods may bring with it new aspirations, new ideas and information about new technologies.

Last but not least, urban highway construction played a pivotal role in generating urban population decentralization. Investments in transportation infrastructure in rural areas may cause some economic activity to shift from these areas to nearby metropolitan areas, as a result of lower transportation costs. New road construction in rural areas promoted services and retail industries by increasing 5% to 8% earnings in these sectors. This improvement, in turn, accentuated the development of other dimensions that these rural areas possess such as education levels.

Other focus areas of cooperation include the development of MSMEs and entrepreneurship, sports and education. Some of the main obstacles in accentuating the development of industries in Manipur are low productivity, dearth of professionals, lack of entrepreneurial spirits and cooperation. On the other hand, Japan has been a major source of capital goods, intermediate inputs, technology, and management know-how for less-developed and developing countries. Japanese firms and investors like JICA can work together with local MSMEs to enhance the accountability and productivity of the local entrepreneurs through innovative training and adoption

of new production technique. JICA can train local entrepreneurs and workers to produce goods and services under 'lean production system'. Japan developed its industry through production innovations such as "lean production" systems. Once local enterprises adopts the system the weaknesses of localization can be avoided by localizing simpler parts first and gradually moving to higher value-added items. Local entrepreneurs can gain innovative ideas of cooperative arrangements ranging from "trust-based" subcontracting to business associations, trading companies, and corporatist-like public-private-sector bodies. It will, in turn, improve cooperation among firms. All these lead to an increase in industrial capability in Manipur.

Another very important but often overlooked area of cooperation between Japan and Manipur is exchange programmes in terms of sports and education. Japan is one of the sports powerhouses in the world. Likewise, Manipur is also regarded as the sports powerhouse of India. Even though Manipuri athletes are very talented, they could not compete at par with Japanese athletes in the international arena. Japanese athletes are far superior to Manipuri athletes in almost all respect, whether it is of training, techniques, technology, facilities, etc.

The promotion of student and faculty exchange programmes with Japan is of great significance. Students gain broader courses of career opportunities in Japan by acquiring knowledge and skills such as abilities to understand diversity as his/her own issues. Interuniversity exchanges also benefit teaching staff. Teachers' education and research activities become more productive and extensive by accepting competent students from the two regions, by giving lectures at universities abroad, collaborative research, exchanges among researchers, etc.

Universities in Manipur could become international hubs for knowledge and circulation of human resources through the development of educational exchange and research collaboration programs with Japanese universities. This will help Manipur's universities to improve their international competitiveness and collaborative ability.

Conclusion & recommendation:

State capacity in Manipur has been continuously eroded, especially due to weak economic and political power. State capability is a condition for the full enjoyment of human rights, including the right to development, by any country (UNCTAD, 2021). Due to weak state capacity, productive capacities are also low. Consequently, productive resources,

entrepreneurial and technological capabilities and production linkages become poor. All these collectively determine the capacity of an economy to produce goods and services competitively. It indicates that Manipur should aim at building State capacity. Japan should help Manipur to develop its export manufacturing and capitalize its strategic geographical location and infrastructure into a regional trading and transportation hub.

Given Japanese economic and investment strength, Japan can invest in Manipur in the following four sectors: i) rural infrastructure, ii) textile and clothing industry (low-end products), iii) bio-fuel industry, and iv) mandala tourism.

Agriculture continues to play a major role in supporting economic growth, in maintaining food security and developing the rural economy, including addressing poverty in Manipur. However, this sector remains dependent on a fragile subsistence rain-fed system, centred on paddy rice production and with poor access to irrigation. The challenge is to increase production by being more productive and competitive rather than through cultivated land expansion. It requires improving rural infrastructure.

The textile and clothing industry is less capital-intensive and requires relatively

low capital investment. The skills required by the industry are relatively basic and can be acquired over short periods of time. The experience gained in the textile and clothing sector allows them to progress from light manufacturing (like apparel, footwear, and toys) to producing more sophisticated products (such as plastics, electric machinery, and electric parts) (Bishwanjit, 2021b:144). For Manipur, it should mainly focus on simple assembly operations such as cutting and sewing garments, stitching or making of zip, button, etc. These strategies will help the State in improving its industrial capabilities. Manipur has huge potential for investments in the textiles and handicrafts industry. This sector in Manipur is unique in that almost all families use loin looms or back strap looms. The State has both skilled workforce as well as the required potential to meet the raw material requirement locally. However, production inefficiencies and policy bottlenecks have hindered achieving this potential (Bishwanjit, 2021b:145-148). If Japan invests textile and clothing based FDI in Manipur, it shall help in improving the State's industrial capabilities and alleviating poverty in the State.

