

## Export Prospect and Performance of APEDA Products: A Study in the State of Assam

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### Abstract: -

Assam records the highest exporting value amongst the Northeast region and is rich in agricultural and horticulture commodities and can be the trade hub for Agri-exports due to its type of soil and climatic advantages. The study has determined the comparative advantage using the Revealed Comparative Advantage Index of agricultural products of the state in the country's agricultural export basket and replicated the export trajectory and calculated the CAGR, AAGR of the value and quantity of exports. It is revealed that the agricultural produce has the advantage in the export of the country and growth in export has shown a positive trend.

**Keywords:** Export, Growth, Revealed Comparative Advantage, Act East Policy, APEDA,

### Introduction:

Agriculture is the key role player in the economic growth and development of India for decades now. The country's richness in different spices, herbs, organic plants, fruits, rice, wheat, and dairy products is well recognized today in the global market. In the financial year 2020-21, India exported total agricultural commodities of US\$17.19 billion worldwide and also became the largest milk producer in the world.<sup>1</sup> The shift in the focus of building relations with South-East Asian countries can be depicted after the launch of the Look East Policy in 1991 which was again fabricated in the year 2014 by announcing the Act East policy by the Government of India. These policies ensure making the North-Eastern Region of India, the trade

hub that connects to the neighbouring countries of the country which includes Bhutan, Bangladesh, China, Myanmar, and Assam is the largest economy of the region, and so the impact on Assam is seen to be positive. The state of Assam records the highest growth in its export value and volume in the region and contributes almost 70% to the region's total export. Therefore, it becomes indispensable to study the export trajectory scenario of Assam post Act East Policy 2014. The state has the potential to be the key producer of agricultural products due to its favourable climatic condition which can be the developmental factor for the exporters of the state. Agricultural exports from the state were recorded at Rs 43857.2877 lacs in the year 2014-15 and Rs 182775.09 in 2020-21 which shows an increase of

<sup>1</sup> (Foundation, 2022)

316.75% in the exported value<sup>2</sup>. With the increase of export potential from the region, the scope and opportunities for export and agro-entrepreneurship have been enlarged in the state of Assam and also it has magnified the concept of Atmanirbhar Bharat which was announced by the Prime Minister of India in view of the Pandemic. The present study has been conducted to evaluate the competitiveness of Agri products of the state in the global market. Moreover, the researcher also has shown the growth and trend of Agri exports from the state.

**Objectives:** - To evaluate the export prospect and performance of Assam in regard to APEDA products.

**Data and Research Methodology:** - Agricultural and Processed Food Products Export Development Authority was established under the APEDA Act, 2009 by the Government of India to outlook the development and export promotion of its scheduled products. APEDA's catalogue of products includes the following: -

**List of Products under Agricultural and Processed Food Products Export Development Authority**

1. Fruits, Vegetables, and their Products.
2. Meat and Meat Products.
3. Poultry and Poultry Products.
4. Dairy Products.
5. Confectionery, Biscuits and Bakery Products.
6. Honey, Jaggery and Sugar Products
7. Cocoa and its products, chocolates of all kinds.
8. Cashew

9. Alcoholic and Non-Alcoholic Beverages.
10. Cereal and Cereal Products.
11. Groundnuts, Peanuts and Walnuts.
12. Pickles, Papads, and Chutneys.
13. Guar Gum.
14. Floriculture and Floriculture Products
15. Herbal and Medicinal Plants.
16. Processed fruits and vegetables

The researcher has analysed the export performance of Agri exports for the last 15 years i.e. from 2007-08 to 2021-22 which includes both the period of pre and post-act east policy. 2007-08 to 2013-14 is considered as the period of Pre-Act East policy and from 2014-15 to 2021-22 is considered as the period of Post Act East Policy. For the purpose of examining the prospect of the Agri products in the export basket of the country, the researcher has calculated the Revealed Comparative Advantage Index for the period of Post-Act East Policy from 2014-15 to 2020-21 as total commodity export from Assam could not be obtained by the Researcher for the year 2021-22.

