



EXPORTS FROM WEST BENGAL: POTENTIAL & STRATEGY

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**EXPORTS FROM WEST BENGAL:
POTENTIAL & STRATEGY**

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1. MACRO-ECONOMY OF WEST BENGAL

- West Bengal, also known as PaschimBanga, is situated in the Eastern part of India. With Kolkata as its capital, the other key cities in the State are Asansol, Durgapur, Darjeeling, Haldia, Howrah, Kharagpur, Raniganj, Siliguri, Malda, Midnapore, and Cooch Behar. It has two huge natural zones, in the North there is the sub-Himalayan and Himalayan region, and the Gangetic Plain is in the South. The State is also blessed with a number of rivers¹ including the Ganges flowing through it, besides the Bay of Bengal to its South.
- West Bengal ranks as the fifth highest contributor to India's Gross Domestic Product (GDP) after Maharashtra, Andhra Pradesh, Tamil Nadu, and Uttar Pradesh. With the highest per capita income of about US\$ 1450 in Eastern India, West Bengal is the fourth fastest growing state in terms of the economic growth rate in India.
- The State shares international borders with Bangladesh on its East, Nepal and Bhutan to its North, and is the gateway to the North-Eastern part of India.

Geographical Area (sq km)	88752
Administrative Districts	19
Population Density (persons per sq km)	1028
Total Population (million)	91.3
Male Population (million)	46.9
Female Population (million)	44.4
Literacy Rate (%)	77.1

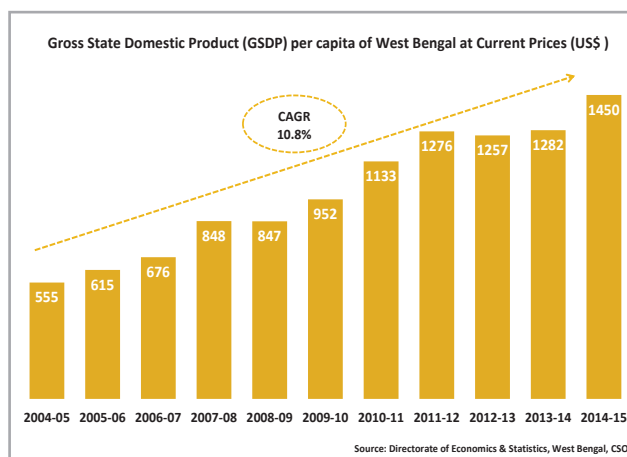
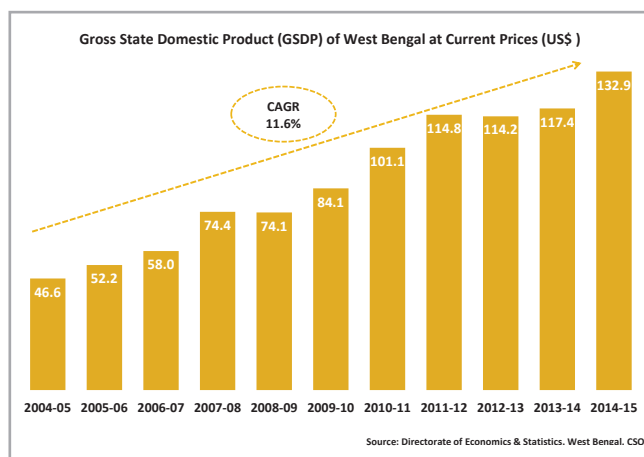
Source: Census 2011

1.1.Economic Perspective

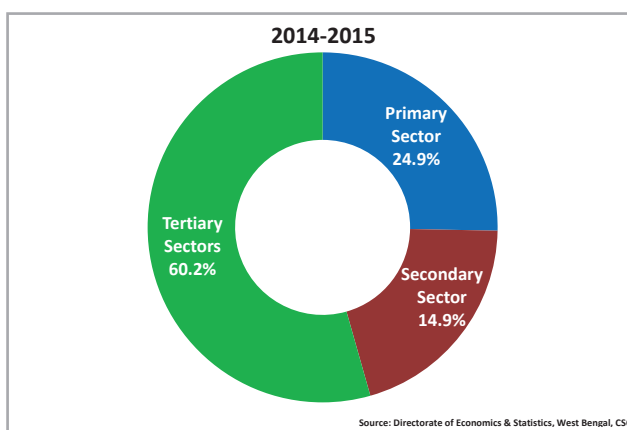
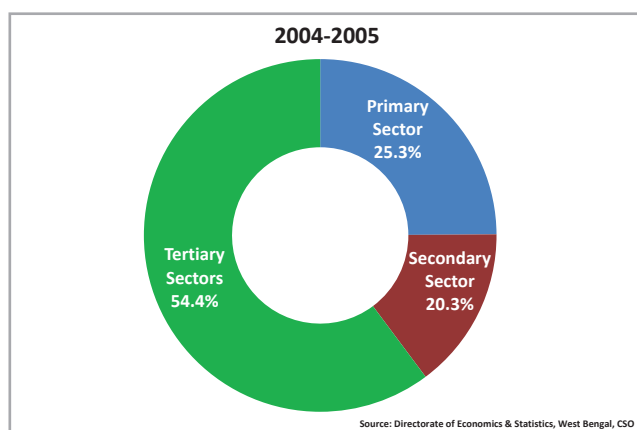
- At current prices, the Gross State Domestic Product (GSDP) of West Bengal is estimated at US\$ 132.86 billion in 2014-15. The compounded average annual growth (CAGR) rate of GSDP from 2004-05 to 2014-15 was about 11%. On the other hand, the State's per capita GSDP in 2014-15 was US\$ 1,450 as compared to US\$ 555 in 2004-05. The per capita GSDP increased at CAGR of 10.8% between 2004-05 and 2014-15.²
- In 2014-15, the tertiary sector contributed 60.2% to the state's GSDP at factor cost, followed by the primary sector (24.9%) and secondary sector (14.9%). At a CAGR of 12.1%, the tertiary sector has been the fastest growing among the three sectors during the period 2004-05 to 2014-15. The growth has been driven by trade, hotels, real estate, finance, insurance, transport, communications and other services. The primary sector grew at a CAGR of 10.9% between 2004-05 and 2014-15. The secondary sector grew at a CAGR of 7.7% between 2004-05 and 2014-15. It was driven by manufacturing, construction and electricity, gas & water supply.
- Exports from West Bengal are estimated to have been around USD 9 billion in 2014-15. The key items exported from the State are primarily gems and jewellery, iron & steel, tea, etc. FDI into the State has witnessed variations. The highest FDI into the State during the last 7 years was witnessed during 2008-09 when it touched US\$ 489 million. After a low during the following two years, FDI picked up from 2011-12 onwards. However, in 2014-15 FDI again slipped to US\$ 239 million from US\$ 436 million in 2013-14.

¹Teesta, Brahmaputra, Jaldhaka, Torsha, Sankosh, Raidak, Mahananda, Mahanadi, Balason, Machi, Tangan, Punarbhaba, Atrai, Ganga, Bhagirathi, Mayurakshi, Brahmani, Dwaraka, Bakreswar, Kopai, Damodar, Hooghly, Rupnarayan, Kansabati or Kasai and Subarnarekha

²Directorate of Economics & Statistics of West Bengal, Central Statistics Office



Gross State Domestic Product Composition by Sector



1.2.Key Sectors of the Economy

Agriculture

- Agriculture has been the chief occupation of the people of West Bengal.
- In West Bengal, productivity growth in agriculture, particularly in food grain production, contributed significantly to the overall economic growth of the State since the early 1980s. It contributed 18.8% to the State's GSDP in 2014-15.
- Rice, potato, jute, sugarcane and wheat are the top five crops of the state. Rice is the principal food crop of West Bengal, and is the largest producing State in the country. In 2014-15, rice production totalled 15.35 million tonnes. Other

major food crops in the State include rapeseed & mustard, maize, onion, pulses, and coconut.

- The State stands first in the country in terms of jute production. In 2014-15, the State is estimated to have produced nearly 79.6% of the county's total jute.
- Tea is another important cash crop in the State.

Horticulture & Floriculture

- Crop diversification, away from the traditional food and non-food crops assumes significance in the context of the market openness for agricultural commodities in India. Also, faster income growth and growing urbanisation are shifting the consumption pattern towards high

value crops in the country. Following the trend, agriculture in West Bengal has been diversifying gradually towards high value crops of fruits, vegetables and flowers.

- West Bengal has six agro-climatic zones and offers a diverse variety of environment for agriculture and horticulture production. The State is estimated to have produced 3.19 million tonnes of fruits and around 26.01 million tonnes of vegetables in 2013-14. West Bengal is one of the leading producers of fruits and vegetables contributing nearly 18% to the country's total production.
- Floriculture on the other hand is an emerging industry in West Bengal with high prospects. In 2013-14, total production of flowers (loose) is estimated at 66,500 MT. Total production of cut flowers stood at 26,135 lakh units in 2013-14. In 2013-14, the State had gross area of 24,850 hectares under flower production. There is a good potential for exporting flowers like gladiolus, gerbera, tuberose and rose to Holland, Middle East, the UK and Japan. Indoor plants and foliages such as asparagus, palms, cycads and ferns are also grown in the State³.

Livestock and Dairy Products

- The State has a favourable climate for poultry breeding and is considered as one of the most attractive poultry markets in India. It has enormous export potential in poultry and duck meat. It produced approximately 4.74 billion eggs in 2013-14.
- West Bengal accounted for 3.4% of India's total milk production during 2014-15, and the production is estimated to reach 4.96 million tonnes.
- The State is one of the leading producers of meat. Meat production totalled 667,000 tonnes in 2014-15.

- In November 2013, the State Assembly passed the Land Reforms Bill 2013, which will prevent any surplus land to be used for building real estate. The land could be used for poultry or dairy farming, which will boost the rural economy.

Fishery

- The State has a long coastline (over 150 km) and innumerable water bodies, reflecting the huge potential for inland fishing and fish cultivation.
- West Bengal is the largest fish producing State and accounts for about 18.5% of the total fish production in India as of December 2014. West Bengal's fish production was estimated at 1,580 metric tonnes in 2013-14 as compared to 1,490 metric tonnes in 2012-13. It is the largest fish supplying State with nearly 80% of the country's carp seed.
- West Bengal also accounts for a significant amount of fresh water fish; and the largest producer of shrimps. Shrimp farming is on the rise, especially in the district of Purbo Midnapore. Fish production in West Bengal is anticipated to cross the 2,000 metric tons mark by 2015 from about 1,580 metric tons in 2013-14⁴.

