

AN ANALYTIC STUDY OF INDIAN AGRICULTURE CROP WITH REFERENCE TO WHEAT

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Abstract

Agriculture is India's biggest significant industries. It is regarded as the Indian economy's backbone. Agriculture accounts for about 18% of the country's GDP (Gross domestic product). India is major manufacturer of maize, pulses rice,, spice oils, and spices, in terms of agricultural production. Agriculture gives meals to about 55 percent of the population. This paper gives all details about Indian agriculture crop with reference to wheat like importance of agriculture for economy of India, data related to wheat production in different countries, Indian production of wheat's and there changes value is plotted with the help of different charts such as pie chart, bar chart etc. this paper also consist of data related to India export of agro food products wheat and there changing values for different years and also have full details data about the major exporting countries like China, India, United States of America etc. and this all countries exportation is shown with the help of bar chart. Agriculture's future is a vital problem for planners and all other stakeholders. The government and other organizations are attempting to resolve the main problems of agriculture in India, such as small farmer holdings, primary and secondary processing, supply chain, facilities promoting productive resource utilization, and marketing, as well as reducing market intermediaries.

Key words: Agro, Agriculture, Economy, Food, Wheat

Introduction

Agriculture plays a significant role for economy of India. It comprise animal husbandry, pisciculture, farming of crops, agro-forestry etc. Approximately 60 percent Population of Indian peoples primarily depends upon agriculture[1]. Agriculture contributes to economic growth in a number of ways, including supplying food for the country, expanding exports, moving manpower to non-agricultural industries, contributing to capital creation, and securing markets for industrialization. Because of growth of the second and third sector of economy, agriculture's share of the economy has steadily decreased since the establishment of planning in India. Agriculture and associated activities' share of GDP at factor expense dropped from 55.3 percent in 1950-51 to 37.9 percent in 1980-81. Agriculture and related operations accounted for 14.6 percent of GDP at factor expense in 2009, and agriculture employed 69.6 % of the working people. From 1991, the figure was 67%, and from 2001, it was 56.8 %.

Agriculture employed 52.1 percent of the working population in 2004-05. Despite the exponential growth of the peoples, numbers of peoples employed in agriculture have risen significantly. Agriculture supplies organic ingredients to a variety for national-level sectors. For many years, three agricultural commodities in India, cotton textile, jute, and tea, accounted for more than half of all exports. Agriculture's share of overall exports increased to about 70 percent to 75 percent. The share of agricultural products in total exports has steadily declined as a result of global growth and the diversification of the supply base. For example, shares for agricultural export in total export was 44.3 % in 1960-1961. This steadily decreased from 30.7 percent in 1980-81 to 9.9 percent in 2009. For many years, three agricultural commodities in India, jute, tea, and cotton textile account for greater than half of the country's exports earning. Agriculture's share for overall exports increased to about 70 percent to 75 percent. The proportion of agricultural products in overall exports has steadily decreased

as a result of global growth and the diversification of the supply base that has resulted. Agricultural exports, for example, accounted for 61 percent of overall exports. In 2009-10, this fell to 30.7 percent 81 and 9.9 percent. A crop is herb that is fertilized or enlarge on a high scale or A crop is any plant that is grown and [harvested](#) extensively for-profit purposes[2]. The crops are of the following types depending upon the season in which they are grown:

1. Kharif Crops:

- Kharif crops are those that are cultivated during the monsoon season. Maize, millet, and cotton, for example.
- The seeds are planted at the beginning of the monsoon season and harvested at the end.
- For proper growth, these crops need a lot of water and hot weather.

2. Rabi Crops:

- The name "Rabi" is derived from the Arabic word "spring."
- Rabi crops are those that are cultivated during the winter and harvested in the spring.
- Rabi crops include wheat, gram, and mustard.
- A variety of farming methods are used to develop new crop varieties.
- The germination and maturation of seeds in certain crops necessitates a warm environment' they, on the other hand, want a cold environment to thrive.

