

UNLOCKING Assam's Export Potential



Working Paper No: 113



EXPORT-IMPORT BANK OF INDIA

WORKING PAPER NO. 113

Unlocking Assam's Export Potential

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November 2022

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Executive Summary

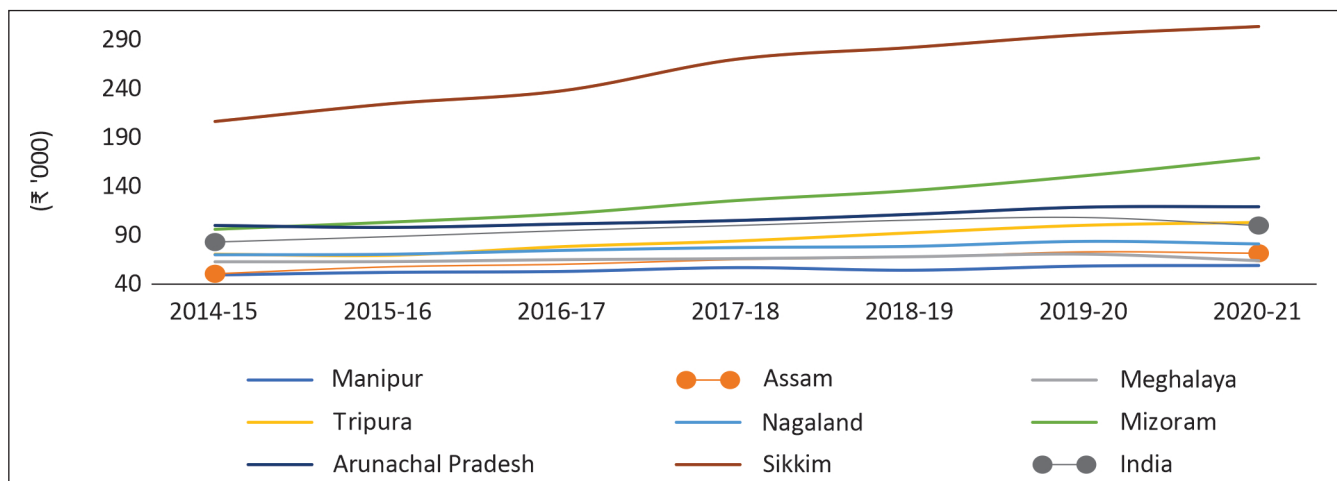
Assam is the largest economy in the North East Region and serves as a gateway to the North East India besides some of the countries neighbouring India. The GSDP of Assam in 2021-22 at constant prices, was estimated at ₹ 2.7 trillion, a growth of 9.1% over the preceding year. During 2011-12 to 2019-20, the GSDP at constant prices grew at an AAGR of 7.8%. It is however observed that Assam's per capita GSDP lags several other North Eastern states, including the national average.

While 70% of the population in Assam is engaged in agriculture, its contribution to the Gross State Value Added (GSVA) in the economy has gone down slightly from 19.9% in 2011-12 to 19.1% in 2020-21. As regards industry, although Assam has rich natural and mineral resources, it is largely concentrated into a few sectors such as tea, petroleum refining, jute textiles, cement, and rubber. The share of industry in GSVA has risen from 30.6% to 33.6% during the

period. It may however be observed that the share of services has reduced significantly from 44% in 2011-12 to 36.1% in 2020-21.

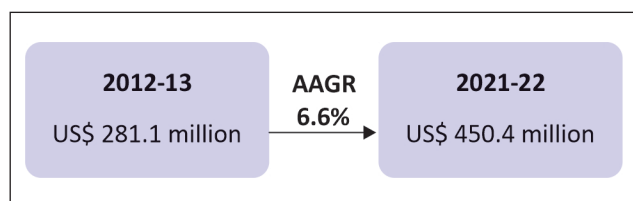
As regards Assam's exports, the merchandise exports in 2021-22 stood at US\$ 450.4 million, a rise of 8.4% as compared to 2020-21. Assam's export basket is highly concentrated, with tea, the most important export item comprising half of the share in total exports. However, it may be noted that the share of tea in total exports has reduced considerably from 84% in 2015-16 to 50.4% in 2021-22. In terms of value, tea exports have declined from US\$ 333.4 million in 2015-16 to US\$ 227.1 million in 2021-22. While reduction of tea exports from Assam is a cause of concern, the fall in share of top ten principal commodities in Assam's export basket from 98% to 90%, during the period, indicates the advent of diversification in merchandise exports.

Exhibit 1: Assam's GSDP per capita is behind the rest of the country



Source: Economic Survey 2022, India Exim Bank Research

Exhibit 2: Growth in Assam's Exports over the Last Decade



Source: DGCIS; India Exim Bank Research

Further, 59% of the State's total exports in 2021-22 went to Bhutan, Bangladesh, UAE, Russia, and the UK. In 2021-22 India is top exports to Bhutan were of coal and petroleum products, to Bangladesh were of petroleum products and cosmetic and toiletries, and to UAE were of tea and cosmetics and toiletries. Tea was the top exported product in UAE and Russia as well. It may be noted that there were significant exports to Iran from Assam until recently, mostly on account of tea. The exports have exhibited a fall in recent times (from US\$ 86 million in 2015-16 to US\$ 22 million in 2021-22).

Being landlocked, Assam has been highly dependent on Kolkata Port for export facilitation, which is however gradually reducing with Kolkata port's share in Assam's exports down from 60% in 2020-21 to 42% in 2021-22. Exports to bordering countries have also increased, leading to increasing importance of Land Customs Stations and Integrated Check Posts and expanding opportunities for higher border trade.

The Study, through its multipronged approach identifies focused sectors for enhancing trade competitiveness and suggests measures for strengthening export infrastructure and connectivity to enable the State to realise its untapped economic potential.

For identifying the products with high export potential, the Study maps the export competitiveness of Assam's products with global demand for those products and classifies them as Product Champions herein. The analysis exhibits 15 such products with exports of US\$ 50.2 million from Assam. The India Exim Bank Study suggests Assam to focus on building export capabilities in these identified 15 product categories in the short to medium term, thereby enabling the State to not only participate in India's growth story but also earn greater foreign exchange.

The Study has also set an export target for Assam which ranges from US\$ 527.4 million under the base case scenario, to US\$ 710.3 million under an optimistic scenario by 2024-25.

Assam's proximity to India's immediate neighbours makes it an important node in the various economic and transport cooperation programs active in the region, viz. South Asian Association for Regional Cooperation (SAARC), Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) and the South Asia Subregional Economic Cooperation (SASEC). An efficient logistics and

Exhibit 3: Merchandise Exports from Assam: Target (2024-25)

Possible Scenarios		Merchandise Exports	
		Value: (Exports US\$ Million)	Growth (Required CAGR 2022-23 to 2024-25)
Current Exports (2021-22)		450.4	–
Base Case Scenario	If the State's merchandise exports continue to grow at its CAGR of 5.4% recorded during 2012-13 and 2021-22	527.4	5.4%
Optimistic Scenario	Should Assam's s merchandise exports grow at the same CAGR as that of India to reach the US\$ 666 billion target	710.3	16.4%

Exhibit 4: Possible Strategies for Enhancing Assam's Exports



connectivity landscape in Assam is thus important for ensuring smooth movement of goods, services, and people both within the country as well as in the sub-region.

The Study attempts to assess the present situation of policy environment, trade infrastructure and connectivity in the State. Assam's performance in indices assessing logistics ecosystem across states has been a mixed bag. In NITI Aayog's Export Preparedness Index, 2021, the State ranked 7th out of the 10 landlocked states and 15th among all the 36 states and Union Territories, a remarkable improvement from the overall rank of 28th in 2020. However, in NCAER's State Investment Potential Index 2018 (N-SIPI 2018), Assam ranked amongst the least favourable states for investments (19th out of 21 states). In terms of infrastructure also, it is ranked relatively low as compared to the other States. The key impediments to trade highlighted by both the indices are lack of (a) access to power, (b) banking facilities, and (c) land for industrial purposes.

Assam houses an Inland Container Depot (ICD) at Amingaon, the only ICD present in the North East India for supporting trade. However, the ICD remains largely unutilized, leading to high costs for its stakeholders. Border trade infrastructure too, despite having high potential for trade is not being leveraged to the fullest as is evident by the fact that out of the 7 Land Customs Stations located in Assam, exports were recorded at only Darranga and Kamardwisa¹.

¹DGCIS

Coming to connectivity, air connectivity, which is particularly important for transportation of perishable produce from the region is presently limited. There is a need to connect Assam with all other states in the North East Region by air and build infrastructure that facilitates temperature-controlled transportation.

Assam's intricate inland waterway network is in the process of being integrated seamlessly with Kolkata, Haldia and Mongla ports, the upcoming multi-modal logistics park at Jogighopa and other industrial centres. This will provide an efficient alternative for transit movement between mainland India and North Eastern Region and a cost-effective route for movement of goods between India and Bangladesh. The road network, a prerequisite for ensuring last mile connectivity and smooth integration with various international corridors, needs upgradation and maintenance. Lastly, Assam's rail connectivity, crucial for movement of bulk cargo, remains underutilized. Swift upgradation and revival of old routes such as the Mahisasan (Assam)-Shahbajpura (Bangladesh) route is needed for seamless multimodal movement across the region.

Branding of Geographical Indication (GI) Products

Several handicrafts and agricultural products in Assam have been conferred geographical indication (GI) status yet not many have been successful in reaping its benefits. Although GI tagged products such as muga silk and Assam orthodox tea have been able to attract global demand, their exports remain much below its potential.

Assam can also draw from the experiences of countries abroad. For example, Colombia which is effectively leveraging GIs for boosting exports. Colombia has focused extensively on branding; certification; research, and development; building partnerships; and intellectual property protection to make the Colombian coffee a globally renowned product.

To boost the unique selling proposition of each GI tagged product there needs to be a robust IP protection mechanism. Several GI products such as Judima wine also pose potential for promoting tourism. Besides, different uses of the GI tagged products need to be explored in addition to identifying more products which can be accorded with GI status such as Phalap tea.

Boost Exports of Tea from Assam

Once the global leader in tea production, the present trend of Assam's dwindling share in both domestic tea production and in India's total tea exports is worrisome. The study proposes the following strategies to strengthen exports of tea so that Assam can reclaim its position: -

- *Enable capacity building among tea farmers:* Despite Assam seeing a rise in the number of small tea holdings, participation of small-scale producers in exports is limited. The Tea Board of India along with other tea associations in the State should organize training programmes to make tea garden owners aware about the opportunities abroad. The Board may also like to set up a designated helpdesk for addressing export related queries of exporters, both in virtual and physical form. In addition, the State may study the success story of Kenya Tea Development Agency which has managed in turning lakhs of small-scale tea growers in Kenya into proud owners of one of the largest tea-exporting firms in the world. Learnings may be drawn from its inclusive business model that focuses on providing the farmers with services such as farm-to-factory logistics,

regular training, marketing knowhow and access to finance, among others.

- *Make Assam an aggregator of tea exports from India:* Presently, West Bengal serves as the hub for tea exports and most of the activities pertaining to value addition like blending, branding, packaging etc. are undertaken in West Bengal. With almost all the states in the North Eastern Region involved in tea cultivation, Assam can potentially be developed as an export hub for the region. In this regard, adequate logistics facilities should be set up around ICD Amingaon to facilitate aggregation and exports of tea from Assam as well as the NER.
- *Diversify tea exports:* Although India's yield is highly variable compared to other countries, this very reason gives it an edge over other countries when it comes to the varieties of tea the countries can offer. The demand for blends such as oolong, white, green, purple tea, among others, is also rising globally. Since these are priced higher than the conventional tea types, the Tea Board may like to explore the global demand and accordingly help Assam to dedicate resources towards production of these blends. Furthermore, exports of orthodox tea, which is loose leaf tea produced using traditional methods, could be explored as it fetches higher price than the CTC (Crush, Tear and Curl) tea which is processed using machinery.

Boost Exports of Services from Assam

Assam boasts of a large pool of educated and English-speaking population, moderate climatic conditions and diverse topography, factors conducive for establishment of service provider companies. Yet, the presence of Business Process Outsourcing (BPO), Information Technology (IT) and other service-oriented companies is low and mostly restricted to Guwahati. The Study proposes the following sector-specific strategies that will place Assam on the sub-regional map as a services hub.

- *Install adequate Infrastructure for Information Technology and BPO Clusters:* By ensuring adequate infrastructure such as uninterrupted electricity and strong network coverage, by enabling smooth processes for operations, and by providing tax breaks, the IT, BPO and allied services sector in Assam can emerge as the next success story of India.
- *Upgrade Health Infrastructure and Promote Medical Tourism:* More specialty hospitals such as the recently inaugurated cancer hospitals built under the joint initiative of Tata Trusts and the State government need to be set up in Assam. Further the State's strategic location gives it an opportunity to serve the neighbouring countries like Bangladesh, Bhutan, and Myanmar for medical services. The State may thus set up a medical tourism department to establish Standard Operating Procedures, ensure their implementation across the state and for helping tourists regarding the formalities and procedures.
- *Boost Tourism:* Besides being rich in flora and fauna, having moderate climatic conditions and being home to a plethora of scenic, historic and cultural places of interest, tourism in Assam has not picked up. For the recently launched Tourism Policy to be a success, the State government may ensure standardisation of services delivery for maintaining quality and uniformity in services throughout the State.

Besides hospitality infrastructure needs to be built while maintaining the organic beauty of the environment, something akin to the state of Kerala which has evolved as a wellness tourism destination. The State may also take a cue from the initiatives taken by Rajasthan Tourism Development Corporation towards offering a range of curated travel packages which can be booked at the click of a mouse on the website.

Strengthen Exports of Agricultural and Horticultural Products

Assam and the North East Region (NER) of India, in general are well endowed with agricultural and horticultural produce. To realize the export potential of the State as well as the entire region, the following strategies may be adopted-

- *Draft a District Policy for agricultural, horticultural, and forest-based exports:* Assam has untapped potential for exports of inter alia, oranges, pineapples, ginger, lemons, banana, and jackfruit, particularly for the identified markets having high demand. A district policy should be designed and implemented that enables district-wise production and exports of the produce based on the competitiveness. Common facilities such as packing houses, warehouses, cold storage etc. should be set up for use by the district.
- *Boost exports of different varieties of rice:* Assam is blessed with a rich variety of rice. Although some of these varieties have been GI tagged such as Joha rice, Boka Chaul and Chokuwa rice, their exports have not picked up. Other varieties such as red rice also have high export potential yet to be realized. By investing in research and development, marketing and capacity building, exports of different varieties of rice may be strengthened considerably.
- *Ensure continuity in production and exports:* The Guwahati Office of Agricultural and Processed Food Products Export Development Authority (APEDA) may look at providing access to technical guidance, capacity building and other soft and hard infrastructure such as cold storage, test labs, helpdesk for exporters, trade guide etc. that are required for ensuring continuity in export flows. Efforts could also be made towards harmonising SPS and TBT regulations, conducting business

to business meetings for securing contracts and understanding the culture of different countries.

- *Diversification of bamboo product line:* Bamboo finds use in a wide range of sectors. It serves as a key ingredient in Asian cuisine, as a unique material for building structures such as houses and bridges, as a biodegradable alternative in a lot of industries, as a material in handicraft industry etc. Since it is found in abundance in Assam, its versatility should be leveraged by exploring its use in different sectors both domestically and for exports.
- *Strive for value addition in exports:* To stand apart from competing countries and realize higher prices, focus should be placed on creating unique processed products that give the State an edge over other exporters. Among other things, Assam government may like to carry out feasibility studies pertaining to generation of clean energy out of agricultural residues in the State and encourage companies to take up such projects by providing financial support. Furthermore, formulation of unique products such as jams, fruits concentrates, squashes etc. out of Assam's GI tagged products such as Tezpur Litchi, Kaji nemu etc may be encouraged.

Strengthen Connectivity and Trade Facilitation

To leverage Assam's strategic location as a gateway to neighboring countries in South Asia and to ASEAN, having seamless connectivity and robust trade infrastructure is vital. In this regard, the following strategies are suggested-

- *Develop Karimganj as an export hub:* Karimganj district enjoys a unique advantage of being connected with multiple modes of transportation while sharing borders with Bangladesh. Setting up of industries within its vicinity such as auto-parts, cement, food processing etc. which have high demand in Bangladesh and other neighbouring countries

can transform the economy of the district. Adequate incentives in the form of tax rebates, state financed infrastructural services such as warehousing, cold storage etc. should be provided to incentivize companies to set up production in the district.

