

A STUDY OF IMPACT OF COVID-19 PANDEMIC ON AGRICULTURAL EXPORT

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ABSTRACT

The COVID-19 outbreak has shocked the world's economies in the year of 2020. As this pandemic spreads around the globe, many experts feared that the global food supplies might start running short particularly assuming stock chains were upset. COVID-19 likewise added to the vulnerability of the business activity. Hence, it is basic to comprehend what COVID-19 pandemic meant for worldwide food supply and market. In this review, we research the effect of COVID-19 on horticultural product organizations in China utilizing a novel firm-level overview information. We saw that as albeit on normal rural organizations experienced decreases in the commodities, products of a few farming items particularly grain and oil major areas of strength for held even expanded, suggesting the fundamental interest for staple food during the pandemic. Of course, commodities of restorative spice likewise expanded altogether during the pandemic. Nonetheless, commodities of merchandise, for example, palatable organism and plant items pointedly diminished. Our outcomes likewise showed that as a general rule, effect of COVID-19 on more modest firms was more extreme than that on bigger firms.

I. INTRODUCTION

Introduction to Agriculture Export

Trade and markets for food and farm goods matter to us all — whether we are consumers of these products, or also produce, transform and trade them. To address government policies that distort markets and restrict trade, WTO members concluded the Agreement on Agriculture, which came into force in 1995. This initiated reductions in subsidies and trade barriers to make markets fairer and more competitive. It also provided for members to continue negotiations for further reform, taking into account concerns such as food security and the environment. These ongoing talks led in 2015 to a historic decision to abolish agricultural export subsidies and new rules for other forms of farm export support. The WTO's Agriculture Committee oversees implementation of the Agreement and provides a forum for members to address related concerns. The WTO Agriculture Agreement provides a framework for the long-term reform of agricultural trade and domestic policies, with the aim of leading to fairer competition and a less distorted sector.

- The Agreement covers:

1. Market access— the use of trade restrictions, such as tariffs on imports
2. Domestic support— the use of subsidies and other support programmes that directly stimulate production and distort trade
3. Export competition— the use of export subsidies and other government support programmes that subsidize exports.

Under the Agreement, WTO members agree to “schedules” or lists of commitments that set limits on the tariffs they can apply to individual products and on levels of domestic support and export subsidies.

Introduction to Agriculture Export Industry of India

India, with a large and diverse agriculture, among the world's leading producer of cereals, milk, sugar, fruits and vegetables, spices, eggs and seafood products. Indian agriculture continues to be the backbone of our country and it provides livelihood to nearly more than 50% of our population. India is supporting 17.84% of world's population, 15% of livestock population with merely 2.4% of world's land and 4% water resources. Hence, continuous innovation and efforts towards productivity, pre & post-harvest management, processing

and value-addition, use of technology and infrastructure creation is an imperative for Indian agriculture. Therefore, agriculture processing and agricultural exports are a key area and it is a matter of satisfaction that India's role in global export of agricultural products is steadily increasing. India is currently ranked tenth amongst the major exporters globally as per WTO trade data for 2016. India's share in global exports of agriculture products has increased from 1% a few years ago, to 2.2 % in 2016.

Recent growth rates show that agri-food production is rising faster than growth in domestic demand, and volume of surplus for export is witnessing accelerated growth. This offers scope and opportunity for capturing overseas markets to earn foreign exchange and enable producers to earn higher prices for farm produce.

India ranked 9th in Agricultural Produce Exporters in 2019 by WTO Report; EU Tops. A recently released World Trade Organization (WTO) report has ranked India 9th (holding 3.1% share in global agriculture exports) among the Top 10 list of Agricultural produce exporters in 2019.

As per the report from "The Economic Times" news said by **Anup Wadhawan** there is an excellent growth in the Indian agriculture export, (USD 38.43 billion in 2017- 18, USD 38.74 billion in 2018-19, and USD 35.16 billion in year 2019-20). In rupee terms, the increase is 22.62% with export during 2020-21 amounting to RS. 3.05 lakh crore as compared to RS. 2.49 lakh crore during the year 2019-20.

Top 10 Agriculture Exporter countries 2021

China

China's land is highly employed for agriculture.