Mining

- Mining industry is perhaps one of the oldest industries in West Bengal, with most operations having started during the British rule. Raniganj is an important coal field in West Bengal.
- As of April 2015, the State's total coal reserves/resources were estimated at 31.43 billion tonnes. The State's coal production aggregated 21.66 million tonnes in 2014-15.
- In 2013-14, the gross production of coal bed methane (CBM) in the State was 166 million cubic metres.
- Rock phosphates deposits are found in Beldhi, Chirugora and Kutni regions of Purulia district,

³National Horticulture Board, Government of India

⁴Department of Animal Husbandry, Dairying & Fisheries Ministry of Agriculture, Government of India

while deposits of granite and kaolinite are found in Purulia, Bankura and Birbhum districts. Good quality pegmetallitic-quartz is also available at Mirmi in Purulia district, besides deposits of basalt-trap rocks, which is used in the preparation of road metals are available in Birbhum district.

- Dolomite resources in the State constitute 3% of the total resources in the country. Low-silica dolomite from Jayanti area in Jalpaiguri district of West Bengal is supplied mainly to steel plants at Durgapur and Jamshedpur.

Industry

Tea

- West Bengal is the second-largest tea growing State in India, and accounted for around 27.88% of India's tea production during 2014-15. The total production of tea in the State was around 329.3 million kg in 2014-15.
- Tea gardens in the State are located in Darjeeling and Jalpaiguri, the two northern districts of West Bengal. Darjeeling tea has a Geographical Indication (GI) status that is recognized globally. It is regarded by connoisseurs as the Champagne of Teas. Around 10 million kg of Darjeeling tea are produced annually in the State.

Leather

- West Bengal is one of the leading exporters of finished leather goods. The State's leather exports constitute around 10.7% of India's total leather goods exports in 2014-15. As of 2014-15, the state had around 666 manufacturing units producing leather and leather goods.
- The Government of West Bengal has set up an integrated leather complex on the eastern fringe of Kolkata, spread over 1,100 acres. The State is also one of the country's important tanning centres.

Steel

- West Bengal has been a favoured destination for the steel industry for years, owing to the availability of raw material like coal and iron ore in the vicinity.

- The State accounts for about 10% of the country's total steel capacity. SAIL has two huge integrated steel plants in Burnpur and Durgapur, around 160-200 kms from Kolkata, with many other mini-steel plants set-up across the State.

Textiles

- West Bengal's textiles industry is centred around handlooms, power looms, jute and silk. West Bengal is the one of the seats of the hosiery industry in India, with 17,900 hosiery units.
- The State holds a distinction for the manufacture of four types of commercially traded silk: mulberry, tasar, eri and muga. As of 2014-15, the industry's size was estimated at US\$ 4.5 billion. The raw silk production in the State was recorded at around 2,500 MT in 2014-15.
- The State's Textile Policy 2013-18 aims to increase the sector's contribution to 10% of the State GDP by 2022-23 from 5.2% in 2013. This would provide employment to at least 10 million people from current level of 1.5 million people.
- The positive triggers in West Bengal for the textile industry's development include ample production of chemicals and local dyes, availability of power, cheap labour and presence of export facilities due to ports and airports.

Services

Information Technology

- Over 500 IT and ITeS companies operate in the State, employing approximately 130,000 professionals in 2013-14. The State has identified IT as a priority focus sector to be developed into a growth engine for the future.
- West Bengal had 11 IT/ITeS based SEZs with formal approval as of July 2015.
- A number of towns such as Durgapur, Siliguri and Haldia are also emerging as IT destinations with appropriate infrastructure in the form of Software Technology Parks (STP).
- West Bengal plans to raise its share of the country's IT exports to 25% by 2030 from 7% in 2013-14.

Financial Services

- West Bengal has been one of the nerve centres of finance in the Eastern and North Eastern part of the country with a host of transactions taking place everyday.
- Amongst the financial institutions, Allahabad Bank, UCO Bank, United Bank of India, and

National Insurance, have their head quarters in Kolkata. The recently launched Bandhan Bank also has its head office based out of Kolkata.

- The State going forward has tremendous potential to develop into a financial hub in the Eastern region of India facilitating further trade and investment.

2. WEST BENGAL AND EMERGING REGIONAL LINKAGES: POTENTIAL TO GAIN FROM SYNERGIES

- West Bengal is at the cusp of international routes (being discussed for regional integration) whether it is maritime or road link, and is, hence, well placed strategically to garner the benefits from its location.
- With the international trade and investment landscape and rules for multilateral trade and investment undergoing major adjustments and the global economic paradigms changing, countries today are looking at novel means to get more integrated by road and through water. In the case of West Bengal, the State is closer to several nations that are part of international treaties, and serve as a gateway to nations which are part of the regional initiatives to which India is also a signatory - including The Bangladesh-China-India-Myanmar (BCIM) Corridor, The Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC), and the Asian Trilateral Highway.
- For West Bengal, each of these regional initiatives opens up a plethora of opportunities, which if tapped successfully and diligently, could improve the position of the State strategically, both in the economic landscape of the country, and internationally. In fact, these regional initiatives in and around West Bengal are ingredients which can act as a catalyst to the growth of the State, and the entire Eastern region at large. Besides, the State's potential to leverage these linkages is also gelling well with the Government of India's Act East Policy.

2.1. The Bangladesh-China-India-Myanmar Economic Corridor (BCIM-EC)

- The economic implications of isolation of the Northeast part of India from the Eastern part

of India have been in long discourse. For the Northeast region to serve as a bridgehead to the country's eastern neighbourhood, there has to be a comprehensive connectivity strategy for the region. Such a strategy envisages three interlinked components, the first would be to improve connectivity between the Northeast region and the rest of India, the second would be to enhance connectivity within the Northeast region itself and the third would be to improve the existing, and establish new cross-border transport and communication links with the neighbouring countries. These three components need to be pursued in tandem if the full benefits of Act East Policy are to be realised.

- The Bangladesh-China-India-Myanmar Economic Corridor (BCIM-EC) is possibly the best answer towards catering to this issue. The BCIM region has a geographical advantage of connecting South, Southeast and East Asia. The BCIM-EC intends to contribute to socioeconomic



development in the region by developing connectivity and infrastructure (road, railways, waterways, and airways); energy resources; agriculture; and trade and investment.

- The BCIM-EC project will link Kolkata with Kunming, the capital of China's Yunnan province⁵, passing through Myanmar and Bangladesh, with Mandalay and Dhaka among the focal points.
- The BCIM-EC might trigger a flurry of new infrastructure capacities once it starts taking pace. Within India, Agartala is almost at a 1650 km distance from Kolkata as one travels through the 'Chicken's Neck' in the north of West Bengal. In contrast the distance is reduced to just 350 kms if the journey passes through Bangladesh.
- The 312-km stretch of the Stilwell Road, which connects Northeast region of India with Yunnan through northern Myanmar, could lower the transportation costs between India and China by 30%, and escalate already-growing India-China trade through the BCIM-EC.
- Yunnan and West Bengal can create synergies in sectors like agro-processing, and the fact that the capitals of these two provinces, Kunming and Kolkata, are the two ends of the BCIM-EC only adds to the business prospects.
- Of the various sectors that BCIM-EC could look at for cooperation, energy sector is one of the prominent sectors. Sub-regional cooperation can collectively utilize hydrocarbon resources in Bangladesh, hydel and mineral resources in North Eastern region of India, natural gas reserves in Myanmar, and coal reserves in East Indian states like Odisha, Chhattisgarh, Jharkhand, and West Bengal. China's developing Yunnan province is coal-rich which can be harnessed. India's engagement with Myanmar will also contribute to India's energy security. Currently, India is heavily dependent on crude oil imports from the Gulf States. At the same time, Myanmar

will be able to engage in export diversification, as it currently over-relies on China and Thailand for energy exports. The BCIM-EC, by creating trading opportunities for Myanmar, would also help Myanmar integrate into the regional supply chains.

- The BCIM-EC has the potential to become a crucial link between South and South East Asia. It can provide access to Indian goods in large markets in East Asia through Myanmar, while India's North East region will be better connected to the rest of the country overland through Bangladesh.
- China has also proposed to build a 3,000 km high-speed railway line between Kunming in the southwest of the country and Kolkata⁶, passing through Myanmar and Bangladesh. The rail corridor will pass through Mandalay in Myanmar and the Bangladeshi cities of Chittagong and Dhaka before entering West Bengal and ending in Kolkata. The corridor will complement the road corridor in harnessing the economic activity, promote investment and trade and facilitate people-to-people contact.
- Given the commonalities in terms of history, culture, and even ethnicities and languages in many cases, the BCIM-EC is a win-win arrangement, as all four member States stand to gain. Today, South Asia is nowhere close to the kind of success East Asia has reaped. However, the success of BCIM-EC could well be the game changer.

2.2. Bangladesh, Bhutan, India and Nepal Motor Vehicle Agreement (BBIN-MVA)

- Although in the past, vehicles had the right to travel through the Bangladesh, Bhutan, India and Nepal Motor Vehicle Agreement (BBIN-MVA) countries, most of the associated agreements are bilateral, and required a variety of permits at different stages of the journey. Another issue,

⁵Yunnan Province of China is a landlocked region far-off from the booming coastal areas in the east. Yunnan shares common borders with Myanmar, Laos and Vietnam.

⁶The proposal, found a mention at the Greater Mekong Subregion (GMS) meet in Kunming in 2015



for example, was in the case of India-Bangladesh MVA, under which vehicles were allowed to travel for not more than 150 kms across the border.

- BBIN-MVA transport deal signed in 2015, will now enable seamless sub-regional connectivity, as cargo vehicles do not have to be changed at the border, a practice that had prevailed until now. As per the agreement, member countries would allow vehicles registered in other countries to enter their territory under certain terms and conditions. Customs and tariffs will be decided by the respective countries and these would be finalised at bilateral and trilateral forums.
- BBIN-MVA will focus on increasing transport options among these countries, creating strategic trade partnerships and ultimately boosting the regional economy. The BBIN-MVA is an umbrella agreement prepared along the European Union pattern.
- The agreement will also facilitate the Northeast region of India – comprising Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland and Tripura States – to achieve its development objectives considerably, and distribution channels for the region, while allowing the mainland India businesses to develop supply chains that are cost and time effective.