3. Zaid Crops:

- These crops are grown during the Kharif and Rabi seasons, which lasts from March to June.
- These plants reach maturity early.
- Zaid crops include cucumber, pumpkin, bitter gourd, and watermelon..

India is top producer country of many crops. The major crops in India can be divided into four categories viz. Cash Crops (Cotton, Sugarcane, Jute, Oilseeds and Tobacco), Food grains (Rice, Maize, Wheat, Pulses and Millets), Horticulture crops such as Vegetables ,Plantation Crops,and Fruits (Tea, Coffee, Coconut and, Rubber) [3]. The genus Triticum includes various wheat varieties, the most commonly grown of which is common wheat (T. aestivum).

Wheat was first cultivated in the Fertile Crescent around 9600 BCE, according to archaeological evidence. The wheat kernel is a type of fruit known as a caryopsis in botan[4]. The US Department of Agriculture's India attaché said February 11 in its Grain and Feed report[5] that India's wheat harvest in 2020-2021 is forecast to reach a record 107.6 million mt, and that a record planting and favorable weather conditions have fuelled the anticipation of a bumper wheat harvest in 2021. Indian wheat is predominantly a soft/medium solid white bread wheat with a medium protein content, equivalent to hard white wheat in the United States. Center and west India wheat is usually rough, with a large protein and gluten content. India grows 1.00-1.20 in tonnes of millions of wheat durum, the majority of which is grown in the state of Madhya Pradesh. Due to market yard segregation concerns, most Indian durum is not sold separately. However, the private trade imports certain amounts at a higher price, primarily for the production of higher-value/branded goods[6]. Wheat is India's second most valuable crop, supplying nutrients to 55 percent of the country's population. Wheat is one of the most essential staple foods in North India. Wheat's appeal comes from its high protein content and broad environmental adaptability. Wheat comes with a variety of varieties that are cultivated all over the world. Wheat is categorized according to its growth patterns, species, and commercial forms. There are two commercial varieties of wheat based on this classification: Bread and Duran Wheat or Marconi, 16 varieties based on plants, and three based on growth habits: spring wheat,

facultative wheat, and winter habit wheat. The International production of Wheat in Million Tonne is given in Table 1.

Table 1: International production of Wheat in Million Tonne

Country	2012	2013	2014	2015	2016
China	112464293	115115365	115181302	117410301	120580001
India	78570201	80680001	80800001	86874002	94880001
United States	0	0	0	54413301	61755242
France	39006401	38332201	4078701	38037003	40300801
Russia	63765101	61739802	41507601	56240005	37719641
Australia	21420202	21656001	22138002	27410104	29905002
Canada	28611101	26847601	23166801	25261402	27012904
Pakistan	20958801	24033001	23310802	25213801	23473006
Germany	25988601	25192401	24106703	22800002	22432008
Turkey	0	0	0	21800001	20100007

The Figure 1 is plotted using Table 1 and clearly shows that India is the world's 2nd largest manufacturer of wheat. China is world's top wheat manufacturer. The United States ranks third in the world for wheat production. The production of wheat in India is on the rise. The production of crop in million tones in India in 2009 is 72000001 million tonne and its value is increasing till 2016 and reached to 94880002 million tonne.