- *Ensure better utilization of ICD Amingaon:* ICD Amingaon, since its establishment, continues to witness only tea being exported, majorly. Besides, it deals with Full Container Load predominantly making it inaccessible for small exporters sending their less than container load shipment. The trains to Kolkata port thus run on excess capacity leading to dead freight costs. The trains also return empty from Kolkata port due to lack of import traffic. The Central government along with the State government may explore value-chain linkages between Assam and Kolkata for generating two-way traffic. As currently rail transportation from the ICD to Bangladesh is inoperational, possibilities of starting cross-border freight and transshipment services with Bangladesh from the ICD may be explored.
- *Expedite the operationalization of Jogighopa multi-modal logistic park (MMLP) -* MMLP at Jogighopa, the first MMLP being built in India under the Bharatmala Project is expected to provide a stimulus to trade and commerce in the North Eastern region. The quick operationalization of the MMLP will provide both mainland India and the NER easy access to eastern markets through Assam.
- *Set up infrastructure for enabling cross-border trade between India and Bangladesh:* Although ICP Sutarkandi provides decent infrastructure for facilitating cross-border trade between the two countries, there are additional facilities required for washing fruits and for plant and animal quarantine along with reefer transportation services, a banking network, well-functioning EDI system and a food testing lab. The cold storage facility present at the

ICP also needs to be operationalized at the earliest.

- *Provide cold storage infrastructure and reefer containers for transportation:* Since ICD Amingaon facilitates trade for the entire NER, reefer container services may be made available on the route from ICD to Kolkata port as well as on routes connecting the ICD to other North Eastern states. Access to reefer services in these routes will facilitate exports of agriculture products from the entire region.
- *Harmonise standards across all Land Customs Stations between India and Bangladesh:* Different LCSs have their own list of negative items which are not allowed in cross-border trade. For instance, Hilsa fish is not allowed to be imported through ICP Sutarkandi, but imports are allowed through Manu LCS. Removal of such inconsistencies are required to ensure uniform standards and practices at all border points for ease of trading across borders.
- *Deepen and ensure maintenance of Inland Waterway Transportation (IWT) network:* A seamless IWT network would provide access to Assam and NER, in general to the Mongla port in Bangladesh and Kolkata ports through which goods can be exported to far off destinations. Currently, out of the 15 national waterways present in the State, only two are in use². Other routes need to be explored to strengthen integration in the region. Besides, rivers along the IBP route are mid-stream and require regular dredging. To ensure regular dredging of rivers along the IBP route for Inland Water Connectivity, India and Bangladesh need to formulate an agreement, specifying cost sharing and other clauses.

² The routes NW 2 along the Sadiya-Dhubri stretch and NW 16 along the Barak river are operational. The other routes are NW 6, NW 18, NW 30, NW 31, NW 32, NW 33, NW 38, NW 50, NW 57, NW 62, NW 82, NW 95 and NW 102,

Incentivize Participation of Women in Trade

The female labour force participation rate of Assam as estimated in the Periodic Labour Force Survey, January - March 2021 was 18.8%, a drop from 20.2% in the previous quarter. Engaging in both trade and trade facilitation activities can provide a stimulus to employment of women in the State. Thus, identification and training of potential women traders is required. Government of Assam through its various agencies, may also like to conduct workshops towards educating women about the various advantages and processes pertaining to exports so as to make them better equipped. Further, since women run enterprises may face challenges in getting trade financing, the State Government may like to explore suitable financial structures to incentivize commercial banks to come up with products that prioritize financing to women led export enterprises.

In conclusion

There exist incredible export opportunities in the state of Assam, especially given its geographical location and being the largest state in the northeastern part of India. As the recent trends point towards India's increasing economic engagement with its immediate neighbours as well as other countries to its east, building Assam's export capabilities gains even more importance.

Assam is also uniquely located to serve as trade hub for other North Eastern States. Thus, enhancing the trade competitiveness of the state would translate to greater gains for the whole North Eastern part of India.

The strategies outlined in the Study focus on boosting exports of goods and services, strengthening trade facilitation, enhancing connectivity, and ensuring better utilization of present trade infrastructure. These can help the State in harnessing its true economic potential and in transforming Assam into a vibrant hub for trade and commerce.

Overview

Assam is the largest North Eastern state in terms of population and the second largest in terms of area. It is a key player in Government of India's Act East policy. Although landlocked, Assam enjoys a strategic locational advantage and acts as a gateway to the North East and Southeast Asia. It has international borders with Bhutan to the north and Bangladesh to its south-west. Neighbouring States, Nagaland, Arunachal Pradesh and Manipur are located to its east, Meghalaya, Tripura, and Mizoram to its south, and West Bengal to its west. The State has three large rivers, the Brahmaputra valley, Central Assam Hills and Barak valley with the Brahmaputra, Barak and Kushiya river.

According to the 2011 Census, population of Assam stood at 31.2 million, representing 2.6% of India's total population. As per Sample Registration Survey, 2013-17, Assam's life expectancy at birth is 66.2 as against national average of 67.9 years. Assam's decadal growth rate of population has declined from 18.9% in 1991-2001 to 17.1% in 2001-11. Assam's population density ratio of 398 per square km is higher than the national average of 382.

Further, Assam has 958 females per thousand males, higher than the national average of 943. It may also be noted that from 2005 to 2018, both the birth and death rate in Assam have declined but still remain above the national average. In

2018, 21.1 babies were born per 1000 people as compared to the national average of 20 and the death rate was 6.4 per 1000 people as compared to the national average of 6.2. Thus, the population in Assam is increasing at a faster rate than the national average, which means there is the need to create more avenues for employment and growth.

Table 1: Assam's Demographic Status

	2005	2011	2018
Birth Rate (per thousand)			
Assam	25.1	22.8	21.1
All India	24.1	21.8	20.0
Death Rate (per thousand)			
Assam	8.7	8.0	6.4
All India	7.6	7.1	6.2

Source: Handbook of Statistics on Indian States, RBI; India Exim Bank Research

Macroeconomic Profile

According to Quick Estimates (Q.E.), in 2021-22, Assam's Gross State Domestic Product (GSDP) at constant prices was recorded at ₹ 2.7 trillion, a growth of 9.1% over the previous year. During 2012-13 to 2021-22, the GSDP at constant prices grew at an AAGR of 7.6%. At current prices, the GSDP in 2021-22 was recorded at ₹ 4.3 trillion, a growth of 13.9% over 2020-21.

Table 2: GSDP of Assam at Current and Constant Prices

Year	GSDP Current Prices (₹ trillion)	Growth (%)	GSDP Constant Prices (₹ trillion)	Growth (%)	Per Capita GSDP constant prices (₹'000)	Growth (%)
2011-12	1.4		1.4		45.5	
2012-13	1.6	9.6	1.5	2.9	46.3	1.8
2013-14	1.8	13.3	1.5	4.9	47.9	3.5
2014-15	2.0	10.1	1.7	6.9	50.6	5.6
2015-16	2.3	16.5	1.9	15.7	57.7	14.0
2016-17	2.5	11.7	2.0	5.7	60.3	4.5
2017-18	2.8	11.3	2.2	8.8	65.1	8.0
2018-19	3.1	9.2	2.3	6.4	67.7	4.0
2019-20	3.7	22	2.5	11.2	73	7.9
2020-21 (2 nd P.E)	3.8	0.95	2.5	-0.4	71.6	-1.9
2021-22 (QE)	4.3	13.9	2.7	9.1	77.4	8.1

Source: Ministry of Statistics and Programme Implementation; Assam Economic Survey 2021-22; India Exim Bank Research

The impact of COVID-19 on Assam's economy can be gauged by looking at the GDP estimates of 2020-21. During 2020-21, GSDP of the State at current prices was estimated at ₹3.8 trillion, a growth of 0.95% over the preceding year while at ₹2.5 trillion, the GSDP at constant prices contracted by 0.4% over 2019-20.

Assam fares much better in terms of GSDP as compared to other North Eastern states. However, since it is also the most populous state in the

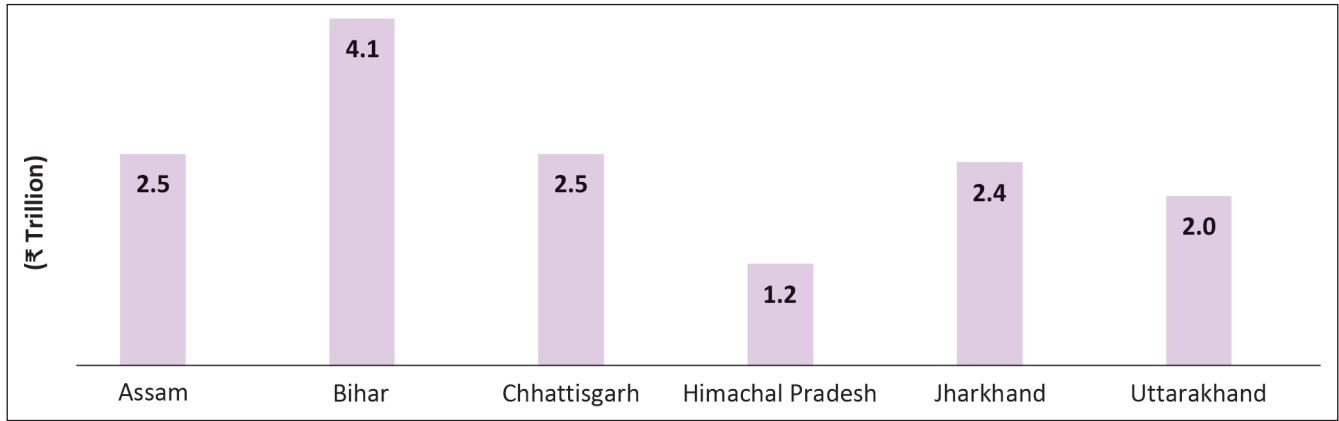
region, it lags most other North Eastern states in terms of per capita GSDP. In 2019-20, Assam's per capita GSDP at constant prices was ₹ 72,995, higher than only Manipur's per capita GSDP. Assam's GSDP per capita is also falling much behind the rest of the country. The national per capita GSDP in 2019-20 was estimated at ₹ 1,08,247. Thus, there is a gap of ₹ 35,252 between the per capita income of Assam and India at constant prices, indicating considerable scope for growth and development in the State.

Table 3: GSDP and Per Capita GSDP of North Eastern States at Constant Prices in 2019-20

State	GSDP (₹ trillion)	Per Capita GSDP (₹ 000)	AAGR of Per Capita GSDP from 2011-12 to 2019-20
Assam	2.5	73.0	6%
Arunachal Pradesh	0.2	118.6	5%
Manipur	0.2	60.1	4%
Meghalaya	0.3	70.7	1%
Mizoram	0.2	150.5	11%
Nagaland	0.2	83.6	4%
Sikkim	0.2	295.4	6%
Tripura	0.4	100.2	9%

Source: Statistical Handbook, Assam, 2022; Ministry of Statistics and Programme Implementation; India Exim Bank Research

Chart 1: GSDP at Constant Prices - Assam and Competing States (2019-20)



Source: Handbook of Statistics on Indian States, RBI; India Exim Bank Research

On comparing Assam’s GSDP at constant prices in 2019-20 with select competing states, it is found that it fares better than Himachal Pradesh, Uttarakhand, Jharkhand, and Chhattisgarh but lags behind Bihar. Here, competing states include those which are landlocked like Assam, lacking direct access to ports.

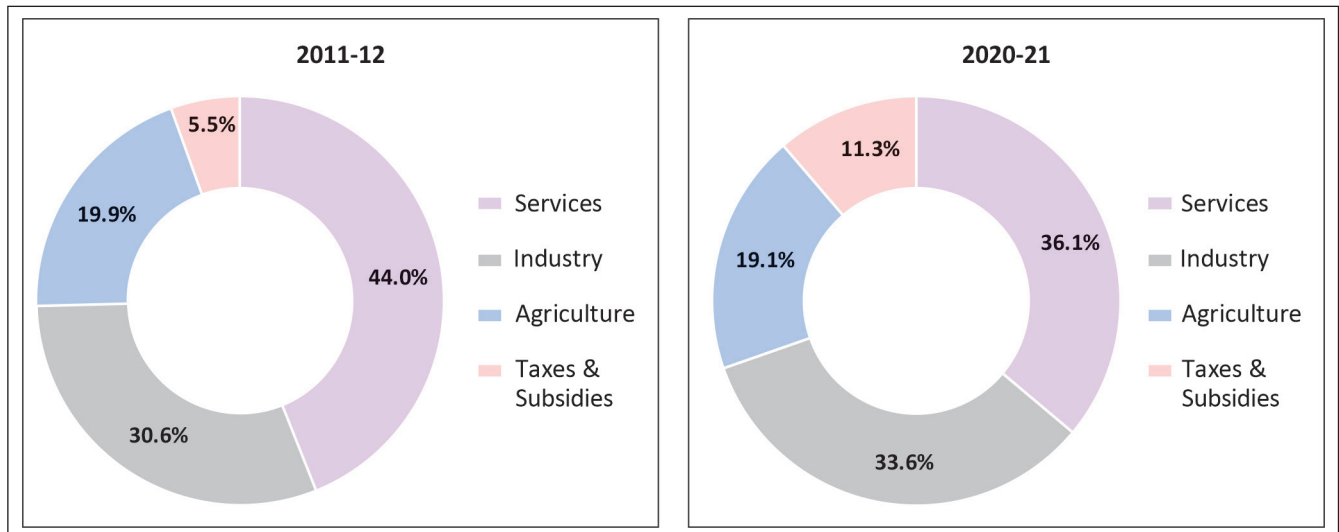
the Gross Value Added by agriculture in the State’s economy has gone down from 19.9% in 2011-12 to 19.1% in 2020-21. The share of services has also reduced from 44% in 2011-12 to 36.1% in 2020-21. The decline in share of services in the GSVA since 2019-20 can be attributed to COVID induced lockdowns and restrictions.

Broad Economic Activities

Although Assam is predominantly an agricultural State, the contribution of agriculture in the State’s GSVA has been declining over the years. According to Provisional Estimates, from 2011-12 to 2020-21,

However, the share of industry in GSVA, has risen from 30.6% to 33.6% during the period. The role of taxes and subsidies has also increased considerably, with an increase in share from 5.5% in 2011-12 to 11.3% in 2020-21.

Chart 2: Sectoral Composition of Assam’s GSVA at Constant Prices (2011-12 vs 2020-21)



Source: Ministry of Statistics and Programme Implementation, India Exim Bank Research

Table 4: Sectoral Shares and Annual Growth Rate in GVA at Constant Prices

(in ₹ Lakh)

Sector	2011-12	2021-22 (QE)	Share in GSVA (2021-22)	Annual Average Growth Rate (%)
<i>Agriculture, livestock, forestry and fishing</i>	2848113	5061857	18%	7.77
<i>Mining & Quarrying</i>	1464989	3130604	11%	11.37
Primary	4313102	8192461	30%	8.99
<i>Manufacturing</i>	1540255	3573913	13%	13.20
<i>Electricity, Gas, Water Supply and other utility services</i>	191883	493090	2%	15.70
<i>Construction</i>	1188747	2123773	8%	7.87
Secondary	2920885	6190776	23%	11.19
<i>Trade, Repair, Hotels & Restaurants</i>	2045676	2204624	8%	0.78
<i>Transport, Storage, Communication and services related to broadcasting</i>	810091	1433865	5%	7.70
<i>Financial Services</i>	427077	831906	3%	9.48
<i>Real Estate, Ownership of dwelling & Professional Services</i>	1112543	1177697	4%	0.59
<i>Public Administration</i>	821723	1654461	6%	10.13
<i>Other Services</i>	1077923	2414347	9%	12.40
Tertiary	6295033	9716900	35%	5.44
<i>Total GSVA at Basic Prices</i>	13529020	24100137		7.81
<i>Taxes on Products</i>	1203476	3647901	13%	20.31
<i>Subsidies on Products</i>	415005	364367	1%	-1.22
GSDP	14317491	27383671	100%	9.13

Source: Economic Survey, Assam, 2021-22; India Exim Bank Research

From 2011-12 to 2021-22, at constant prices, growth in the secondary sector has been the maximum. It grew at an AAGR of 11.2%. Out of all the sub-sectors, taxes on products have registered the highest AAGR of 20.31%, followed by electricity, gas, water supply, and other utility services (15.7%), manufacturing (13.2%) and other services (12.4%).

Fiscal Scenario

The fiscal deficit of Assam is on the rise, from ₹5429 crores in 2014-15 to ₹11,108 crores (Provisional Estimate) in 2020-21. This can be attributed to sharp increase in capital and revenue expenditure not being commensurate with the growth in the State government's revenues.

For 2021-22, the Central government allowed the state additional borrowing of 2% of GSDP, over and above the limit of 3% of GSDP, to overcome losses incurred due to the pandemic. As per the revised estimates, fiscal deficit during the year is expected to be 8.52% of GSDP, higher than the budget estimate of 3.99% of GSDP.

For 2022-23, the Centre has allowed borrowing limit up to 4% of GSDP, of which borrowing of 0.5% of GSDP is linked to power sector reforms. As per the recent budget speech, the fiscal deficit of the state is targeted at ₹ 15,354 crores, which is equal to 3.19% of the GSDP.

