

AN ANALYSIS OF VALUE ADDITION IN AGRO PRODUCTS AND ITS IMPACT ON THE EXPORT POTENTIALS OF INDIA

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ABSTRACT

The agriculture and agro based processing industries were a key solution area of our problems relating to insufficiency of food and value added food products in India. It attracts foreign reserve and domestic utilities of food products which creates standard of living of the people. Export plays a significant role in the economic development of a country by enabling national income through the effects of foreign trade multiplier. India witnessed self sufficiency in food production only during the decade of eighties. Agro processing sector is one of the largest sectors in India in terms of production, growth, consumption, and export of value added agro products. The diverse agro- climatic zones make it possible to grow almost all varieties of fresh fruits and green vegetables in India. The fruit and vegetable processing industry in India is highly decentralized having wide capacities. It is envisaged that India should be the food factory of the world so as to generate income, employment and foreign exchange in a big way, through significant increase in level of processing and achieve higher growth through value addition.

Key words: Value Addition, Agro Processing, GDP, Agro Exports

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1. INTRODUCTION

The wide range of topography, soil quality and climatic conditions that describes India makes her agriculture advantageous for producing a large number of crop and non-crop products. The possibility of processing some of these products to value added items signifies sizeable potential for the development of the agricultural sector in India. Though India has a strong raw material base, it has been unable to tap the real potential for processing. The processing units based on grains, horticultural products, livestock products and fish have ample opportunities. India being an agrarian economy, development of agro based industries that make use of produces of agriculture becomes imperative for sustained economic development. The growth in agro based industries has a big potential to trigger development through adding value to the produce, generating employment opportunities and increasing farmer's net income. This in turn motivates the farmers for better productivity and opens up possibilities of industrial development. The processed and value added agro products also have great export potential.

2. OBJECTIVES OF THE STUDY

- To analyse the significance of value added agro products in India.
- To evaluate the relevance of agriculture and value added agro products in export markets.

3. REVIEW OF LITERATURE

Ahuja and Ahuja (2010) made a study on pace and pattern of major vegetable cultivation in India. They argued that global transformation in the food system, change in the consumption pattern away from the rice, wheat and pulses and health consciousness are causing major shift in the focus towards the vegetables. Increasing recognition of the vegetables for nutritional values in human diet, the demand for vegetable is greatly increasing. It was observed that India's share in world production of vegetable is 15 per cent and India is the largest producer of vegetables.

Gopalan (2014) is study on 'neera', reported that production and marketing of neera is expected to boost income of coconut farmers. Neera is a sap extracted from the inflorescence of coconut palm and it is sweet, white in colour and translucent. It was observed that neera is popular in many parts of India, Srilanka, Malaysia, Indonesia, Thailand, Myanmar and Africa as a delicious drink of high nutritive value, taste and agreeable flavour. Marketing of neera as 'chilled neera' turned to be very promising health drink much suitable in hot climate. It was noted that neera contains several minerals, salt, and riboflavin, and it helps to build body and improves digestion. Neera Board which will monitor the quality of beverage and various products made from it as jaggery, candy, sugar and chocolate. 'Padaneer' is the name by which neera is traded in Tamilnadu.

Reddy and Reddy (2010) in their study on econometric analysis of supply response of cotton crops in Andrapradesh observed that agriculture is the largest sector of economic activity and plays a crucial role in the country's economic development by providing food and raw material and employment to a large proportion of population. Agriculture progress is normally regarded as a pre request of economic development. They argued that in order to supply adequate food and nutrition to the growing population, the rate of agricultural production should be higher than the rate of growth of population. It was also observed that nearly one third of India's industrial output depends up on the supply of agricultural commodities. The agricultural sector creates demand for more and new industrial goods. It was noted in the study that cotton is an important commercial crop in India, it generated employment for 60 million people directly or indirectly involved in the agriculture and industrial sectors of cotton productions, processing, textiles and related activities. India's rank in cotton production is third in the world.

Thalathi and Naik (2008) in their study on Indian agriculture and agribusiness management, writes that the term agro-industries has acquired new significance in recent years in the wake of growing need of interdependence between agriculture and industry. The concept of agro industries is confined only to those industries that are engaged in the processing of agricultural produce such as food crops, oilseeds, fruits and vegetables either for consumption or for use of industry and to those industries which produce input for agriculture such as fertilisers and farm implements.

