

Challenges of the Agriculture Economy in The India

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Abstract

In India, agriculture has changed dramatically in the last two decades. Globalization and liberalization policies has also opened new opportunities for agricultural production. Agriculture received special attention from Indian government and development planners due to its significance in national Gross Domestic Production (GDP) and jobs, allowing this sector to production a significant role in country's financial growth and in increasing the income as well as living morals of the massive populace based on agriculture. Several problems have emerged in Indian agriculture over the last 15 years, and they are becoming progressively serious with the passage of time. The rate of the growth of the country also depends upon the agriculture as the Indian economy is agrarian economy. If the number of the people depend on agriculture increases that will decrease the per capita income as the resources are limited. This is thought to be a major cause of widespread rural distress and a large proportion of farmer suicides in different parts of the country. There are some serious challenges that need to be address within a predefined time frame in order to solve the problems before it gets too late for everybody.

Keywords: Agriculture, Biotechnology, Commodity prices, India, Natural resources.

Introduction

India is primarily a farming nation. For nearly two-thirds of India's employed community, agriculture is their only source of income. It is the most important aspect of the Indian economy. Agricultural production, along with its allied sectors, is without a doubt India's largest source of livelihood, and most main industries dependent on it for inputs [1]. Indian agriculture has changed significantly in the last two decades as a result of globalization besides liberalization policies that have brought new opportunities for agrarian modernization. Due to investments in the industry, this has resulted in not only corporatization and diversification, but also a heap of technical and institutional advances.

Agriculture now accounts for 18 percent of India's GDP, despite the fact that its share of national production has decreased from more than 50% in the Business & Management sector. Agriculture continues to be the main source of jobs and revenue for about 58 percent of the workforce. Agriculture received special attention from India's policymakers and development planners due to its significance in national production and jobs [2], allowing this segment to play a momentous role in the country's economy and in increasing the income and living standards of the huge populace depending on agriculture.

Supply characterization, in which credit is treated as an exponential function in the supply function, is one method for overcoming both fungibility and selectivity issues. Credit, on the other hand, will favor one crop over another. When the techniques are applied to a single crop, the demand effects can be overestimated or underestimated if the consequences on other crops are not taken into consideration. Estimating the effect of credit expansion on aggregate production is an easy way to get around this issue [3]. This is the approach to profit assessment that this article takes. This procedure has not been used in any other experiments that we are aware of. In an ideal world, one will be able to calculate the effect on total rural production, which would include crops, animals, and non-agricultural production from all rural (farm besides non-farm) households.

The rapid expansion of India's rural banking markets in the 1970s provided an outstanding opportunity for a statistical analysis. Following their nationalization in 1968, the large business banks have been told to extend their rural subdivision systems and increase their agricultural loaning. Agricultural credit was quickly extended by conventional co-operative organizations. The first aim of this paper is to determine effect of this development on agriculture besides the rural environment quantitatively [4]. We measure the effects of more credit on total

crop production, agricultural savings, fertilizer request, and labor utilization. We also calculate the effect of credit on non-farm jobs and salaries in rural areas.

India has subsidized the expansion of rural finance. Agricultural loan rates are lower than urban and business lending rates because they are set by the government. Commercial banks fund agricultural loan management with profits from other activities, effectively cross-subsidizing farming production. The government subsidizes the professional and noncredit system's running costs. Furthermore, comparatively high levels of past-due in addition to bad loans accumulate a debt that obligation be repaid by the taxpayer at some point.

Several problems have emerged in Indian agriculture over the last 15 years, and they are becoming increasingly serious with the passing of time. These are linked to production growth, performance, equity, and long-term viability. The most difficult task is to reverse the sharp decline in the agricultural sector's growth rate that began in the mid-1990s. The rate of growth has slowed in comparison to the increase in the number of people who depend on agriculture, meaning that agriculture's per capita income is declining. This is thought to be a major cause of widespread rural distress and a high number of farmer suicides in various parts of the country.

Another major task is to guarantee that natural capitals are used in a sustainable manner. Although need for increased agrarian growth is evident, the country's normal resource base is dwindling. In addition, there are symbols of terrestrial loss and water overexploitation in the region. Indian agriculture has faced significant challenges since the WTO (World Trade Organization), as internal prices of many commodities have risen above international prices. This has made imports more appealing while hurting exports [5]. The situation necessitates improving Indian agriculture's competitiveness, which necessitates increased productivity in agricultural production, marketing, and transportation, among other things.