Table 5: Assam's Fiscal Deficit (Revised Estimates)

Year	Gross Fiscal Deficit (in ₹ crores)	Fiscal Deficit as a % of GSDP
2014-15	5429.54	2.77
2015-16	-3005.47	-1.32
2016-17	6125.77	2.41
2017-18	9292.21	3.28
2018-19	4779.06	1.54
2019-20	14815.80	4.27
2020-21 (PA)	11108.03	3.27

Source: Data accessed from CMIE States of India;
India Exim Bank Research

Assam's total revenue receipts for 2022-23 are estimated to be ₹ 996.6 billion, an increase of 4% over the revised estimate of 2021-22. Of this, ₹290.6 billion (29%) will be raised through state's own revenue and ₹706.0 billion will be transferred by the center. The share of tax revenue has increased from 52% in 2009-10 to 60% in 2019-20 and the share of non-tax revenue has declined from 48% to 40%. During 2014-15 to 2019-20, the state's tax revenue has grown from ₹94.5 billion to ₹165.3 billion. Assam's share of central taxes has also seen a rise, from ₹122.9 billion in 2014-15 to ₹217.2 billion in 2019-20.

The collection of non-tax revenue also rose considerably, from ₹24.1 billion in 2014-15 to ₹82.2 billion in 2018-19, post which it declined to ₹55.4 billion in 2019-20. The decline may be attributed to the fact that no arrear payment towards royalty was

made during 2019-20 unlike the previous years. For 2020-21, according to provisional estimates, non-tax collection has plummeted to ₹29 billion.

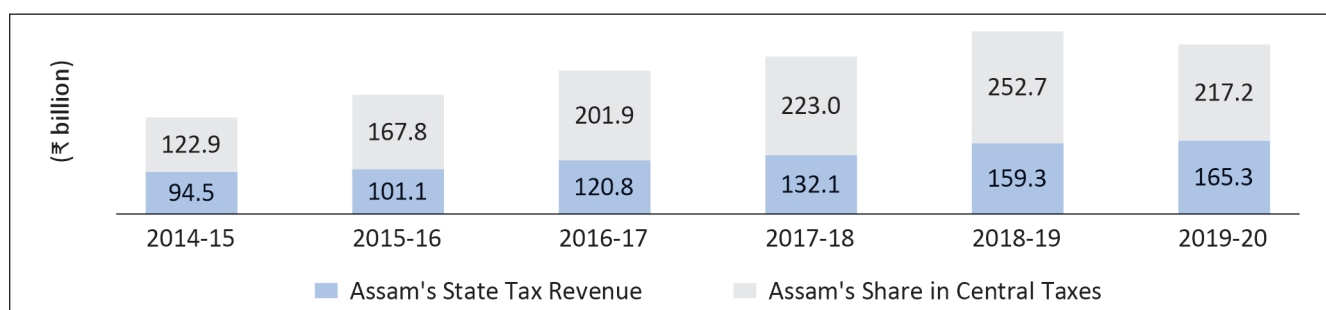
Table 6: Assam's Non-Tax Revenue

Year	Non-Tax Revenue (in ₹ crores)	Growth (%)
2014-15	2412.9	
2015-16	2741.6	14
2016-17	4353.1	59
2017-18	4072.0	-6
2018-19	8221.3	102
2019-20	5539.4	-33
2020-21 (PA)	2899.6	-48

Source: Data accessed from CMIE States of India;
India Exim Bank Research

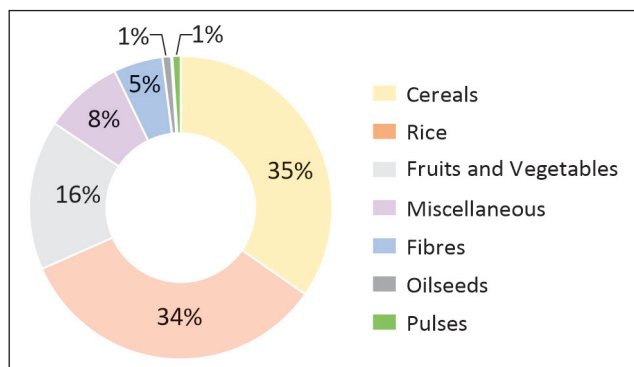
Agriculture

Although about 70% of the population in Assam depends on agriculture for subsistence, its contribution to the state economy is on the decline. Total food grain production has marginally increased from 5466 thousand tonnes in 2019-20 to 5487 thousand tonnes in 2020-21 with an average yield of 2145 kg/hectare. As per the Agricultural Census data 2015-16, the total land under cultivation is around 29.77 lakh hectares, i.e., 37.95% of total geographical land area of the state. The land holdings are small and fragmented. More than 85% of the farmers are small with average land holding of about 0.36 hectares.

Chart 3: Assam's Tax Revenue at a Glance

Source: Data accessed from CMIE States of India; India Exim Bank Research

Chart 4: Production of Various Crops (2019-20)



Source: Economic Survey, Assam, 2021-22; India Exim Bank Research

The principal commodity grown in the state is rice. In 2019-20, the state produced 49.8 lakh tonnes of rice. The production has stagnated during 2015-16 to 2019-20. The area under rice cultivation has also gone down from 25.7 lakh hectares in 2010-11 to 23.6 lakh hectares in 2020-21, mainly because of decline in area under autumn rice. Since around 92.5% of the total area under food production is for paddy, the declining trend in production is worrisome. To increase yield, the state is promoting the cultivation of hybrid varieties of rice. In 2019-20, area under hybrid rice constituted around 12% of total area under rice cultivation. Other important food crops grown in the State include wheat, maize, pulses, and potato.

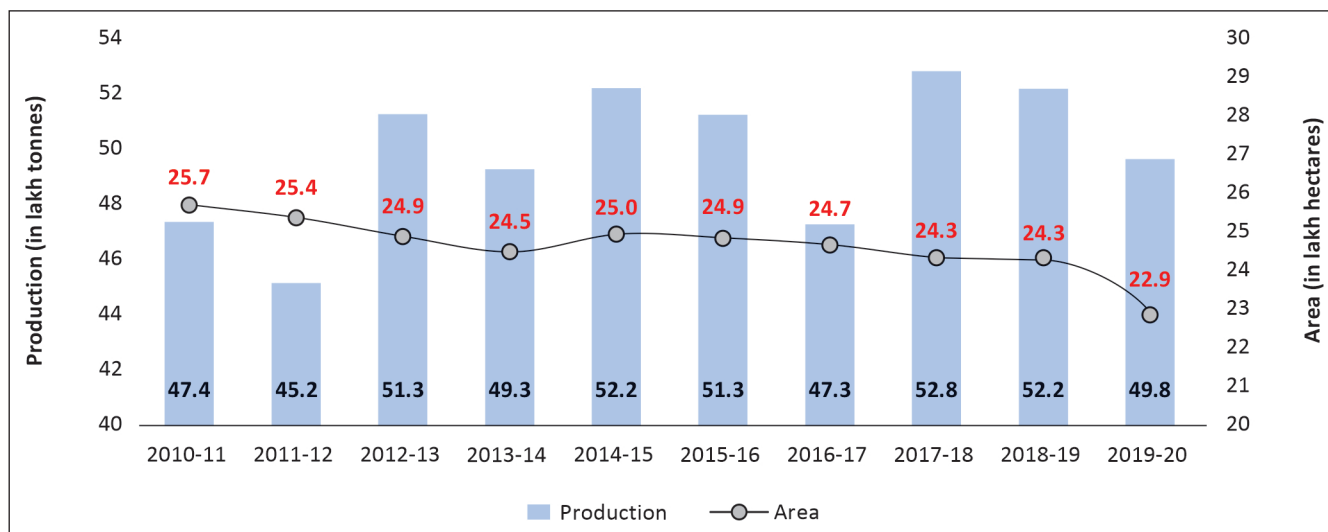
Plantations

Assam also produces cash crops, the most important being tea. Assam has the single largest tea growing region in the world, constituting around one-seventh of the global tea production. It accounts for over 50% of the country's overall tea production. There has been a remarkable rise in the number of small tea holdings over the years as more and more first-generation tea growers are tapping the opportunities present in the sector.

As per Tea Board of India, 2021, there are 1.2 lakh registered Small Tea Growers accounting for about 177.8 million kg of tea during Jan-August 2021. There are about 765 big grower tea estates in the State with an output of 202.1 million kg during the same period. The total production of tea stood at 379.8 million kg during the period.

The other widely grown cash crops are jute, oilseeds, sugarcane, cotton, and tobacco. Assam is also very rich in horticultural production. Various types of fruits, vegetables, flowers, spices, nut crops, medicinal and aromatic plants are grown in the State. Horticulture crops occupy about 15% of gross cultivated area of the state with an annual production of more than 67 lakhs metric tonnes of various horticultural produces. The State is

Chart 5: Production of Rice in Assam (2011-12 to 2019-20)



Source: Handbook of Statistics on Indian States, RBI; India Exim Bank Research

emphasising on commercialisation of the sector on priority basis as it offers tremendous opportunities for generation of income and employment and involves modest investment. In 2019-20, among the horticultural crops, both the production and productivity of fruits was the highest among all the horticultural crops, followed by vegetables and tubers.

Table 7: Production and Productivity of Horticultural Crops (2020-21 (estimated))

Crop	Production (Lakh MT)	Productivity (Kg/Hectare)
Fruits	24.8	15481
Tubers	10.8	8362
Spices	6.04	4792
Vegetables	55.9	19091
Plantation crops	2.5	2642

Source: Economic Survey, Assam, 2021-22;
India Exim Bank Research

Industry

The State has low industrial and manufacturing base despite being well endowed with natural resources. Nonetheless, industrial growth has picked up in the recent years owing to the dedicated support provided by the State and central government. Petroleum, petrochemicals, fertilizers, textiles, cement, paper, and plastic are few of the important industrial sectors in Assam.

During 2011-12 and 2021-22, electricity, gas, water supply and other services grew at an AAGR of 15.7%, the highest among all the sectors. Manufacturing had the second highest average growth rate of 13.2%. The average growth rates of mining and quarrying and construction during the period were recorded at 11.4% and 7.8%, respectively.

Manufacturing, contributing the highest share in the state's GVA (11%) in 2020-21 boasts of production of high volumes of jute textiles, cement, rubber

and fertiliser. Khadi and Village Industries (KVIs) play an integral role in generating employment and upliftment of rural areas. In 2020-21, about 6 lakh people were employed in KVIs, contributing to production of ₹ 1647 crore worth of commodities. Sericulture, particularly is a major cottage industry in the state. Notably, Assam accounts for more than 85% of global Muga Silk production.

To accelerate the pace of industrial development, particularly of the MSMEs, the Assam government launched the Industrial and Investment Policy of Assam in 2014. The policy aimed at facilitating growth in the manufacturing and services sector by building industrial infrastructure, development of MSME sector as well as large industries and services sectors and simplification of procedures for attracting investments. The policy has been superseded by the Assam Industrial and Investment Policy, 2019 which would be in force for the next five years. Under the policy, several thrust areas have been identified for manufacturing and services sector. These are food processing industries, cold chain and cold storage; bamboo, sugar; jute; plastics; pharmaceuticals; IT-ITES; textile; engineering; rubber; automobiles; hotel and resorts; river cruise; and generation of power through river technology. The policy provides a slew of incentives such as, inter alia, tax reimbursements, power subsidy, and interest subsidy.

As regards the mining sector, the State has vast reserves of crude oil and natural gas. India's first oil well was drilled near Digboi town of Assam, making Digboi refinery, commissioned in 1901, the oldest operating refinery in India. More than 100 oil fields are located in Assam, owned by various central and state utilities. State-wise, it has the highest crude oil reserves and accounted for 25.8% of India's total crude oil reserves in 2020. In terms of production of crude oil, Assam is the third largest State after Rajasthan and Gujarat, accounting for 25% of India's onshore production of crude oil.

Table 8 : Production of Major Minerals in Assam

Year	Coal (‘000 tonnes)	Petroleum (Crude) Oil (‘000 tonnes)	Natural Gas (unutilised) (MCM)	Limestone (‘000 tonnes)	Sulphur (‘000 tonnes)
2016-17	600	4202	2907	1597	6571
2017-18	782	4345	3034	1432	8339
2018-19	783	4222	3083	1651	6956
2019-20	596	4093	2931	1552	5955
2020-21	40	3922	2818	1488	6545

Source: Economic Survey, Assam, 2021-22; India Exim Bank Research

Furthermore, Assam has the highest state-wise reserves of natural gas in the country. In 2019, Assam’s natural gas reserves constituted 12% of India’s total reserves. The state’s production of natural gas, highest among all the states represents 10% of India’s natural gas production³. Ample availability of limestone has also attracted several cement and chemical industries to the state. During 2020-21, except Sulphur, production of all major minerals has declined compared to the previous year.

Services

The service sector comprises of trade, repair, hotel & restaurants, transport, storage, communication & services related to broadcasting, financial services, real estate, ownership of dwelling and professional services, public administration, and other services. Services sector registered a contraction of 2.13% at constant prices in 2020-21 while in 2021-22, the sector witnessed a growth of 7.25% owing to low-base effect.

Among services, in 2020-21, public administration, defence and other services constituted the highest share in GSVA (16.8%). It may be noted that this is higher than the national average of 13.47%. Trade, hotels and transportation and financial, real estate and professional services had a share of 15.7% and 8.2%, respectively.

³ Indian Petroleum and Natural Gas Statistics 2019-20

All the sub-sectors other than public administration were negatively impacted by the outbreak of COVID-19 during 2020-21. In 2021-22, public administration grew the fastest at 11.5%, followed by financial services (10.9%), transport, storage, and communication (10.4%) and real estate (9.06%).

Table 9: Annual Growth Rate of GVA in Service Sector during 2020-21 (1st P.E.) and 2021-22 (Q.E) at constant prices

Sector	2020-21	2021-22
Trade, repair, hotels & restaurants	-3.99	0.59
Transport, storage, communication, and services related to broadcasting	-5.34	10.41
Financial services	-1.60	10.89
Real estate, ownership of dwelling & professional services	-2.22	9.06
Public administration	4.23	11.53
Other services	-2.45	6.99
Services	-2.13	7.25

Source: Economic Survey, Assam, 2021-22; India Exim Bank Research

Tourism sector in the State is brimming with opportunities given the State’s rich heritage, culture, and biodiversity. The segment of eco-tourism particularly holds great potential.

Presently, the potential lies largely unutilised. During 2010 to 2019, the average growth in tourist visits was a modest 4%. In 2019, 26,878 foreign tourists and 54,47,805 domestic tourists visited Assam. 2020 was one of the worst years for tourism in Assam because of the curtailed mobility.

Table 10: Tourist Arrivals in Assam

Year	Domestic Visits (in '000)	Foreign Visits (in '000)
2010	4050.9	15.2
2011	4339.5	16.4
2012	4511.4	17.5
2013	4684.5	17.6
2014	4826.7	21.5
2015	5491.8	24.7
2016	5160.6	19.5
2017	6052.7	21.8
2018	4710.6	15.6
2019	5447.8	26.9
2020	1266.9	7.2

Source: CMIE States of India; India Exim Bank Research

Scope of the Study

Assam's strategic location as the gateway to the North East India, neighbouring countries as well as to the ASEAN remains largely unleveraged. Despite being well endowed with natural resources such as minerals, vast tracts of fertile land and water, the state lags in terms of economic growth and development.

The Study analyses the current macroeconomic and trade trends in the State. It identifies the potential sectors where there is huge untapped export potential and suggests way to realise it. Since robust trade enabling infrastructure and connectivity are integral for boosting exports, the Study reviews the current State of physical and non-physical infrastructure in the State and suggests ways to build seamless connectivity in the region. India Exim Bank attempts to prepare strategies for the State to realise its brimming economic potential, enabling its transformation into a vibrant hub for trade and commerce. The Study, through its multi-pronged approach aims at tapping the unexplored economic opportunities in the State and placing it on the sub-regional map.