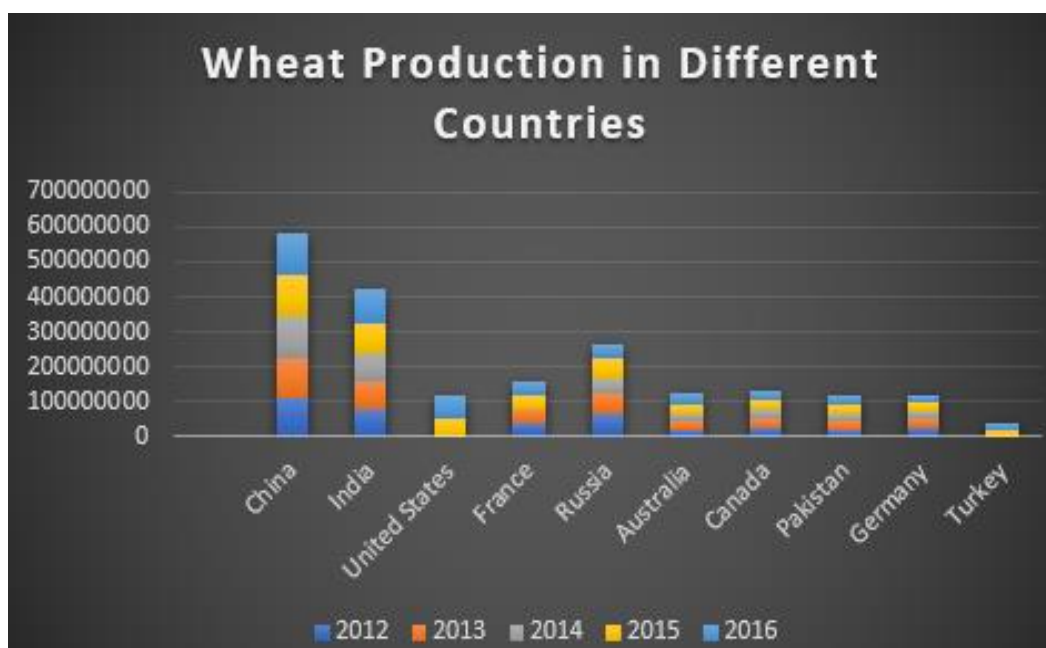


Figure 1: Wheat Production in Different Countries.

The Table 2 shows the International Production of Indian crop Wheat. The production of Indian production of wheat in million tones is 69,149.00 milli tonne and its value is increasing till 2016 and reached to 97,114.60 million tonne.

Table 2: International Production of Indian crop Wheat.

Year	Production in MT	Share in %
2009	72000001	11.50
2010	69354502	14.50

2011	75806705	15.500
2012	78570204	14.83
2013	80680003	14.84
2014	80800002	15.64
2015	86874001	12.35
2016	94880002	14.13

The Foreign Development of Indian Agriculture Crop Wheat is plotted in Figure 2 using Table 2. This gives production values in million tonnes from 2009 to 2016. In India in 2009. The production of Indian production of wheat in million tonnes is 69,149.00 million tonne and its value is increasing till 2016 and reached to 97,114.60 million tonne.

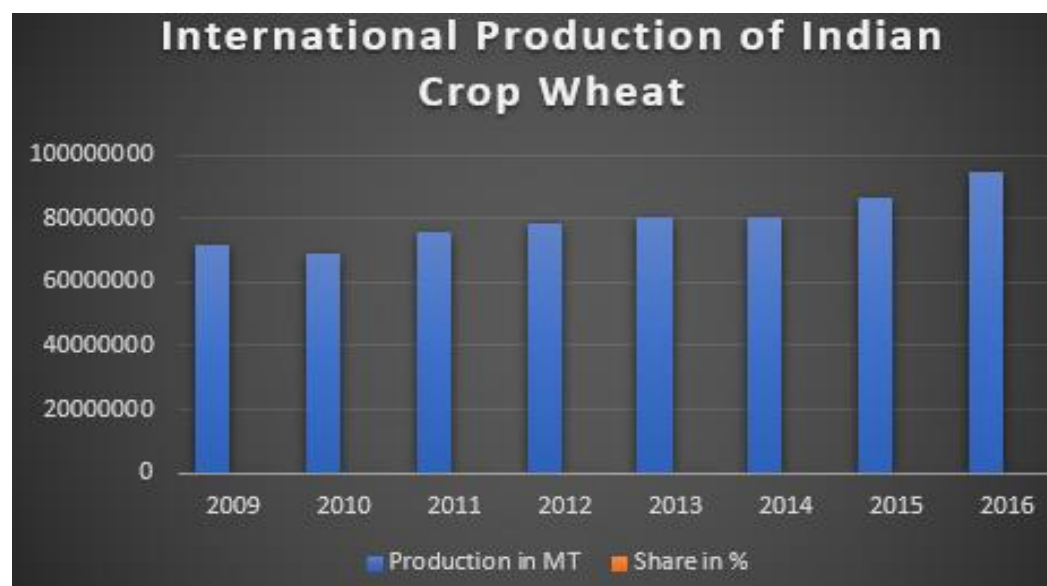


Figure 2: International Production of Indian Crop Wheat.