In the world, there is a widespread belief that food market intervention has been benefited only agricultural land broadminded regions. The downpour besides dryland agricultural districts have been neglected. There is also thoughtful concern around the sustainability and future of small-scale farms, which account for the mainstream of both the country's farmers. Several factors/reasons have contributed to the country's current bleak agricultural image. For a long time, there has been a lack of consistent agricultural policy. The country won't change institutional structures or regulatory frameworks to establish an atmosphere conducive to agriculture sector and to adjust to different in the domestic and international environment, which was needed.

This is particularly true of private segment involvement in output as well as seed markets. The second explanation is that substructure has been ignored, and resources have been diverted to populist initiatives. The third cause is a slowdown in development reaching potential regions, as well as a weakened extension mechanism for technology distribution. It would be impossible to restore production growth on a consistent way and alleviate rural distress unless dramatic reforms are introduced in the agriculture sector [6]. There is increasing concern that if agriculture's challenges are not resolved quickly and efficiently, India's economy will struggle to rise from its current pace of about 5.6 percent to additional than 7 percent, as country aspires. According to the rate of population growth of 1.76 percent in cultivation since the mid-1992s, the non-agriculture sector must rise at a frequency of more than 12% to accomplish an overall development rate of 9% [7]. The Fig. 1 is representing the challenges by the individuals or group of people in agriculture.



Fig. 1: Challenges Faced by an Farmer or an Organisation in the Cultivation of the Food Grains

India's agriculture sector accounts for nearly 43% of the country's total land area. Despite a weakening in the farming share of India's GDP, agriculture remains the single largest contributor to the country's GDP. It also revealed an important part in the development of India's socio-economic sector. In the past, India is heavily reliant on food imports, but the growth of the Indian economy's agriculture sector has enabled it to become self-sufficient in grain production. The nation also has significant reserves in this region [8]. Following the 1960 food shortage, the agricultural industry, especially the food production unit. Since then, India has worked hard to become personality in agricultural production, and this initiative has resulted in the Green Revolution. While, in terms of share of GDP, services have surpassed manufacturing and now account for close to 15%. It employs half of the population, contributes to manufacturing, is a supplier of raw resources, in addition to is a request generator for numerous businesses.

Inflationary pay products, as calculated by food prices, is a main policy issue in the development process. The enquiry would be that the current trend in food increase is due to production inequities, with reduced farm development meeting the stresses of an elevated economy due to technical bottlenecks, or instead, vulnerability to exchange and product commodities, or a lack of institutional reform. Indian agriculture is based on a mechanism in which supply reacts to rising demand and rising prices. Alternative interpretations, such as mixed or mongrel, may be plausible. For example, in the food grains sector, restrictions may be institutional or policy-driven, whereas in the semi grain sector, market besides non-price factors matter, particularly within this part of farming that does not respond to values.

The mix of monetary and fiscal policies must be considered when assessing the effect of macroeconomic policy adjustments. A combination of restrictive fiscal and monetary policies would limit economic growth and could result in a recession or downturn with negative implications for all sectors. An excessively expansionary fiscal policy combined with an excessively expansionary monetary policy would result in rapid inflation and is therefore an unpopular policy combination [9]. The additional two proposed mixtures, contractionary fiscal

policy with tight financial policy and preventive fiscal policy with expansionary financial policy, are both common. Relationship between the macroeconomic policy have an effect on the agricultural economy by influencing interest rates and inflation. Variable profit margins, longstanding capital expenditure, cash movement, home prices, and conversation rates are all affected by changing interest rates, while increase influences input prices, asset prices, inflation and interest rates, and property values.

Given the global economy's increasing convergence, potential domestic in addition foreign policy shifts will have a uniform greater impact on the agricultural industry's financial results. As a result, understanding the links between the macroeconomic environment and agriculture is now becoming increasingly relevant for farmers and small farmers in making strategic decisions. There is widespread belief in the country that grocery market interference has supported only agricultural land advanced regions, while rained and dryland farming regions have been neglected.

1.1. Agricultural Economy Challenges

1.1.1. Dependency on Nature:

India's agriculture is predominantly rain-fed besides hence seriously dependent on countryside. Unnecessary monsoon or lack of rainfall, as well as excessively hot and dry weather, are all factors to consider. Droughts have a direct impact on the Company's results. Although these hazards can never be completely avoided, they can be mitigated by taking constructive steps and reacting quickly.