- With the implementation of the BBIN-MVA, a manufacturer can use one transporter for a 640 km trip through Bangladesh (Kolkata, Dimapur, Jamuna bridge, Dhaka and Agartala) without the current administrative burdens to reach from Kolkata to Agartala without entering Bangladesh (1550 km journey). This will also help SMEs in and around Kolkata who are eyeing to tap the markets in Bangladesh, Bhutan, and Agartala.
- The agreement has the potential to transform the border roads/transport corridors into economic corridors, which could increase the intraregional trade within South Asia by 60% and with the rest of the world by 30%. In addition, it will facilitate the easy transit of people across South Asian borders and beyond. Further, this will, when fully implemented, reduce the transport cost of the goods and foster multi-modal transport and transit facilities that will further enhance the strength of the economic relations among the four member countries.

2.3. Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC)

- The Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) is an international organisation involving countries like Bangladesh, India, Myanmar, Sri Lanka, Thailand, Bhutan and Nepal, which is largely believed to act as a bridge between the



two regional groupings in Asia, viz., SAARC and ASEAN.

- BIMSTEC, which is a home to around 1.5 bn people, constitutes around 22% of the global population with a combined GDP of 2.7 tn economy.
- It has identified 14 priority areas of cooperation, including trade and investment, transport and communication, energy, tourism, and fisheries, and each member country has been given the responsibility of leading at least one of these. India is leading transport and communication, counter-terrorism and transnational crime, and environment and natural disaster management.
- West Bengal is again the protagonist in the BIMSTEC initiative as well, given its boundary with Bangladesh and proximity to Myanmar. India and other BIMSTEC countries should strive to improve physical connectivity through trade facilitation infrastructure and measures

as well as institutional connectivity through the convergence of rules, regulations, policies, and procedures for cross-border trade and investment. Together this would facilitate better people-to-people connectivity.

- Trade among BIMSTEC countries shows positive compound annual growth rate (CAGR), which is 25.16 % (during the period 2005-2014); highest CAGR (during the period 2005-2014) in terms of trade was found with Thailand (30.43%) and the least was found with Bhutan (7.7%). While there was a decline in India's exports in the year 2014 (-3%), the exports growth was at 10.37% with the BIMSTEC countries. The share of BIMSTEC countries in India's total trade was 3.89%, whereas in exports, the share was 6.74%, and in imports the share was 1.94% in the year 2014. This shows that there is a large scope in enhancing India's trade with other BIMSTEC countries; India's share of trade with BIMSTEC countries is significantly low as of now.

KALADAN MULTI-MODAL TRANSIT TRANSPORT PROJECT

The Kaladan Multi-Modal Transit Transport Project was jointly identified by India and Myanmar to create a multi-modal mode of transport for shipment of cargo from the eastern ports of India to Myanmar as well as to the north-eastern part of India through Myanmar. This project, which will connect Sittwe port in Myanmar to the India-Myanmar border, apart from opening up the sea route for the products, will also provide a strategic link to the northeast.

The project, when completed, will first link the Kolkata port to the port of Sittwe in Myanmar across the Bay of Bengal, a distance of 539 km. From Sittwe, the route will continue over river Kaladan to the western Myanmar town of Paletwa, 158 km away. Paletwa will then be connected to the India-Myanmar border by a 110-km-long road.

The international border will then be connected by road to the town of Lawngtlai in Mizoram, 100 km away where National Highway-54 passes by. The project includes construction of an integrated port and inland water transport (IWT) terminal at Sittwe, development of a navigational channel along the river Kaladan in Myanmar from Sittwe to Paletwa, and construction of a highway trans-shipment terminal at Paletwa. When completed, the route will provide a viable alternative to the existing overstretched route via Siliguri in West Bengal, popularly known as the Chicken's Neck.

Once one of the two most important river ports in Myanmar, Sittwe was used to ferry supplies to the northeast of India during the British Raj. From Sittwe, the cargo was taken by waterway 170 km upstream at Paletwa – where the river encounters rapids – for further travel by head-loads to neighbouring Mizoram. According to a 2008 agreement between the two nations, the Government of India proposed to revive this route to establish easy access to North East.

- In land and sea transport, the Trilateral Highway project between India-Myanmar-Thailand could be extended to include Bangladesh, Nepal and Bhutan and also synchronise it with other ongoing and planned land and sea transport projects, such as the Kaladan Multi-Model Transport and Transit Project being developed by India in cooperation with Myanmar. In the energy sector, BIMSTEC has already conducted a feasibility study and established a task force on trans-gas pipeline and trans-power exchange. The estimated hydropower potential of the BIMSTEC stands at 261GW.

2.4. Asian Highway-1

- The Asian Highway (AH) project, popularly known as the Trans-Asian Highway, is a cooperative project among countries in Asia and Europe, supported by the United Nations, to improve the highway systems in Asia. Japan, China, South Korea, India, Bangladesh, Sri Lanka, and Pakistan are some of the countries taking part in the Asian Highway project. The larger, more developed countries such as Japan, China and India as well as international agencies such as Asian Development Bank are expected to fund this project.
- The Asian Highway is marked from AH1 to AH88. Asian Highway 1 is the longest route of the Asian Highway Network, running 20,557 kilometres starting from Tokyo (connected by ferry) and run

through Seoul, Beijing, Ho Chi Minh City, Phnom to Mae Sot, Yangon, Mandalay, Tamu, Moreh, Imphal, Kohima, Dimapur, Nagaon, Jorabat (Guwahati), Shillong, Dawki, Sylhet, Dhaka, Kolkata, Kanpur, New Delhi, Attari, Lahore, Rawalpindi, Peshawar, Kabul, Istanbul till the border of Bulgaria.

- In India, the AH1 extends along Moreh-Imphal-Kohima-Dimapur; Dimapur-Nagaon; Nagaon-Numaligarh-Jorabat; Jorabat-Shillong-Dawki; Petrapole-Barasat; Barasat-Kolkata; Kolkata-Durgapur-Barhi-Kanpur-Agra-New Delhi, and New Delhi-Attari.

- Bilateral trade will receive a boost because of Trans-Asian Highway as it would provide the transport infrastructure necessary for building and strengthening trade and economic interaction with ASEAN states. More importantly, northeast region of India, considered as one of the country's economically backward areas, could become India's gateway to the fast developing ASEAN region. The Trans-Asian Highway will provide the necessary transport infrastructure that is crucial in facilitating the trade and investment for economic development of the region, particularly to States like West Bengal which would become the most important Indian city to be linked to the Asian corridor.

2.5. India-Bangladesh Water Treaty

- Earlier, the river route between Kolkata and Assam was one of the most thriving routes and was active in the movement of goods and people. In April 2015, India and Bangladesh decided to renew a Protocol after every five years, which when signed in 1972 required for a renewal every 2 years. This agreement will go a long way in helping to reduce the time taken at present for trade between the two countries through sea and river routes. Under the protocol, India and Bangladesh agreed to use inland





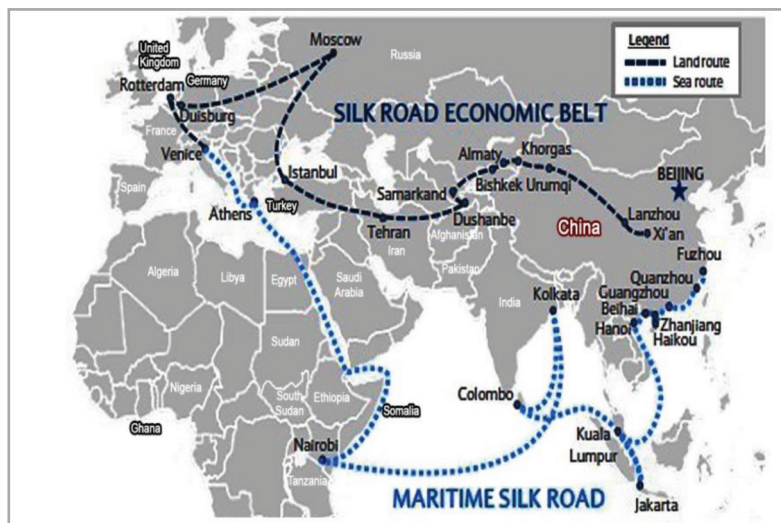
waterways for the passage of goods between the two places of one country through the territory of the other, as well as for inter-country trade⁷.

- At present, trade through sea routes passes via Singapore or Colombo. The time and cost of trade through this route is therefore higher (involving 4-5 days for ships from Bangladesh to reach India) and this is why the coastal trade agreement will become very important for India and Bangladesh. Trade through the coastal route will reduce both the time and cost of trade and thus create scope for increased economic cooperation and benefits.
- This agreement will also allow access to the northeast region of India from West Bengal. Access to landlocked northeast region of India is not only delayed but also becomes dearer in the absence of transit routes through Bangladesh. This agreement will possibly allow Indian goods not only to move into Bangladesh, but

also enable to carry through Bangladesh to Assam. Granting transit routes is a win-win situation for Bangladesh as it would enable local entrepreneurs to access the markets in northeast and beyond and enable greater people-to-people contact in a much smooth fashion. The utilisation of inland waterways for both transit and trade is beneficial not only for relieving the pressure of rail and road traffic but also in reducing the cost of transportation.

2.6. Belt and Road Initiative: Silk Road Economic Belt and Maritime Silk Road

- The Silk Road Economic Belt and 21st Century Maritime Silk Road - together called as the Belt and Road initiative, is not just a road, nor is the belt, but just an economically connected region that spans continents. The network passes through more than 60 countries and regions, with a total population of 4.4 billion. The project with its land and maritime path components is understandably Chinese focus, and promises to better connect China with the Middle East, Africa and Europe, through its landlocked neighbours in Central Asia and the littoral states of Southeast and South Asia.