2

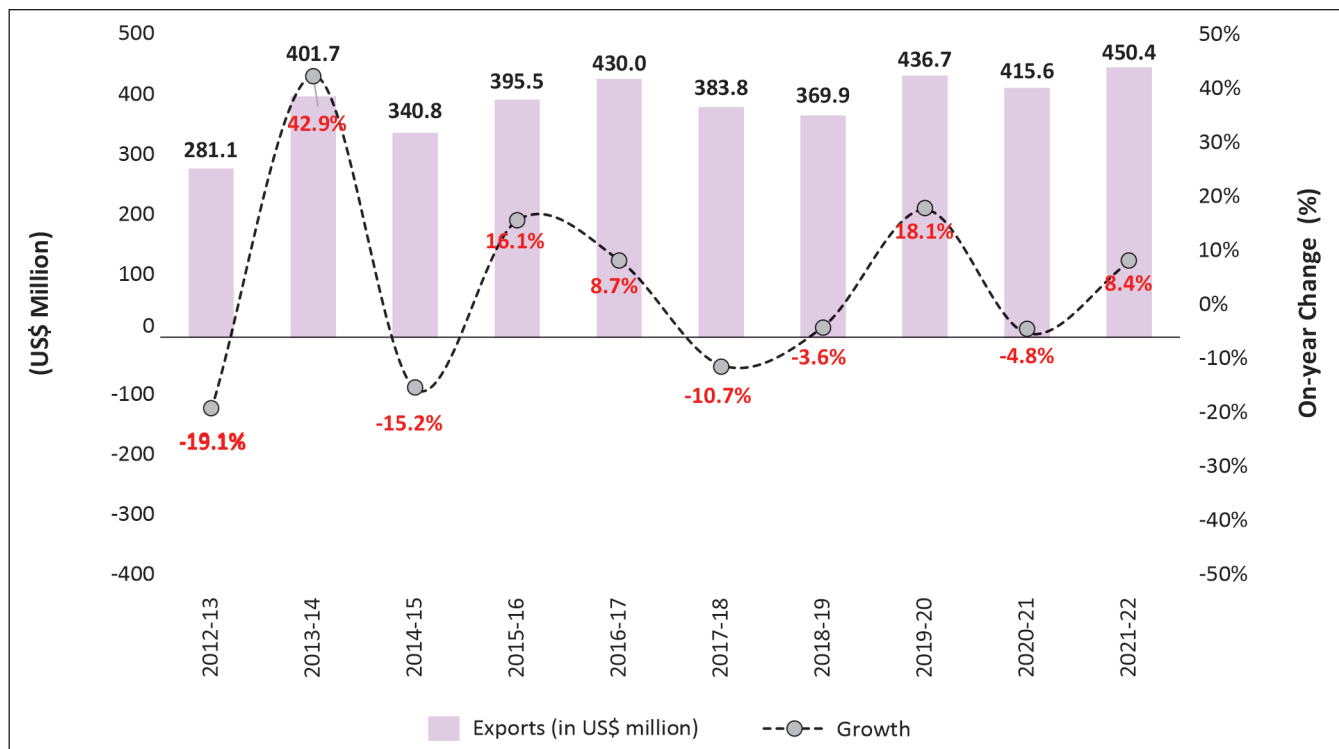
Assam's Participation in International Trade

Overview

In 2021-22, Assam's merchandise exports stood at US\$ 450.4 million, witnessing a growth of 8.4% as compared to the contraction of 4.8% in exports in 2020-21. Nationwide, the State ranked 25th in terms of exports with a share of 0.1% in India's total merchandise exports in 2021-22. Over the last ten years, the State's exports have grown at an AAGR of 6.6%, from US\$ 281.1 million in 2012-13 to US\$ 450.4 million in 2021-22.

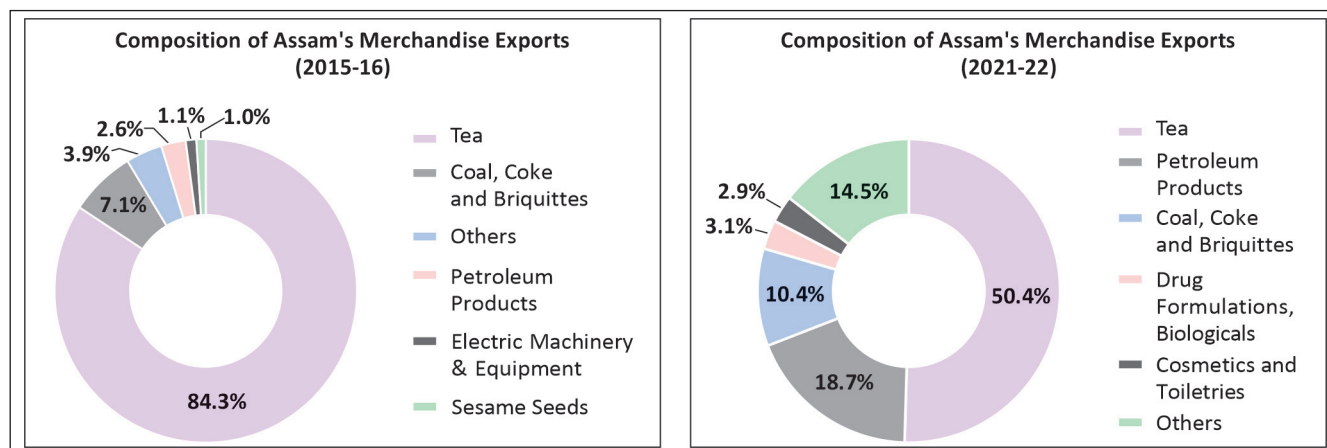
Assam's export basket is highly concentrated with tea, the most important export item comprising 50% share in total exports. It may be noted that during 2015-16 and 2021-22, the share of top ten principal commodities in Assam's export basket has reduced from 98% to 90%, indicating slight diversification of merchandise exports. Notably, the share of tea in total exports reduced from 84.3% in 2015-16 to 50.4% in 2021-22.

Chart 6: Trend in Assam's Merchandise Exports



Source: DGCIS; India Exim Bank Research

Chart 7: Composition of Assam's Exports: 2015-16 vs 2021-22



Source: Directorate General of Commercial Intelligence and Statistics; India Exim Bank Research

At the HS-6 digit, the share of top ten items in Assam's total exports has reduced from 96% in 2015-16 to 84% in 2021-22. Black fermented tea has remained the top exported item in the state although its share has decreased drastically from 83% in 2015-16 to 50% in 2021-22. On the other hand, share of petroleum oils and coke and semi coke of coal has increased from 2% and 0.1% to

14% and 9%, respectively during the period 2015-16 to 2020-21.

It is also interesting to note that exports of products like paraffin wax, wood charcoal and jute and other textile bast fibers have picked up markedly during the period with the share in total exports increasing to 4%, 2% and 1%, respectively in 2021-22.

Table 11: Assam's Top 10 Merchandise Exports in 2021-22

HS Code	Description	Exports in 2021-2022 (US\$ million)	Share in Assam's Total Merchandise Exports (2021-22)	Share in Assam's Total Merchandise Exports (2015-16)
090240	Black fermented tea and partly fermented tea, whether or not flavoured in immediate packings exceeding 3kg	218.2	48.4%	78.4%
271019	Medium oils and preparations, of petroleum or bituminous minerals	60.7	13.5%	1.9%
270400	Coke and semi-coke of coal, of lignite or of peat, whether or not agglomerated	39.5	8.8%	0.1%
271220	Paraffin wax containing less than 0.75 per cent oil	16.2	3.6%	0.0%
300490	Other medicine put up for retail sale	11.8	2.6%	0.1%
440290	Wood charcoal, whether or not agglomerated	7.4	1.6%	–
270119	Coal except anthracite or bituminous, not agglomerate	7.2	1.6%	6.9%
090230	Black fermented tea and partly fermented tea, whether or not flavoured, in immediate packings not exceeding 3kg	6.4	1.4%	4.6%
530310	Jute and other textile bast fibres, raw or retted	4.8	1.1%	0.2%
330590	Hair preparations, others	4.2	0.9%	0.1%
Total (Above)		376.4	83.6%	96%

Source: DGCI; India Exim Bank Research

Export Destinations

In 2021-22, the top merchandise export destinations for Assam were Bhutan (23%), Bangladesh (12%), UAE (10%), Russia (8%) and UK (6%). These five export destinations together constituted for about 59% of Assam’s merchandise exports during the year. It may be noted that exports to Iran, which was a consistent top trading partner for Assam till 2020-21 have dropped considerably (from US\$ 86 million in 2015-16 to US\$ 22 million in 2021-22) owing to fall in tea exports. Furthermore, on comparing the top trading partners of Assam in 2015-16 with those in 2021-22, it is observed that trade with neighboring countries has gained more prominence.

Port-Wise Exports from Assam

Assam, being a landlocked state, is highly dependent on Kolkata port for export facilitation. Nevertheless, the dependence is gradually reducing with Kolkata port’s share in facilitating Assam’s exports down from 60% in 2020-21 to 42% in 2021-22. As exports to bordering countries have increased, the role of Land Customs Stations has also gained more significance. The other important ports for handling Assam’s exports were Land Customs Station (LCS) Jaigaon (10%), LCS Darranga (9%), LCS Raiganj (9%), Inland Container Depot (ICD) Amingaon (9%) and Nhava Shava Sea (6%).

Table 12: Port-Wise Exports from Assam (2021-22)

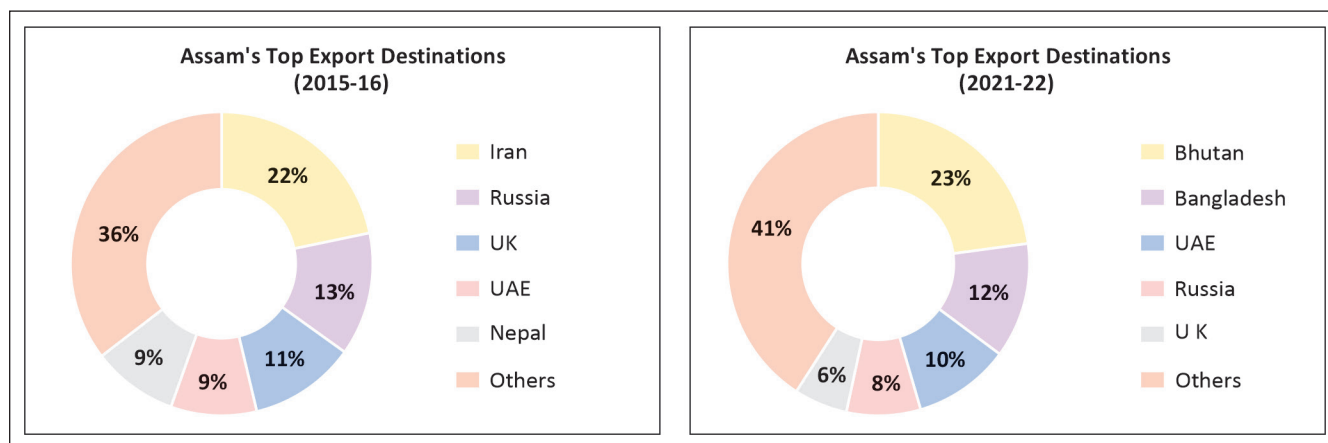
Port	Export Value (US\$ Million)	Share in Assam’s Total Exports
Kolkata Sea	191	42%
LCS Jaigoan	46.3	10%
LCS Darranga	42.0	9%
LCS Raiganj	40.4	9%
ICD Amingaon	38.8	9%
Nhava Sheva Sea	28.8	6%
LCS Kamardwisa	14.3	3%
LCS Panitanki	7.6	2%
Mumbai Air	6.3	1%
ICP Raxaul	6.1	1%
ICP Petrapole	6.0	1%
Others	22.8	5%

Source: DGCIS; India Exim Bank Research

Border Trade

It may be noted that out of the seven functional LCSs in Assam with neighboring countries, exports were recorded at only two, viz., Darranga and Kamardwisa. Since Assam shares expansive borders with Bhutan and Bangladesh, fostering border trade can provide an impetus to the state’s economy. Assam has 4 functional LCSs with Bangladesh yet exports were not recorded at any of these. In 2021-22, all the exports from Assam to Bangladesh via

Chart 8: Assam’s Top Export Destinations



Source: DGCIS; India Exim Bank Research

land were routed through LCSs in West Bengal. Assam's exports to Bhutan were facilitated by LCSs in both Assam (LCS Darranga & Kamardwisa) and West Bengal.

This points at underutilization of export infrastructure and scope for higher border trade between Assam and the neighboring countries.

Table 13: Exports from Assam to Neighboring Countries through Land Ports (2021-22)

Country	Land Customs Station	Bordering State	Exports originating from Assam (US\$ million)	Share in Total Exports
Bangladesh	LCS Raiganj	West Bengal	40.4	76%
	ICP Petrapole	West Bengal	6.0	11%
	LCS Chengrabandha Railway Station	West Bengal	4.7	9%
	LCS Fulbari	West Bengal	1.6	3%
	LCS Hili	West Bengal	0.5	1%
	LCS Kotwalighaat	West Bengal	0.1	0%
	Total			53.4
Bhutan	LCS Jaigaon	West Bengal	46.2	45%
	LCS Darranga	Assam	42.0	41%
	LCS Kamardwisa	Assam	14.3	14%
	LCS Chamurchi	West Bengal	0.2	0%
	LCS Birpara	West Bengal	0.04	0%
	LCS Loksan	West Bengal	0.02	0%
	Total			103.0

Source: Directorate General of Commercial Intelligence and Statistics; India Exim Bank Research

Table 14: Land Customs Stations/ Integrated Check Post in Assam

LCS/ICP	Bordering Country	Status	Exports recorded
Sutarkandi	Bangladesh	Functional	No
Karimganj steamer	Bangladesh	Functional	No
Golakganj	Bangladesh	Functional	No
Mankachar	Bangladesh	Functional	No
Mahisasan Railway Station	Bangladesh	Non-functional	No
Silchar RMS Office	Bangladesh	Non-functional	No
Dhubri Steamerghat	Bangladesh	Non-functional	No
Gauhati Steamerghat	Bangladesh	Non-functional	No
Silghat	Bangladesh	Non-functional	No
Hatisar	Bhutan	Functional	No
Ultapani	Bhutan	Non-functional	No
Darranga	Bhutan	Functional	Yes
Kamardwisa	Bhutan	Functional	Yes

Source: MDoNER; DGCIS; India Exim Bank Research

RCA Analysis and Assam's Merchandise Export Competitiveness

Revealed Comparative Indices are used to identify categories of exports in which an economy has a comparative advantage by way of comparison of the country's trade scenario with the world scenario. The basic assumption underlying the concept of revealed comparative advantage is that the trade profile reflects the inter-country differences in terms of relative costs as well as non-price aspects. As per Balassa's (1965) measure, index for country 'i', commodity 'j' is:

$$RCA_{ij} = (X_{ji}/X_i) / (X_{jw}/X_w)$$

Where,

X_{ji} : exports of commodity j from country 'i'

X_i : total exports from country 'i'

X_{jw} : total exports of commodity 'j' from world

X_w : total exports from the world

Country i is said to have a revealed comparative advantage in commodity j if its ratio of exports of product j to its total exports of all products exceeds the same ratio for the world as a whole. The RCA index ranges from 0 to infinity, with 1 as the breakeven point. An RCA value of less than 1 means that the product does not have a comparative advantage, while a value above 1 indicates that the product has a comparative advantage. When a country has a revealed comparative advantage for a given product, it is inferred to be a competitive producer and exporter of that product relative to a country producing and exporting that product at or below the world average.

The Normalized Revealed Comparative Advantage (NRCA) index has been demonstrated capable of revealing the extent of comparative advantage that a country has in a product more precisely and consistently than other alternative RCA

indices according to the literature. NRCA has been calculated as:

$$NRCA_{ij} = (RCA_{ij} - 1) / (RCA_{ij} + 1)$$

It may be noted that the NRCA ranges from (-) 1 to 1, with 0 as the breakeven point. That is, an NRCA value of less than 0 means that the product has no export comparative advantage, while a value above 0 indicates that the product has a comparative advantage. The extent of comparative advantage/disadvantage can be gauged from the proximity of the NRCA values to the extreme data points, viz. +1 and -1.

An exercise has been performed to map the export competitiveness of Assam, as reflected in the NRCA with global demand for the products during 2015-19. Overall, the AAGR of global imports for all the products during 2015-19 was 3.8%. Based on the mapping of NRCA and each product's world import AAGR with overall world import AAGR, the study has identified product champions. These are the products whose global import AAGR exceeded the overall world import AAGR (3.8% during 2015-19), and in which Assam's exports are highly competitive, globally as exhibited through a positive NRCA (Product's Global Import AAGR > World Import AAGR; Assam's Exports Globally Competitive (Positive NRCA). The analysis indicates that there are 40 products at HS-6-digit level in Assam's export basket which have a global import AAGR greater than the world import AAGR and a positive NRCA. The total exports of these products equal US\$ 201.3 million and constitute a share of 45% in Assam's total exports.

However, out of these 40 products, the analysis narrows down items with an export value of at least US\$ 0.5 million as in 2019 – these include 20 such products with a cumulative value of US\$ 98.4 million.

The research shows that there are 5 minerals-based products⁴ whose reserves and manufacturing capacity in Assam are not currently adequate, and hence these are eliminated to arrive at a list of 15 product champions with an export value of US\$ 50.2 million. A focussed and dedicated approach towards enhancing exports of these 15 products at HS-6 digits, over the short to medium term could yield significant dividends for Assam.

Analysis of these 15 identified product champions (full list appended) indicates that while Assam currently has a negligible share in India's total exports of these products, there remains significant headroom to improve their exports. Given the increasing import demand for these products, it presents an opportunity for Assam to focus on strengthening export capabilities in these.