1.1.2. Outlook and Opportunities:

Over the past four and a half years, the global economy has been slowing. Fortunately, it has recovered at a slower pace; however, it still has weaknesses that must be addressed. Inflationary pressures, fiscal imbalances, infrastructure bottlenecks, and inefficiencies all necessitate structural reforms. Growth is only supposed to pick up modestly unless these shortcomings are resolved in a systematic manner. The Indian economy grew at a subbed rate of 4.7 percent, hampered by a go-slow in productivity, increasing increase, a weakening currency, and tight monetary strategies. As a consequence of these variables, the economy has continued to perform below its capacity. Agriculture could be the only exception in a year when other economic indicators failed to hit their targets.

Stronger development can be triggered if structural changes are introduced effectively. Despite a recent cyclical slowdown, India's long-term growth potential is high, with bright prospects for labor, worker skills, resources, infrastructure, and productivity. However, before the budget can accomplish and maintain this faster speed, reforms are needed [10]. While growth is expected to pick up in short term, the forecast is dependent on the removal of institutional bottlenecks that stifle investment. Enhancements in farming efficiency, as well as perishables marketing and distribution, are urgently needed. This includes God's possessions, cold storage facilities, and the APMC's (Agriculture Produce Market Committee) reform. This would not only lower inflation, but also upsurge supply by reducing waste. The price of food and processed products is growing, according the Indian Council for Agricultural Research's (ICAR) Vision 2030 paper, due to the growing population and per capita income [11].

According to projections, food grain demand will rise from 192 million tonne in 2000 to 345 million tonnes in 2030. As a result, food grain production would rise at a rate of 5.5 million tonn per year over the next 20 years. The demand for high-value products (such as horticulture, dairy, livestock, and fish) is growing faster than the demand for food grain, which is projected to grow by more than 100% between 2000 and 2030. Although this is a daunting and difficult challenge, it also provides numerous opportunities for the agricultural industry as a whole, ranging from the advancement of promising innovations and management options to increasing efficiency to meet rising food demand in a declining production environment at the lowest possible cost [12]. The lack of qualified farm labor will continue to be a source of concern for our farmers, with demand in the agriculture sector increasing to around 232 million from 229 million in 2011-12.

1.2. Strategies To Overcome The Challenges

The report published by the WTO for the global Trade figure has been showing that total import and export of the nutrition and forestry has been increase by the \$1.66 trillion and \$1.82 trillion respectively. The percentage of the India in this contribution has been counted as the 2.05 % and 1.34 % of the market share. The India's industry for the food production has been considered as the major exporter of the food item to the rest of the world. India is producing the approximately 250 million tonnes of the food production which includes more than 100 million tonnes of rice, more than 90 million tonnes of wheats and many more types of the food item like pulses. The growth of the food items for the export is the outcome of the continuous technological advancement in the field of the innovation.

According to data from the Department of Skill Development and Entrepreneurship (DIPP), FDI inflows into the agricultural activities and machinery sectors totaled US \$ 1,529.19 million and US \$ 327.35 million, respectively, from April 2000 to August 2013. Agriculture's growth goal in the 12th plan is expected to be 4%, up from 3.5 percent in the 11th plan, and agricultural productivity and growth must be maintained and increased in order to fulfil the country's grain production requirements. The government is also committed to reviving the agricultural sector. The 12th plan places a greater emphasis on small and marginal farmers, improves production in rain-fed regions, and makes value chain more efficient [13] The government is also working to revitalize the agricultural industry. The 12th plan prioritizes smallholder farmers, increases productivity in rain-fed areas, and streamlines the supply chain.

To have a significant impact on the cost of prices and production of farm products, India must expand its access to expense modern technologies, especially agricultural biotechnology. Tomato (china), papaya, and other Genetically Modified food crops have been grown and eaten safely all over the world (the US and China) [13]. Squash and zucchini, as well as corn (16 countries) (the US). Cotton farmers in India have had similar experiences with similar results. The Genetic Engineering Assessment Committee released its report in March 2014. (GEAC). Farm trials for 11 crops, except maize, were approved by a department of the auditor general. With the current government in place, India can expect more clarification on such crops.

