



New Agriculture Issues in India A Geographical Analysis

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Abstract

Farmers in several states have been agitating aggressively for some time now to waive off the three Farm Bills that have been passed by the Government. Due to poor crop productivity and failing monsoons, several states like Uttar Pradesh, Maharashtra, Punjab, and Karnataka, (which account for around one-third of India's population) have announced farm loan waivers. States like U.P and Punjab announced it in an election year. Thus, this issue has become socio-politically important. Further, this may lead to competitive populism and other states may also resort to such measures. Why is it important? Agriculture Growth has decreased since 2011-12 to around 1%. Input cost is increasing due to the rise in prices of seeds, fertilizers, etc. Distress migrations- causing a burden on destinations. Growth of unorganized credit sector-lack of access to organized sector lending, many farmers resort to the unorganized credit sector. The increasing attrition rate in agriculture

Keywords:- Agriculture, Farmers, Gross Domestic Product, Gross cropped area, Net sown area, Agricultural growth

Introduction

The history of Agriculture in India dates back to Indus Valley Civilization and in some parts of Southern India, it was found to be practiced even before the Harappans. Today, India ranks second worldwide in farm output. The economic contribution of agriculture to India's GDP is steadily declining with the country's broad-based economic growth, yet, having nearly 50% of the population dependent on it for livelihood. Agriculture, along with fisheries and forestry, is one of the largest contributors to the Gross Domestic Product (GDP). As per the estimates by the Central Statistics Office (CSO), the share of agriculture and allied sectors (including agriculture, livestock, forestry, and fishery) is expected to be 17.3 percent of the Gross Value Added (GVA) during 2016-17 at 2011-12 prices. The Department of Agriculture and Cooperation under the Ministry of Agriculture is responsible for the development of the agriculture sector in India. It manages several other bodies, such as the National Dairy Development Board (NDDB), to develop other allied agricultural sectors.

The history of agriculture in India dates back to the Indus Valley civilization. India ranks second worldwide in farm outputs. As per 2018, agriculture employed more than 50% of the Indian work force and contributed 17–18% to country's GDP.

Data source and methodology

Data collected from agriculture Department of India, State Agriculture Department, books & articles

Objective: - To Study New Agriculture Issues in India

In 2016, agriculture and allied sectors like animal husbandry, forestry and fisheries accounted for 17.5% of the GDP (gross domestic product) with about 41.49% of the workforce in 2020. India ranks first in the world with highest net cropped area followed by US and China.[6] The economic contribution of agriculture to India's GDP is steadily declining with the country's broad-based economic growth. Still, agriculture is demographically the broadest economic sector and plays a significant role in the overall socio-economic fabric of India.

The total agriculture commodities export was US\$3.50 billion in March - June 2020. India exported \$38 billion worth of agricultural products in 2013, making it the seventh largest agricultural exporter worldwide and the sixth largest net exporter. Most of its agriculture exports serve developing and least developed nations. Indian agricultural/horticultural and processed foods are exported to more than 120 countries, primarily to the Japan, Southeast Asia, SAARC countries, the European Union and the United States.

Indian farmers are people who grow crops. Various government estimates (Census, Agricultural Census, National Sample Survey assessments, and Periodic Labour Force Surveys) give a different number of farmers in the country ranging from 37 million to 118 million as per the different definitions.] Some definitions take into account the number of holdings as compared to the number of farmers. Other definitions take into account possession of land, while others try to delink land ownership from the definition of a farmer. Other terms also used include 'cultivator'.

Indian agriculture: Potential, Prospects and Prescriptions

Potential: Facts about Agriculture in India

Index	Figure
Gross cropped area	195 million hectare
Net sown area	141 million hectare
Agricultural irrigated land (% of total agricultural land)	36% (As per 2014 World bank data)
Animal husbandry output	Constitutes about 32% of the country's agricultural output
Agricultural growth	4.1% in the current year from 1.2% in 2015-16 (Economic survey)

1. Horticultural crops occupy 10% of the gross cropped area and producing 160.75 m tones. The total production of fruits is 49.36 m tones and vegetables are at 93 m tones. (Read about Project CHAMAN that aims to support horticulture, in the linked article.)
2. Animal husbandry output constitutes about 32% of the country's agricultural output. The contribution of this sector to the total GDP during 2006-07 was 5.26%.
3. India is the highest producer of milk and the second highest producer of fruits and vegetables.
4. India accounts for 57% of the world's buffalo population and 14% of cattle population.
5. India holds 6th place with 7% world's market share in medicinal and aromatic plants.