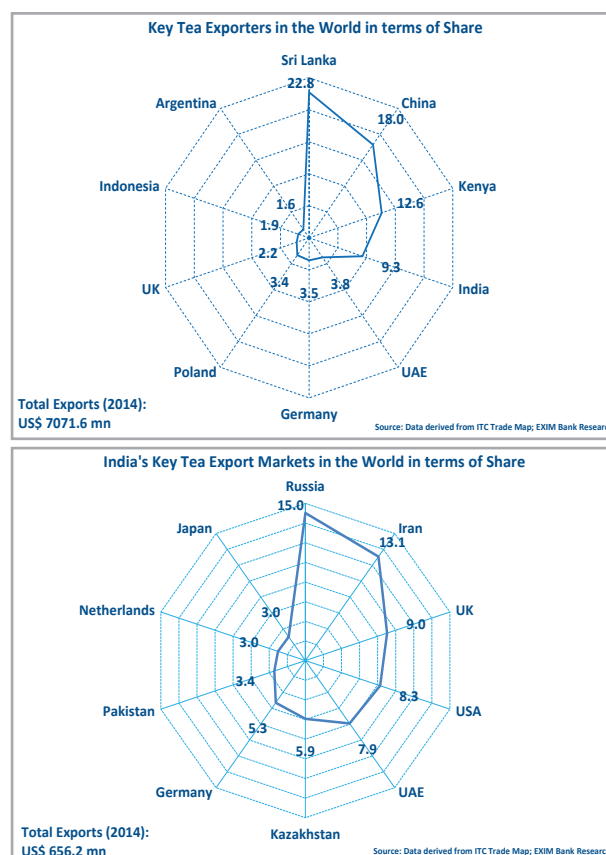
⁷ According to the terms of the agreement, the route will be open only for the movement of cargo and will not include within its purview the movement of passengers, war ships, paramilitary forces and vessels of oceanographic and scientific research.

- The Maritime Silk Road will begin in Quanzhou in Fujian province, and also hit Guangzhou (Guangdong province), Beihai (Guangxi), and Haikou (Hainan) before heading south to the Malacca Strait. From Kuala Lumpur, the Maritime Silk Road crosses the Indian Ocean to Nairobi in Kenya. From Nairobi, the Maritime Silk Road goes north around the Horn of Africa and moves through the Red Sea into the Mediterranean, with a stop in Athens before meeting the land-based Silk Road in Venice.
- What should be taken into the calculation of the grand strategy is not only a shifting of excessive domestic capacity, trade, or closer diplomatic ties with neighbouring countries, but also the market for ideas.

3. STRATEGIES IN THRUST AREAS OF EXPORTS

3.1. Tea Plantation

- Global tea production during the calendar year 2014 is estimated at approximately 2800 million kgs of black tea and 2000 million kgs of green tea. India, being the largest producer of black tea, produced 1185 million kgs of tea as against 1200 million kgs of tea during calendar year 2013. This represents around 42% of total global tea production. Kenya (444 million kgs), Sri Lanka (338 million kgs), other African countries (210 million kgs), Bangladesh (64 million kgs) are other main black tea producers globally. China predominantly produces green tea with a production of 1850 million kgs⁸.
- The top ten tea exporting countries in 2014 together constitute almost 80% of the world exports. India while being the 4th largest exporter of tea in the world has been edged out by countries like Sri Lanka, China, and Kenya.
- West Bengal has been the second largest tea growing State in India. Tea industry plays an important role in the economy of West Bengal. It generates employment in several ways like in production, processing, distribution, packaging etc. It contributes to about 24% of the total production of tea in India. Darjeeling and Jalpaiguri are two northern districts of West Bengal, where most of the tea gardens are located. Darjeeling tea is the finest tea in the world. There are 290 gardens in the Dooars (Jalpaiguri and Cooch Behar) and Terai (Darjeeling plains and Uttar Dinajpur) with an estimated production of 221 million kgs and providing employment to



2.14 lakh people. Many new small tea gardens have been set-up in Coochbehar, North Dinajpur, etc. The ownership profile of the tea gardens reflects a mix of large corporate houses, private tea companies, partnership and proprietary firms. Small growers co-exist alongside the organized sector along with stand alone Bought Leaf Factory⁹(BLF).

- Tea is also an important source of income through exports. Kolkata port is the biggest tea-

⁸International Tea Committee Bulletin and Tea Board of India

⁹The Bought Leaf Factories (BLFs) have a major role in controlling the mechanism of price determination and quality of tea. BLFs do not have their own tea plantations and depend on small farmers for green leaves to produce made tea. BLFs have direct linkage to the wholesalers, up country buyers and foreign market.

handling port in India and also the biggest tea auction market in India.

- Dooars and Terai teas, distinct from Darjeeling, do not command any significant export market with price averages well below teas price levels of Assam. Darjeeling teas are largely export oriented and given their distinct quality and character command higher prices compared to teas from other regions in West Bengal. It may be noted, however, that the cost of production in Darjeeling is also substantially higher threatening profitability and developmental programmes. Furthermore, Darjeeling being a hilly area is unable to embark on uprooting replanting programmes because of terrain and soil profile. Tea exports from West Bengal are estimated to be valued at around US\$ 125 million in 2014-15.

Strategies

Replantation

- With 50% of the standing tea bushes in West Bengal being over 50-years age-bracket, compared with an all India average of 38%, the age-old plants have become a huge deterrent to quality and thereby exports of tea from the State. Compared to that, over 70% of tea land in Kenya and 68% in Sri Lanka are with bushes less than 40 years old, while the entire tea plantation in Vietnam is less than 20 years old and near 35% of Chinese tea plantation is less than 10 years old. The repercussions of these are reflected in Indian tea industry's diminishing leadership in key world markets.
- To optimise yield, the age of the bush is a critical factor, as an old bush affects the quality as well as the yields. Yet, barring a few of the larger gardens, most owners have avoided this process as they saw the Rs. 4.5 per kg cost of replanting as too high. One of the key reasons for the state of affairs in the tea industry in the

State is because of the profits earned by the garden owners have not been ploughed back for investment in the industry. This needs to change for the long term viability of the tea gardens in the State. New saplings take time to grow and therefore, the replanting has to be done strategically, in phases.

- The State must also encourage tea plantations to utilize the Special Purpose Tea Fund (SPTF) set up by the Ministry of Commerce to implement uprooting and replanting programme. Recently the Centre, in 2014, has re-casted the SPTF. Under the changes, the subsidy component of the entire programme has been enhanced to 30% of the cost of replanting from 25%. The unit cost of replanting has also been increased to Rs. 6 lakh per hectare, including crop-loss, from Rs. 3.50 lakh per hectare that prevailed earlier. Taken together, the changes translate into doubling of the subsidy to Rs. 1.80 lakh from Rs. 87,500 per hectare.

Diversifying Export Market

- India has to look for emerging major tea importing countries like Pakistan, Kazakhstan, Russia, UAE, Canada and France, by improving the quality to suit their tastes and preferences. In recent years, Pakistan has emerged as one of the major tea importers in the world. Pakistan's tea import increased from US\$ 190 mn in 2003 to US\$ 328 mn dollars in 2014, which is 50% of India's total tea export. Pakistan imports 64% of its tea from Kenya, while from India, Pakistan imports a meagre 12%, in spite of being an immediate neighbour. Pakistan is also a member of SAFTA. For India, it is an opportunity to enter into Pakistan's tea market, and this would offset India's loss of former USSR and Egyptian tea markets.
- Exports from the State also need to figure in the number one position in the key importing markets in the World, which is currently not the

case. Recently, tea from West Bengal is finding market in Iran which needs to be continued while addressing their local requirements in terms of taste and packaging.

Creating Inland Container Deport in Siliguri

- For boosting export of tea, Assam Government has been offering concessions to the tea industry, by encouraging them to use the dry port of Inland Container deport (ICD), Amingaon in Guwahati. The deduction at the rate of Rs 6 for every kg of tea exported has been made available, which is benefitting the exporters and helping them in quoting competitive price in the thrust markets. West Bengal may also consider having a similar ICD in Siliguri with comparable incentives, which will be a huge boost to the State's exports of Tea.

Building Cold Storages

- Tea cropping in West Bengal is seasonal in nature, with the peak cropping months being July, August, September and October. During these peak cropping months, every year the green leaf price goes down because of oversupply and small growers suffer a great deal. Having small cold storage units would help in maintaining quality of West Bengal's tea, while stabilizing green leaf price. Green tea leaf can be stored in such storages up to 25 days without any deterioration in quality.

Forward Integration in Tea Exports

- Apart from the severe competition that the country is facing from other tea producing countries, coffee is emerging as near perfect substitute and is posing greater challenge to the consumption of tea as many coffee outlets have been opened by Barista, Cafe Coffee Day and others. The branded tea players will have to aggressively take on these challenges and their success will hinge on the supply of high quality premium tea as well as organic tea.

- The Government of West Bengal may consider opening tea outlets on a public-private partnership basis with the State Government holding a minority stake, and the management being with the private entity. Himachal Pradesh Horticultural Produce Marketing and Processing Corporation Ltd. has been marketing fresh fruits and processing of all types of surplus fruits, particularly apples, across the country. Besides India and much of South East and South Asian nations, being tea consuming countries the success of such a venture remains tremendous. The outlets in India and abroad can also simultaneously act as an avenue to sell under its GI brand 'Darjeeling Tea'.

Accelerate the Process of Standardization

- The Tea Board has tried to introduce the implementation of Plant Protection Code in January 2015 which will allay all apprehensions about excess usage of plant protection formulation in the country's tea plantations and boost its sales. The Code mandates the tea growers and manufacturers to critically review and monitor the use of chemical formulations, reduce their usage, and apply the approved chemical formulations in the safest way possible. Given the huge export market of Tea from West Bengal and the level of consciousness abroad towards their consumption, it is important to ensure that the tea produced in the State continues to meet the highest standards for safe consumption in the world. Some of the internationally recognized standards for tea are Ethical Tea Partnership, Hazard Analysis Critical Control Point (HACCP), Rainforest Alliance, Fairtrade, etc.

For the Promotion of Tea Tourism

- The West Bengal State Government, in association with DTA, should adopt the necessary steps to remove the legal barriers and formulate suitable modalities for the promotion of tea tourism on Darjeeling tea estates with a

view to generating income from tourists, both Indian and foreign, while making them aware of the concept of the Darjeeling tea GI through a proper campaign.

