

Strategy Challenge

Bolstering the Contribution of
Agricultural Sector to the GDP with emphasis
on Climate

Status Quo:

Impact of exports on GDP & Economy

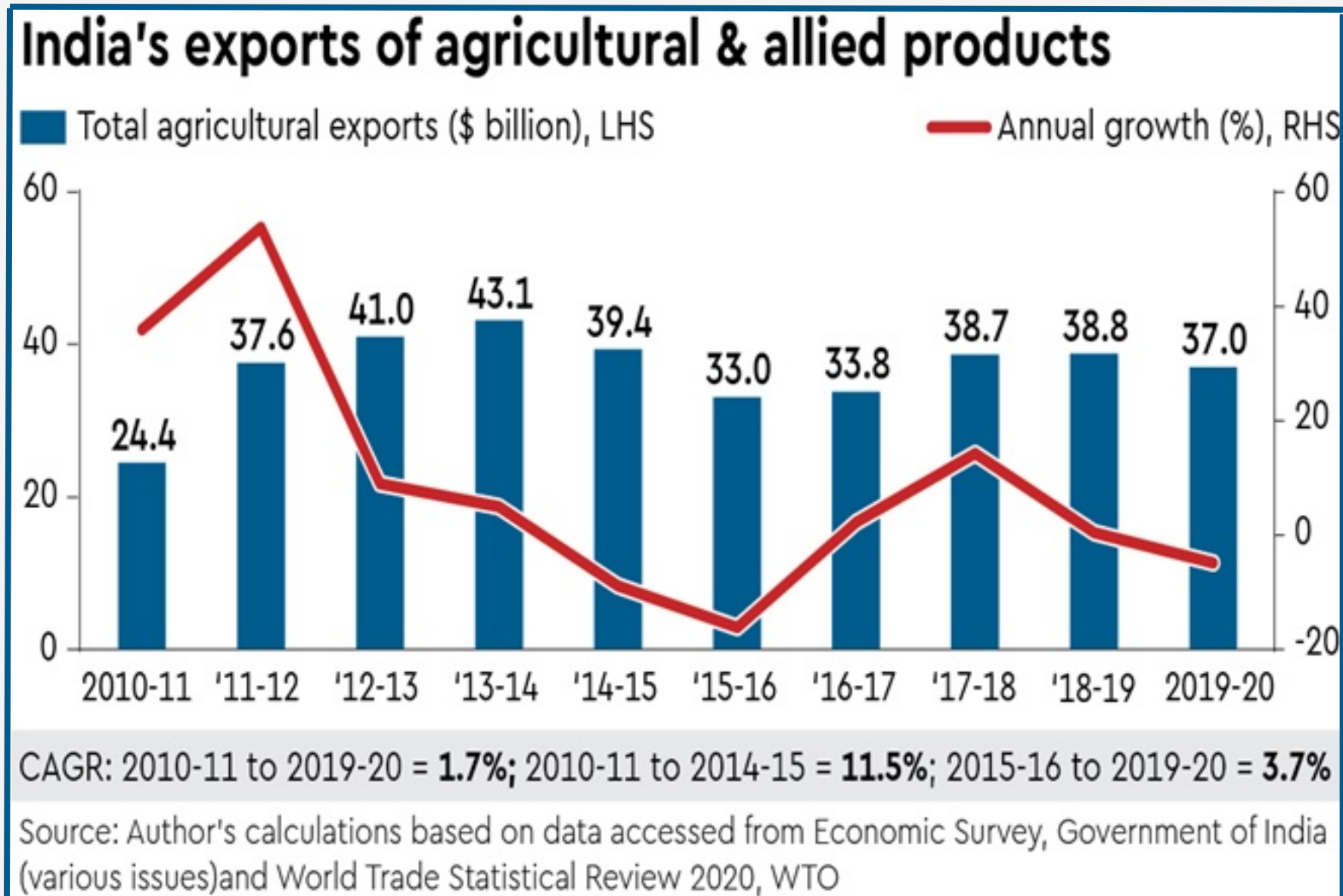
1. Exports increase economic growth, create jobs, and generate income. Exporting goods and services can expand a country's customer base, tap into new markets, and increase competitiveness. Additionally, exports can bring in foreign currency, which can help stabilize a country's exchange rate and provide resources to invest in domestic industries and infrastructure.