To study the export prospect of APEDA products of Assam, it is important to ascertain its comparative advantage in the country's export of the same commodities. The researcher, in the present study, has used the Revealed Comparative Advantage (RCA) Index method as discussed by (Balassa, 1965) and considered it as the vital factor for determining the export prospect of APEDA products from the state. RCA is an index that shows the comparative advantage of a particular product or an industry in the national market to predict its export potential and

<sup>2</sup> (Commissionerate of Customs (Preventive), 2022)

prospects. (Chaudhary, 2016). The formula for calculating Revealed Comparative Advantage is as (Laursen, 1998)

$$RCA = \frac{x_{in}}{x_i} \times \frac{x}{x_n}$$

Where  $x_{in}$  implies total export of APEDA products from the state of Assam;  $x_i$  implies total export of APEDA products from India;  $x$  implies total export of India and  $x_n$  implies total export of Assam. (Dholakia, 2003). In the present study, the Researcher has calculated the RCA and RSCA index value of the commodities which are being exported from the state throughout the period starting from 2014-15 to 2020-21. Data on the total export of all commodities from India is collected from the official website of the Department of Commerce & Industry, Department of Commerce, Government of India. The total export of all commodities from Assam is collected from the office of the Commissioner of Customs (Preventive), North-eastern Region, Shillong, Meghalaya. A country or a state or a region is said to have a comparative advantage over a product or industry if the value of  $RCA > 1$  and the country is said to have a comparative disadvantage if the value of  $RCA$  is less than Unity (Laursen, 1998). To avoid the drawback of ‘asymmetry’, improvisation to the index of  $RCA$  i.e.  $RSCA$  (Revealed Symmetric Comparative Advantage) as adapted from (Laursen, 1998), (Startienė, Remeikienė, 2014), has been calculated as follows: -

$$RSCA = (RCA - 1) / (RCA + 1)$$

The value of  $RSCA$  ranges from -1 to +1. If the calculated value is greater than zero,

then it is indicated that there is a comparative advantage and vice versa.

For determining the export performance of APEDA products from Assam, the second indicator is identified as the growth trend and behaviour of the exports from the state. Data on the export of APEDA products from the state for the last 15 years i.e. from 2007-08 to 2021-22 which includes both the era of pre and post-Act East Policy has been considered. Also to analyse the growth trend and behaviour of export, Compound Annual Growth Rate is used by applying the following formula to calculate the CAGR: -

$$CAGR = \left( \frac{\text{Ending Value}}{\text{Beginning Value}} \right)^{(1/n)} - 1$$

Where,  $n$  = no. of years/ period

$$AGR \text{ (Annual Growth Rate)} = \frac{\text{Absolute Change}}{\text{Previous year value}}$$

Also, the Annual Average Growth Rate is calculated by using the following formula: -

$$AAGR = \frac{x_1 + x_2 + x_3 + \dots + x_n}{N}$$

Where,  $x_1$  = AGR of export in year 1,  $x_2$  = AGR of export in year 2 and so on

$N$  = No. of years

**Analysis and Interpretation:** -After the launch of the Act East Policy, the number of exporters has increased multiple folds looking into the new opportunities broadened in exporting business. There is a total of 225 registered exporters as on 04<sup>th</sup> May 2022 in regard to exporting APEDA products and Barak valley has the highest number of such exporters. With the increasing number of exporters in the state, it becomes vital to understand the prospects of those products in the world market. In the study, the Revealed Comparative

Advantage Index, as shown in Table 1 has been calculated for the said purpose.