- Guidelines need to be formulated for sharing income from tea tourism among estate owners and the State or local government, and procedures laid down for the development of tourism infrastructures. While no new real estate construction within the tea plantations be allowed, the existing ones including bungalows should be upgraded and refurbished. This can also be done on public private partnership basis (as has been the case under which the TATA-owned Indian Hotels Company Ltd has been operating the Taj Mansingh Hotel in Delhi which belongs to the New Delhi Municipal Corporation).

Promoting Alternative Cropping

- Tea production season in West Bengal is not more than 6 months, unlike in other countries like Kenya and Sri Lanka. Since in the lean season labour remains idle, opportunities to convert a part of tea plantations for alternative cropping like pineapples, litchis, etc. can also be explored. This will not only keep the workers engaged but also help in getting some revenue for the plantations.

Marketing According to Tastes

- There is a need for undertaking planned strategy for marketing of the tea in the international market. It is important that the tea being a reputed brand of West Bengal, the State Government has to take more initiatives to promote the tea in both the Indian and in the international market. An extensive campaign and aggressive intervention is only the first step to improve the international market, especially in the context of competitive participation from other countries. It is also important to create marquee tea brands in the State for the international markets.

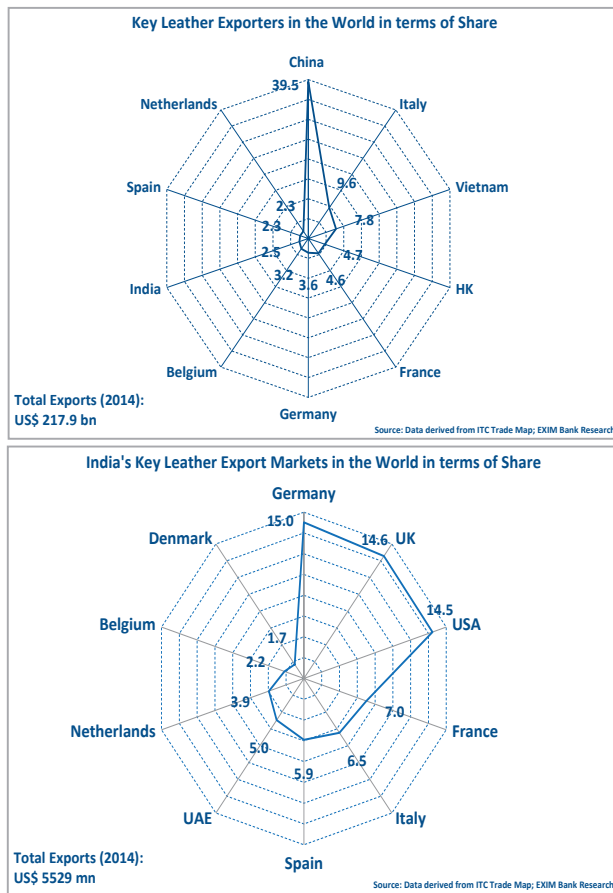
- At the same time, steps should be taken towards the proliferation of several Bought Leaf Factories (BLFs) that have mushroomed in West Bengal. This has led to the flooding of inferior quality tea in the domestic market. Smaller players offer this tea at cheaper rates and as a result the poor quality tea produced by these players not only affects the domestic price levels, but also damages the quality perception of the Indian tea in export markets.

Research and Development

- Research for tea estates on various cultivation and botanical aspects, including plant species, cloning etc., can be undertaken by the agricultural universities, and the Tea Department of the North Bengal University in association with the Darjeeling Tea Research and Development Centre, the Tea Research Association etc. Research and training on various aspects of management, export and marketing, including WTO and TRIPs, could also be undertaken by institutions with expertise and resources, leading to an over-all improvement in industry performance. Research is needed to develop a more efficient packaging system capable of retaining the quality of tea for a longer period.

3.2. Leather Industry

- Leather Industry in India, occupies a place of prominence in the economy in view of its massive potential for employment, growth and exports. Globally leather exports have increased from US\$ 149.2 bn in 2010 to US\$ 217.9 bn in 2014. China was, by far, the world's leading exporter with a share of 39.5%, followed by Italy, at a distant second, with a share of 9.6%, and Vietnam at 7.6% in the year 2014.
- On the basis of the financial year, the export of leather and leather products from India has multiplied during the past couple of decades – from US\$ 1.42 billion in 1990-91 to about US\$ 4 billion in 2010-11, and further to US\$ 6.5 bn in 2014-15.



- West Bengal is one of the country's leading states for export of finished leather goods, and accounts for almost 11% of the country's leather exports. One of the key advantages in the state is the availability of best quality 'blue' goat skin and skilled craftsmen. Kolkata is also the second most important tanning centre in the country with about 22-25% of country's tanning done here. The State has about 500 tanneries, majority being tiny and small, with a capacity of around 800 tonnes of raw material processing per day. West Bengal is also one of the major producers of industrial gloves and finished leather products and accessories. The Government of West Bengal has set up a state-of-the-art integrated leather complex on the eastern fringe of Kolkata at Bantala, which is spread over 1100 hectares having a capacity to develop 1000 tonnes of hides per day.

Strategies

Exploring Opportunities Overseas with the Onset of Mega Trade Agreements

- Vietnam is one of the key leather exporters in the world, and with the onset of the Trans Pacific Partnership (TPP) Agreement, their exports are to grow further, while possibly eating into India's share as well. TPP is a consortium of 12 countries (India is not a party) from both the sides of the Pacific with a population exceeding 805 million, and a combined GDP size of US\$ 28 trillion. Other agreements which are on the anvil are the Regional Comprehensive Economic Partnership (RCEP) Agreement and the Trans Atlantic Trade and Investment Partnership (TTIP) Agreement. There is a large consensus that these mega-trade agreements are poised to change the landscape of global value chain and the business interests across the world. Vietnam is also a negotiating member of RCEP and is connected with major countries that are negotiating TTIP Agreement.
- Since the leather industry in India is largely dominated by SMEs, devising a strategy to be prepared for any trade diversion as a result of these mega-agreements is of utmost importance. This provides an opportunity for leather manufacturers in West Bengal to explore the possibilities and re-evaluate their strategies to have an operational base in Vietnam. This would also enable the Indian entity to take the first mover advantage to gain greater market access to as many countries, with almost nil or concessional import duties offered under these agreements. State Government should sensitize the manufacturers in West Bengal about this opportunity, which if not utilised, may become a threat in the years to come.

Need for Establishing Leather Ancillary Units

- It is observed that the leather manufacturers in the State suffers an additional costs and also incurs time in procuring raw materials which

are required for producing leather products and accessories. Most of these inputs like soles, laces, trims, etc are being brought to the facilities in West Bengal from far flung areas, such as Kanpur. The State Government may facilitate establishing leather ancillary units in the leather complex in and around Bantala.

Technology Upgradation and Modernisation of Tanneries

- Efforts need to be aligned so as to upgrade the technology and modernisation of tanneries, improve the production environment of the tanneries, including the housekeeping and safety, so that the good health of the tannery workers is ensured. Technology interventions are also required in saving water and energy, better utilization of raw material resources, production of eco-friendly leather, etc.

3.3.Food Processing

- Food processing industry can flourish in West Bengal due to various factors. Firstly, there is vast availability of agro raw material resources. Secondly, the climate of West Bengal is suitable for the plantation of various citrus fruits. Thirdly, being situated near river Ganga there is abundant supply of water and fertile alluvial soil. Fourthly, low cost skilled labour is readily available in the State. Lastly, its location is perfect for large domestic markets and easy access to markets of Asia Pacific. But this field is yet to be explored to the fullest.
- This sector has some intrinsic strength in West Bengal as the State is the highest producer of vegetables in the country; the State accounts for 30% in the national production of potatoes, 27% in the production of pineapples, 12% in the production of bananas, and 16% in the production of rice. Additionally fruits like mangoes, papayas, guava and jackfruit and vegetables like tomatoes, cauliflower, cabbage, eggplant and pumpkin are available in plenty. Thus, West Bengal in terms

of agriculture is the largest producer of rice, and pineapple, while being the second largest producer of potatoes and lychees. The State is the largest producer of goat meat, and also leading producer of fish.

- The upside of the sector is that most of the industries are low pollutant generators, having all kinds of markets (domestic/national/export), enjoying high “multiplier effects”, easy raw material availability, and do not need much specialized skill sets.

Dairy Farming

- The State requires 16.9 million litres of milk daily. Kolkata and nearby suburbs alone have a milk demand of 2.4 million litres daily. Supply of milk from organized sector throughout the State is nearly 1.2 million litres per day. Thus, there is a shortfall, which is met mostly by the unorganized sector. Investors in this case would have a wonderful opportunity to establish processing units and marketing of liquid milk and milk products in potential areas by way of procuring milk from the potential milk producing areas of the State. The scope is enormous since consumer preferences, in tune with the global trends, are moving towards the value added milk products. These include ice cream, flavoured yoghurt, processed cheese and cheese powder, flavoured milk, butter and cream.

Poultry Farming

- Bengal has an insatiable appetite for chicken and eggs. Poultry farming thus represents a sector of importance for the investors. Currently, the State has about 53 million poultry birds. But it is not enough to meet the local demand and the needs of commercial bakeries and confectioneries. Nutritional requirement of eggs in the State is 22.5 million per day, while the State produces only 13 million eggs per day, and about 9.5 million eggs on an average per day are being brought from other States. Organized poultry

farming is a highly profitable and economically viable proposition for the investors in the State.

Meat Processing

- West Bengal is the third largest producer of meat in the country. However, the production still translates into just 67% of the per capita requirement of the State. The meat processing industry in the State is not having organized infrastructure in terms of automated and hygienic processing facilities, and the basic feedstock. With its tropical climate, West Bengal has the potential to develop into one of the largest producers of processed meat products in the country. The bones too can be processed to meet various industrial needs.

Pisiculture

- West Bengal is endowed with rich water bodies. Ever increasing demand and assured market for fish require high yielding aqua farming. Investment returns can start within a cycle of 3 months. Harvest can be planned according to the market demand with the objective of fetching better prices. Setting up of Ornamental Fishery Hub, alike in Singapore-Hong Kong, under PPP/ JV mode would position the sector in the global map and help earning foreign exchange to the State, besides providing livelihood support to the rural population.