The Table 3 shows the Indian Production of Wheat. The production of wheat in India has gradually increased from 2009-10 to 2011-12. From all Major Exporting Countries United States of America is in 1st from 2010 to 2012 and India is in 11th position.

Table 3: Indian Production of Wheat

Year	Production (In MT)
2009-10	69,149.00
2010-11	75,619.00
2011-12	78,361.00
2012-13	80,470.00
2013-14	80,555.10
2014-15	86,871.00
2015-16	97,882.00
2016-17	97,114.60

Figure 3 depicts the Indian development of the agriculture crop Wheat, which is plotted using Table 3. The year 2011-12 had the high wheat yield, with 97880 MT. Wheat output decreased by 766.4 MT from 2011-12 to 2012-13. The manufacture of wheat in India gradually grown in 2009-10 to 2011-12. From all Major Exporting Countries United States of America is in 1st from 2010 to 2012 and India is in 11th position.

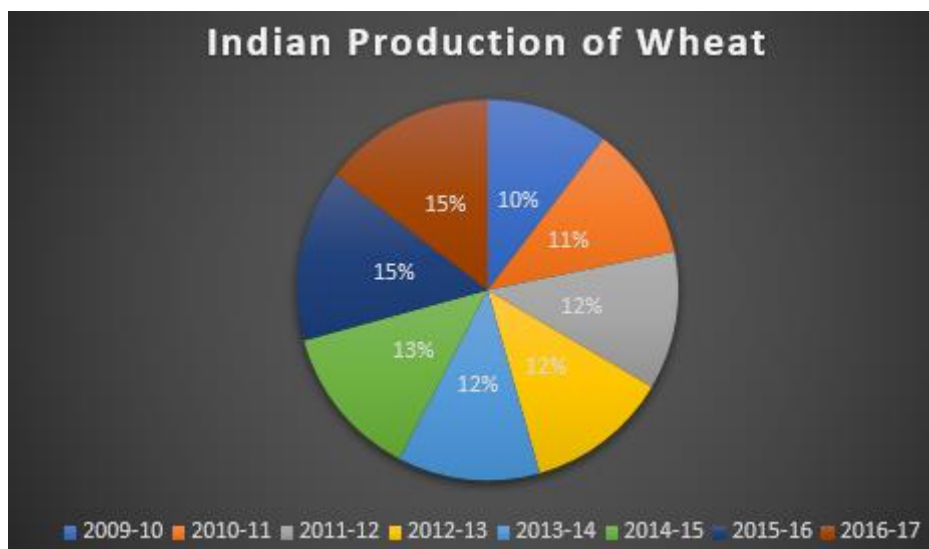


Figure 3: Indian Production of Wheat.

The Table 4 shows the Major Exporting Countries. When compared to the output of agriculture crop wheat, India's export ranking is the polar opposite. In 2011 the quantity of Agro Food Products Wheat in million tonnes is 740746.77 and reached 5562374.75 in 2014.

Table 4: Major Exporting Countries

Sr. no	Exporting Country	2010	2011	2012
1	USA	24532446.63	26957932.95	16525029.46
2	Australia	12912954.54	15716016.18	18007037.12
3	Canada	18490226.62	14502268.96	12349415.80
4	France	22111233.62	19567143.15	13504486.50
5	Russian Federation	10121397.07	10243262.48	11118076.12
6	Argentina	4031725.55	7257188.45	9253581.47
7	Ukraine	5226076.3	3146631.54	5208841
8	Germany	8326728.30	5502586.15	5204350.96
9	Kazakhstan	3622782.4	1627111.72	4176735.63
10	Bulgaria	1745116.4	1957695.70	2267968.60
11	India	16595.55	100710.60	1500823.04
12	Romania	1860235.03	892183.54	1385913.40
13	United Kingdom	3251059.42	2150312.41	1591453.67

Figure 4 was plotted using Table 4 and it was discovered that the Major Exporting Countries of Agriculture Crop Wheat. The United States tops the list of major agricultural crop wheat exporting countries. In term of international wheat production, India is second biggest producer, while the United States, Australia, France, Russia, and Germany are not as major producers as India, but they are strong exporters when compared to Indian agriculture crop wheat exports.