**Table 1:- RCA and RSCA index of different APEDA products exported from Assam during 2014-15 and 2020-21**

Commodities	2014-15		2015-16		2016-17		2017-18		2018-19		2019-20		2020-21	
	RCA	RSC												
Floriculture	-	-	-	-	-	-	-	-	-	-	0.54	-0.29	-	-
Fruits & Vegetable	-	-	-	-	-	-	-	-	-	-	-	-	0.04	-0.92
Fresh Onion	-	-	-	-	-	-	-	-	0.01	-0.96	0.03	-0.94	1.28	0.12
Other Fresh Vegetables	0.09	-0.82	0.09	-0.82	0.04	-0.92	1.09	0.04	2.54	0.44	0.07	-0.86	0.11	-0.8
Walnuts	-	-	-	-	-	-	-	-	-	-	-	-	0.02	-
Fresh Mangoes	0.16	-0.72	0.31	-0.66	0.07	-0.86	-	-	0.19	-0.68	-	-	-	-
Fresh Grapes	-	-	0.02	-0.96	0.03	-0.94	0.12	-0.79	0.85	-0.08	0.09	-0.82	0.94	-
Other Fresh Fruits	7.76	0.77	7.72	0.77	12.6	0.85	40.2	0.95	54.2	0.96	31.9	0.94	3.29	0.53
Others(Betel leaves & Cucumber & Gherkins)	-	-	-	-	-	-	11.4	0.84	7.99	0.78	0.29	-0.55	0.04	-0.92
Processed Vegetables	-	-	-	-	-	-	-	-	-	-	-	-	0.00	-0.99
Processed fruits, juices	-	-	-	-	-	-	-	-	0.15	-0.73	0.38	-0.44	0.32	-0.51
Pulses	-	-	-	-	-	-	-	-	-	-	0.00	-0.99	0.06	-0.89
Dairy Products	-	-	-	-	-	-	-	-	0.04	-	-	-	0.66	-0.2
Natural Honey	-	-	-	-	-	-	-	-	1.74	0.27	11.4	0.84	11.2	0.84
Casein	-	-	-	-	-	-	-	-	-	-	-	-	0.00	-0.99
Ground Nuts	-	-	-	-	-	-	-	-	-	-	32.8	0.94	-	-
Jaggery & confectionary	-	-	-	-	-	-	-	-	-	-	-	-	0.00	-0.99
Cocoa Products	-	-	-	-	-	-	-	-	0.00	-0.99	0.06	-0.89	0.73	-0.15
Cereal Preparation	-	-	-	-	-	-	-	-	0.02	-0.96	0.00	-0.98	0.16	-0.72
Milled Products	-	-	-	-	4.61	0.64	1.34	0.15	0.93	-	2.78	0.47	2.99	0.49
Alcoholic Beverages	-	-	-	-	-	-	-	-	-	-	-	-	2.26	0.39
Misc. Preparation	-	-	-	-	-	-	0.33	-	-	-	-	-	0.00	-0.99
Basmati Rice	-	-	-	-	-	-	-	-	0.19	-0.68	0.73	-0.16	0.46	-0.37
Non-Basmati Rice	-	-	-	-	-	-	-	-	-	-	-	-	0.07	-0.86
Wheat	0.01	-0.97	-	-	-	-	-	-	-	-	0.03	-0.94	0.9	-0.05
Maize	-	-	-	-	-	-	-	-	-	-	-	-	0.00	-0.99
Other Cereals	-	-	-	-	-	-	-	0.02	-0.96	-	-	-	0.00	-0.99
Cashew Kernels	-	-	-	-	-	-	-	-	-	-	-	-	0.00	-0.99

Source: - Self-Computed

Table 1 shows that different commodities have had a comparative advantage in different periods. The commodity name ‘Other Fresh Fruits’ has a comparative advantage throughout the period of post-

Act east policy i.e. from 2014-15 to 2020-21. Since an RCA value of more than 1 and an RSCA value of more than 0 implies having a comparative advantage, it can be concluded that the export of fresh fruits

other than mango and grapes has an advantageous position in the country's export of fresh fruits. Moreover, in the year 2017-18, 2018-19 and 2019-20, the value of the RCA index was recorded at 40.25, 54.29 and 31.95 which depicts a higher competitiveness of the state's export in the national export of fresh fruits.

The item 'fresh onion' had a comparative advantage in 2020-21 with an RCA and RSCA value of 1.283 and 0.12 and the item 'other fresh vegetables' was in an advantageous position in 2017-18 and 2018-19 with RCA value of 1.09 and 2.54 respectively. Betel (leaves & Nuts) which was mostly exported from the state of Meghalaya had a comparative advantage in

2017-18 and 2018-19 and the export of Dairy Products which was exported from 2018-19 also had a comparative advantage throughout the years from 2018-19 onwards. The items under the head 'Cereal Preparation' had comparative advantage from 2016-17, 2017-18, 2019-20 and 2020-21 with RCA values of 4.61, 1.34, 2.78 and 2.99 respectively. Milled Products have gained a comparative advantage in the year 2020-21 with RCA and RSCA values of 2.26 and 0.39. An item 'Casein' which was being exported from the state only in the year 2019-20, had a comparative advantage during that period which also can be considered as a prospective item in the export basket of Assam.

**Table 2: Showing export of APEDA products from Assam and Average Growth Rate over the years**

Year	Total Quantity Exported (kg)	Total Value of export (in lacs)	AGR (of Quantity exported)	AGR (of the value of exports)
2007-08	1502506	107.94	-	-
2008-09	1485696	119.97	1.119 (A)	11.15 (F)
2009-10	1048818	105.77	29.40 (A)	11.84 (A)
2010-11	577166	68.08	44.96 (A)	35.63 (A)
2011-12	551427	99.01	4.46 (A)	45.43 (F)
2012-13	15751282	271.06	2756 (F)	173.77 (F)
2013-14	2848902	514.73	81.91 (A)	89.9 (F)
2014-15	1498031	202.57	47.42 (A)	60.64 (A)
2015-16	2463486	433.37	64.45 (F)	113.94 (F)
2016-17	5162756	1693.84	109.57 (F)	290.85 (F)
2017-18	12616195	3437.18	144.37 (F)	102.92 (F)
2018-19	10583906	3481.41	16.11 (A)	1.29 (F)
2019-20	10159037	3969.70	4.01 (A)	14.03 (F)
2020-21	18031365	7588.15	77.5 (F)	91.15 (F)
2021-22	27966873	11613	55.10 (F)	53.04 (F)