2. Exports can increase demand for a country's currency, as foreign buyers need to purchase the currency in order to pay for the goods or services they are importing. This increased demand can drive up the value of the currency relative to other currencies, causing its exchange rate to appreciate.

3. When a country exports goods and services to other countries, it generates income from foreign sources and boosts its aggregate demand, thereby contributing to its GDP. On the other hand, a decrease in exports can lead to a decrease in a country's aggregate demand and result in a decrease in its GDP. Thus, exports can have a positive or negative impact on a country's GDP

Analyzing the Indian Agri Sector

Tracking India's agricultural export growth in a span of past 10 years



India's agricultural exports have seen significant **growth** in the past decade, with a particular increase in the last few years. According to the Ministry of Commerce and Industry, India's agricultural exports grew from **USD 38.3 billion in 2012-13 to USD 47.2 billion in 2019-20**, an increase of approximately **23%**. In **2020-21**, India's agricultural exports reached a record high of **USD 63.3 billion**, an increase of 34% compared to the previous year.

Growth in agricultural exports, despite pandemic disruptions, has been driven by the government's policy-level interventions and expansions. Examples of which are **shipments sent to several countries for the first time**, such as rice to countries like Timor-Leste, Puerto Rico, and Brazil. Similarly, wheat was dispatched to countries such as Yemen, Indonesia, and Bhutan, and other cereals have been exported to Sudan, Poland, Bolivia

Factors that contributed to the growth of agriculture exports in India, even though overall GDP contribution has declined:

Increase in global demand: Rising demand for agri-products globally, especially in developed countries, has boosted exports from India.

Diversification of products: India has diversified its export basket, adding new products such as fruits and vegetables, processed foods, and animal products to its traditional exports of rice, wheat, and spices.

Improved infrastructure: The Indian government has made investments in improving transportation and storage infrastructure, enabling agri-products to reach markets efficiently.

Export-oriented policies: The government has also implemented policies aimed at promoting exports, such as providing subsidies, tax incentives, and support for market development.

Growing competitiveness: India's agri-sector has become more competitive, thanks to improvements in technology, and productivity.

Role of Policy Making

Enforcing Robust policies is vital for developing a better ecosystem for all stakeholders involved in agriculture

The **Pradhan Mantri Kisan Samman Nidhi (PM-KISAN)** is a government scheme in India launched in 2019 to provide financial support to small and marginal farmers. Under the scheme, eligible farmers receive income support of **₹6,000 per year**. The scheme is aimed at providing income support to farmers to help them meet their expenses and increase their income. The government has set a target of benefiting around **12 crore** small and marginal farmers across India through the PM-KISAN scheme. A budget of **60,000cr has been allocated** to the same for the upcoming financial year, which is a welcome move.

More focus should be laid on initiatives like Pradhan Mantri Fasal Bima Yojana (PMFBY) is a crop insurance scheme which provides insurance coverage and financial support to farmers in the event of crop damage due to various reasons such as natural calamities, pests and diseases. The scheme is implemented through public sector general insurance companies and covers various crops grown in the country. The premium for the insurance is subsidized by the government and farmers are required to pay only a small portion of the total premium. The main aim of PMFBY is to reduce the financial burden on farmers in case of crop loss and help stabilize their income.

Revolutionizing Agriculture through Technology and Entrepreneurship

Some Noteworthy Agri-Tech Startups:



ListenField is a **Japan** Based Company. Initially, they kept on exploring how machine vision and the gathering, integration, and processing of data could improve crop quality, reduce the use of fertilizers, estimate crop growth, empower farmers to make better decisions, and overall allow for a more sustainable and qualitative agricultural production.