Figure 4: Major Exporting countries.

The Table 5 shows the India Export of Agro Food Products Wheat. In the 2013-14 fiscal year, India exported 5562374.75 MT wheat to the foreign market, priced at \$926160 crore. In addition, the researcher states that, in comparison to the amount of exports, the volume of exports is comparatively low.

Table: 5 India Export of Agro Food Products Wheat

Year	Qty (In MT)	Value(In Lakh)
2011-12	740746.77	102329
2012-13	6514810.60	1052897
2013-14	5562374.75	926160

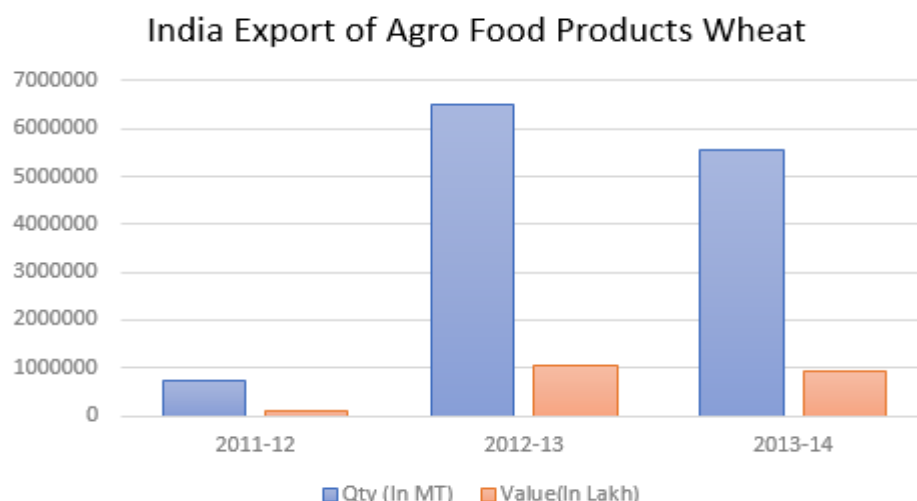


Figure: 5 India Export of Agro Food Products Wheat.

Figure 5 is plotted using Table 5, and it can be shown that Indian exports of agro-food products include wheat. In the 2011-12 fiscal year, India exported 740746.77 MT wheat to the foreign market, priced at 102329 lakh rupees. In addition, in the fiscal year 2012-13, India exported 6514810.60 MT wheat to the international market, priced at 1052897 lakh rupees. However, in contrast to the previous year, India exported less wheat in 2013-14.

Literature Review

Nilesh V Limbore et.al studies Agriculture is a significant industry in India. It is important for the Indian economy's sustainability and development. Agriculture provides a living for about 70% of households and 10% of the urban population on average. India is also a major exporter of a range of agricultural products to the international market, including tea, grains, coffee, spices, fresh fruits, oil meals, vegetables fresh fruits, meat and marine products and its preparations, and marine products. India is a significant producer of a number of agricultural goods. India is the world's biggest producer of milk, and the world's second largest manufacturer of rice and wheat. Agricultural development is vulnerable to a range of challenges that impact both growers and consumers. Cohesive and coordinated long-term strategies and policies are needed to reduce risk aversion and create flexibility among Indian rural producers in order to increase investment and achieve a sustained increase in production. Farmers' wages must be increased by providing them with remunerative costs. The aim of this research paper is to look into the major agriculture crops, as well as their production, export, and import. A researcher also does there analytical study of this major agriculture crop Wheat[7].