India aims at increasing the utilization of bio fuels in the energy and transportation sectors by promoting the production of bio fuels from the domestic feedstock. Ministry of New and Renewable Energy

has a target of 20 percent blending of ethanol in petrol and 5 percent of biodiesel in diesel to be achieved by 2030 (National Policy on Biofuels, 2018). The percentage of the same currently is at around 2 percent for petrol and less than 0.1 percent for diesel. The government gives financial assistance to biofuel producers and faster environmental clearances to achieve this target. Adopting biofuels as an alternative source of energy can significantly improve farmers' income, generate employment opportunities, reduce imports, augment waste to wealth creation, etc¹⁵.

Cassava grows very well in Manipur, especially in the hills. It does not require much water and can grow in semi-arid areas very successfully. Cassava roots contain 30% starch and can produce 280 litres of 96% pure ethanol. The process of making ethanol from cassava is very similar to making of local alcohol (ethyl alcohol). Thus, the technology for the production of ethanol from cassava is well established. Manipur Government has constituted Manipur State Biofuel Board, to initiate action on biofuels production. The production of ethanol from cassava

is feasible and viable as it can be grown in hills, foothill and wasteland¹⁶.

Manipur has eight mandalas (Bishwanjit, 2021a). This mandala is a niche tourism product of Manipur. Mandala occupies an important space in Buddhism. Buddhist believed that Mandala has a unique link with the divine. People are also interested in art, architecture, or history. The architectural and artistic beauty of these mandalas will surely induce those casual tourists to visit in Manipur. There is a long and pervasive history of connections between India's Buddhist sacred space and the influx of Asian pilgrims. Besides, religious tourism has long played an important role in cross-border cultural and economic processes.

The prospect of promoting mandala tourism in Manipur by developing requisite infrastructure is very high. It will help in bringing a closer tie with India, East and Southeast Asian countries through culture and religion. Mandala tourism has, as of now, relatively no value as tourist attractions as it has only regional importance in Manipur. Once

15 The Economic Times (2019), "National Policy on Biofuels 2018: Here are key things you should know" updated on Nov 05, 2019, available at [National Policy on Biofuels 2018: Here are key things you should know - The Economic Times \(indiatimes.com\)](https://www.economictimes.com/news/economy/national-policy-on-biofuels-2018-here-are-key-things-you-should-know)

16 Oinam Nabakishore Singh, (2018) "Cassava (U-Mangra) for biofuel (Ethanol) for economic development, energy security and environment" The Sangai Express, 15 July 2018, available at [Cassava U Mangra for biofuel Ethanol By Oinam Nabakishore \(e-pao.net\)](https://www.sangaiexpress.com/2018/07/15/cassava-u-mangra-for-biofuel-ethanol-by-oinam-nabakishore/)

Manipur has developed its infrastructure accordingly, mandala will be a significant marketable attraction for Manipur, attracting a large number of tourists. Almost 90 per cent of the world's Buddhist population resides in South, East and Southeast Asian countries. There are 151 million Buddhist who resides in ASEAN countries, 252 million in China, 3.4 million people in Bhutan and Nepal together and about 96 million Buddhist in Japan and South Korea. Myanmar have 54 million Buddhist.

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11. **Abstract:**

India and Japan are very close strategic partners with relationship deeply rooted in historical linkages and more importantly, structurally free from any political impediment. Both considered each other 'indispensable partner' with shared values of democracy and the market economy. There is a great synergy between two countries today in the Indo-Pacific and global level. Development cooperation between the two countries is an important component of the Japan-India Special Strategic Global Partnership. In fact, Japan is India's one of the oldest and most important development partners and India is one of the largest recipients of Japanese Official Development Assistance (ODA). Japanese ODA act as a catalyst in accelerating economic development, particularly in the areas like power, transportation, and environmental projects. According to Government of India, the ODA plays an important role in transforming India through various infrastructure projects that are taken up and that are envisaged.

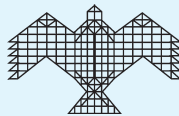
12. **Keywords:**

Japan, North East of India, JICA, Infrastructure and Development, Act East Policy of India

13. **Security Classification** : Public
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