- Vegetables are planted in China, on the roads, and on many building walls.
- In 1949, China lost $\frac{1}{5}$ of its arable land, and now only 10% to 15% of China's land is adequate for agriculture.
- 545,960 square kilometers of land is irrigated in China.
- China is the largest rice-producing country in the world. With this, they produced soybeans, kaoliang (sorghum), wheat, millet, and corn.

United States

- Agriculture in the United States expanded by 5% every year after 1990. In addition to this, the production of every farming worker increased by 0.84% every year.
- The United States produces the highest amount of timber. Approx. 70% of the country's forests officially owned with bounded logging permitted.
- The United States is a net exporter of agricultural commodities. In 2007, the agriculture census recorded 2.2 million farms covering an area for agriculture.
- In the United States, corn was the largest crop that produced an amount of 247,882,000 metric tons. And the 2nd one is soybeans with 74,598,000 metric tons. And the 3rd one is wheat that grew an amount of 69,327,000 metric tons.
- The major crops in the United States are sugar cane, potatoes, coffee, sugar beets, and bananas.

Brazil

- In the production of sugarcane, Brazil is the world leader, and it produces 600 million-plus tones every year.
- Brazil is the 2nd largest producer of soybeans in the world and worldwide these beans used in a vast quantity.
- Brazil is the globe's largest exporter of coffee, beef, ethanol, and soybean.
- Around 7% of Brazil's land area is utilized for crop production that includes soybeans.

$\frac{1}{3}$ of the planet's oranges are produced in Brazil.

India

- India ranked first in the production of milk, second in dry fruits, third in fish production, fourth in egg, and fifth in poultry production worldwide.
- From 87 USD billion to 397 USD Indian agriculture production increased in the past 14 years, which is an 11% annual growth rate.

- Total 96mn hectare irrigated area in India, it is the largest in all over the world.
- Indian agriculture has many sides, and it contributes 60% to overall India's agriculture GDP only by animal farming and horticulture.
- India is the world's largest wheat-producing country.

Russia

- Over 23 million hectares of land is cultivated in Russia.
- About half of the cultivated land area is covered with grain cultivation. It produces 70% of the total grain of the country.
- Wheat is the most dominant food crop all around Russia.
- With this, beet production has grown superbly in recent years.

France

- All over the EU, France is the top producer of oilseeds, cereals, sugar beets, milk, wine, and beef. Sugar beets produced over 29 million metric tons in France.
- France is the largest exporter of alcoholic drinks and beverages, and this noted a 6 % increase in recent years.
- 12 % increase in flour and cereals and a 7 % decrease in meat and other animal products recorded in the past few years.
- The actual income from agriculture enhanced by 4% in the past period.

Mexico

- The important crops of Mexico are wheat, sugarcane, peppers, corn, bananas, sorghum, blue agave, avocados, beans, other tropical fruits, and more.
- They are best in the export of crops that include fruits, coffee, vegetables, and sugar.
- In Mexico, around 15% of the land is occupied by agriculture and about 50% used for livestock.
- Production of livestock in Mexico is done in a considerable amount that consists of poultry, eggs, beef, and milk.

Japan

- In Japan, there are two significant types of agriculture fields which are siden and Tambo.
- From 6.09 million hectares in 1961 to 4.65 million hectares in 2006, the area under cultivation dropped in Japan.
- In Japan, approx. 2 lakh hectares of land is idle, and rice production decreased by 20% in the past years.
- Japan's self-sufficiency food ratio fell from 78% in 1961 to 39% in 2006. Now Japan's government wants to increase it to 50%.

Germany

- In Germany, $\frac{1}{2}$ of the area occupied for land cultivation.
- Plus 50% billion euros per year worth of agricultural goods produced by the 1 million people in the country.
- Germany ranked 3rd in the world in agricultural goods export. Around $\frac{1}{3}$ of the products exported from Germany.
- Approximately 10% of the Germans engaged in organic farming.
- Germany ranked 4th largest beer producer in the world.

Turkey

- Around 100 million turkeys live on the farms.
- Approx. 19.2% of total employment in Turkey is provided by the agriculture sector in 2018.
- It is the largest producer of apricots, figs, raisins, and hazelnuts.
- Turkey is the fourth producer of grapes and vegetables.
- It is the sixth-largest producer of tobacco.