Source: - apeda website

**Exports of APEDA commodities from Assam through different Ports during Pre and Post-Act East Policy: -**

The state of Assam has seen a different trading scenario in the Post Act East phase. Total export from Assam stood at US\$ 415.57 million in the financial year 2020-21. After the launch of the Act East Policy, the number of exporters has

drastically increased across the state and also entrepreneurs are highly motivated to undertake the export business. The following table shows the total quantity of APEDA products exported and its total value from Assam to different countries during the period of Pre and Post Act East Policy considering 7 years prior and 8 years after the announcement of Act East Policy.

**Table 3: Calculation of CAGR and AAGR of Export in different periods: -**

Year or period	CAGR		AAGR	
	Quantity exported	Value of export	Quantity Exported	Value of Export
2007-08 to 2021-22	22%	36%	198.51%	58.62%
Pre-Act East Policy (2007-08 to 2013-14)	9.36%	24.45%	370.6%	38.98%
Post Act East Policy (2014-15 to 2021-22)	44.18%	65.88%	46.28	75.82%

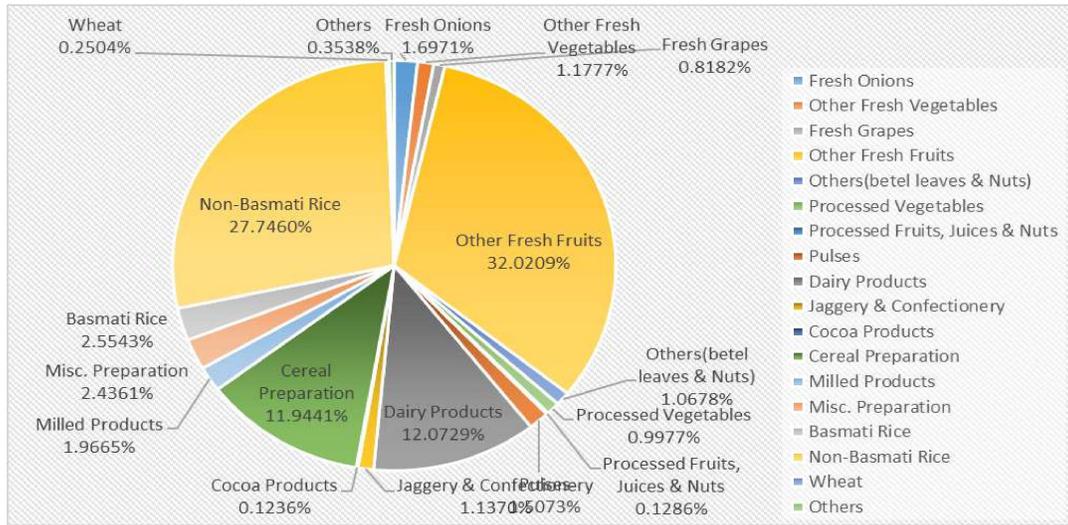
Source: - Self-computed

Table 3 shows the CAGR of export value and quantity has increased by 65.88% and 44.18% respectively in the Post-Act East Policy period which is a positive trend and the AAGR of exported value is at 75.82% in the Post-Act East era while it was only 38.98% in the era of Pre-Act East Policy. Moreover, the overall Compounded Annual Growth Rate of quantity and value of export of select Agri products in the last 15 years is at 22% and 36% which also is the epitome of growth of export business in the state. It is evident from the table that the growth has been favourable and positive despite of the outbreak of Covid-19 pandemic in the last two years.

Amongst the various product under the catalogue of APEDA, 27 products are so far exported from Assam and that includes fresh fruits, onions, mangoes, dairy products, etc. The most exported product with a 32.02% share in the export basket from the state is ‘other fresh fruits’ that include banana, Assam lemon, pineapple, papaya, Jackfruit, etc. followed by non-Basmati Rice with 27.75%. Dairy products and cereal preparation also contributed 12.073% and 11.94% respectively in the basket. ‘Others’ with 0.354% includes natural honey, cashew kernels, walnuts, fruits and vegetable seeds, casein, etc. It is also observed that with the increase in the number of exporters, the value of exports

along with quantity is also following a positive trend in the state of Assam.