Problems faced by Indian Agricultural sector

1. The Productivity of Agriculture in India Although India has attained self-sufficiency in food staples; the productivity of its farms is below that of Brazil, the United States, France, and other nations. Indian wheat farms, for example, produce about a third of the wheat per hectare per year compared to farms in France.
2. Rice productivity in India was less than half that of China. Other staple's productivity in India is similarly low.
3. Indian total factor productivity growth remains below 2% per annum; in contrast, China's total factor productivity growth is about 6% per annum, even though China also has smallholding farmers.
4. Several studies suggest India could eradicate its hunger and malnutrition and be a major source of food for the world by achieving productivity comparable with other countries.

Agriculture Price Policy

The agricultural price policy in India has succeeded in establishing certainty and confidence in respect of the prices of agricultural commodities through the fixation of minimum support prices by the Commission for Agricultural Costs and Prices (CACP).

But due to the variations in the degree of enforcement of procurement in different years, some degree of uncertainty and instability in prices were experienced by the Indian farmers.

Again raising the minimum support prices (MSPs) and procurement prices offered incentives to the producers to increase their production but these benefits were mostly restricted to large farmers. Moreover, the public distribution system in India is also subjected to various limitations such as its restricted operation in wheat and rice only, insufficient coverage of rural areas, inadequate coverage of the people lying below the poverty line, and it's too much expensiveness due to lack of targeting.

As argued by several economists, a continuous increase in procurement prices has resulted in inflationary pressures in the economy. This increase in the price of food grains has also resulted in huge hardships to the rural poor consisting of marginal farmers and landless labourers who constitute the bulk of the rural population.

Other problems include

1. Falling water levels, Expensive credit.
2. A distorted market.
3. Many intermediaries who increase cost but do not add much value.
4. Laws that stifle private investment.
5. Produce that does not meet international standards.
6. Inappropriate research.
7. Crop pattern.

Related issues

1. Farmer Suicides

In 2012, the National Crime Records Bureau of India reported 13,754 farmer suicides. Farmer suicides account for 11.2% of all suicides in India. Activists and scholars have offered several conflicting reasons for farmer suicides, such as

2. Natural

Monsoon failure, frequent El-Nino events, and draught have decreased production substantially.

3.Economic

Less fund at their disposal, higher interest rate since many buy from local zamindars and landholders often result in the burgeoning effect of actual & interest money which in adverse cases sometimes take away their land and hence their livelihood.

4. Social

Farmers from rural areas have big families that are dependent on the small farmland which leads to economic burden. The dowry for daughters, farmers either offer their property or give away the land as dowry to the groom.

5.Policy paralysis

Poor targeting of Subsidies mostly benefiting the rich creating a wide gap in earning profit. Local administration is often insensitive to the demands and requirements of farmers. Personal issues such as illness, alcohol addiction, stress, and family responsibilities

Farm loan Waiver

The farm credit system in Indian agriculture evolved over decades and has been instrumental in enhancing the production and marketing of farm produce and stimulating capital formation in agriculture.

Credit for Indian agriculture has to expand at a faster rate than before because of the need to step-up agricultural growth to generate surplus for exports, and also because of change in the product mix towards animal

husbandry, aquaculture, fish farming, horticulture and floriculture, medicinal plants, which will necessitate larger investments

Concern

1. Loan waivers provide some relief to farmers in such situations, but there are debates about the long-term effectiveness of the measure. Critics demand making agriculture sustainable by reducing inefficiencies, increasing income, reducing costs, and providing protection through insurance schemes.
2. They point out that farm loan waivers are at best a temporary solution and entail a moral hazard — even those who can afford to pay may not, in the expectation of a waiver. Such measures can erode credit discipline and may make banks wary of lending to farmers in the future.
3. It also makes a sharp dent in the finances of the government that finances the write-off.
4. A blanket waiver scheme is detrimental to the development of credit markets. Repeated debt-waiver programmes distort households' incentive structures, away from productive investments and towards unproductive consumption and wilful defaults.
5. These wilful defaults, in turn, are likely to disrupt the functioning of the entire credit system.