Strategies

Cold Chains

- Cold Chain is essential in post-harvest management, and in ensuring food quality, besides ensuring farm to fork food security.
- New advanced cold chain infrastructure may be built which may have facilities like advanced controlled atmosphere/modified atmosphere storage for extension of shelf life of perishables, new technologies for storage of processing grade

potato, low cost solutions for pre cooling at farm, modern pack houses and ripening chambers, low cost technology for automation of operations in a cold store, space and energy saving solutions in cold storage, among others.

- The scheme for cold chain development for non-horticultural sectors under the National Mission for Food Processing has enormous potential, keeping in mind the foremost position of the State in the production of a number of agrobased items, including fish.

Setting up Cooperatives and Educating them about the Export Market

- Government needs to take the initiative to educate the farmers on the importance of cooperatives / farmers' groups at local level. Apart from forming the cooperatives, the State Government may provide expert guidance to run such bodies, both at commercial and administrative levels.
- There is also a need to create a symbiotic partnership between the farmers'/growers' cooperatives/ groups and the processing industries, which may be facilitated by the State.
- The State Horticulture Board with the support from various associations may consider organising seller-buyer meetings in order to provide better market to the producers abroad as well.

3.4.Hi-Tech Electronics Industry

- Economist Nicholas Kaldor theorized manufacturing as the engine of growth and stipulated that there exists a close relationship between the growth of manufacturing output and the GDP of a country.
- Despite India's early development strategy of creating a well diversified industrial base focused on manufacturing, acceleration of manufacturing

growth and the desired dynamism has thus far remained elusive.

- The share of India's manufacturing sector stands at 13.5% of GDP – a level which has remained stagnant over the past decade. India's share in global manufacturing today is only 1.8%. India ranks low in terms of manufacturing value added as a percentage of GDP. This has had adverse impact on the country's trade deficit with limited ability to export manufactured products, especially the value added high-tech products and excessive reliance on imports for meeting domestic demand. This is in stark contrast to the experience of other Asian nations, particularly China, where manufacturing constitutes 34% of national GDP and accounts for 13.7% of world manufacturing — up from 2.9 % in 1991.
- In order to move up the value chain in exports, India should increasingly focus on those products that entails technology orientation and produces hi-value products. Currently, hi-tech products account for over 20% share in total exports in many developed economies, as also in some developing economies like China. On the contrary, the share of hi-tech exports in India's total exports stood at 7% in 2011, whereas in global exports India's share is hardly 0.8%. When compared to peers like China, the share of high-tech exports in the country's overall exports is significantly low. Further, the divergence is even more stark in terms of absolute values of high-tech exports – China's Hi-tech exports is 25 times that of India (US\$ 517.4 bn vs. US\$ 20.9 bn), South Korea is 6 times (US\$ 129.4 bn) and Malaysia 3 times (US\$ 64.2 bn)¹⁰.
- West Bengal does not have a full fledged electronic cluster as yet. While there has been a proposal to set up two electronic manufacturing clusters in Naihati Town, North 24, Parganas District, and at the Falta SEZ (both close to Kolkata), the proposal is yet to be materialised.

This proposal is under the Government of India notified scheme for Electronics Manufacturing Cluster (EMC) Scheme which was launched in October 2012 to provide support for creation of world-class infrastructure for attracting investments in the electronics manufacturing.

- The Government of West Bengal may alternatively consider developing these clusters as a specialized hi-tech industry exclusively for the electronics segment. The paradox of heightened demand (both in domestic and export markets) and lagging production, creates avenues for domestic capacity expansion. This will not only lead to augmenting exports but also reduce the country's dependence on high-tech imports, thereby rendering the country's trade deficit more manageable. (*Annexure: Lists of electronic and electrical products with SITC Code*).
- Given the increasing propensity of exports of hi-tech electronics, and the significant import appetite globally, impetus on increasing the production of electronics becomes a win-win situation, both to satiate domestic demand as also to earn foreign exchange through exports. West Bengal may consider taking cognizance of this fact.
- The State of West Bengal has reasonably good infrastructure for setting up hi-tech electronic units in the State. The State can also look at places, other than Nahaiti or Falta, in the vicinity of the State capital (within 150-200 kms). State may also consider devising a policy to promote SMEs which would set up units in the hi-tech electronics cluster, apart from the large units.
- West Bengal also has the presence of many state-of-art science and technology based institutes of repute like, IIT-Kharagapur, Indian Statistical Institute, Bose Institute, Saha Institute of Nuclear Physics, Jadavpur University, Bengal Engineering College, among others which can act as a readymade pool of talent to draw from.

¹⁰Exim Bank Research

Strategies

Learning from Successful Practices from Other Countries

- Government of West Bengal may consider setting up hi-tech based electronic clusters, learning from the success stories of developing such clusters in other countries. For example, Taiwan fashioned a system that offered incentives to firms that succeeded in raising their productivity or their export levels, and penalize firms that did not achieve such goals by withdrawing the tax credits and other financial incentives. In this way, Taiwan's leadership maintained a tight focus on policy goals and on performance towards those goals rather than allowing incentive programs to become mere rent-seeking systems. Some of the Taiwanese hi-tech clusters which have taken off well are Hsinchu Science Park, Central Taiwan Science Park, and Southern Taiwan Science Park Institutions. These were fashioned to encourage performance-oriented behaviour. West Bengal could follow a similar approach of inculcating the successful experiences from abroad while creating a niche for itself in the electronics industry.

Institutional linkages quintessential for Technology Clusters

- While the Government of West Bengal does not need to intervene directly, it can surely facilitate an enabling environment for strong industry-academia linkages, wherein institutions are motivated and encouraged to share common platforms with clusters for knowledge sharing and research. West Bengal for that matter is endowed with renowned institutions in the fields of science and technology.
- It may be worthwhile to mention here that for reinvigorating its manufacturing sector, USA has

allocated US\$ 500 million to six universities¹¹ to initiate the Advanced Manufacturing Partnership program between industry and institutions¹². The objective is to invest in the emerging technologies such as information technology, biotechnology, and nanotechnology, which will create high quality manufacturing jobs and enhance global competitiveness. Investing in technologies, will support the creation of good jobs by helping manufacturers reduce costs, improve quality, and accelerate product development.

Adapting and Replicating Successful Development Models of Hi-Tech Manufacturing

- India needs to adapt and replicate successful development models of hi-tech manufacturing. Analysis of hi-tech zones like Chengdu (China) and Colorado (USA) reveals that these regions, despite being landlocked (away from ports by about 800 kms) have been able to develop successful hi-tech manufacturing industries. These have, over the years, increased their exports significantly, provided additional employment and generated higher tax revenues than neighbouring regions that have not adapted a hi-tech manufacturing strategy. These two examples indicate that hi-tech manufacturing is region neutral and does not require large land area. A conscious attempt is required to be made to attract foreign and domestic investments in these sectors by offering special incentives as is being offered by other countries.

3.5. Information Technology & ITes

- Information Technology (IT), a knowledge-based industry, has tremendous potential of becoming an engine of accelerated economic growth, a catalyst for productivity improvement across sectors and means for efficient governance. IT enhances access to information, protects consumers, provides access to government

¹¹Massachusetts Institute of Technology, Carnegie Mellon University, Georgia Institute of Technology, Stanford University, University of California-Berkeley, and University of Michigan

¹²Partnership includes manufacturing companies like Ford Motor Co., Caterpillar Inc., Procter & Gamble Co., and Northrop Grumman Corp., Dow Chemical Co., etc.

services, makes skill formation and training more effective, improves delivery of health services, and promotes transparency. It provides tremendous employment potential and linkages between the government and the people, both at the rural and urban level. Investment in knowledge based industries will determine the level of the country's dominant position in the world economy in the next two decades.

- West Bengal has the potential to become the IT capital of the country with its huge talent pool which is spread across the country. It has immense potential to emerge as one of the most attractive investment destinations for the IT and IT-enabled Services (ITeS) sectors. All major IT/ITeS companies of the country operate in the State with availability of continuous power supply, less operating costs, and the newly built extensions of Salt Lake (at Rajarhat and New Town,) providing ideal conditions for leading a quality work life.
- West Bengal, which is ideally positioned to act as the gateway of exports to the eastern part of the world has a large base of human capital for IT & ITeS sectors, which can open up new market opportunities in countries like Japan, Korea, Australia and the neighbouring SAARC countries, particularly in the emerging areas of embedded technology, and software IP driven products and services.

Strategies

Capitalising the Knowledge Base of the State

- In the software sector, the State should focus its attention in certain key areas identified as avenues of high growth and traditional strength. These include key industry verticals, namely, financial services and banking, insurance, retail and distribution, engineering design and life sciences.

Promotion of BPOs

- Business Process Outsourcing (BPOs) ventures have vast employment potential. In this segment, the State may consider targeting to become the leader in BPO revenues (transaction processing and customer interaction services, including call centres) in India. Building upon a sound infrastructure, the State should be able to attract young workers from the neighbouring States including the predominantly English speaking population of North Eastern States.

Provide Special Emphasis to AVGC

- The State Government may consider boosting the Animation, Visual Effects, Gaming and Comics (AVGC) sector. The Government may also consider setting up a Centre of AVGC Excellence under Public Private Partnership (PPP) mode with financial assistance towards capital expenditure and purchase of equipment.

3.6. Medical Tourism

- Low treatment cost, growing regulatory compliance and availability of hospitals with medical technologies and treatment on par with international standards are some of the advantages enjoyed by the State of West Bengal in attracting international patients. Estimates claim that treatment costs in India, especially in West Bengal, starts at around a tenth of the price of comparable treatment in America or Britain.
- The most popular treatments sought by the foreigners in India include bone-marrow transplant, cardiac & coronary heart bypass, oncology, eye surgery, nephrology, hip & joint replacement & resurfacing, neurology, cosmetic surgery, dental, oral & facial restructuring and other areas of advanced medicine and treatment.

- Several latest healthcare facilities have been set up by the private sector even as the State Government has been proactive in encouraging Public Private Partnerships (PPP) in this sector.
- With better facilities and flow of patients for medical treatment, the State also stands to earn more revenue, especially in foreign exchange.