**Fig 1: Product-wise Export from Assam to the world: -**

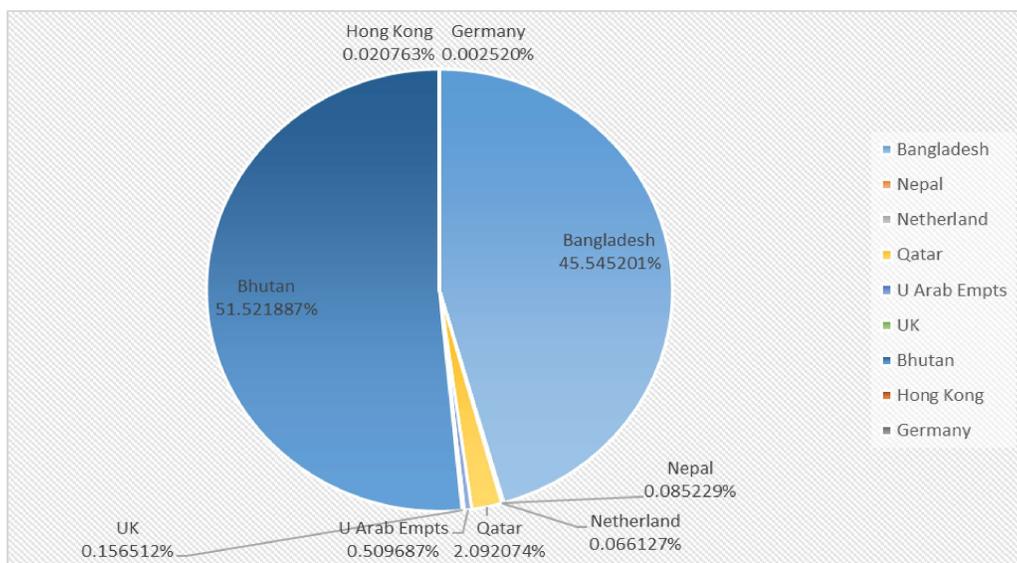


Source: - official website of APEDA

Bangladesh was the major importer till 2017-18 but when the exporting was resumed to Bhutan in 2018-19, the scenario changed, and Bhutan became the major importer of select Agri-products from Assam with Rs.6221.17 lacs in the

year 2020-21 and Rs. 10235.65 lacs in 2021-22. Fig 2 shows that Bhutan imports 51.5% of the total value of exported APEDA products followed by Bangladesh with 45.55%.

**Fig 2: Country-wise export of APEDA products from Assam**



Source:- official website of APEDA

Moreover, in recent years, export to other countries like UK, UAE, Germany, Netherlands, Qatar, Hong Kong and Nepal is also recorded which replicates the creation of a market for Assam's products in the global market. Products exported to countries like UK, UAE, Germany, and Netherlands include cereals, alcoholic beverages, fresh fruits, fresh onions, maize, pulses and processed vegetables.

**Conclusion: -**

Assam, the largest economy of the northeastern region has witnessed the beginning of a new era of exporting business after the Act east policy. Though the state has been exporting for decades now, the contribution was very minimum which may be due to a lack of infrastructure, communications, trade relations and productive advantage. A new phase has started with the new policies coming in which emphasized making NER the trade hub of trade. In the study, the researcher has analyzed the export performance of APEDA products from the state of Assam by taking comparative advantage as the factor for determining the prospects and growth and trend of export for the last 15 years is taken as the factor for determining the export performance of the state. It is revealed from the study that, Assam has a comparative advantage in many agricultural products that include dairy products, fresh fruits, betel leaves and nuts, milled products, cereal preparation, non-basmati rice, etc. and also they are the most exported Agri product of Assam. Therefore, it has the probability that the agricultural product of the state has a comparative advantage in the export of the country. The Government must take steps to modernize the Land Customs Stations for

smooth trading with the bordering countries and to increase export from the state, commercial production of agricultural and horticultural products must be encouraged. Secondly, the study has presented the growth and trend of the export of APEDA products, and it is found that the growth is positive and increasing year by year. The outbreak of Covid 19 in the last few years can also be the reason for slow growth. To conclude, the study revealed a positive trend and growth in the export of agricultural and allied products and since the products have a comparative advantage in the country's market, it can be stated that there is a prospect of exporting business in the state of Assam.

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