One such product category is petroleum products⁵. Assam may look at strengthening its export capabilities in the sector. Currently Assam has four refineries⁶. Their installed capacity can be augmented to meet both domestic demand and exports. It may be noted here that while India is taking impressive strides in transitioning towards a clean energy-based economy, in the medium run, global demand for petroleum products is expected to remain high. Thus, there is potential to export oil to cater to the needs of developing countries, particularly India's neighbours.

A range of products in the non-energy sector too have high export potential. These include gas

turbines⁷, beauty or make up preparations⁸, extracts and essences of tea⁹, preparations for use on the hair¹⁰ and sesamum seeds¹¹, among others.

It is important to note that global imports of black tea¹², which constitute a considerable share in Assam's exports (67%) are slowing down. From 2015-19, the global imports of black tea have grown at a pace lower than the overall AAGR of global imports. Particularly, India's exports to its two biggest markets for tea - Iran and Russia - have declined. This points out at the need to diversify the export basket of Assam as high dependence on a single item makes it vulnerable to global shocks.

Falling Tea Exports

Assam's tea production, over the years has not been consistent. From 701 million kg in 2018-19, the production dropped to 695 million kg in 2019-20 and thereafter to 626 million kgs in 2020-21. In 2021-22, the tea production witnessed a modest increase, at 672 million kgs. The share of Assam in India's total tea production has consequently also dropped from 52% in 2018-19 to 50% in 2021-22.

Assam's exports of tea have also shown lacklustre performance, declining from US\$ 312.5 million in 2019-20 to US\$ 227.1 million in 2021-22. Its share in India's total exports of tea has also seen a considerable drop, from 36% in 2018-19 to 31% in 2021-22.

⁴ HS 270119: Coal, whether or not pulverised, non-agglomerated (excluding anthracite and bituminous coal);
HS 270400: Coke and semi-coke of coal, of lignite or of peat, whether or not agglomerated; retort carbon;
HS 440290: Wood charcoal, incl. shell or nut charcoal, whether or not agglomerated;
HS 270111: Anthracite, whether or not pulverised, non-agglomerated; Anthracite, whether or not pulverised, non-agglomerated; and
HS 681599: Articles of stone or other mineral substances, n.e.s. (excluding containing magnesite, dolomite etc.)

⁵ HS 271019: Petroleum oils and oils obtained from bituminous minerals, other than crude.

⁶ Guwahati, Numaligarh, Bongaigaon and Digboi refineries

⁷ HS 841181: Gas turbines of a power <= 5.000 kW (excluding turbojets and turbopropellers)

⁸ HS 330499: Beauty or make-up preparations and preparations for the care of the skin (other than medicaments), including sunscreen or suntan preparations; manicure or pedicure preparations - Other

⁹ HS 210120: Extracts, essences, and concentrates, of tea or mate

¹⁰ HS 330590: Preparations for use on the hair excluding shampoos, preparations for permanent waving)

¹¹ HS 120740: Sesamum seeds, whether or not broken

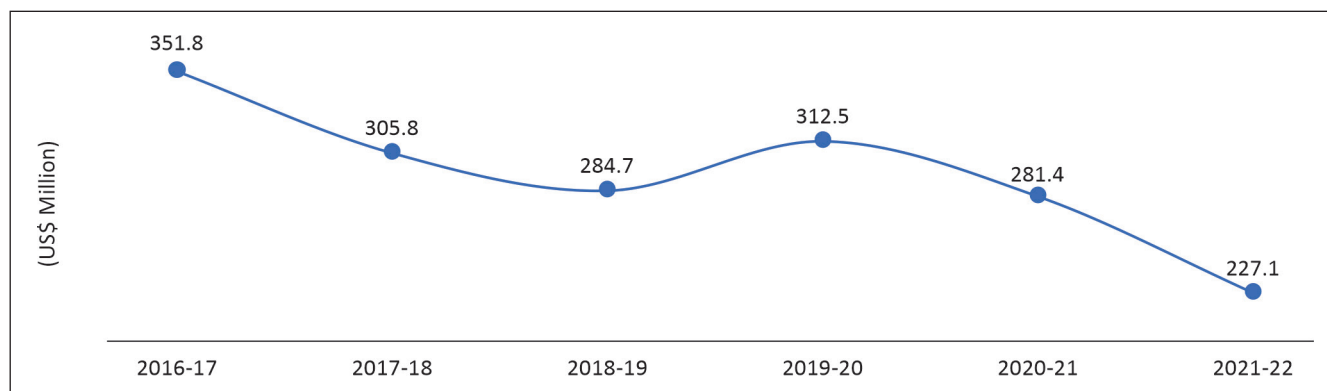
¹² HS 090240: Black fermented tea and partly fermented tea, whether or not flavoured, in immediate packings exceeding 3kg and HS 090230: Black fermented tea and partly fermented tea, whether or not flavoured, in immediate packings not exceeding 3kg

Table 15: Assam's Tea Production and Export Statistics

Year	Production (million kg)	Share in India's Total Tea production (%)	Exports (US\$ million)	Share in India's Total Tea Exports (%)
2018-19	701.35	52	284.7	36
2019-20	695.38	51	312.5	38
2020-21	626.23	49	281.4	39
2021-22	672.14	50	227.1	31

Source: Tea Board India; DGCIS; India Exim Bank Research

Chart 9: Assam's Tea Exports



Source: Tea Board India; DGCIS; India Exim Bank Research

India ranks among the top exporters of tea, globally. However, its export performance demonstrates a declining trend over the years. From once being the global leader in tea production, with a share of 42% in world exports during 1951-60, India has lost substantial market to China, Kenya and Sri Lanka. During 2011 and 2020, while China's share in world tea exports has seen an impressive rise from 14% to 29% and Kenya's share has risen from 16% to 17%, India's share in world's tea exports has seen a fall from 12% to 10%. This can be attributed to several reasons as found out during the field visit-

- Low price competitiveness-** India's prices are higher due to variable weather conditions and better quality while countries like Sri Lanka and Kenya, because of consistent climatic conditions have a more predictable and stable yield. India also has lower yield than Sri Lanka and Kenya due to low land productivity and increasing labour costs.
- Lack of marketing activities-** Top tea exporters like Kenya and Sri Lanka spend considerably on marketing activities to boost tea exports. In comparison, India is not allocating enough funds for marketing and related activities. The reduction in allocation of funds to Tea Board in the Union Budget, from ₹353.65 crores in 2020-21 to ₹131.92 crores in 2022-23 points at the lack of focus given to tea as an export item.
- Problems faced by exporters-** Exporters especially the first timers, find it difficult to prepare documentation, know about the regulations of other countries and avail benefits related to exports as information is not easily available to potential exporters. Because of this, the benefits offered tend to be availed only by few large exporters.

Table 16: Budget Allocation for Tea Board

Actual (2020-21)			Revised (2021-22)			Budget (2022-23)		
Revenue	Capital	Total	Revenue	Capital	Total	Revenue	Capital	Total
209.19	-	209.19	353.65	-	353.65	131.92	-	131.92

Source: Union Budget documents

Export and Logistics Policy, 2019

Assam launched its first Export and Logistics Policy in 2019 to provide multipronged support to exporters for boosting exports of tea and other commodities and services from the state. The focus areas include:

- Agro and allied products, processed foods, organic produce, bamboo products, ornamental fishes, and medicinal & aromatic products
- Silk, bamboo and traditional handloom and handicraft products
- Hydrocarbon products and plastics and petrochemicals
- Industrial products like cement, steel, pharmaceuticals, cosmetics, and health and personal products

For services exports, the policy has targeted sectors such as information technology, financial services, e-commerce, tourism including medical tourism, hospitality and wellness, healthcare and education and skill development and development of women entrepreneurship.

The policy aims at strengthening the export infrastructure of the state focusing on facilities such as ICDs, Border Trade Centres, Common Facility Centres, Integrated Cold Chain, Multimodal Logistic Parks etc. It also envisions establishing product specific parks like tea parks, bamboo Parks, food parks, pharmaceutical parks, and plastic parks. For strengthening soft infrastructure facilities, the State plans to setup a branch of Indian Institute of Foreign Trade and invest resources in training the State's large pool of available skilled human resource.

Setting Merchandise Export Targets

The Economic Survey 2018-19 and the Union Budget 2019-20 indicated the Government's goal of making India a US\$ 5 trillion economy by 2024-25. One of the key enablers for this would be the country's exports sector, with the Government targeting exports of goods and services to be at least 20% of the GDP, that is, US\$ 1 trillion by 2024 - 25. Going by the current trend, almost two-thirds of the exports are expected to be generated by merchandise goods and the remaining one-third by services.

Accordingly, under the **Optimistic Scenario**, assuming that India's merchandise exports touch the US\$ 666.6 billion mark in 2024-25 and Assam's exports grow at the same CAGR as projected for India's merchandise exports i.e., 16.4%, the total merchandise exports from the State can reach US\$ 710.4 million by 2024-25.

Under the **Base Case scenario**, which assumes that merchandise exports from Assam will grow at the same CAGR registered for its total merchandise exports during the last decade (2012-13 and 2021-22) i.e., 5.4%, the exports may reach US\$ 527.4 million by 2024-25.

Thus, Assam's export target can range from around US\$ 527 million to US\$ 710 million by 2024-25, depending upon different scenarios. Considering Assam's low share in India's total exports, these estimates should be seen as conservative as there is high potential for boosting Assam's exports.

Table 17: Merchandise Exports from Assam: Target (2024-25)

Possible Scenarios		Merchandise Exports	
		(US\$ Million)	Required CAGR (2022-23 to 2024-25)
Current Exports (2021-22)		450.4	–
Base Case Scenario	If the State's merchandise exports continue to grow at its CAGR recorded during 2012-13 and 2021-22	527.4	5.4%
Optimistic Scenario	Should Assam's merchandise exports grow at the same projected CAGR as India's to reach the US\$ 666 billion target	710.4	16.4%

Source: India Exim Bank Research

3

Export Infrastructure and Connectivity

Assam's geostrategic location places it at the center of India's Act East policy, which aims at furthering India's economic, strategic, and cultural relations with the ASEAN and other countries in Asia-Pacific region. Assam's proximity to India's immediate neighbours also makes it an important node in the various economic and transport cooperation programs active in the region, viz. South Asian Association for Regional Cooperation (SAARC), Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) and the South Asia Subregional Economic Cooperation (SASEC). An efficient logistics and connectivity landscape in Assam is thus a prerequisite for ensuring smooth movement of goods, services, and people both within the country as well as in the sub-region.

Assam's Logistics Performance

The State of Assam's logistics infrastructure can be gauged by its performance in NITI Aayog's Export Preparedness Index, 2021. The State was ranked 15th among all the 36 states and Union Territories (UTs) and 7th out of the 10 landlocked states. Notably, this is a huge improvement from Assam's performance in the index in 2020, where it ranked 9th out of the 11 landlocked states and 28th out of all the 36 states and UTs.

Scored from 0 to 100, the NITI Aayog study assesses the various parameters related to the states' export preparedness. Assam has demonstrated remarkable improvement in all parameters from 2020 to 2021, with the most impressive being in export ecosystem. The rank in this indicator has improved from 32 to

6, although the score of 46.65 out of 100 points at scope for further improvement. Under the pillar, export infrastructure fares the best due to the steps taken by the State government towards setting up soft infrastructure such as trade portal for exporters. However, other indicators under export infrastructure such as area under Export Promotion industrial parks, trade support including capacity building workshops and R&D infrastructure have fared poorly.

Table 18: Assam's Performance in NITI Aayog's Export Preparedness Index

	2020	2021
Overall		
Rank	28	15
Score	22.81	41.57
Business Ecosystem		
Rank	29	21
Score	26.31	37.08
Export Ecosystem		
Rank	32	6
Score	3.85	46.65
Export Performance		
Rank	16	22
Score	39.33	9.53
Policy		
Rank	23	7
Score	18.24	77.51

Source: NITI Aayog export Preparedness Index Report 2021; 2022; India Exim Bank Research

Performance under policy pillar has also improved considerably, a jump from 23rd rank in 2020 to 7th rank in 2021. Formulation of the Export and Logistics Policy, 2019 by Assam with a sector specific approach makes it one of the top states in India in terms of presence of a strong policy framework. However, the state doesn't have a district export action plan yet and needs to have a stronger institutional framework. Assam's performance under the business ecosystem pillar has remained lacklustre with improvements needed in doing business environment, ensuring adequate infrastructure for industries, ensuring transport connectivity, and providing access to finance.

It is worth highlighting that Assam has shown tremendous performance from the previous survey in terms of power availability and power cost. From a score of 0 in both indicators in 2020, Assam has secured a score of 54.55 in power cost and 85.76 in power availability in 2021. On the contrary, Assam's performance in access to finance has deteriorated in terms of banking facilities and export credit provided to exporters. As regards, loans schemes offered to exporters, the state has shown tremendous improvement.

Lastly, under the export performance pillar, Assam has underperformed in all the indicators highlighting the need to enhance export orientation of the state.

Table 19: Comparison of Assam's Performance with Competing States in NITI Aayog's Export Preparedness Index, 2021

	Assam	Himachal Pradesh	Uttarakhand	Jharkhand	Chhattisgarh	Bihar
Rank	15	18	17	20	21	22
Business Ecosystem	37.08	40.40	44.67	49.39	36.96	30.58
Business Environment	56.04	79.01	77.97	71.85	75.15	48.21
Ease of Doing Business Index	11.32	54.37	37.63	56.37	54.79	5.31
Number of Investors Summit	3.66	2.44	53.66	4.88	39.02	32.93
MoU's/Lol's signed per Summit	0.71	2.12	2.07	0.12	0	2.71
Power cost	54.55	39.39	37.88	46.97	77.27	72.73
Single Window Clearance	100	100	100	100	100	100
Labour Reforms	97.44	100	97.44	100	94.87	61.54
Innovative capacity	35.15	53.78	50.43	36.74	33.84	31.07
Infrastructure	3.03	24.03	22.81	21.02	14.96	14.59
Power availability	85.76	100	100	79.37	100	90.41
Internet Facilities	19.56	68.41	55.09	28.60	34.41	25.57
Number of Clusters	18.64	2.74	16.44	13.7	8.22	15.07
Number of IT/ Software Technology / Food parks	3.68	0.15	1.07	1.07	0.76	0.46
Transport Connectivity	42.44	30.65	33.76	32.46	35.67	32.11
Area covered by Air Cargo facilities	0.02	0	0	0.01	0	0
Area covered by ICDs	0	0	0	0	0	0
Multi -Modal Logistics Hubs	18.72	0	3.57	0	3.81	0
LEADS Index	82.87	75.14	78.73	79.56	83.15	78.73

	Assam	Himachal Pradesh	Uttarakhand	Jharkhand	Chhattisgarh	Bihar
Access to Finance	29.82	27.92	44.16	72.23	35.68	27.40
Banking Facilities	20.21	52.10	46.74	20.58	23.95	15.52
Export Credit to exporters	0.01	0.86	0.59	0.51	9.81	0.01
FDI inflow to states	0.16	1.26	0.95	100	0	0.18
Loan schemes for exporters	100	0	100	100	100	100
Export Ecosystem	46.65	30.60	49.90	15.67	30.83	17.69
Export Infrastructure	43.82	21.31	39.87	16.50	44.78	32.13
Area under Export promotion industrial parks	0.02	0.15	0.14	0	0.04	0
Number of Agri Export Zones	19.51	14.63	9.76	2.44	0	2.44
Presence of Knowledge and information portal for exporters	100	100	100	100	100	100
Total area under trade exhibition centres	17.24	0	16.56	0	100	0
Trade guide	100	0-	100	0	0	100
Trade Support	33.95	15.34	19.45	0.20	4.30	0.39
Capacity Building/Orientation workshops	12.36	85.88	7.06	0	0	0
Membership of Exporters in Trade Promotion Council	100	0	1.06	0	6.74	0
Number of Trade Fairs conducted by Government Departments	16.67	0	1.11	1.11	14.44	2.22
Projects approved under TIES	18.18	9.09	100	0	0	0
R&D Infrastructure	15.52	24.56	40.49	14.63	12.58	2.85
Number of NABL Labs	0.5	1.89	1.36	0.70	0.87	0.17
Number of Inspection Agencies	0	0	0	42.25	0	0
Research Institutes	4.73	29.49	20.07	1.41	4.95	1.99
R&D Spending (% of GDP)	38.78	26.35	47.80	7.78	20.93	0.03
Professional colleges	10.07	38.38	85.69	12.05	20.08	7.33

Source: NITI Aayog's Export Preparedness Index, 2020

Compared with other states which are landlocked and have a similar economic size, it is seen that Assam's overall performance in NITI Aayog's Export Preparedness Index has been the best. In terms of export ecosystem, its performance is second only to Uttarakhand. However, its performance under

business ecosystem lags behind Himachal Pradesh, Jharkhand and Uttarakhand.