Strategies

Conducting Roadshows in South Asia and in Myanmar

- West Bengal is one of the most advanced States in the eastern part of the country in terms of medical facilities. The same has been found to be true when compared to the facilities in neighbouring countries including Myanmar and Cambodia. The State Government may consider encouraging public and private healthcare players to conduct roadshows in potential markets in South Asia and select South East Asian countries.

Facilitative Ambience by the State Government towards creating Medical Tourism

- The State Government may consider instituting an uniform grading and accreditation system for hospitals to build the consumers' trust. It

may also consider acting as a facilitator to encourage private investment in creating medical infrastructure and policy-making for improving medical tourism. The Government may consider actively promoting FDI in the healthcare sector, besides enacting conducive fiscal policies - providing low interest rate loans, reducing import/excise duty for medical equipment.

Integrate vertically

- The State Government may consider encouraging players in the sector to offer various value-added services. For example, the hospitals may be encouraged to set up kiosks at airports, offer airport pickups, bank transactions, or tie-ups with airlines for tickets and may help facilitate issuance of medical visas by the Central Government. As more foreign patients coming in, the hospitals may be encouraged to hire interpreters, and even encourage them to serve cuisines of patients' choice at the hospitals.

Joint Ventures / Alliances

- To counter the increasing competition in the medical tourism sector, the State Government may encourage the hospitals in West Bengal to tie-up with foreign health institutions / hospitals, by entering into mutual referral agreements, with the objective of attracting medical tourists.

4. INFRASTRUCTURAL SUPPORT FOR EXPORTS

4.1. Common Facilities

- MSMEs across sectors face fund constraints in having basic infrastructure facilities like Common Effluent Treatment Plant (CETP). The possibility of having CETPs, would facilitate economies of scale in waste treatment, thereby reducing the cost of pollution abatement for individual MSMEs.
- The State Government may ensure the provision of having CETP and other technical facilities/ services in the State especially in sectors like leather, textiles, chemicals, etc. These could be supported on a PPP basis. State Government may provide 10-20% of the capital cost for establishment of CETP built by the Industry Associations/SPVs in industrial areas/clusters. Currently the Integrated Leather Complex near Kolkata is having Common Effluent Treatment Plants. While 6 was proposed to be set up in this Complex, only 4 have been constructed.

4.2. Development of Testing and Research Laboratory

- With a view to meet the increasing technical standards of products for exports, the State Government should endeavour to increase the number of testing & research facilities in West Bengal. The facilities in the existing state-run laboratories need to be revamped for carrying out sophisticated tests on a variety of products.
- To encourage MSMEs / handicraft / handloom enterprises to attain international quality benchmark, the State Government may consider attracting the regional centres/offices/ branches of national laboratories like CLRI, CFTRI, etc. to set up testing and certifying infrastructure in the State.

- The State Government may encourage private entities, and industry associations to set up R&D and testing laboratories, through an incentive framework, provided that such laboratories obtain accreditation from a National Level Accreditation Board/ Authority.

4.3. Producing goods with SPS Compliance & International Accreditations

- Given the increasing world food trade over the past few years, SPS regulations are gaining in importance in the context of international trade. The 'Sanitary and Phytosanitary Agreement' of the World Trade Organisation sets out the rules that WTO members are obliged to follow when they set SPS measures governing food and feed safety, animal health and plant health.
- Government of West Bengal needs to undertake a proactive approach towards SPS management, focusing on development of a well-knit and comprehensive action plan for medium to long term. The general level of awareness about SPS issues is very low among the stakeholders in the State, particularly the MSMEs.
- International accreditations like Ethical Trade, Fairtrade, Rainforest Alliance, REACH, etc. should also be promoted as consumers overseas are becoming more conscious of what they consume and how they are produced. The products so certified also fetch a higher value in the international market.
- Organising workshops and training programmes for entrepreneurs, managers, workers etc. may help in increasing the awareness of such statutory and voluntary accreditations.

4.4. Branding '*Calcutta Jewellery*' under Geographical Indication

- Jewellery from this region is famous throughout the world by the sobriquet '*Calcutta Jewellery*' for its intricate designs and quality of workmanship. Given its unique craftsmanship, artisans from the State are found working in this sector across India in such designs. As a result, jewellery produced in a similar pattern and design in a distant location like in Tamil Nadu or Maharashtra is passed on as '*Calcutta Jewellery*', without the customers being aware of its origin. The '*Calcutta Jewellery*' has a very huge demand in the Middle East market.
- The possibility of branding '*Calcutta Jewellery*' under the geographical indication (GI) regime should be explored proactively, so as to tap its uniqueness. With GI certification of '*Calcutta Jewellery*' any such product sold, will have to originate from the region. This will not only generate revenues for the State, but will also help to bring back the artisans who have left in search for better opportunities. Besides, such branding will give the exporters as well as the State an edge over others in jewellery trade.

4.5. Support for Quality Improvement

- The State should encourage and provide assistance to the industry, particularly the MSMEs to adopt to the latest quality assurance measures, such as, Good Manufacturing Practices, Hazard Analysis Critical Control Point, ISO 9000, Good Laboratory Practices, Total Quality Management, Food Labelling, Food Packaging and Irradiation Technology etc..
- The following assistance may be provided to the industry, particularly MSMEs, to get quality certification to enable them to introduce quality products in the competitive market:-

- A certain percentage of the charges up to a maximum ceiling amount could be paid for obtaining each certification, national or international, approved by Quality Council of India.
- The State Government may consider reimbursing a certain percentage of the fee paid by the industry to Recognized International Certification Authorities, and meet a certain percentage of cost of procuring testing equipment and machinery towards obtaining the certification, with a ceiling on such reimbursement.

4.6. Marketing Support to Handicrafts

- With a view to providing sustainable market access to artisans for sale of their products, artisans need to be adequately advised and effectively linked with organizations/institutions/agencies that are engaged in marketing. Besides, the State Government may encourage linking up the artisans or artisan cooperatives with the e-commerce platforms.
- Potential exporters may be given the opportunity to participate in buyer-seller meets which will go a long way finding potential markets, and also nurture cross learning with other countries.

4.7. Special Focus on SMEs/Micro Industries

The SMEs and Micro-industries are expected to play a significant role in West Bengal, both in terms of value addition and also in creating employment opportunities. The State may consider making special provisions for the sectors that are predominantly oriented with SMEs and Micro enterprises:

- Adequate number of smaller plots in Industrial Parks for SMEs; developing sheds for Micro-units;
- Special fund for addressing incipient sickness; and

- Special fund for IP registrations/ anti-pirating/ technology transfer and modernization assistance.

4.8. Skill Development & Capacity Building

- Skill development should be nurtured as shortage of skilled workers in traditional industries of the State (leather, gems & jewellery, etc) is likely to impact the growth in exports, especially in MSME segments. The State may consider taking appropriate measures to improve the synergy between the industry and the academia, so that the challenge of non-availability of ready-to employ skilled manpower is addressed. Courses on exports related subjects should be introduced by the various institutes.
- State may consider encouraging capacity building initiatives by industry associations and other organizations for prospective exporters. Capacity of existing exporters would also need to be built, to handle various crucial procedural aspects involved in export trade.

4.9. Replicating the ASIDE Scheme at the State Level

- The Ministry of Commerce & Industry has been administering the 'Assistance to States for Infrastructure Development of Exports (ASIDE)' Scheme, which has been delinked from support by the Centre.

- The main objective of ASIDE guidelines was to involve the States in stimulating the growth of export by providing assistance to the State Governments for creating appropriate infrastructure for development and export promotion.

- The State Government may like to create a similar scheme at the State level. Since in the original scheme 80% of the funds came from the State and rest 20% from the Centre, the State may like to initiate this scheme on a PPP basis. Under this framework, for any identified project the State may contribute a majority share of the cost, while the rest may be invested by private sector.

4.10. Setting up an Export Promotion Board of West Bengal

- West Bengal needs to have an Export Promotion Board in the State; the proposed Board may be headed by the Chief Secretary. The Board may meet every quarter to discuss and address various policy level issues and provide suggestions to enhance exports from the State. The Board should have representation from all the Export Promotion Councils, besides Principal Secretaries, Secretaries of Finance, Industry, Transport and other related departments, representatives of the Director General of Foreign Trade, Export-Import Bank of India, and The ECGC Ltd.

5. INSTITUTIONAL SUPPORT FOR EXPORTS

5.1. Introducing Municipal Bonds

- One of the biggest challenges on the growth front for the State Government has been infrastructure development. Currently Municipal bodies rely majorly on their own revenue sources and the grants they receive from the State and Central Governments. The State or Central Government have budgetary constraints and thus could not meet the requirements of municipal bodies to the fullest extent.
- This is where Municipal Bonds are expected to enter and bridge the funding gap. Conservative Indian investor mainly invests in fixed deposits, small saving schemes or gold. Bonds issued by municipalities having good financial track record would be a good alternative investment opportunity for such conservative investors, as it provides reasonable return with less risk, which in turn may accelerate the capital market.
- 'Muni bonds', as it is called, are very popular among investors in many developed nations and are among preferred avenues for household savings. The Bangalore Municipal Corporation was the first municipal corporation to issue a municipal bond of Rs.125 crore with a State guarantee in 1997. However, the access to capital market commenced in January 1998, when the Ahmedabad Municipal Corporation issued the first municipal bonds in the country raising Rs.100 crore, without the State government guarantee for financing infrastructure projects in the city. Among others, Hyderabad, Nashik, Visakhapatnam, Chennai and Nagpur municipal authorities have issued such bonds.
- The Government of West Bengal may like to introduce such Muni bonds to raise resources to fund infrastructure requirement of Municipal Corporations.

5.2. Building Road Infrastructure

- Road infrastructure is extremely important to enhance industrial and export development in the State. While the Government is in the process of creating an Export Policy for the State, development of 4-6 lanes road and widening them needs to be undertaken with immediate effect, and with completion deadlines. Development of seamless road transportation network is of particular importance to strengthen the State's food processing sector.
- The State is served by 315,404 km of roads having a road density of 3553 km per 1000 sq km of area, which is considerably higher than the national average of 1206 km per 1000 sq km¹³. Keeping in mind the need for speed and quality in connectivity and a growing vehicle population, the State needs to take up infrastructure renewal and expansion program.
- Some of the road stretches which requires strengthening and improvement work are roads connecting West Bengal with the North Eastern States and Bihar. The stretch of NH2 connecting Kolkata to New Delhi also needs to be widened.
- The State Government may seek additional funds from the Jawaharlal Nehru National Urban Renewal Mission, and come up with an action plan which could include the extension and widening of arterial roads, widening and strengthening of secondary roads, construction of pedestrian underpasses, bridges, flyovers, elevated roads, traffic and transportation systems including modern passenger dispersal systems.

