



IMPACT OF ECONOMIC REFORM FOR SUSTAINABLE AGRICULTURE DEVELOPMENT IN INDIA AND ITS CHALLENGES

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Abstract

Agriculture sector is an important contributor to the Indian economy around which socio-economic privileges and deprivations revolve and any change in its structure is likely to have a corresponding impact on the existing pattern of social equity. Sustainable agricultural production depends upon the efficient use of soil, water, livestock, plant genetics, forest, climate, rainfall, and topology. The role of agricultural sector in Rajasthan economy can be seen through its contribution to GDP (Gross domestic Product) and employment. This sector also contributes significantly to sustainable economic development of the country. The sustainable agriculture development of any country depends upon the judicious mix of their available natural resources. Studies also show that the economic liberalization and reforms process have impacted on agricultural and rural sectors very much. This article focused on impact of economic reform for sustainable agriculture development in India and its challenges.

1. OVERVIEW

The Indian agriculture sector has been undergoing economic reform since 1990s in a move to liberalize the economy to benefit from globalization. India, which is one of the largest agriculture based economies, remained closed until the early 1990s. In 1991, the new economic policies stressed both external sector reforms in the exchange rate, trade and foreign investment policies and internal reform in areas such as industrial policies, price and distribution controls, and fiscal restructuring in the financial and public sector. India's economic reforms were initiated in June 1991, but it was observed that the expected increase in exports due to liberalization did not occur. In addition, the agriculture sector's output growth decreased during 1992-1993 to 1998-1999.

The reason behind this was the decline in the environmental quality of land, which reduced the marginal productivity of the modern inputs in Rajasthan. Agriculture sector is the mainstay of the Indian economy around which socio-economic privileges and deprivation revolve, and any change in its structure is likely to have a corresponding impact on the existing pattern of social equality.



No strategy of economic reform can succeed without sustained and broad based agriculture development, which is critical for raising living standards, alleviating poverty, assuring food security, making substantial contribution to the national economic growth. Since agriculture continues to be a tradable sector, this economic liberalization, and reform policy has a far reaching effect on:

- Agricultural exports and imports
- Investment in new technologies
- Pattern of agricultural growth
- Agricultural income and employment
- Agricultural price
- Food security

The central issue in agricultural development is the necessity to improve productivity, generate employment, and provide a source of income to the poor segments of population. Studies by FAO have shown that small farms in developing countries contribute around 30-35% to the total agricultural output. The pace of adoption of modern technology in India is slow and the farming practices are too haphazard and unscientific. Some of the basic issues for development of Indian agriculture sector are revitalization of cooperative institutions, improving rural credits, research, human resource development, trade and export promotion, land reforms and education[1-6].

Agriculture sector is an important contributor to the Indian economy around which socio-economic privileges and deprivations revolve and any change in its structure is likely to have a corresponding impact on the existing pattern of social equity. Sustainable agricultural production depends upon the efficient use of soil, water, livestock, plant genetics, forest, climate, rainfall, and topology.

Indian agriculture faces resource constraints, infrastructural constraints, institutional constraints, technological constraints and policy induced limitations. Sustainable development is the management and conservation of the natural resource base and the orientation of technological and institutional change in such a manner as to ensure the attainment and continued satisfaction of human needs for the present and future generations.

2. IMPACT OF ECONOMIC REFORMS ON AGRICULTURAL SECTOR



Agricultural Sector is the mainstay of the rural Indian economy around which socio-economic privileges and deprivations revolve and any change in its structure is likely to have a corresponding impact on the existing pattern of Social equity. Sustainable Agricultural production depends on the judicious use of natural resources (soil, water, livestock, plant genetic, fisheries, forest, climate, rainfall, and topography) in an acceptable technology management under the prevailing socio-economic infrastructure. Various research studies and policy papers highlight that the Indian Agricultural sector faces resource constraints, infrastructure constraints, institutional constraints, technology constraints, and policy induced limitations. To achieve sustainable agricultural development, it is essential to combine natural resources, capital resources, institutional resources, and human resources (i.e. to optimally utilize the agricultural resources). As an enabling technology, Information Technology (IT) plays an important role in the rapid economic growth and social transformation in developing countries.