The journal of Agri Export Advantage (2014) reported that India is a second largest producer of garlic with a share of 4 per cent in world production. China is a leading supplier of garlic followed by India and Vietnam. Indonesia and Brazil are the largest importers of garlic. It was observed that the export of garlic from India has been showing a rising trend. The garlic exports in 2013-14 have increased at a growth rate of 3.4 per cent. It was noted that the production and processing of garlic in India are very low. The reasons behind this are non usage of improved seed varieties, poor pest control measures, limited uses of agro processing techniques and inefficient post harvest management. There is a need to produce high quality, clean and residue free garlic at competitive prices. Improvement in post harvest processing and storage system and educating the farmers hygienically would help to promote garlic exports from India.

4. RESEARCH METHODOLOGY

This paper based on secondary data and information has been sourced from various books, journals, reports published by department of agriculture and co-operation of government of India, directorate of economics and statistics, statistical year book-2015, data book of central statistical organization (CSO) etc and are descriptive in nature

5. SIGNIFICANCE OF AGRICULTURE IN INDIAN ECONOMY

A remarkable feature of any economy is that depends on agriculture and contributes national income to some extent for boosting the country like India. Agriculture is an important economic sector and offers plenty of employment opportunities. According to the latest India's census (census 2011) more than 60 per cent of the work force in the country depends on agriculture. The growth of most of the industries depends on agriculture. This is one of the sources of supply as in the form of raw materials to industry. There are many industries which depend directly or indirectly on agriculture. Industries such as cotton, jute, textile, sugar etc depend up on agriculture directly. Many of our small and cottage industries, handloom, oil industry, rice mills and sugar mills indirectly depend upon agriculture for their raw materials. People engaged in agriculture also buy the products of industries like-tractors, pesticides, fertilizers, pump-set etc. It contributes about sixteen percent (16 per cent) to total Gross Domestic Product (GDP) of the country.

Agriculture contributes in foreign exchange of the nation. India exports agricultural products like tea, coffee, sugar, tobacco, fruits, vegetables and spices contribute a major share in India's export basket. Exports from the agricultural sector have helped India in earning valuable foreign exchange and thereby boosting economic development. Land revenue, excise duty on agro-based goods, taxes on production and sale of agricultural machinery etc forms a good part of sources of Govt. revenue. In recent years the importance of agro processing industry is being recognized both for generation of income and employment.

6. AGRO PROCESSING AND VALUE ADDITION

Agro processing is the conversion of agricultural product to substances which have particular textural, sensory and nutritional properties using commercially feasible methods. It is necessarily a process of value adding activity to agricultural production and thus makes agriculture a more effective contributor of industrial growth. This process involves

transformation of the raw materials into final consumer goods or intermediate goods and thus results in increase in value addition. The value adding processes range from simple preservation to production of high value products. For example, a farmer cultivates paddy on his farm and the paddy plants produce paddy, straw, husk, bran, and rice kernel. Paddy has a potential of supporting a number of processing industries such as rice mills, solvent extraction plant for rice bran oil, processing of husk for variety of products and straw paper or board mills and the processing of these raw materials opens up large value addition possibilities.

Agro processing adds value to the agricultural, horticultural, livestock and fisheries products by using various value addition techniques which enhances their shelf life. It leads to diversification of agricultural activities, improves value addition opportunities and creates surplus for export of processed agro products. Agro processing often goes simultaneously with agricultural diversification as perishable products like meat, milk, poultry, fruits and vegetables, often termed as High Value Products (HVPs), are in greater demand of processing. Faced with the current economic realities, farmers worldwide are searching for new options of surviving, as well as expanding their agro business.

7. AGRO EXPORT FROM INDIA

Export plays a significant role in the economic development of a country by enabling it not only to play for its import requirements but also leading to the multiple expansions in the national income through the effects of foreign trade multiplier. It is even more important for a developing country like India which needs foreign exchange for financing its ongoing as well as new projects to generate employment opportunities, achieve higher rate of growth of income, implement poverty alleviation programmes, improve the standard of living of its people and stabilize the price level. Export from the developing countries may be stimulated and provided fair trading opportunities in International markets. Increasing international demand for Indian agricultural commodities offers plenty of opportunities to Indian agricultural exporters. India is a better position in comparison to several other countries of the world as it has vast land resources. India witnessed self sufficiency in food production only during the decade of eighties. India's agricultural exports generally are yet to become truly competitive on a global scale and continue to suffer from a number of critical problems such as lower productivity and yield, adverse export prices, low quality of products compared to international standards, stiff competition from other countries etc. The relative share of agriculture in total exports has been falling over time and is also lower than that of some other developing countries. While the declining share of agricultural exports in total exports is explained primarily in terms of the relatively faster growth in the volume of merchandise exports.