Tarandeep Singh studies Agriculture is one of India's most important industries. It is regard as the Indian economy's backbone. Agriculture accounts for about 18% of the country's GDP. India is major manufacturer of rice, maize, spices, pulses and spice oils in terms of agricultural production. Agriculture gives meals to about 55 percent of the population. Agriculture, which is vulnerable to threats, needs new policies, techniques, and increased investment in order to maximize agricultural commodity productivity in a sustainable manner. Not only does India need to concentrate on its production, but it also needs to increase its agricultural exports. To change the status of Indian agriculture, agribusiness must grow. The focus of this research paper is on the Indian agricultural crop wheat, with special attention paid to wheat production and export in India. They understanding the theoretical relationship between the two would assist in understanding the condition of agriculture in India with regard to wheat and pave the way for new research areas[8].

Archana Pandey studies Agriculture is an important industry in India. It is important for the Indian economy's sustainability and development. Agriculture is root for livelihood for about 70% of households and 10% of the urban population on average. India also a major exporter of a range of agricultural products to the international market, including tea, grains, coffee, spices, fresh fruits ,oil meals, and meat, vegetables, marine products and its preparations. India is a significant producer of a number of agricultural goods. India is world's biggest producer of milk and the 2nd biggest manufacturer of rice and wheat in terms of volume. Agricultural development is vulnerable to a range of challenges that impact both growers and consumers. Cohesive and coordinated long-term strategies and policies are needed to reduce risk aversion and create flexibility among Indian rural producers in order to increase investment and achieve a sustained increase in production. Farmers' wages must be increased by providing them with remunerative costs. In this research paper researcher's objective is to study the major agriculture crops production, export and import of agriculture crop wheat[9].

Dr. Revathi covered a liberalization period from 1990 to 2014-15, compiling production, region under cultivation, yield, and agricultural exports. From 1990-1991 to 2014-2015, data's on significant changeable such as agricultural output, region under cultivation, yield, and agricultural export were assembled. This research was analyzed using mathematical methods such as the Linear Regression and Semi-Log Models, and also on average rate of growth . The study's key goals were to assess agricultural manufacture in India, examine the pattern of agricultural production and productivity in area under cultivation of food grains and important commercial crops in India from 1990 to 2014-15, and determine compound rate of growth of agricultural production, area under growing, and yields of food grain inside India. The study's main results were that, on average, food grain production rose to 2.61 million in one year during the relaxation cycle from 1990 to 2014-2015. Rice and wheat production averaged 1.163 and 1.37(million tonnes) in one year for 1990-91 and 2014-15, respectively[10].

Discussion

There are various researcher who studies and analyzed about the an analytic Indian agriculture crops with respect to wheat but they did not explain well like importance of agriculture or crop production for economy in India the increment and decrement of crop productions in various countries, major exporting countries etc. This paper gives all details about Indian agriculture crop with reference to wheat like detail of economy to growth (like Agriculture contributes to economic growth in a number of ways, including supplying food for the country, expanding exports, moving manpower to non-agricultural industries, contributing to capital creation, and securing markets for industrialization), data related to wheat production in different countries, Indian production of wheat's and there changes value is plotted with the help of different charts such as pie chart, bar chart etc. This paper also consist of data related to India export of agro food products wheat and there changing values for different years and also have full details data about the major exporting countries like china, India, united states of America etc. and this all countries exportation is shown with the help of bar chart.

Conclusion

This paper gives all details about Indian agriculture crop with reference to wheat like importance of agriculture for economy of India, data related to wheat production in different countries, Indian production of wheat's and there changes value is plotted with the help of different charts such as pie chart, bar chart etc. this paper also consist of data related to India export of agro food products wheat and there changing values for different years and also have full details data about the major exporting countries like china India, united states of America etc. and this all countries exportation is shown with the help of bar chart . Agriculture's future is a vital problem for planners and all other stakeholders. The government and other organizations are attempting to resolve the main problems of agriculture in India, such as small farmer holdings, primary and secondary processing, supply chain, facilities promoting productive resource utilization, and marketing, as well as reducing market intermediaries.

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