

## **Export Potential of Soyabean From India: A Trend Analysis**

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*Agriculture plays a crucial role in the life of an economy. It is the backbone of our economic system. Agriculture not only provides food and raw material but also employment opportunities to a very large proportion of population.. In India the main occupation of working population is agriculture. About 70 per cent of our population is directly engaged in agriculture. In advanced countries, this ratio is very small being 5 per cent in U.K., 4 per cent in USA., 16 per cent in Australia, 14 per cent in France, 21 per cent in Japan and 32 per cent in USSR. The most popular and the largest produced oilseed in the world is soybean. It has got the support of wide variety of climates and soils and that is why it is considered to be the most economical crop.*

**Keywords:** Agriculture, Economy, Backbone, Employment, Occupation, Soybean.

## **INTRODUCTION**

Agriculture, for decades, had been associated with the production of basic food crops. Agriculture and farming were synonymous so long as farming was not commercialized. But as the process of economic development accelerated, many more other occupations allied to farming came to be recognized as a part of agriculture. At present, agriculture besides farming includes forestry, fruit cultivation, dairy, poultry, mushroom, bee keeping, arbitrary, etc. Agriculture may be defined as an integrated system of techniques to control the growth and harvesting of animal and vegetables. It is an uncomplicated endeavor comprising of technical and practical processes that helps in the maintenance of the ecological balance and protects human resources; and most importantly it is a viable food production system.

Soybean belongs to the legume family of East Asia and is related to peas and clove. It is an oilseed bean, oval in shape, which is produced on a bush-like, green soybean plant. Size of soybean is like the size of a common pea. As, it provides oil and protein in bulk; soybean is also called a miracle crop. It comprises around 45% proteins and 18% oil. This, 5000 years old, crop is very nutritive in nature and a wide variety of climates and soils support this crop. It also contains unsaturated fatty acids in high proportion. The most popular and the largest produced oilseed in the world is soybean. It has got the support of wide variety of climates and soils and that is why it is considered to be the most economical crop and has a good worth. Before second world war, soybean was not considered an important crop and thus was not used on a large scale. But after the war, it rose up as one of the most important crop of the world Soybean production constitutes around 55% of the total world production of oilseeds and figures around 170-185 million tons. The production of soybean has showed an increase of 5.35% during the last 10 years.

Around 30% of the world's total produce is traded annually. USA is the leading producer of soybeans followed by Brazil and Argentina. The major exporters of soybean in the world are USA, Brazil and Argentina whereas the major importers are China and European Union. About 85% of the soybean produce is crushed and bi-products of soybean are derived. On crushing

soybeans, 18% soy oil is recovered and the rest in soy meal. Crushing or processing, nowadays, is done with the use of chemical methods. These by-products are traded individually but are not annually produced. Iran, China and eastern nations are major importers, while Argentina and Brazil are major competitors for India. The origination of soybean lies in the northeastern areas of China. It was cultivated about 5000 years ago and was considered as one of the sacred crops. Asian people have been eating soybeans and also using it in different medicines. A 2200 B.C written record had been found in China relating to soybeans. Soybeans started to become popular and reached Japan and China by 1st century A.D. When soybeans were introduced to U.S.A, it was not given the due importance. In the early 1900's, it was a subject of testing for the American scientists. America introduced more varieties of soybean during this period. After the 2nd world war, production of soybean increased dramatically and since then the same scenario continues. The annual production of soybean in India is around 7 million tons. Madhya Pradesh being the leading producing state of India contributes to around 75% of the total Indian production and is also called the soybean bowl in India. Likewise soybeans, the rate of production of soy meal in India is on an increasing level with a production figure of 5 million tons. Soy oil is considered as one of the most important edible oil in the country. Indian production of soy oil is around 1 million tons annually and it accounts for about 18% of total consumption of oils in the country.