Export of Agricultural Products from India**(Value in Rs.Crores)**

Financial Year	Total National Export	Total Agricultural Export	Percentage of Agricultural Export to Total Export
1990-91	32527.28	6012.76	18.49
1991-92	44041.81	7838.13	17.80
1992-93	53688.26	9040.30	16.84
1993-94	69748.85	12586.55	18.05
1994-95	82673.40	13222.76	15.99
1995-96	106353.35	20397.74	19.18
1996-97	118817.32	24161.29	20.33
1997-98	130100.64	24832.45	19.09
1998-99	139751.77	25510.64	18.25
1999-00	159095.20	25313.66	15.91
2000-01	201356.45	28657.37	14.23
2001-02	209017.97	29728.61	14.22
2002-03	255137.28	34653.94	13.58
2003-04	293366.75	37266.52	12.70
2004-05	375339.53	41602.65	11.08
2005-06	456417.86	49216.96	10.78
2006-07	571779.28	62411.42	10.92
2007-08	655863.52	79039.72	12.05
2008-09	840755.06	85951.67	10.22
2009-10	845533.64	89341.33	10.57
2010-11	1142921.92	117483.61	10.28
2011-12	1465959.39	187609.33	12.80
2012-13	1634318.25	224099.90	13.71
2013-14	1905011.84	259597.03	13.63
2014-15	1897786.04	236402.89	12.46

Source: Annual Report, Director General of Commercial Intelligence and Statistics (DGCIS), Ministry of Commerce-Kolkatta-2014-15.

It is observed that the percentage share of contribution of products to total national export is showing a continuously declining trend. During 1990 percentage share of agro exports to total national exports down to 12.46 per cent in 2014 national export is slightly increased to 19.18 per cent. In 2005-06 and 2010-11, the percentage share of agro exports per cent and 10.28 per cent respectively. Then the next two years, that is in 2011 it is slightly increased to 12.80 falling down to 13.63 per cent. This declining trend especially in the post globalization and liberalization periods limit agro exports from India, mainly due to shrinkage of agricultural production, lack of surplus availability of products for exporting, unfavorable export conditions including market conditions, form of product, government regulations and policies

8. EXPORT OF PROCESSED AGRO PRODUCTS IN INDIA

Agro processing sector is one of the largest sectors in India in terms of production, growth, consumption, and export. India's agro processing sector includes fruit and vegetables, spices, meat and poultry, milk and milk products, alcoholic beverages, fisheries, plantation, grain processing and other consumer product groups like confectionery, chocolates and cocoa products, soya based products, high protein foods etc. The agro processing industry in India is mainly export orient and most of the processed agro products have better foreign demand. India's geographical situation gives it the unique advantage of connectivity to Europe, the Middle East, Japan, Singapore, Thailand, Malaysia and Korea. India's location advantage is clearly understand from the value of trade in agriculture and processed products between India and Gulf region.

India is the major producer of dried and preserved vegetable like preserved onions, cucumber and gherkins, provisionally preserved mushrooms of the genus agaricus, other mushrooms and truffles, green pepper in brine, dehydrated garlic powder, dehydrated garlic flakes, Potatoes dried, grams dal, etc. Many non-traditional vegetables mainly processed cucumber and gherkins and other vegetables produced like asparagus, celery, bell pepper, sweet corn, green and lime beans and organically grown vegetables are also being increasingly exported.

The fruit and vegetable processing industry in India is highly decentralized having wide capacities. The diverse agro- climatic zones make it possible to grow almost all varieties of fresh fruits and green vegetables in India. India is the second largest producer of fresh vegetables in the world, ranks next to China and accounts for about 15 per cent of the world's production of vegetables. Since liberalization and withdrawal of excise duty on fruit and vegetable products there has been significant rise in the export of processed fruits and vegetables.