Agriculture Export Policy in India

The Agricultural and Processed Food Products Export Development Authority (APEDA) was established by the Government of India under the Agricultural and Processed Food Products Export Development Authority Act passed by the Parliament in December 1985.

□ What are export policies?

Export Import Policy or better known as Exim Policy is a set of guidelines and instructions related to the import and export of goods. The Government of India notifies the Exim Policy for a period of five years (1997-2002) under Section 5 of the Foreign Trade (Development and Regulation Act), 1992.

□ What is agriculture export policy?

The Agri Export Policy thus aims at: 1) Providing assurance that the processed agricultural products and all kinds of organic products will not be brought under the ambit of any kind of export restriction (viz. Minimum Export Price, Export duty, Export bans, Export quota, Export capping, Export permit etc.)

The Agriculture Export Policy is framed with a focus on agriculture export oriented production, export promotion, better farmer realization and synchronization within policies and programmes of government of India.

□ Agriculture Export policy year 2018

Agriculture Export Policy. The Government introduced a comprehensive Agriculture Export Policy in December 2018, with the following objectives: To diversify our export basket, destinations and boost high value- and value-added agricultural exports, including focus on perishables.

□ New Agriculture Export policy year 2022

The new agriculture policy is **Pradhan Mantri Fasal Bima Yojana** for All the farmers, including sharecroppers and tenant farmers, who are growing notified crops in notified areas are eligible under the scheme. In 2022-23, the scheme has been allocated Rs. 15,500 crores, a 3% decrease over the 2021-22 revised estimate.

□ What is the aim of new agriculture policy?

The Policy seeks to actualize the vast untapped potential of Indian agriculture and aims at achieving a growth rate in excess of 4 per cent per annum in the agriculture sector. It also seeks to achieve growth with equity, i.e., growth, which is widespread across regions and farmers.

List of products which are exported from Gujarat.

□ **Cereal**

1. Wheat
2. Basmati rice
3. Non-basmati rice
4. Maize

□ **Vegetables export from India**

1. Bananas
2. Grapes
3. Walnuts
4. Onions
5. Other fresh fruits
6. Other fresh vegetables

□ **Floriculture and Seed**

1. Floriculture
2. Fruits and Vegetable Seeds
3. Herbal and Medical Plants

□ **Processed foods.**

1. Cucumber and Gherkins (preserved)

2. Dried and Preserved Vegetables
3. Mango pulp
4. Other processed fruits and vegetables
5. Pulses

India's share in world market

India accounts for more than 5% of world exports in certain agro commodities, viz. lacs & gums (share of 13.4%), coffee, tea, mate, spices (8%), cereals (3.3%), marine products (5.9%) and vegetable plaiting materials (5.4%). Whereas, India's share in world exports of beverages, floriculture (HS code 6 – live trees and plants), preparations of cereals, flour and starch, processed fruits and vegetables are less than 1%. The detailed HS-code wise share of India in world exports of agro commodities products. Is given in the following table till 2018.

OBJECTIVES OF THE STUDY

- To know the impact on agricultural exports after the Pandemic.
- To analyze the situation in exports before and after the pandemic
- To study the effective of exports towards the economy of the country
- To study the dependency of country on agricultural exports

HYPOTHESIS

H0: There is a impact of covid pandemic on agricultural exports

H1: There is no impact of covid pandemic on agricultural exports.

II. RESEARCH METHODOLOGY

The research methodology comprises of the sources of data, methods adopted to collect such data, sampling techniques, statistical tools for analysis, data interpretation etc.

Research design

The research design would be broad too narrow as consists with the report as the introduction part goes with the global idea as well the further part gets narrowed to India and the research will consists of the exports in the state named Gujarat and this way this project possess a research design of broad idea then a narrow area of research.

Source of data

The data collected will be from primary and secondary source. Primary data will be collected through questionnaires and secondary data has been found from internet, literature.

Data collection method

The data collection method would be contacting the exporters and companies involved with the exporters of the relevant data can be collected helping out research to be more effective which would be a primary method and it will door to door and well secondary data will be from internet articles books and literature.