Assam ranked amongst the least favourable states for investments (19th out of 21 states) in NCAER's State Investment Potential Index 2018 (N-SIPI

2018). The index gauges the states' investment climate based on the six pillars of land, labour, infrastructure, economic climate, political stability and governance and perception. Compared to 2017, its rank has fallen by two positions. In terms of infrastructure also, it fares poorly as compared to other states. NSIPI-18, in line with the NITI Aayog's State Preparedness Index highlights the issue of availability of power in the state which is crucial for setting up the necessary infrastructure required for trade and connectivity.

Table 20: Assam's Performance in Infrastructure Pillar of N-SIPI 2018

Indicator	Score	Rank
Infrastructure-Overall	21.0	18
Road density	31.2	3
Rail density	21.8	7
Cargo handled per day per airport	2.4	9
Power shortage as a % of total demand	0	21

Source: N-SIPI 2018, NCAER

Trade Infrastructure

Inland Container Depot: Located in the Kamrup district, ICD Amingaon is the only ICD supporting industrial activities in the North Eastern region. It was established primarily for facilitating exports of tea. It has facilities such as warehousing for exports and goods in transit, handling equipment, is EDI enabled and is well-connected by road and railways. Export cargo after clearance at the ICD goes by road or rail to Kolkata port. Recently, CONCOR signed an agreement with a Russian logistics company to facilitate exports of tea to CIS countries.

However, after all these years, the ICD is still catering to only tea exports. Since tea exports are done mainly during the months of May to February, the demand for ICD services is inconsistent. Besides, the ICD predominantly provides Full Container Load (FCL) services only, which makes it inaccessible to small exporters for sending their Less than

Container Load (LCL) shipments. Thus, many a time, CONCOR incurs dead freight costs which must be borne either by them or by the exporter. Because of low volumes and inconsistent demand, it is infeasible to expand routes from the ICD to other parts of India such as JNPT where the freight rates are low. Besides, Kolkata port doesn't have mother vessel calls, the vessels have to go to Colombo or Singapore port for onward movement to western countries. Due to lack of import traffic, containers from Kolkata port are brought back empty, leading to additional costs. The ICD also lacks reefer train services and cold storage facilities, hindering exports of agricultural and horticultural produce. Moreover, there is availability of traffic in one direction only i.e., between Amingaon and Kolkata port.

- Multimodal Logistics Park:** India's first multimodal logistics park under the Bharatmala project is being developed at Jogighopa in the Bongaigaon district of Assam. Funded by the Government of India, the park aims at improving the logistics ecosystem in the state to facilitate both domestic and international trade. The park will offer multi modal connectivity through rail, road and waterways to the other states in the North East Region and beyond. The park is to be developed in two phases and will be led by a Special Purpose Vehicle. It will have state of the art infrastructure with facilities such as freight-handling, mechanized warehouses, specialized storage solutions, material handling and cargo terminals along with value-added services such as customs clearance with bonded storage yards, quarantine zones and warehousing management services.
- Export Promotional Industrial Park:** The Export Promotion Industrial Park at Amingaon has about 40 manufacturing units which include plastic molded furniture, cosmetic items, mosquito repellants, steel furniture, food processing units ayurvedic medicines & pharmaceuticals etc. It is well-connected by rail, road, and air.

- **Border Trade Infrastructure:** Assam has one ICP and thirteen LCSs with Bangladesh and Bhutan. However, only seven of these thirteen border points are functional. Further, exports were recorded at only two of these LCSs. Presently, Assam's exports are being routed through several LCSs in West Bengal. As per a recent study¹³, three non-functional LCSs in Assam- Dhubri, Guwahati Steamer Ghat and Silghat- are important nodes in building robust inland waterway connectivity in the region. They should therefore be operationalised soon. Last mile connectivity at all the LCSs, particularly Karimganj, Sutarkandi, Mankachar also needs to be strengthened. A number of these LCSs such as Sutarkandi, Mankachar, Darranga and Golakganj have Border Trade Centres which pose high potential for trade. However, they are not leveraged to the fullest.

Connectivity

As Assam acts an interface between the North Eastern states, neighbouring nations, and mainland India, it needs to be well-connected by all modes of transportation. Since the state is landlocked, it makes it all the more important to strengthen the State's multimodal connectivity landscape so that movement of goods and services is done in a cost-effective manner.

Assam's locational advantage and economic prowess as compared to other North Eastern states make it an ideal hub for aggregation of economic activities in the North Eastern region. As several North Eastern states do not enjoy direct connectivity with mainland India as well as neighbouring nations, Assam has the potential to feed these scopes by facilitating seamless multimodal connectivity and offering logistics services. It is therefore imperative to study the state of Assam's connectivity with other North Eastern states, mainland India, and neighbouring nations.

¹³ ICRIER. (2021). Facilitating India's Act East Policy Gap Analysis in Infrastructure at Land Custom Stations in the North Eastern Region of India.

1. Air

Assam has a total of six operational airports located in Guwahati, Dibrugarh, Lakhimpur, Tezpur, Jorhat and Silchar. Of these, only the airport at Guwahati serves international destinations. Guwahati also acts as a hub by connecting to smaller airports in Assam and other North Eastern states. Guwahati and Silchar also have dedicated freight services with separate cargo terminals. However, they are only connected with Kolkata presently and the frequency of flights on Kolkata- Silchar and Silchar-Guwahati routes is low¹⁴. Connectivity with neighbouring countries and ASEAN is presently limited.

To provide an impetus to exports of local agricultural and horticultural produce, an air cargo terminal for perishable cargo is being built at the Lokpriya Gopinath Bordoloi International Airport, Guwahati. It will be equipped with necessary infrastructure for unloading, weighing, inspection, clearance etc. Services will be provided at reasonable prices to the exporters so that their products gain international competitiveness¹⁵. Local, organic produce boasts of a niche market both domestically and internationally which however currently remains underutilized. Ensuring temperature controlled transportation for these products would lead to huge economic gains for the region. Seamless connectivity of Guwahati airport with other airports in the North Eastern region will ensure maximum benefits.

Inland Waterway Connectivity

Assam has an extensive inland waterway network which if utilised optimally can provide connectivity with neighbouring states, mainland India, Bangladesh and Bhutan. Currently, out of the 15 national waterways present in the state, only two are in use, namely NW2 along the Sadiya-Dhubri stretch of Brahmaputra River and NW16 along the Barak River. The NW2 runs around a distance of 891 kms., connecting to Kolkata and Haldia port

¹⁴ Business Standard. (2020). SpiceJet starts cargo service in North-East, strengthens supply chain.

¹⁵ Assam Industrial Development Corporation Ltd. (2021). Air Cargo Complex.

Chart 10: Major Inland Waterway Routes in Assam



in West Bengal and facilitates both passenger and freight movement. The stretch from Pandu to the Bangladesh border is the busiest along this route with Jogighopa, Tezpur, Nimati, Dibrugarh, Sadiya and Saikhowa being other important commercial

centres. NW16 also connects with Bangladesh, running from Lakhimpur, near Silchar to Bhanga along the Barak River for a distance of nearly 121 kms. Currently, it only facilitates passenger movement.

Box 1: India-Bangladesh Protocol route

India and Bangladesh have a long-standing protocol in place for transit and trade through inland waterways of both the countries. In 2020, a second addendum was signed to the protocol for extension of protocol routes, inclusion of new routes and declaration of new Ports of Call. There are now a total of ten India-Bangladesh Protocol (IBP) routes. Besides the existing ports of call in Assam for loading and unloading of cargo, namely Karimganj, Pandu, Silghat and Dhubri, Jogigopha has been added. To ensure year-round navigation, India and Bangladesh government have a protocol in place for periodical dredging at the stretches, Sirajganj – Daikhawa in the Jamuna river and Ashuganj to Zakiganj in the Kushiya river in Bangladesh at a cost sharing ratio of 80:20, respectively.

In 2019, for the first time, a trial run for containerised cargo movement was carried out from Haldia Dock Complex to the Pandu terminal at Guwahati. Movement of registered shallow draft mechanised vessels for trade has also been allowed between Chilmari in Bangladesh and Dhubri in India. This will facilitate exports of stone chips and other consignments from Bhutan and North Eastern states to Bangladesh. Presently, the Indian transit cargo consists of coal, fly-ash, petroleum and over dimensional cargo for power projects in the North Eastern region whereas India's export cargo to Bangladesh includes mainly fly-ash. There is high potential for the North Eastern region to supply commodities like food grains, agricultural products and containerized cargo to both Bangladesh and mainland India through this route.

An MoU has been inked between Assam-based Numaligarh Refinery Limited (NRL) and IWAI for transportation of over-dimensional cargo and project cargo of the refinery. IWAI will ensure year-round navigation and assist in movement of large cargo and capital equipment along the river Dhansiri, adjoining the refinery. Another MoU was signed between IWAI and Hooghly Cochin Shipyard Ltd. for setting up a ship repair facility at Pandu in Guwahati. With the cargo movement in the region expected to go up, demand for ship repair and maintenance services is also expected to increase. Presently, the ships are sent to Kolkata which is a time-consuming process and leads to high costs.

For upgradation of passenger ferry infrastructure and services in the state, Assam has sought assistance from the World Bank in the form of a loan of US\$ 88 million. Besides improvement of infrastructure, the Assam Inland Water Transport Project will also focus on enhancing the institutional capacity and framework for inland water transport in Assam¹⁶.

Despite inland waterway routes offering cost advantage, cross-border trade has been hitherto limited. Presently, the inland water routes are mostly used for transportation of construction-based materials. With India and the neighbouring countries working towards unlocking the potential of inland waterway connectivity, sub-regional trade is expected to witness a rise. These routes provide an attractive alternative for movement of goods from mainland India to the landlocked North-East, thereby reducing congestion on the Siliguri corridor, the only land route connecting mainland India and the North-East. They also enable India's smooth cross-border trade with Bangladesh and Bhutan. The development of a Multi Modal Logistics Hub at Jogighopa is also expected to enable increased use of waterways for both transit and cross-border trade.

¹⁶ World bank (2021).

2. Roads

Being landlocked, adequate road transportation network is inevitable for ensuring smooth connectivity within the state as well as with other states and neighbouring countries. Assam comprises of a road network spanning 58,944 kms¹⁷. National Highway 31, considered as the lifeline of North East India connects Assam with mainland India while National Highways, inter alia, 37, 38, 40, 52 and 2 connect Assam with other North Eastern states. National highway 27 is an important route connecting the state with various sub-regional connectivity projects such as the Asian Highway 1, SAARC rail corridor 1 and SAARC rail corridor 5¹⁸. Integrating Assam with other international road corridors such as the India Myanmar Thailand Trilateral Highway, Bangladesh China India Myanmar Economic Corridor and Kaladan Multi-Modal Transit Transport project will provide additional avenues to industries in Assam and other North Eastern states to diversify their markets.

A well-functioning road network is also crucial for ensuring last-mile connectivity for movement of goods to ports and Land Customs Stations. Studies have documented that approach roads at the LCSs such as Sutarkandi, Golakganj and Mankachar need to be improved¹⁹. Other issues with road connectivity include poor state of National highway between Silchar and Imphal, delayed completion of the Maligaon flyover which connects Maligaon to Kamakhya and Pandu, pending repair work at National Highway 8 connecting Assam to Tripura, pilferage of goods in transit on state highway connecting Assam and Kolkata and frequent stoppages of commercial vehicles by traffic police²⁰.

¹⁷ Economic Survey, Assam, 2021-22

¹⁸ ADB. (2021). Assam as India's Gateway to ASEAN.

¹⁹ ICRIER. (2021). Facilitating India's Act East Policy Gap Analysis in Infrastructure at Land Custom Stations in the Northeastern Region of India.

²⁰ (MOC). LEADS 2021.

3. Railways

Guwahati acts as an integral link for transportation of goods between mainland India and other North Eastern states. Presently, freight and passenger movement from Meghalaya, Mizoram, Nagaland, Tripura, and Manipur by rail passes through Guwahati²¹. There are plans underway to connect all capital cities in the North East to the Indian Railways network. It may be noted that from Guwahati to Silchar, there is presently only one route. It connects North Eastern region to mainland India and also to ASEAN.

Assam is connected with Bangladesh's Chattogram port via three rail routes, namely, Guwahati-Karimganj-Kulaura-Akhaura-Chattogram, Guwahati-Agartala-Akhaura-Chattogram and Guwahati-Belonia-Feni-Chattogram. Out of these only the

first two are fully operational. Further, the routes are not completely double-lined broad gauge. Work is underway to revive the Karimganj/Mahisasan-Shahbazpur rail route.

Recently new railways lines have been built such as Sibsagar – Jorhat, Salona- Khumtai, Tezpur- Silghat, Mahisasan -Zero Point (Bangladesh) etc. Several routes have also been upgraded to double line broad gauge such as Saraighat Bridge and Lumding-Tinsukia Jn-Dibrugarh²². However, the slow pace of upgrading the single-line broad gauge with double broad-gauge lines is leading to low usage of rail routes for movement of goods from Assam. The other issues are limited rail freight services provided by CONCOR and high empty repositioning charges of containers for both inward and outward movement²³.

²¹ ADB. (2021). Assam as India's Gateway to ASEAN.

²² PIB (2021). Development of Northeastern region.

²³ ADB. (2021). Assam as India's Gateway to ASEAN.

4

Unlocking Assam's Export Potential

Exploring the export strategy of a states like Assam whose exports have largely remained untapped is one of the critical components for its development. This section proposes select sector-specific strategies which complement and align with the broad State’s policies.

1. Branding of Geographical Indication (GI) Products

GIs are considered important tools for marketing and function as product differentiators. Although some of the GI conferred products such as muga silk and Assam's orthodox tea have been able to attract global demand, their exports remain much below potential. Others, however, are not well recognised owing to limited initiatives of branding. Overall, GI tagged products have not been able to generate considerable business in the international market.

Table 21: GI Tagged Products of Assam

Product	Category
Muga Silk	Handicraft
Assam Orthodox Tea	Agricultural
Muga Silk of Assam (Logo)	Handicraft
Assam Karbi Anglong Ginger	Agricultural
Tezpur Litchi	Agricultural
Joha Rice	Agricultural
Boka Chaul	Agricultural
Kaji Nemu	Agricultural
Chokuwa Rice	Agricultural
Judima	Agricultural

Source: Intellectual Property India

Learnings can be drawn from the experiences of Colombia for effectively leveraging GIs for boosting exports. Colombian coffee has attracted global

Chart 11: Strategies for Boosting Exports from Assam



demand owing to the strategies implemented to protect and promote it. The strategies adopted by Colombia which helped it to successfully establish a global market for its coffee have been detailed below. Assam may devise strategies on similar lines for boosting exports of GI tagged products.

Box 2: Learning from the Commercial Success of GI Tagged Colombian Coffee



- **Branding:** The Colombian Coffee Federation (FNC), with the help of an advertising agency created a fictional character to represent the conventional coffee grower. Through the help of television commercials, it communicated to the consumers about the process of growing and harvesting Colombian beans. This garnered attention by consumers globally, leading to exceptional rise in demand. Thus, investing in branding and marketing of the products is crucial for promoting exports.
- **Certification mark for quality assurance:** To ensure that only genuine Colombian coffee was sold, FNC devised a certification process. The word “Colombian” was registered in relation to coffee as a certification mark in the US and Canada with a mandate that that it should be 100% washed Arabica. A farmer’s training programme was also initiated to train and regularly update the coffee growers on quality standards and latest technologies available. Thus, a fool proof certification programme along with the necessary training are needed to ensure the authenticity of GI tagged products.
- **Research and Development:** FNC also gave strong focus on coffee research and development while investing in improvement of quality and yield of the crop. Thus, for GI exports to flourish, it is vital to strive for continuous quality upgradation.
- **Build strong partnerships:** FNC has built effective alliances with different organisations relating to coffee industry. This helps in financing developmental programmes for the welfare of the growers. Similarly, instead of working in silos the approach of building partnerships should be practiced for strengthening exports.
- **Strategic use of Intellectual Property (IP) protection:** Strategic use of IP protection played an instrumental role in ensuring the success of Colombian coffee.

Source: World Intellectual Property Organisation; India Exim Bank Research

Thus, the unique selling proposition of each GI tagged product of Assam needs to be effectively communicated globally, including ensuring that there are robust IP protection mechanisms in place for the GI products. The logo and name of the GI brand needs to be developed and marketed, and a mechanism may be devised for ensuring that all the products marketed under the GI brand meets the minimum specified standards.

For example, Judima wine, conferred with GI status in 2021 is the first traditional beverage from the Northeast India to get a GI tag. The wine, made by the Dimasa tribe from the Dimasa Hasao district of Assam, is an important part of their tradition and symbolises traditional knowledge. There is a huge potential for the drink to attract global demand as well as promote tourism in the state.