In the era of Globalization, the rural societies can be adopting certain strategies for safeguarding their existence, livelihood and culture. The strategies include:

- Mobilization of the small farmers for regional campaigns. Building good coalition with different likeminded organizations (NGO's (Non-governmental Organization) and Trade Unions.)
- Establishing a Mechanism, to challenge the MNC (Multi-National Companies)
- Having deliberations with bankers and Industrialists in order to consult them with NGO's
- Setting goals with specified objectives so that they reach the grass root level of the rural societies.
- Planning at grass root level with full people participating in different levels
- Keeping gender balance
- Forming network among leaders in various levels with solidarity and commitment
- Creating common understanding and purpose among the people in all the sectors of the society.

1.2.1. Globalization and Poverty:

Technology services and engineering management are two distinct areas of importance in the region. In rural India, there will be new opportunities. Rural involvement in the global race is critical to India's economic development. Because of its unique outlook and branding methods, the position of villages in the new

economic strategy has taken on new significance. Food manufacturing and packaging, for example, is an environment where young entrepreneurs can make a significant impact.

To meet commodity prices, it could be coordinated collectively with the aid of co-operatives. Food crops and semi grains are the two types of agricultural products. 75 percent of overall crop output is made up of food grains. Annual growth rates in the agricultural sector have decreased from 3.9 percent to 2.6 percent in the pre-reform and post-reform periods, according to the agricultural growth report. Food grain growth rate was 2.9 percent from 1980 to 1990, but it fell to 1.4 percent from 1996 to 2006. Similarly, over the same time span, the growth rate of various food grains fell from 4.3 percent to 1.8 percent [14].

1.2.2. Decline in Employment:

Agricultural jobs in rural areas grew at a rate of 1.38 percent from 1983 to 1993-94, then fell to 0.12 percent during the post-reform period from 1993-94 to 2005-06. The growth rate of agricultural jobs in urban areas has also decreased dramatically, with 1.54% in the pre-reform period and -3.74 percent in the post-reform period [15]. Agriculture and related operations have seen a steady decrease in plan outlays over time, from 14.9 percent in the first plan to 5.2 percent in the twentieth. This clarifies that the government has stopped supporting the growth of the agriculture sector. As a result of globalization's effect on our agrarian economy, the plight of farm workers has deteriorated to an alarming degree. The portion of cultivation in our total domestic product (GDP) has declined from 54.56 per cent in 1951-52 to 27.87 per cent in 1999 – 2000 almost a 50 per cent reduction[16].

2. DISCUSSION

In addition, there are signs of land loss and water soil depletion in the region. Water protection and effective natural resource management are important. Higher authorities must prepare for the long term and commit their energies. Agriculture may benefit from a new viewpoint and branding techniques, as well as the use of biotechnology. Indian agriculture has faced significant challenges since the WTO, as domestic prices of many commodities have risen above international prices. Indian economy is based on a mechanism in which supply reacts to rising demand and rising prices. Inflationary pay products, as calculated by food prices, is a major policy issue in the development process. India's farming is predominantly rain-fed, in addition to hence deeply reliant on environment. Fig. 2 is representing the solution for the challenges faced by the individual or group of people in agriculture.

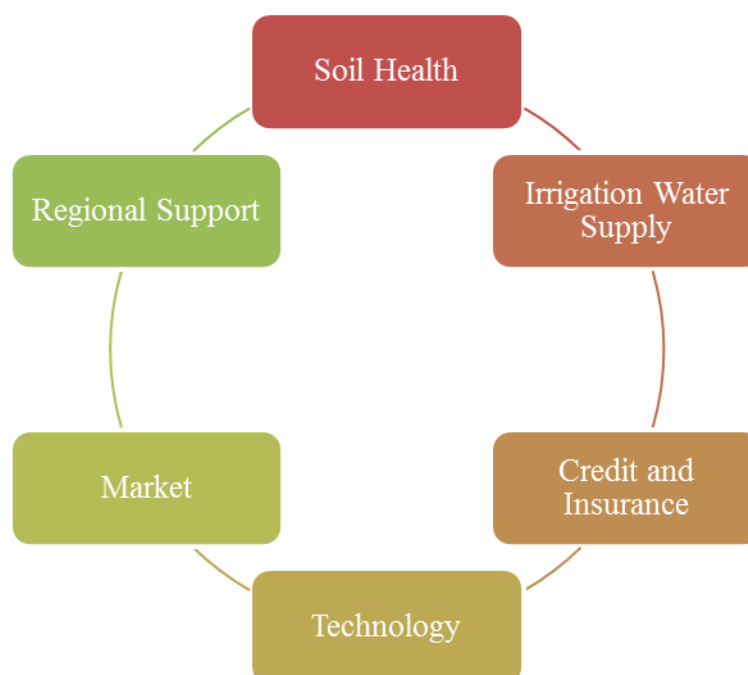


Fig. 2: A Solution of the Agriculture Solutions of the Challenges That May Have Been Faced by a Farmer