According to Parshuram Ray, director of the New Delhi-based Centre for Environment and Food Security, the loan waiver was “an electoral sop that involves a lot of statistical juggleries and very little of real hope for Indian farmers.”

An important feature of the program which has been heavily criticized is that it covers only formal sources of credit and excludes any kind of informal loan. Thus, while it benefitted wealthy and large-scale farmers who had access to institutional credit (about 23% of the total number of farmers), small and marginal farmers, who borrow the majority of their funds from private moneylenders, would not benefit from the scheme.

Another criticism of this scheme was that it might cripple the agricultural credit system.

Agriculture Research and Education

New schemes such as Mera Gaon Mera Garv, Mission 2050, Farmers First, and Student Ready started in 2015. Krishi Vigyan Kendras (KVKs) is the frontline agricultural extension center funded by the Indian Council of Agricultural Research (ICAR). The KVKs focus on training and education of farmers, rural youth, on-field demonstration of new and improved farming techniques, etc. The web-based 'Farmers Portal' and mobile-based 'mKisan' SMS portal along with two mobile Apps ('Kisan Suvidha' & 'Pusa Krishi') have been launched. Information is also being disseminated through the 'Kissan Call Centre' and 'DD Kisan Channel'.

Future Prospects

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Irrigation: Per Drop More Crop

India also has much less per capita water as compared to other leading agrarian countries. This problem is exacerbated because India has been exporting virtual water embedded in crops, which is marked by its feature of non-replenishment.

Once it is exported, it cannot be recovered. Given this scenario, it is time to make a shift to micro-irrigation so that the efficient and judicious use of scarce water resources can be made.

High initial costs deter farmers to adopt this technology. While big farmers can easily avail of this technology, the government should consider giving subsidies to small farmers to boost the adoption of this technology.

Second green revolution

India needs a second green revolution to bring food security to its billion-plus population, to remove the distress of the farming community, and to make its agriculture globally competitive.

To achieve these goals, yield rates of food grains, pulses, oilseeds, dairying and poultry, horticultural crops, and vegetables need to be enhanced; and forward-backwards linkages of agriculture with technology, and food processing industry need to be strengthened to match soil to seed, and product to market. High productivity and better value addition by agro-processing are its key parameters.

Other Initiatives needed

1. 'More from less' should be the aim of agriculture because rapid industrialization and climate change have raised the scarcity value of land and water.
2. Indian agriculture is the victim of the Green Revolution's success. It has become cereal-centric, regionally-biased, and resource-intensive. A rainbow revolution must follow the green and white revolutions.
3. Genetically modified crop technologies have 'significant net benefits.' Evolved regulation is needed to allay public fears so they can be deployed.
4. Pulses and oilseeds must be supported with procurement and support prices that reflect their social contribution – less water use and enrichment of soil with atmospheric nitrogen.
5. Advancements in Seed Technology – New varieties need to be tested and seeds of these varieties should be made available to the farmers for cultivation in the regions in which it is suitable.
6. Regulatory measures for quality seed production have to be tightened to discourage the sale of spurious seeds to the farmers.
7. Subsidies on power must end to curb water wastage. Cheap power makes India a net exporter of water through commodities like cotton, sugar, and soybean, while China is a net importer of water through soybean, cotton, meat, and grains.

8. Agricultural research has the biggest impact on yield and profitability but it is weak in states where agriculture is relatively more important (eastern and northern states, except Punjab and Haryana).
9. The private sector must be enticed into pulses research (which it has shunned) by offering a ‘disproportionately large enough award’ to the winner for innovating in desirable traits, but the intellectual property rights must vest with the government. There should be equal treatment of the private, public, and citizen sectors in this respect.

Conclusion

The recent initiatives taken by the Government are steps taken in the right direction. The agreements signed between India and Israel further underscore the fact of how water management and judicious usage of limited resources is vital for a thriving agricultural sector. Recent developments further underscore the fact that India urgently needs to diversify its cropping pattern- this will help conserve moisture and thus help in judicious usage of resources. Efforts described above can further the objective of the Government of doubling farmer’s income by the year 2022. Such an effort would involve the collective participation of various stakeholders, including the wider farming community, pressure groups, private sector, banking sector, and both the central and state governments.

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