### **Indian Soybean Market**

Soybean holds a very important position in the Indian agriculture and economy and it has a worth of over Rs 5000 crores as mentioned above, it stands at the 5<sup>th</sup> position in the list of the leading soybean producing countries with a production figure of around 7 million tons. Madhya Pradesh has the lead among the soybean producing states in India. Regarding consumption of soybean in India, it holds the 6th position in the leading consuming countries. Of the total production of soybean in India, 10-12% of it is directly consumed and the rest is crushed to derive soy meal and soy oil. Indian soy meal is considered to be one of the premium soy meals and European and Asian countries prefer to use it other than any soy meal. India export

approximately 65% of the total soy meal produced and has turned out to be one of the largest exporters of soy meal usually to the Asian countries. The soy meal is exported to South Korea, Thailand, Philippines and Japan. Though soy meal is not imported to satisfy the growing domestic demand, but this is not in the case of soy oil. A large share of soy oil consumed in India is import from Argentina, Brazil and US. In fact, soy oil is not permitted to export in bulk. About 1.5 million tons of soy oil is imported which makes the availability of oil in the country at 2.5 million tons. Moreover the rate of imports is still at a rising level. The prices of soybean in the Indian market are highly volatile because they depend on the prices of the international market. As reference markets, the markets at Indore and Mumbai are looked upon.

### **Important World Soy Markets**

- Chicago Mercantile Exchange, which acquired Chicago Board of Trade – the world's oldest soy futures market
- Dalian Commodity Exchange - trades the most liquid soybean contracts in the world
- Argentina and Brazil FOB determine the physical prices

### **India's Position in World Soy Industry**

<b>Name of Products</b>	<b>Global</b>	<b>India</b>	<b>% Share</b>
<b>Soybean Production</b>	230	9	4
<b>Soybean Trade</b>	75	0	0
<b>Soy Oil Production</b>	35	1.5	4
<b>Soy Oil Imports</b>	9	1	11

<b>Soy Oil Exports</b>	9	0	0
<b>Soymeal Production</b>	150	7	5
<b>Soy Meal Exports</b>	52	3.5	7

### **Indian Scenario**

- India's annual production of soybean has been around 8.5-10 million tones in the recent years with India's production in 2009-10 estimated to be around 8.9 million tonnes by the Government of India.
- Madhya Pradesh, Maharashtra, Rajasthan and Andhra Pradesh are the major cultivators of this important oilseed, with their respective contributions usually around 60 percent, 25 percent, 6-7 percent and 1-2 percent.
- Soybean is exclusively grown in the khariff season in India, with sowing taking place after the first monsoon showers in late June or early July. Sowing can extend upto end of July in different parts of the country.
- The harvesting commences from September, with Maharashtra reporting the earliest arrivals. October and November are the peak arrival months, with all- India arrivals crossing 10 lakh bags of approximately 90 kg on the peak arrival days.
- The production is dependent on the monsoon and fluctuates between years.
- India is highly dependent on imports to meet domestic edible oil requirement. Government policies are in favour of developing the domestic crushing industry and supporting Indian farmers and do not promote import or export of soybean. Thus, there is virtually no import or export of soybeans.
- However, India out of its total soymeal production of around 6.5-7 million tonnes, exports around 3.5 million tonnes with Vietnam, Japan, Thailand, Indonesia, UAE, Greece being the major importers.

## **LITERATURE REVIEW**

In their study (Ahmed and Rustagi, 2004) stated that liberalization of Indian economy has opened immense opportunities for export of agricultural products. GCC countries are heavily dependent on import of agricultural commodities to fulfill the needs of their rapidly growing population. Due to geographical proximity to GCC countries and natural comparative advantages to Indian farmers there is a large scope for exports of agricultural commodities to GCC. They further stated that relative share of India's agro and food products to GCC countries has declined during 1991- 2001. This share was 30% in 2000-01 in India's agro export, which constitutes a major part in India's agro export indicating the importance of GCC in Indian exports. The compound growth rate of export of other processed food was the highest as compared to the export of other commodities to GCC. It can be concluded that Indian farmers are relatively better placed to exploit the emerging opportunities if proper policy support is provided to them. Thus, there exists plenty of scope for Indian agricultural exports in the new economic environment.