Extreme monsoon or lack of rainfall, enormously hot besides dry weather, and famines all have an impact on results. Although these hazards cannot ever be completely avoided, they can be mitigated by taking constructive steps and reacting quickly. Another problem is improving farm productivity, as well as marketing and distribution of perishables. Rural communities may follow such strategies to protect their life, livelihood, and culture in the age of globalization. Stronger development can be sparked if structural changes are implemented successfully. The Indian government has a significant role to play in protecting and strengthening our agricultural sector.

Areas with the possible to produce various agricultural commodities should be established, and production and promotion should be promoted in those areas. Agriculture trade liberalization has the potential to pay off handsomely for developing country like India. India should work to develop and improve a rule-based multilateral trading framework through WTO negotiations in order to realize this opportunity. Government efforts should be made to reduce transportation costs for agricultural export commodities. To raise awareness about the importance of agriculture sector development. The time has come to take the requisite steps to put innovation strategies into action. Otherwise, food production would be seriously hampered.

The Indian government has been implementing lot of new technological innovation in the field of the agriculture to increase the production and at the same time retain the fertility power of the soil as it is well known fact that the fertility power of the soil has been decreased with each season of the cultivation. The problem of the soil fertility may occur in the field, where fertilizer is used a lot during the cultivation and that make the soil less fertile. The government has stated the scheme of the soil Health Card, where a health card of the soil will be issued to each farmer after a lab test of the soil in his/her field and farmer will be given suggestion on the basis of the health card of the soil. Apart from this, water supply band electric supply is also counted as a main factors for the growth of the agriculture as the water is the main factor to save the crops in the area, where rain is not sufficient for the agriculture.

A Record Green Movement is needed to increase demand. As a result of the first Revolution, Punjab became the leading producer of wheat. As a result, the only way to manage the agricultural growth deficit is to have a second Green Movement. In essence, the second Industrial Revolution will keep the planet green and prevent it from turning into a barren wasteland. To - the cost of movement, strict steps to end corruption at checkpoints and lower taxes on transportation firms are needed. The export of agricultural products must be prioritized, since this will result in rural development and a large number of job opportunities. Agriculture can be made more buoyant, efficient, and commercial if urgent steps are taken. India has the ability to take a leading role in the WTO in the future.

3. CONCLUSION

Even after 65 years of independence and 11 Five-Year Plans, Indian agriculture is still at a fork in the road. During the previous WTO era, Agriculture sector suffered a setback. Farming subsidies in developed countries have been expanded during the post-WTO era, according to the share of agro foods in India's global export. As a result, India is finding it difficult to compete in the global agricultural market. The agricultural food trade will most likely become oligopolistic in this situation. Due to rising production costs, a slow rate of increase in production, a poor marketing system, and an improvement in input intensity, commodity returns have been declared.

As a result, India is having difficulty competing in the global agricultural market. The global agricultural trade would more than likely become oligopolistic in this situation. Commodity yields have been announced as a result of rising production prices, a sharp drop in production, poor pricing policies, and increased input power. In importing countries, marketing strategy should be improved, and security should be prepared accordingly in terms of quality and quantity. Long-term market patterns favor fisheries, poultry, and traditional products, as well as horticulture and manufactured goods.

As a result, export of these products may be encouraged. Increased infrastructure spending in post-harvest management should be undertaken by the federal and state governments, including highway expansion and rural road improvements. To evolve improved crop varieties and by birds, computerized networking of Germless centers is needed. The most important criterion is to improve our agriculture products' quality, productivity, and expense. To meet the WTO challenge, we must lower our production costs, which can be done by cultivating hybrids and implementing natural pest control strategies. The focus should be on providing farmers with education in hybrid seed development and propagation.

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