Similarly, Muga silk, one of the rarest silks in the world, is produced majorly in Assam. Presently, popular in the US, Europe, South Africa, it has the potential to be placed in all prominent silk markets such as China, Japan, Southeast Asia, etc. Further, besides selling the end products such as Muga silk sarees or scarves, the focus should also be on marketing it as a versatile material which can be used in various industries such as for décor, bed linen, and cosmetics owing to its rejuvenating health benefits etc.

Initiatives are also needed for identifying more products from the State which can be accorded with GI status. In this regard, a brand equity fund can be setup by the State Government under the aegis of the Department of Industries. This may be aimed at building globally competitive brands for products originating from the State. The fund may also assist in marketing of these branded products in the international arena.

2. Boost Exports of Tea from Assam

Once the global leader in tea production, the present trend of Assam's dwindling share in both domestic tea production and in India's total tea exports is worrisome. During 2011 and 2020, India's share in world tea exports has also seen a fall from 12% to 10% while other competing countries such as China and Kenya have increased their market share. The Study proposes the following strategies to strengthen exports of tea so that Assam can reclaim its losing glory: -

Enable capacity building among tea farmers

Despite Assam seeing a rise in the number of small tea holdings, participation of small-scale producers in exports is limited. The reasons for this low level of participation are lack of wherewithal for tapping

Box 3: GI Tagging of Phalap Tea

Phalap or Singpho tea is the traditional tea of the Singpho tribe located in Assam and Arunachal Pradesh. It has a unique preparation process and an intriguing history. According to tribe's folklore, two brothers, tired and hungry while hunting in the forest chewed on some wild leaves. They felt satiated and rejuvenated after consuming the leaves. They had discovered tea leaves. Tea is an integral part of the tribe's culture. They are even believed to be among first tea drinkers in India.

For making Phalap tea, tea leaves are sun-dried, stuffed in bamboo-hollows and smoked over fire over weeks. The tea has a long shelf-life and fetches high prices due to its distinct flavor. Due to the unique tea brewing process, its demand is increasing in international markets as well. Countries in Southeast Asia are also trying to produce Phalap tea. Although Tea Board is working towards getting it GI tagged, there is need to expedite the process.

Source: Inputs from field visit, The Chayi

new markets; gauging the type of demand; spending on right packaging and marketing activities; and the lack of awareness about export promotion policies and logistics support available. The Tea Board of India along with other tea associations in the State should organize training programmes to make tea garden owners aware about the opportunities abroad. Tea Board may also like to set up a designated helpdesk for addressing export related queries of exporters, both in virtual and physical form.

Learnings may also be drawn from the tea industry in Kenya. Tea has emerged as the top exported

item in the country owing majorly to the dedicated efforts of Kenya Tea Development Agency (KTDA).

KTDA started as a parastatal agency in 1964 and has evolved as a vertically integrated company, having been privatised in 2000. Today, KTDA accounts for 13% of global Black CTC tea exports, making it one of the largest tea exporting companies in the world. It has transformed lives of over 6 lakh small tea farmers.

By drawing inspiration from Kenya’s business model for tea industry, Assam may prepare strategies accordingly for boosting exports of small-scale tea growers.

**Box 4: From Small-Scale Tea Growers to Owners of an Agri-Business Company:
The Case of Kenya**

KTDA offers comprehensive services for small tea farmers such as providing inputs, transportation, processing, marketing, and access to finance. These services are delivered by KTDA and its five subsidiaries which manage farm-to-factory logistics, processing, packaging, distribution, trading, insurance, and financing among other areas. The success of KTDA attributes primarily to its inclusive business model. The farmers have ownership in the company as shareholders and representation in the board, incentivising good performance and morale. Further, the typical farm size of the members is about half an acre, ensuring accessibility to a larger number of farmers. The other unique features contributing to company’s success and high exports are-

- There are strong legal incentives for farmers to sell their produce to KTDA factories only. Tea Boards regulations also ensure that the factories are set at places only where there is a farmer’s base.
- There is effective use of technology. A mobile technology system is in place for tracking farmers’ deliveries from centres to factories, facilitating payments and records management.
- Remunerations to farmers are lucrative with an annual bonus, a clear dividend layout policy etc.
- There is a robust information sharing mechanism to apprise the farmers with weekly realisation prices of tea.
- Farmer Field Schools (FFSs) have been set up to provide hands-on learning to farmers on areas pertaining to increasing the productivity and quality of the crop; farming techniques; certification; as well as on empowerment; collective action; and health.
- Access to finance is provided through a KTDA subsidiary based on estimated monthly payments for tea deliveries.
- There is continuous focus on research and development for upgrading to high-yielding varieties.

Source: IFC; India Exim Bank Research

Make Assam an aggregator of tea exports from NER

Presently, West Bengal serves as the hub for tea exports and most of the activities pertaining to value addition like blending, branding, packaging etc. are undertaken in West Bengal. Almost all the states in the North Eastern Region are involved in tea cultivation and grow different varieties such as the Temir tea and completely organic range of tea in Sikkim, CTC and green tea in Tripura, the Golden Needle Tea produced in Arunachal Pradesh and specialty tea such as the White tea, Purple Tea, Yellow tea and Oolong tea in many of the NE states. Assam thus has the potential to be developed as an export hub for the North Eastern region. Adequate logistics facilities should be set up around ICD Amingaon to facilitate aggregation and exports of tea from Assam as well as the NER.

Diversify tea exports

Although as noted above, India's yield of tea is highly variable compared to other countries, this very reason gives it an edge over other countries when it comes to the varieties of tea the countries can offer. India has more variants like first flush, second flush, autumn flush, etc. The demand for blends such as oolong, white, green, purple tea, among others, is also rising globally. Since these are priced higher than the conventional tea types, the Tea Board of India may assess the global demand and accordingly help the State to dedicate resources towards production of these blends. Furthermore, exports of orthodox tea, which is loose leaf tea produced using traditional methods, should be ramped up as it fetches higher price than the CTC (Crush, Tear and Curl) tea which is processed using machinery.

Further, India's tea exports are concentrated to its traditional markets, mainly Iran (28%), Russia (13%), USA (6%), UK (5%) and UAE (5%). Assam's proximity to Southeast Asia, a major tea consuming region should also be leveraged. Presently, the region imports most of its tea from China. The

rapidly changing geo-political situation gives India an opportunity to tap other big markets such as Central Asia, Middle East etc.

Boost Exports of Services from Assam

Assam boasts of a large pool of educated and English-speaking population, moderate climatic conditions and diverse topography, factors conducive for establishment of service provider companies. Yet, the presence of Business Process Outsourcing (BPO), Information Technology (IT) and other service-oriented companies is low and mostly restricted to Guwahati. The Study proposes the following sector-specific strategies that will place Assam on the sub-regional map as a services hub.

Install adequate Infrastructure for Information Technology and BPO Clusters

Assam has many technical and research institutes having students from across the country such as IIT Guwahati, NIT Silchar, Assam Agricultural University, Tata Institute of Social Sciences, Guwahati, Assam University, among others. Providing the students with good employment opportunities can help the State in retaining skilled talent. By ensuring adequate infrastructure such as uninterrupted electricity and strong network coverage, by enabling smooth processes for operations, and providing tax breaks, the IT, BPO and allied services sector in Assam can emerge as the next success story of India.

Upgrade Health Infrastructure and Promote Medical Tourism

Recently, seven state-of-the-art cancer hospitals, under the joint initiative of Tata Trusts and the State government have been inaugurated in the State. A network of 17 such cancer care institutes has been envisaged by Tata Trusts. Similarly, other specialty hospitals need to be set up. India is known worldwide as a provider of quality and low-cost medical services and has emerged as one of the top destinations for medical tourism.

Box 5: Shija Hospitals: Leading healthcare initiatives in the North-East

Shija Hospital in Imphal, Manipur has emerged as the favoured medical destination for people in the North Eastern Region as well as for neighbouring countries. Founded by Dr Khundongbam in 1985, it started as a clinic with minor operation facilities with the objective of providing adequate medical treatment to people in the state who otherwise had to travel as far as Vellore. Today, it has evolved into a 250-bedded super-speciality hospital, fully equipped for performing a range of surgeries and procedures. Scores of patients from neighbouring countries such as Myanmar come to the hospital seeking treatment.

Recently, it achieved yet another milestone by establishing the first home-grown private medical college in Northeast India. This would cater to the needs of aspiring medical aspirants in the state and the region. The smooth cross-border passenger movement enabled by the government has also played an instrumental role in making the facilities accessible to more and more people. Similar institutions need to be set up in Assam to leverage the high demand for affordable and quality medical treatment in the sub-region.

Source: Shija Hospital's Website; India Exim Bank Research

Assam's strategic location gives it an opportunity to serve the growing demand for medical services from neighbouring states and countries. It may be noted that Assam's immediate neighbour, Bangladesh is the top source of Foreign Tourist Arrivals (FTAs) in India. In 2019, 2.6 million Bangladeshis visited India, representing a share of 23.6% in total FTAs in India. 84.2% of these tourists came by road and 15.4% of them i.e., around 4 lakh Bangladeshis came for medical purpose. With seamless movement in place between Assam and Bangladesh through an extensive network of Land Customs Stations and ICP, Assam is well placed to cater to this demand and earn foreign exchange.

The State may set up a medical tourism department within the Ministry of Health to establish Standard Operating Procedures and ensure that they are being followed across the state. It may also assist tourists in all services starting from Visa and booking of appointments to accommodation, availing insurance etc. Further, the department may build synergies with associations already working on promoting medical tourism in the state such as the Assam Medical Tourism Council.

Boost Tourism

As per Tourism Statistics, Assam ranked 22nd and 29th in terms of domestic tourist visits and foreign tourist visits, respectively in 2019. The Assam Government recently, in July 2022, approved its latest Tourism Policy which aims to strengthen infrastructure at places of tourist interest and create Special Tourism Zones. While this may provide a much-needed impetus to growth of tea, river, wildlife, spiritual and eco-tourism, among others, efforts should be made to standardise based on international standards so as to ensure that quality services are offered throughout the State.

Assam may also like to take a leaf out of Kerala's tourism promotion policies. As per tourist statistics 2020, Kerala ranked 7th in terms of foreign tourist arrivals in 2019, enabling it to earn significant foreign exchange. Notably, the tagline 'God's own country' has played a remarkable role in positioning Kerala as an attractive tourist destination. Kerala realised the importance of tourism as an agent of development ahead of time and accordingly formed the Kerala Tourist Development Corporation (KTDC) in 1966 and declared tourism as an industry in

1986. KTDC's effective marketing campaigns have consistently focused on bringing into fore the State's rich geographical diversity and culture and developing its backwaters and practices related to Ayurveda as the unique selling propositions (USP). The State has also ensured that the quality of services offered such as in Ayurvedic centres is consistent by mandating inspection procedures for granting of approval.

While Assam Tourism Development Corporation has also devised marketing campaigns, there is significant scope for increasing its outreach. The focus may thus be laid on effectively communicating the opportunities the State has in tourism through various digital platforms, including widespread advertisements in places like airports, besides new age modes like through travel influencers on social media.

Besides Kerala, Assam may also take a cue from the development initiatives being undertaken on an ongoing basis by the likes of Rajasthan Tourism Development Corporation, which has a vibrant portal offering a range of curated travel packages that can be pre-booked smoothly from across the globe.

4. Strengthen Exports of Agricultural and Horticultural Products

Assam and the North East Region of India, in general are well endowed with agricultural and horticultural produce. There is high potential for exports of bananas; ginger; avocados; papayas; lemons; pineapples; and bamboo shoots to name a few. To realize the potential of the State as well as the entire region, the following strategies should be adopted.

Draft a District Policy for agricultural, horticultural, and forest-based exports

Assam has high potential for exports of inter alia, oranges, pineapples, ginger, lemons, banana, and

jackfruit. However, the production is scattered because of which economies of scale are not achieved. A district policy, in line with the export capabilities of such products should be designed. Common facilities such as packing houses, warehouses, cold storage etc. should be set up for use by the districts to strengthen exports.

Table 22: Global Markets for Select Potential Agri-Export Items from Assam

Product	Top Markets
Pineapples	USA, Netherlands, Japan, China, Spain
Oranges	Germany, France, Netherlands, Russia, China
Ginger	Japan, USA, Malaysia, Germany, UK
Lemons	USA, Germany, Netherlands, France, Russia
Banana	USA, Germany, Russia, China, Belgium

Source: ITC; India Exim Bank Research

Boost exports of different varieties of rice

Assam has favorable geographical conditions that support a rich and unique variety of rice. However, these varieties are cultivated mainly for personal consumption. There is huge potential for increasing the exports of the GI tagged rice varieties viz., Joha rice, Boka Chaul and Chokuwa rice as well as other varieties such as red rice.

- Boka Chaul- Boka chaul or soft-rice, mainly grown in lower Assam has great historical significance and distinct characteristics. Ahom soldiers during the Mughal era are said to have subsisted on this variety of rice. This rice does not require fuel to cook. It can be eaten by just soaking it in water at room temperature. It also has a cooling effect because of which it is a preferred choice in summers. Also known as instant rice, with the right marketing and branding techniques, Boka chaul, could garner huge international demand, considering the convenience it offers in terms of cooking.

- Joha rice- This rice type has pleasant aroma, distinct from other aromatic rice like Basmati and has fine grain characteristics. Because of its unique qualities, it fetches a premium over other non-aromatic quality grained rice varieties. In the past, it has been exported to European countries but because of low productivity, it has not been grown much for commercial purposes.
- Chokuwa rice- It is a semi-glutinous winter rice variety with low amylose content, used mostly to prepare speciality products. Like Boka chaul, it can also be cooked without boiling.
- Red rice (Bao-dhaan)- Grown in Brahmaputra valley, this rice type is rich in micronutrients like iron, zinc, vitamin A and antioxidants. It is generally grown in low lying flood-prone areas, making the cultivation process organic, by default (as fertilisers can't be used). In 2021, the first consignment of red rice was exported to the US. The unique and useful characteristics, organic nature and fascinating history of these rice types pose great possibilities for exporting them to niche markets. By investing in research and development, marketing and capacity building, exports of different varieties of rice can be strengthened considerably.

Ensure continuity in production and exports

Exports of agricultural and horticultural produce from the North East Region are found to be inconsistent because of which buyers' resort to alternative suppliers. The Guwahati Office of Agricultural and Processed Food Products Export Development Authority (APEDA) should provide technical guidance, capacity building and other soft and hard infrastructure such as cold storage, test labs, helpdesk for exporters, trade guide etc. for ensuring continuity in export flows. Efforts could be made towards understanding the culture of different countries, the SPS and TBT issues, business ecosystem, conducting business to business meetings for securing export contracts, among other things.

Diversification of bamboo product line

Bamboo is one of the fastest growing woody plants on earth. It takes about 3 years to mature and finds use in a wide range of sectors. It serves as a key ingredient in Asian cuisine, as a unique material for building structures such as houses and bridges, as a biodegradable alternative in a lot of industries, as a material in handicraft industry etc. Since it is found in abundance in Assam, its versatility should be leveraged by exploring its use in different sectors both domestically and for exports.

For example, in Vietnam, a Bamboo Development Action Plan for Thanh Hoa has been developed with USAID, and other relevant stakeholders. The aim of the programme is to scale up the growth in bamboo industry and promote sustainable production of the tree, among others. One of the interventions focuses on converting bamboo waste into energy for which workshops were organized for bamboo companies. The trainings helped Xuan Duong Bamboo Cooperative in investing in a machine for compressing bamboo residues into briquettes – a sustainable and clean energy source which can be used in boilers. The company also sells the briquettes to industrial zones in Thanh Hoa and Ha Nam provinces²⁴. Similarly, additional uses of bamboo can be explored, and export opportunities could be identified.

Strive for value addition in exports

Besides exporting agricultural and horticultural produce in its natural form, to stand apart from competing countries and realize higher prices, emphasis should be laid on creating unique processed products that give the State an edge over other exporter.

For example, in Sweden, the use of domestic feedstock including wood pellets, and wood chips, based on residues from sawmills and logs

²⁴ USAID and Winrock International. Vietnam Forests and Deltas Program - Success Story

of low quality has been explored for biomethane production. A first of its kind industrial scale biorefinery was set up by Göteborg Energi AB, with financial support of the Swedish Energy Agency²⁵.

On similar lines, the Assam government may like to carry out feasibility studies pertaining to generation of clean energy out of agricultural residues in the state and encourage companies to take up such projects by providing financial support.

Furthermore, unique products can be made from agricultural products that Assam is well-endowed with. Notably, North Eastern Development Finance Corporation (NEDFI), in its endeavour to support artisans and weavers is promoting the use of handloom made from banana fiber. Not only is it sustainable, but it also ensures higher realization of prices for the handloom workers. Similarly, Aasray Concept Foods based in Guwahati, is processing bananas to make fortified baby cereal, called Assam Bhim. The state may also explore concentrates, squashes etc. out of Tezpur Litchi, lemon concentrate of Kaji nemu, among others.