Konya et al. (2008) investigated empirically the presence of an equilibrium relationship between the logarithms of Indian exports and imports between 1949-1950 and 2004-2005, using the unit-root, co integration approach. To ascertain robustness, exports and imports measured in current prices but in two currencies, Indian rupee and US dollar have been analyzed. Moreover, since the sample comprises data from both the fixed and freely floating exchange rate periods, the tests have also been performed allowing for a one-time structural break in 1992-93. The results indicated no co-integration between exports and imports. The lack of co-integration means that Indian macroeconomic policies have been ineffective in bringing exports and imports into long-run equilibrium and India is in violation of her international budget constraint. In his study Hans, (2009) attempted to trace the growth and problems of agriculture during the reforms period and to find ways and means of resolving the present crisis in order to develop Indian agriculture into a vibrant sector contributing substantially to the growth of New Age Indian economy and for its sustainable development. Gandhi, (2006) concluded that studies from India have shown that improvement in market facility increases volume of trade at the market. Similarly, improvement

in transport infrastructure is found to result in change in cropping pattern and agricultural productivity.

Rehman, (2012) highlighted the progress and performance of Food grain distribution in India especially by Food Corporation of India and Central Warehousing Corporation, as these corporations are responsible for the bulk storage and distribution of food grains in the country; He focused the problems and prospects in the current marketing system and brings out some challenges which these corporations face. Badiane, et al., (1998) in their study described that the importance of the rural transportation network for agricultural trading has to be highlighted in a separate platform so that there should be spatial integration of agricultural markets. In his study Johnson, (2000) analyzed that as rural poor are engaged in agriculture, diversification and commercialization of agriculture are often regarded as essential preconditions for rural income growth and poverty reduction.

## **OBJECTIVE**

- To analyze the present export scenario of soybeans.
- To forecast the growth in exports in coming year.

## **RESEARCH METHODOLOGY**

### **The Study**

It is a study to know about the prospects & potential market for export of soybeans and to identify the various competitors globally. The study is exploratory in nature.

### **The Sample**

Statistical data from 2006 to 2016 of export of soybeans from India was taken from official commerce website ([www.commerce.nic.in](http://www.commerce.nic.in) HS code:1201).

### Tools for Data Collection

Secondary data has been used as a source of data collection. Secondary data includes data collected from official websites.

### Tools for Data Analysis

The data are analyzed using Microsoft Office Excel 2007 and SPSS 16.0 for suitable forecasting model based on export data.

### Trend analysis

One way to describe the trend component is to fit line visually to a set of points on a graph. Any given graph, however, is subject to slightly different interpretation by different individuals. We can also fit a trend line by the method of least squares. We will concentrate on the method of least squares because visually fitting a line to a time series is not a completely dependable process.

**Table 1: Export of Soybean (Value in INR)**

Year	Year	Export	Trend Value
1	2006-2007	57177928.52	44867995.24
2	2007-2008	65586352.18	61104636.35
3	2008-2009	84075505.87	77341277.46
4	2009-2010	84553363.38	93577918.57
5	2010-2011	84075505.87	109814559.7
6	2011-2012	113696426.8	126051200.8
7	2012-2013	146595940	142287841.9
8	2013-2014	163431829	158524483
9	2014-2015	190501108.9	174761124.1

10	2015-2016	189634841.8	190997765.2
<b>11</b>	2016-2017		207234406.3
<b>12</b>	2017-2018		223471047.4
<b>13</b>	2017-2018		239707688.6
<b>14</b>	2017-2018		239707688.6

Source: Commerce.nic.in (HS code 1201)