What they are working on- **Ensuring the efficiency of agriculture operations allows to lower risks, increases product quality, and stabilizes the outcome**




FarmersEdge is a **Canada** based global leader in digital agriculture delivering cutting-edge solutions powered by a unique combination of field-centric data, artificial intelligence, and complete integration. Basically, involved in **digitizing farming, agri-businesses interact with data.**


They provide all the info about the farms-acre-by-acre performance tracking of crops through real-time data right up to the granular level.

Investment Scenario and Future Prospects in India:


Overall the sector has seen high growth in funding, recognition, and innovation and has bright prospects in the future.



Talking about the support from the Government, it has agreed to set up a **500 cr startup accelerator** to scale up agritech startups in the country.



AgriTech VC funding came to shape as it is now with the start of Omnivore in 2010. Now the scenario has changed completely. In FY22, the FarmTech sector **raised \$1.5 Billion in funding, a 185% year-over-year increase.**



Sharing a few stats, The Biggest Upstream Category:- **Agri Marketplace - \$569 Million** and The Biggest Upstream Deal:- Ninjacart - \$145 Million

Strategizing from an Economic Standpoint

Efficacy of a low carbon economy strategy in assisting Indian Economy:



Microeconomic (Farmer's) viewpoint:

- Allow Renewable Energy harvesting through wind turbines and solar panels to be installed on your land can prove to be a steady source of income.
- Access to avail initiatives like Pradhan Mantri Kisan Samman Nidhi (PM-KISAN) augments the earnings of small scale farmers.
- A potential revenue stream can be generated by engaging in agrotourism.

According to the UN, AROUND ONE-THIRD OF THE WORLD'S SOILS ARE DEGRADED, MOSTLY DUE TO UNSUSTAINABLE SOIL MANAGEMENT PRACTICES

- With Limited Soil, focusing on renewable sources will create multiple revenue streams.
- It will create new jobs in the Agricultural Sector.
- Biomass can also be used to improve soil quality.
- Agritourism could also decrease the dependency of farmers on the climate for crops.



Biomass, Biofuel etc. can be exported to European Countries, Japan, South Korea.



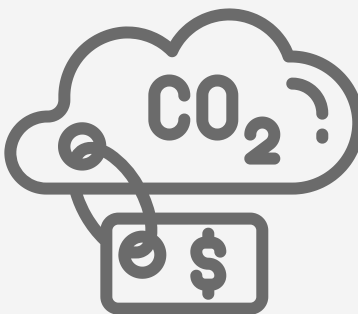
What if we aren't sustainable?

- It would increase vulnerability to climate change
- Increase energy costs negatively impacting the GDP
- This might lead to reduced investment and government revenue in the Agri Sector and this won't take a long time to come to fruition.



What are Carbon Credits?

- Idea behind carbon credits is to create a market-based mechanism to incentivize and reward emissions reductions, thereby reducing the overall levels of greenhouse gas emissions.
- India has set a target of reducing its emissions intensity by 33-35% by 2030 compared to 2005 levels which can be achieved by focusing on sustainability, National Action Plan on Climate Change.



Conclusion

Paying heed to the food security-related needs of the 1.4 billion-strong population of the nation is extremely crucial. While focusing on the surplus generation of agricultural produces for export purposes through the multi-pronged approach will definitely prove to be beneficial, a balance has to be struck in order to be mindful of domestic consumption.

The maximum agricultural exports India can achieve without hurting its local market is determined by a number of factors, including the domestic demand for agricultural products, the production capacity of farmers, and government policies that regulate exports. While it is difficult to precisely comprehend the food demand of the entire nation, caution must be exercised at all costs. The prescribed course of action would be to maintain an excessive local supply of staple food items such as rice, lentils, potatoes, onions, etc so as to avoid food security concerns and hyperinflated pricing of these items due to unforeseen shortage.

THANK YOU!

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