Population

The population would be the Agricultural exporters from Gujarat and the companies involved with the agricultural exports and products would be all mentioned below

Sample size and sample unit

For the study a sample of around 93 agricultural Products exporters has been selected on the basis of convenient sampling for the purpose of the research.

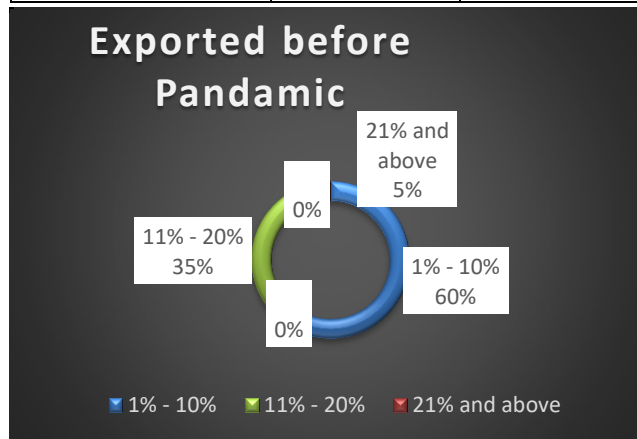
SAMPLING TECHNIQUES

For the study of convenient sampling technique method has been applied on the basis of suitability for the availability of information and which has a substantial share in the market so as to give more accurate picture of the impact of agricultural export.

III. DATA ANALYSIS AND INTERPRETATIONS

1) How much percentage % of Agriculture products were exported before pandemic?

Particular	Frequency	Percentage
1% - 10%	56	60
11% - 20%	32	35
21% and above	5	5
Total	93	100



In the above graph we can see that the question was related to the percentage of agricultural exports before pandemic and the percentage categories were divided into three main categories namely 1%-10%, 11% to 20% and 21% and above.

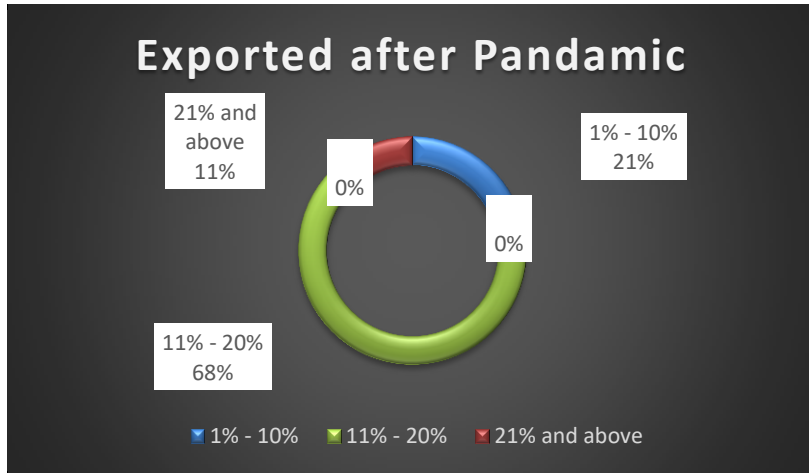
The response we got was 60 percentage of the respondents says that the rise in exports before the Pandemic was around 1% to 10% which simply means that the agricultural exports was in single digits only and it contributed very less to the total exports.56 respondents says that the Agricultural export was around 1% to 10% and it was varied from time to time.32 respondents says that the agricultural exports was between 11% to 20 %.5 respondents says that it was 21% and above.

So, we can conclude with majority that the agricultural products exports was low before the pandemic. The reasons can trade independence between the countries and free movement of goods around the sea.

Also, one of the reasons can the higher population with less productivity and higher consumption in India.

2) How much percentage % of Agriculture products were exported after pandemic?