¹³ http://mospi.nic.in/Mospi_New/upload/infra_stat_2014/Infra_stasti_valum_I_2014_12sep14.pdf

5.3. Bringing in Competitive Power Suppliers

- For decades, West Bengal had a handful of power distribution companies (CESC, WBSEDCL, DVC, and DPSCCL) who have in a way become sole suppliers in a particular region. It is suggested that by way of allowing multiple suppliers in power distribution, quality power supply and customer service could be ensured, at competitive prices. There exist a huge potential of ushering in competition in the electricity sector in West Bengal on the lines of that has been done in the Indian telecom sector.

5.4. Encouraging ICDs

- Inland Container Depots (ICDs) are dry ports equipped for handling, and temporary storage of containerized cargo. ICDs help hinterland customers receive port services more conveniently closer to their premises. ICDs are also an important part of the rail network for movement of containers.
- West Bengal currently has two ICDs one each at Durgapur and Haldia, managed by the Container Corporation of India. In order to make the State well equipped with export infrastructure, and develop as a Gateway to the 'Look East Policy', the State Government may consider encouraging establishment of more ICDs in the State.
- There are two major areas in West Bengal where more ICDs are required - one is near the Asansol-Durgapur industrial belt (150-200 kms from Kolkata) wherein a lot of industries have come up, and another one in Siliguri, where ICDs can give big boost to the development of trade and international logistics, as Siliguri connects the entire Northeast region of India with West Bengal. With the upcoming dedicated freight corridor between Amritsar and Kolkata,

the need to have new ICDs in other parts of the State may also arise.

5.5. Improving Connectivity at the Land Ports

- West Bengal shares boundary with 3 countries and hence trade through road is quite prevalent. With the signing of the BBIN, this momentum will possibly increase. For example, the Petrapole Land Port by itself draws business of over Rs 20,000 crore annually which is transacted between India and Bangladesh. It is extremely important that the road conditions on these Land Ports are improved.
- It has also been observed that the internet connectivity at the Land Ports Customs is poor. This hinders smooth movement of traffic carrying goods. Improving internet connectivity will go a long way in smoothening the trade flow across these borders.

5.6. Improving the Condition of the Existing Kolkata Port

- The Kolkata Port has tremendous locational advantage. However given the perennial siltation in the Ganges, there occur draft problems. As a result ships have to reduce their load either in other Indian ports or at the mouth of the river (from there they are transported by smaller vessels) to be able to dock at Calcutta port. Similar issues have also been observed at the Haldia port as well.
- While a new port¹³ has been proposed it will take around 5-7 years to complete, steps need to be taken to address the challenges faced by the exporters in the Kolkata Port like - improving the maintenance of roads in and around the port area, creating infrastructure / equipments inside the port for loading and unloading of merchandise, and creation of storage place for hazardous cargo at the Haldia dock.

¹⁴A new deep sea port at Sagar Islands in the Bay of Bengal near the confluence of the Bhagirathi and the sea is being constructed. The deep-sea port with a 14.5 metre draft is aimed at increasing navigability in the region and be gateway to north east and South East Asia

6. CONCLUSION

In the post liberalization era, the export sector of Indian economy has made comprehensive progress resulting in employment generation, speeding up the process of economic development, bringing newer technologies, integrating Indian economy with global economy in general and contributing to country foreign exchange reserves in particular.

West Bengal is endowed with an extraordinary locational advantage as it is not only the gateway to the entire northeastern region of India, but also has the potential to act as the pivot to the development of the eastern states of the country. With rich agricultural land, robust steel producing capability coupled with raw material availability, and booming IT industry, the State has the potential to become as the export hub of the eastern part of the country.

This Strategy Paper elucidates and identifies industries which are traditionally strong in the State and which could be further strengthened, while addressing the challenges. Creating a hi-tech based electronic industry is also suggested given its spillovers in terms of positive job creation, and an appetite for such products both in India and overseas.

The State may also take cognizance of the number of international agreements (connecting Eastern part of India), with which India is a part of it. Leveraging such agreements, the State can further position itself as an Export Hub for India in the Eastern Region. It is also important to take note of the fact that the global trade environment is changing with the culmination of a number of mega trade agreements, which is likely to change the manufacturing landscape, and hence the production processes in the State also needs to get aligned with the altering global value chain.

West Bengal, as it strives towards providing a robust export framework, need to not only make existing industries more competitive, but also need to realize its potential to attract new international and national investments in the manufacturing sector. The State's focus should be on strengthening the existing ecosystem of growth and development, world class infrastructure facilities, that would help create additional employment for urban and rural youth, besides adding value to products that are produced in the State. It is expected that the most significant outcome of this Strategy will be the production of high quality goods at a most competitive price, which would establish the State as an Export Hub of India in the Eastern Region, with high global recognition.

ANNEXURE

List of Electronics and Electrical Products as Defined by UNIDO under SITC Codes

SITC Code	Product Name	SITC Code	Product Name	SITC Code	Product Name
75113	Auto.typ-wrtr,wd-prc mch	77119	Oth.electric transformrs	87141	Stereoscopic microscopes
75115	Oth.elec type-wrtr<=12kg	77121	Static converters	87143	Oth.microscope,photo.etc
75118	Non-elec type-wrtr<=12kg	77123	Ballasts for lamps	87145	Microscopes, nes
75121	Electronic calculators	77125	Other inductors	87149	Parts etc.opt.microscope
75122	Oth.calculating machines	77129	Parts,elec powr machnery	87191	Telescopic sights,scopes
75124	Calculatng cash registrs	77411	Electro-cardiographs	87192	Lasers,excl.laser diodes
75128	Postage-franking,etc.mch	77412	Oth.electro-medicl.equip	87193	Oth.devices,appl,etc.
75131	Electrostatc copier drct	77413	Ultra-violet apparatus	87199	Parts,sights,scopes,etc.
75135	Thermo-copying apparatus	77421	X-ray apparatus	87411	Navigational instruments
75191	Duplicating machines	77422	Alpha,beta,etc.appartus	87412	Parts,navigatnl.instrmnt
75192	Addressing,embossing mch	77423	X-ray tubes	87413	Surveyng etc.instruments
75193	Mail sorting etc.machine	77429	Oth.electro-medicl.parts	87414	Parts,survey etc.instrmt
75199	Office machines, nes	77611	Colour TV picture tubes	87422	Drafting tables,mach etc
7521	Analog or hybrid computr	77612	Bl-white TV pictre tubes	87423	Measurg.tape,rod,etc.nes
7522	Digital computers	77621	TV camera tubes etc.	87424	Parts,draw.meas.appl.etc
7523	Digtl proc,storage units	77623	Other cathode-ray tubes	87425	Measurng.check.instr.nes
7526	Input or output units	77625	Microwave tubes	87426	Parts,checking instrumnt
7527	Storage units,data proc.	77627	Other valves and tubes	87431	Liq.control,measurg.inst
7529	Data proc equipment,nes	77629	Parts,TV tube,elec.valve	87435	Pressure meas.contrl.ins
75991	Parts,type,word-proc.mch	77631	Diodes,not photosensitive	87437	Oth.instrumnts,apparatus
75993	Parts,other office machs	77632	Transistors under 1 watt	87439	Part,meas.check.instrmnt
75995	Parts,calculatng etc.mch	77633	Transistors over 1 watt	87441	Gas,smoke analysis appar
75997	Parts,auto data.proc mch	77635	Thyristors,diacs,triacs	87442	Chromatographs etc.instr
76411	Telephone sets	77637	Photosensitive devices	87443	Spectrophotometers etc.
76413	Teleprinters	77639	Oth.semi-conductr devces	87445	Oth.opticl radiatn instr
76415	Telephonic switchng equip	77641	Digital monolithic units	87446	Chem.etc.analys.inst.nes
76417	Other equip,line systems	77643	Non-digitl monlthc units	87449	Microtomes;pts,meas inst
76419	Oth.telephonic etc.equip	77645	Hybrid integrated circts	87451	Balance 5cg&+ sensitivity
7642	Microph.loudspkrs.amplif	77649	Oth.elec integrtd circts	87452	Demonstration instrument
76421	Microphones,stands etc.	77681	Piezo-elec crystals,mntd	87453	Mechanical test apparats
76422	Loudspeakers,mounted	77688	Parts,diodes etc.crystal	87454	Part,test machines etc.

SITC Code	Product Name	SITC Code	Product Name	SITC Code	Product Name
76423	Loudspeakers,unmounted	77689	Parts,electronic circuits	87455	Hydrometers,barometers etc
76424	Headphones,earphones etc	79211	Helicopters,ULW <=2000kg	87456	Parts,hydrometers, etc.
76425	Audio-frequncy elec ampl	79215	Helicopters,ULW >2000kg	87461	Thermostats
76426	Electrc.sound amplifiers	79282	Balloons, dirigibles etc	87463	Pressure regulators etc.
76431	Transmission apparatus	79283	Aircraft launchrs etc.pts	87465	Oth.control.etc.instrmnt
76432	Transmssn,receptn appart	79291	Propellers,rotors, parts	87469	Parts,automtc regulators
76481	Radioteleph.etc.receiver	79293	Under-carriages, parts	87471	Instr,meas.ion.radiation
76482	Television cameras	79295	Oth.parts,aeroplanes etc	87473	Cathode-ray oscilloscops
76483	Radar apparatus, etc.	79297	Oth.parts,nes aircraft	87475	Voltammeter,voltameters
76491	Prts,line telephny equip	87111	Binoculars	87477	Othr.instrument,telecomm
76492	Parts,microph etc.appar	87115	Othr.optical instruments	87478	Oth.elec.measuring instr
76493	Part,TV,telecom,etc.eqpt	87119	Parts,etc.optical instrs	87479	Parts,oscilloscopes etc.
76499	Parts sound record.equip	87131	Non-optical microscopes		
77111	Liquid dielec transformrs	87139	Parts,non-optc.microscps		

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