As per Vision 2015 of the Ministry of Food Processing Industries, it is envisaged that India should be the food factory of the world so as to generate income, employment and foreign exchange in a big way, through significant increase in level of processing and achieve higher growth through value addition, increasing India's share in global and achieve quality image for Indian products in domestic as well as overseas market.

Export of Processed Agro-Products from India

(Value in Rs. Crores)

Financial Year	Total national Export	Export of Processed Agro-products	Percentage
1990-91	32527.28	251.02	0.77
1991-92	44041.81	314.69	0.72
1992-93	53688.26	415.36	0.78
1993-94	69748.85	689.20	0.99
1994-95	82673.40	716.32	0.87
1995-96	106353.35	1614.39	1.52
1996-97	118817.32	2256.56	1.90
1997-98	130100.64	2197.05	1.69
1998-99	139751.77	1175.32	0.84
1999-00	159095.20	2417.23	1.60
2000-01	201356.45	3096.95	1.54
2001-02	209017.97	2798.91	1.34
2002-03	255137.28	2832.88	1.12
2003-04	293366.75	3372.33	1.15
2004-05	375339.53	3651.25	0.98
2005-06	456417.86	5475.96	1.19
2006-07	571779.28	6095.63	1.06
2007-08	655863.52	6765.63	1.04
2008-09	840755.06	8949.56	1.06
2009-10	845533.64	8662.93	1.02
2010-11	1142921.92	12264.92	1.07
2011-12	1465959.39	32174.79	2.19
2012-13	1634318.25	38150.84	2.33
2013-14	1905011.84	31611.48	1.66
2014-15	1897786.04	31649.99	1.67

Source: Annual Report, Director General of Commercial Intelligence and Statistics (DGCIS), Ministry of Commerce and APEDA Statistics

Note: Processed Agro-Products comprises of Processed Fruits and Vegetables and Other Processed Food items as Per APEDA Classification.

The facts to be understood that the export of processed and value added agro products from India is showing an increasing trend even though the total agricultural export is showing decreasing trend. That means the export potentiality of processed and value added agro products are more than that of raw agro products. However a small percentage of agricultural products are going for processing and value addition in India. The percentage share of processed and value added agro products to total agriculture export is about 15 percent and only around 2 percentage to total national export.

During the year 1990-91 the percentage share of processed agro products to total export from India was only 0.77 percent and in 1995-96 it has increased to 1.52 percent. In 2000-01 and 2005-06 it again increased to 1.54 and 1.19 percentage respectively. In 2010-11 the percentage share of processed agro products to total agro export is slightly decreased to 1.07 per cent and in subsequent years it is considerably increased and balanced. In 2011-12 and 2012-13 the contribution of agro processed products to total agriculture exports accounts to 2.19 per cent and 2.33 respectively. In the last two years the per cent share of processed agro products to total agro export is decreased to 1.66 per cent in 2013-14 and 1.67 per cent in 2014-15.

In 1990-91 the export of agriculture products in India was compared with value added agro products gives the changes of 4.18 per cent and in 1995-96 it has increased to 7.10 percent. In 2000-01 and 2005-06 it again increased to 10.81 and 11.13 percentage respectively. In 2010-11 the percentage share of processed agro products to total agro export is slightly decreased to 10.44 percent and in subsequent years it is considerably increased. In 2011-12 and 2012-13 the contribution of agro processed products to total agriculture exports accounts to 17.15 per cent and 17.02 respectively. In the last two years the per cent share of processed agro products to total agro export is decreased to 12.18 per cent in 2013-14 and 13.39 per cent in 2014-15.

9. CONCLUSION

Agro processing industry is widely recognized as a sunrise industry in India having huge potential for uplifting agricultural economy by exposing traditional Indian agriculture to modern technologies, creating large scale processed food manufacturing and food chain facilities and consequently generate employment and export earnings. The decreasing trend in the production of agriculture product largely depends the value added agro products in export market. But the processing of agro products divert the market in the national and international level and create multi-dimensional opportunity to agriculturist and agro processing industries in India. The key to the GDP of India basically to some extent depends on agriculture and value added products in India. But one of the limitations for value addition that the cost of implementing sophisticated technologies is not at all absorb by a common business man. To concluded that the quality of agricultural output and efficiency of processing technology or value addition have influenced a great extent for the socio-economic development of the country

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