5. Strengthen Connectivity and Trade Facilitation

To leverage Assam’s strategic location as a gateway to neighboring countries in South Asia and to ASEAN, having seamless connectivity and robust trade infrastructure is vital. In this regard, the following strategies are suggested:

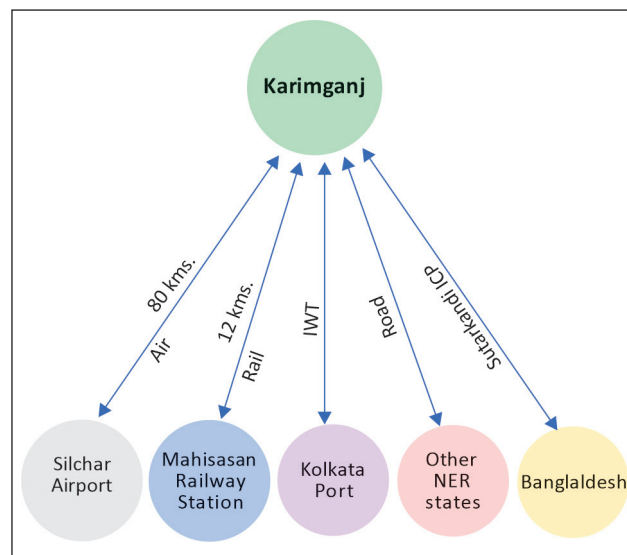
Develop Karimganj as an export hub

Karimganj district enjoys a unique advantage of being connected with multiple modes of transportation and also shares borders with Bangladesh. It is connected to Silchar airport by air, Mahisasan railway station by rail and to Kolkata airport by inland waterway along the India-Bangladesh Protocol route. It houses Assam’s only Integrated Check Post,

Sutarkandi for cross-border movement of goods and services between India and Bangladesh. It is also well-connected with other North Eastern states and enjoys proximity to Silchar, an aggregation hub in the North East. Multimodal access to mainland India, port and neighboring countries at reasonable freight rates makes it a suitable destination for manufacturers and exporters.

Setting up of industries such as auto-parts, cement, food processing etc. which have high demand in Bangladesh and other neighboring countries can transform the economy of the place. Service providers can reap benefits of the high commercial activity in the area and capitalise on the fluid cross-border movement between India and Bangladesh as well. Adequate incentives in the form of tax rebates, state financed infrastructural services such as warehousing, cold storage etc. could be provided to incentivize companies to set up production in the district.

Chart 12: Making Karimganj an Export Hub



Ensure Better Utilization of ICD Amingaon

ICD Amingaon since its establishment continues to see only tea being exported, majorly. As the ICD predominantly deals with Full Container Load, trains run on excess capacity leading to dead freight costs.

²⁵ Art Fuels and IEA Bioenergy. Success Stories of Advanced Biofuels In Transport.

Another problem faced by the ICD is that containers sent from there to places like Kolkata, return empty. The Central government along with the State government may explore value-chain linkages between Assam and Kolkata and may also look at starting cross-border freight and transshipment services with Bangladesh from the ICD.

Expedite the operationalization of Jogighopa multi-modal logistic park (MMLP)

MMLP at Jogighopa, the first MMLP being built in India under the Bharatmala Project is expected to provide a stimulus to trade and commerce in the North Eastern region. The present geopolitical situation presents India with opportunities to deepen their participation in Global Value Chains. The quick operationalization of the MMLP will provide both mainland India and the NER easy access to eastern markets through Assam.

Set up infrastructure for enabling cross-border trade between India and Bangladesh

Although ICP Sutarkandi provides decent facilities for facilitating cross-border trade between the two countries, there are some infrastructural gaps that are hindering trade. For example, a washing facility is required for washing fruits to be exported to Bangladesh. A plant and animal quarantine facility is also needed in the vicinity to enable fast clearance of goods. The cold storage facility present at the ICP also needs to be operationalized at the earliest. Other infrastructural requirements are reefer transportation services, banking network, EDI and food testing lab, among others.

Provide cold storage infrastructure and reefer containers for transportation

For transportation of agricultural produce and other goods that require temperature control, there is a need to build, reefer container services at ICD

Amingaon. Further, it may be ensured that the services are available on the route from ICD to Kolkata port as well as on all the routes connecting the states with the ICD. Some of these routes are National Highway 37 connecting Sutarkandi in Assam to Manipur, National Highway 40, connecting Assam to Shillong and National Highway 13 connecting Twang in Arunachal Pradesh to Guwahati. Access to reefer services in these routes will play an instrumental role in boosting exports of agriculture products not only from Assam but also from the NER.

Harmonize standards across all Land Customs Stations between India and Bangladesh

During the field visit, it was found that different LCSs have their own list of negative items which are not allowed in cross-border trade. For instance, Hilsa fish is not allowed to be imported via ICP Sutarkandi, but imports are allowed through Manu LCS. Removal of such inconsistencies needs to be negotiated to ensure uniform standards and practices at all border points for ease of trading across borders.

Deepen and ensure maintenance of Inland Waterway Transportation (IWT) network

A seamless IWT network can prove to be a gamechanger for the district, Assam and the NER as it would provide access to Mongla and Kolkata port through which goods can go anywhere in the world. Currently, out of the 15 national waterways present in the state, only two are in use. Other routes need to be explored to strengthen integration in the region. Besides, rivers along the IBP route are mid-stream and require regular dredging. To ensure regular dredging of rivers along the IBP route for Inland Water Connectivity, India and Bangladesh need to formulate an agreement, specifying cost sharing and other clauses.

Box 6: LPAI - Enabling seamless cross-border trade

Land Ports Authority of India (LPAI) was formed in 2012 with the objective of building land ports on India's borders and provide state of the art infrastructure facilities for efficient cargo and passenger movement. LPAI is undertaking development of ICPs in two phases.

In Phase 1, ICPs at Attari bordering Pakistan; Agartala, Petrapole, Sutarkandi and Srimantapur bordering Bangladesh; Raxaul and Jogbani bordering Nepal; and Moreh bordering Myanmar have been built and are operational. Under phase 2, ICPs are being developed at Rupaidiha, Banbasa, Sunauli, Bhithamore and Panitanki with Nepal; Dawki, Sabroom Kawrpuichhuah, Fulbari, Ghojadanga, Mahadipur, Hili and Changrabandha with Bangladesh; and Jaigaon with Bhutan.

LPAI has played an instrumental role in removing hindrances related to regional trade and movement of people by supporting facilities like warehouses, parking lots, testing labs, banks etc and serving as the single agency responsible for coordinating the functioning of various Government authorities and service providers at the ICPs.

India Exim Bank, through its Export Facilitation programme, may support LPAI in filling the infrastructural gaps at ICP Sutarkandi as well as in upgrading other LCSs present in Assam to ICPs. The Bank may also look at financing the development and upgradation of corresponding ICPs in Bangladesh under the Concessional Financing scheme (CFC).

Source: LPAI; India Exim Bank Research

6. Incentivize Participation of Women in Trade

The IMF estimates that equal participation of women in the workforce will increase India's GDP by 27%. Assam has 958 females per thousand males, higher than the national average of 943. However, the female labour force participation rate in the State, as estimated in the Periodic Labour Force Survey, January - March 2021 was 18.8%, a drop from 20.2% in the previous quarter and from 22.3% in Jan - March 2020. Engaging in both trade and trade facilitation activities can provide a stimulus to employment of women in the State.

A White Paper on Women in Trade Facilitation by UNECE has listed suggestions to encourage participation of women in trade and address gender inequality in trade facilitation. For strengthening women's participation in trade, programmes should be launched that aim at providing equal access to trade and job opportunities. Women should be involved in consultative mechanisms, in occupations related to trade such as transportation, customs authorities, border agencies etc. and in public institutions related to trade such as chambers

of commerce and industrial associations. Public Private Partnerships can play an integral role in encouraging women participation in trade by implementing gender inclusive policies for women during the whole or each stage of the project. Ensuring the participation of women in the design and application of standards is also recommended as they can empathise with the problems women entrepreneurs face when trying to comply with these standards.

Thus, to encourage women led enterprises to build export capabilities, identification and training of potential women traders is required. The Assam State Export Council may start a dedicated division to work towards increasing participation of women in trade, facilitating their training and capacity building programmes, coordinating with women's cells in other countries and addressing the issues that women traders may face, among other things. Further, since women run enterprises may face challenges in getting trade financing, the State government should incentivise commercial banks to come up with products that prioritise financing to women led export enterprises.

Appendix

Table A1: List of Product Champions for Assam (2019)²⁶

HS Code	Description	Assam's Exports (US\$ million)	Assam's Major Export Destinations	World's Imports (US\$ million)	Major Importers	Assam's Share in India's Exports	India's Share in World Exports
271019	Petroleum oils and oils obtained from bituminous minerals, other than crude; preparations not elsewhere specified or included, containing by weight 70% or more of petroleum oils or of oils obtained from bituminous minerals, these oils being the basic cons - Other	22.6	Bhutan (94.7%), Bangladesh (4.9%), Thailand (0.2%), Norway (0.1%), Nepal (0.1%)	431126.9	USA (13%), Singapore (12%), France (7%), Germany (6%), UK (6%)	0%	7%
841181	Gas turbines of a power <= 5.000 kW (excluding turbojets and turbopropellers)	6.8	UK (99.5%), USA (0.5%)	3360.8	Singapore (23%), UK (12%), USA (9%), Poland (7%), Canada (5%)	0%	4%
330499	Beauty or make-up preparations and preparations for the care of the skin (other than medicaments including sunscreen or suntan preparations; manicure or pedicure preparations) - Other	3.5	Singapore (48%), Bangladesh (29%), Nepal (13%), UAE (5%), Sri Lanka (2%)	48019.1	China (24%), Hong Kong (10%), USA (7%), Singapore (5%), Germany (4%)	0%	0%

²⁶ Products whose exports exceed US\$ 0.5 million have been considered. These represent 96% of total exports under the category.

HS Code	Description	Assam's Exports (US\$ million)	Assam's Major Export Destinations	World's Imports (US\$ million)	Major Importers	Assam's Share in India's Exports	India's Share in World Exports
210120	Extracts, essences and concentrates, of tea or mate, and preparations with a basis of tea or mate	3.0	Japan (70%), UK (10%), Taiwan (8%), Ireland (5%), USA (4%)	1186.5	USA (18%), France (8%), Netherlands (6%), Canada (4%), Mexico (4%)	0%	5%
330590	Preparations for use on the hair-other	3.0	Nepal (95.5%), Bhutan (3.3%), Afghanistan (1.3%)	8273.2	USA (13%), UK (5%), Germany (5%), China (6%), Japan (4%)	0%	2%
120740	Sesamum seeds, whether or not broken	2.5	Taiwan (86.2%), Vietnam (13.5%), Nepal (0.4%)	3589.3	China (34%), Japan (8%), Turkey (8%), India (5%), South Korea (4%)	0%	17%
090220	Green tea in immediate packings of > 3 kg	2.1	China (22%), Netherlands (19%), UK (16%), Nepal (10%), USA (9%)	809.6	Morocco (26%), USA (10%), Germany (7%), Russia (4%), Uzbekistan (4%)	0%	1%
271312	Petroleum coke, calcined	2.0	China (91%), Bhutan (9%), Saudi Arabia (1%)	4892.6	India (12%), China (11%), Spain (11%), Netherlands (6%), France (6%)	0%	2%
530310	Jute and other textile bast fibres, raw or retted (excluding flax, true hemp and ramie)	0.9	Nepal (100%)	242.2	Nigeria (36%), India (19%), Nepal (12%), Pakistan (10%), China (6%)	0%	10%
190220	Pasta, stuffed with meat or other substances, whether or not cooked or otherwise prepared	0.8	Bhutan (57%), Malaysia (43%)	1560.0	France (13%), Germany (11%), UK (10%), USA (6%), Belgium (5%)	0%	0%
271320	Petroleum bitumen	0.7	Bhutan (90%), Nepal (10%)	10924.8	China (16%), USA (12%), Indonesia (5%), France (4%), India (4%)	0%	1%

HS Code	Description	Assam's Exports (US\$ million)	Assam's Major Export Destinations	World's Imports (US\$ million)	Major Importers	Assam's Share in India's Exports	India's Share in World Exports
100630	Semi-milled or wholly milled rice, whether or not polished or glazed	0.7	Egypt (100%)	19493.3	Iran (8%), Saudi Arabia (7%), China (5%), USA (5%), Philippines (5%)	0%	33%
252310	Cement clinkers	0.6	Bhutan (100%)	4842.4	China (22%), Bangladesh (13%), Ghana (5%), Sri Lanka (4%), Philippines (4%)	0%	1%
380891	Insecticides (excluding goods of subheading 3808.50)	0.6	Nepal (82%), Bangladesh (17%), Bhutan (1%)	9674.0	Brazil (14%), France (4%), India (4%), Mexico (3%), USA (3%)	0%	14%
392390	Articles for the conveyance or packaging of goods, not elsewhere specified	0.5	Nepal (50%), Bhutan (45%), Bangladesh (4%), Indonesia (1%)	9117.9	USA (18%), Mexico (7%), Germany (7%), Canada (5%), UK (4%)	0%	2%

Source: Data accessed from ITC Trade Map; DGCI & S; India Exim Bank Research

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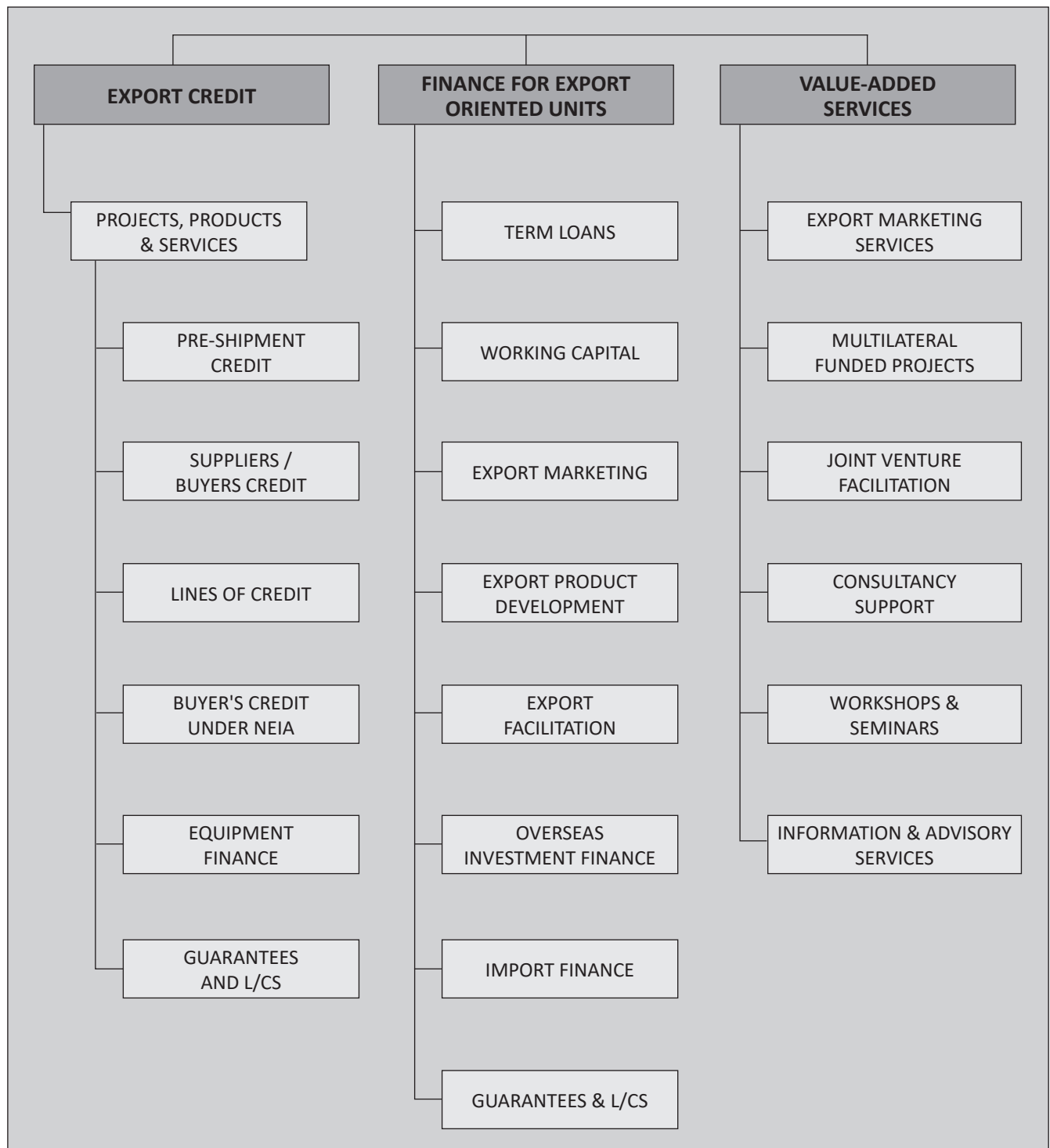
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