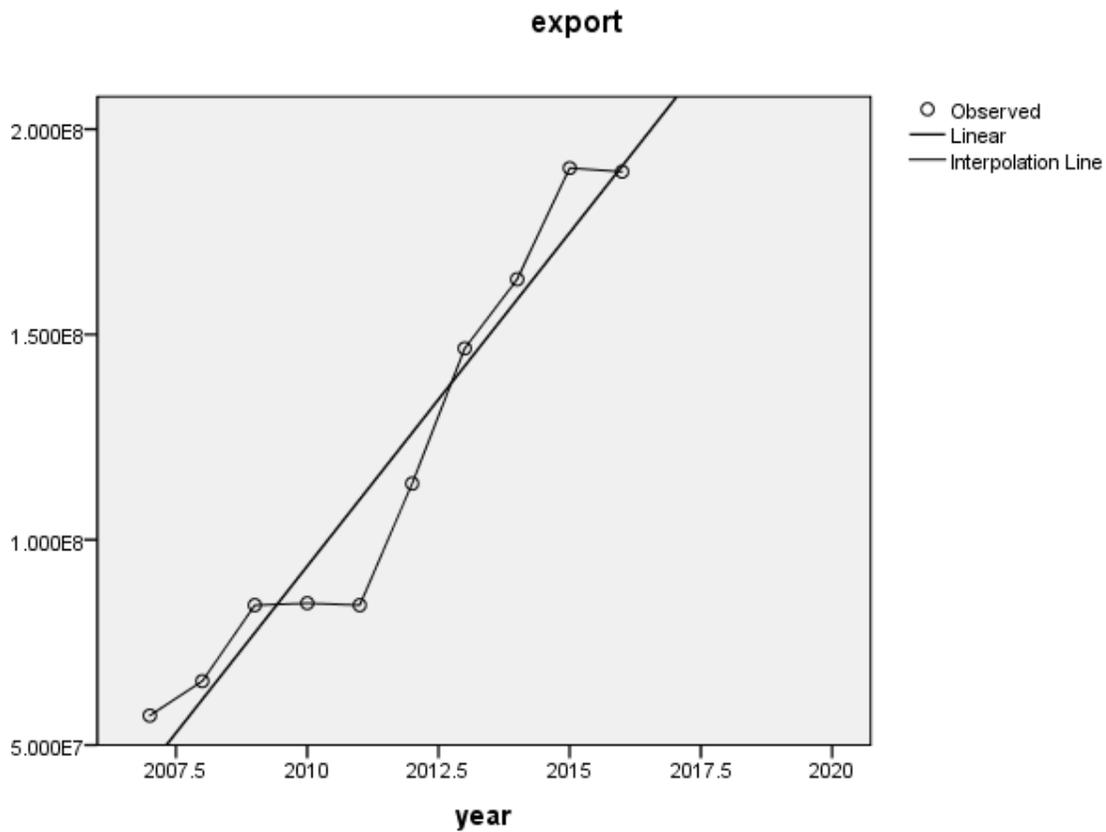


Figure 1: Trend line of export of soyabean from India

The line graph above depicts the export of soybean from India in various forms and products in the year 2006-2007 till the year 2015-2016. There was a certain growth in the export of soybean till the year 2008 where the exports of soybean was at its peak and after that the exports of soybean from India decrease from the year 2010 to 2012. The reasons for this can be attributed to unsuitable climatic conditions, weak international prices, annual hike in minimum support prices, stringent levy system, vis-a-vis competition from other countries.

## **CONCLUSION AND SUGGESTIONS**

Soybean is one of the major crop to be exported and earns a major share of foreign exchange for the country. It helps our country to maintain current account deficit which occurs time to time when we import more goods than required. The need of the hour is to frame suitable policies to support the exporters as well as the farmers other than the already existing policies. Export potential of Soybean is although very high, in spite of having a rich stock of natural resources and skilled personnel. India is required to strengthen its position in the global market. The exporters of Soybean have to overcome various hurdles posed by several factors. The suggestions inferred from the study are-

- Indian Soybean exporters should establish tie-ups with advertising agencies, marketing consultants in India or destination for marketing Indian products in the stated countries.
- Focused research and development programmers are required for developing quality products for exporting to other countries.
- India must improve upon marketing, branding and packaging skills to win a higher market shares
- Modernizing and up grading processing ability to improve the quality standards.
- A designated inspection body and the results together with a range of documents must carry out Soybean products inspection and supporting information must be collected.
- The Indian Soybean industry should look at standardizing the products and use gadgets for documentation to get the recognition of foreign countries.

- India must overcome the problems of organized and regulated market for Indian Soybean.
- Indian Soybean must be provided protection of intellectual Property Rights (IPR) at global level.

## **LIMITATION OF THE STUDY**

The Study is based on secondary data and hence is open to bias. Due to the constraints from the government in sector it was not possible to get latest data. Today's trend is fast changing trend; it might be necessary to review and reconsider the report of the existing trend. The production of Soybean is dependent on climatic conditions so to forecast the future growth and production of the crop is not accurately considered.

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