Particular	Frequency	Percentage
1% - 10%	20	21
11% - 20%	63	68
21% and above	10	11
Total	93	100



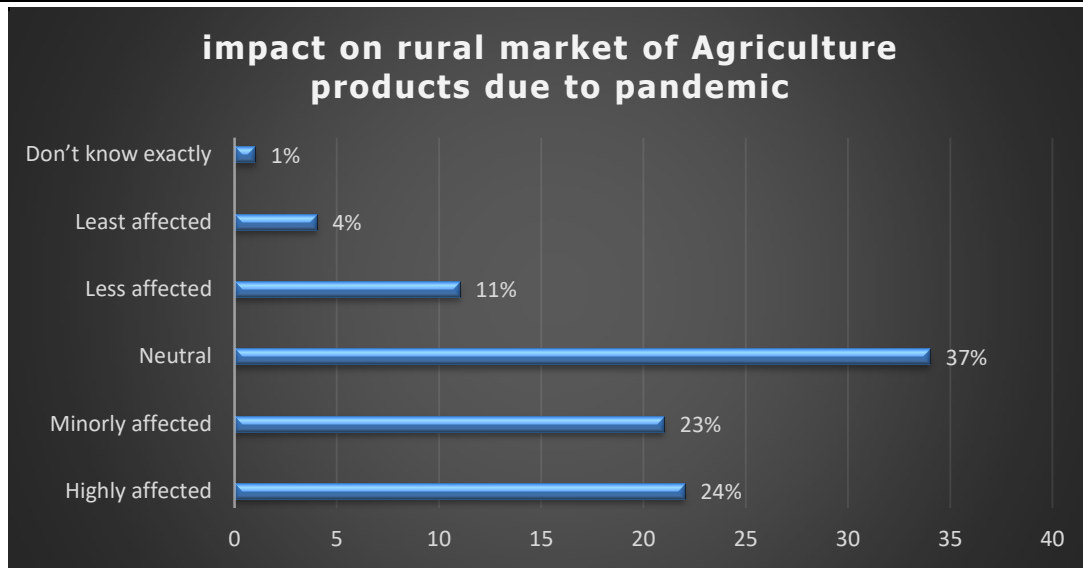
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The response we got was 21 percentage of the respondents says that the rise in exports after the Pandemic was around 1% to 10% and 68% respondents says that the it was 11% to 20 % and 11 percent says that it was 21 and above.

Which simply means that the agricultural exports took a rise after the pandemic, and many believe that the growth they have seen while the ongoing and after was immense. The exports rise was around 10 percent as compared to before stats of agricultural exports and this can greater for the Indian economy and agricultural sector. 20 respondents says that the Agricultural export was around 1% to 10% and it was varied from time to time.63 respondents says that the agricultural exports was between 11% to 21% and 10 says that it was 21 and above.

3) What do you think about the impact on rural market of agricultural products due to pandemic?

Particular	Frequency	Percentage
Highly affected	22	24
Minorly affected	21	23
Neutral	34	37
Less affected	11	11
Least affected	04	04
Don't know exactly	01	01
Total	93	100



In the above graph we can see that the question was related to impact on rural market of agricultural products due to pandemic it was high to low categories from highly effected too least affected.

The frequency wise response was 22 for highly affected, 21 was minorly affected, 34 was neutral, 11 was less affected, 04 was least affected. And the percentage wise distribution was 37% answered it was neutral affect to rural economy exports related to agricultural exported products. 23% said it was minorly affected, 24% said it was highly affected 11% said it was less affected, 4% said it was least affected.

From the response it can be clear that the affected on rural market of agricultural products due to pandemic was neutral because one of the reasons can be least affection of covid in rural areas and also the operation related to exports was also running with the adequate frequency and the restriction barrier was also low.

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IV. RESULTS AND FINDINGS

The result we can say would be neutral because there was positive impact as well the negative impact but the growth, we have experienced was more impact post pandemic. According the response that we can get are pretty in the favors of positive side of agricultural product export. The impact on quality of agricultural products was neutral, impact on price was highly affected, impact on rural market of agricultural products was neutral. Before pandemic the products which was more exported was pulses and grains but after pandemic the pulses and grains as well the fruits and vegetables were also seen a immense growth.

V. CONCLUSION

This research yields important insights about the impact of COVID-19 pandemic on agricultural exports. Although on average agricultural businesses in our survey experienced lower exports during the pandemic, grain and oil exports still held strong and even increased, implying the essential demand for staple food. Not surprisingly, exports of medicinal herb also increased significantly during the pandemic. In contrast, demands for goods such as edible fungus and horticultural products might be less essential in oversea markets with sharply declined exports, hence businesses with these products might face more significant challenges.

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