Information Technology and Bio-Technology, which are “the drivers” of globalization with their complementarities of liberalization, privatization and tighter Intellectual Property Rights (IPR), are bound to create new risks of marginalization and vulnerability in the Indian Agricultural sector. To reduce the risks of marginalization and vulnerability, This research suggests development of a comprehensive Agricultural Resources Information Systems using Geometrics Technology in districts with public funding, facilitating sustainable agricultural development, and also suggests the need for development of metadata and application of Open GIS model for optimal utilization of agricultural resources in India.

The existence or absence of favorable natural resources can facilitate or retard the process of economic development. Natural resources determine the course of development and constitute the challenge which may not be accepted by the human mind”. Developing countries, embarking on programmers of economic development, “usually have to begin with and concentrate on the development of locally available natural resources as an initial condition for lifting local levels of living and purchasing power, for obtaining foreign exchange with which to purchase capital equipment, and for setting in motion the development process”.

Economic reform process

Since July, 1991 the country has taken a series of measures to structure the economy and improve the balance of payments position. The New Economic Policy (NEP-1991) introduced changes in the areas of trade policies, monetary & financial policies, fiscal & budgetary policies, and pricing & institutional reforms. The salient features of NEP-1991 are

- (i) Liberalization (internal and external),



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- (ii) Extending privatization,
 - (iii) Redirecting scarce public sector resources to areas where the private sector is unlikely to enter,
 - (iv) Globalization of economy, and
 - (v) Market friendly state.

Research reports reveal that this macro-economic adjustment programmer is remarkable for its relatively painless transition compared with similar programmers elsewhere and a large part of the credit for absorption of these shocks is due to the steady increase in agricultural production. The GATT Agreement signed in 1995 will fundamentally change the global trade picture in agricultural sector.

3. IMPACT OF ECONOMIC REFORMS PROCESS ON INDIAN AGRICULTURAL SECTOR

Agricultural sector is the mainstay of the rural Indian economy around which socio-economic privileges and deprivations revolve, and any change in its structure is likely to have a corresponding impact on the existing pattern of social equality. No strategy of economic reform can succeed without sustained and broad based agricultural development, which is critical for

- Raising living standards,
- Alleviating poverty,
- Assuring food security,
- Generating buoyant market for expansion of industry and services, and
- Making substantial contribution to the national economic growth.

Studies also show that the economic liberalization and reforms process have impacted on agricultural and rural sectors very much. There are three sectors of economy in India, the tertiary sector has diversified the fastest, and the secondary sector the second fastest, while the primary sector, taken as whole, has scarcely diversified at all. Since agriculture continues to be a tradable sector, this economic liberalization and reform policy has far reaching effects on

- (I) agricultural exports and imports,



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- (II) investment in new technologies and on rural infrastructure
 - (III) patterns of agricultural growth,
 - (IV) agriculture income and employment,
 - (V) agricultural prices and
 - (VI) food security

Reduction in Commercial Bank credit to agriculture, in lieu of this reforms process and recommendations of Khusrao Committee and Narasingham Committee, might lead to a fall in farm investment and impaired agricultural growth. Infrastructure development requires public expenditure which is getting affected due to the new policies of fiscal compression. Liberalization of agriculture and open market operations will enhance competition in “resource use” and “marketing of agricultural production”, which will force the small and marginal farmers (who constitute 76.3% of total farmers) to resort to “distress sale” and seek for off-farm employment for supplementing income.

Plan Strategy on Agricultural Development

The agricultural development strategy for the Ninth Five Year Plan is essentially based on the policy on food security announced by the Government, to double the food production and make India hunger free in ten years. The Strategy to ensure food security is as follows:-

- Doubling food production
- Increase in employment & incomes
- Supplementary/sustained employment and creation of rural infrastructure through Poverty Alleviation Programmes (PAP)
- Distribution of food grains to the people Below Poverty Line (BPL)

The Ninth Plan Target is to achieve a growth rate of about 4.5% per annum agricultural output and production of 234 MT of food grains. The Policy thrust and key elements of Growth strategy, as proposed in the Ninth Five Year Plan Document, are as follows:-

- Conservation of land, water, and biological resources
- Rural infrastructure development



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- Development of rainfed agriculture
 - Development of minor irrigation
 - Timely and adequate availability of inputs
 - Increasing flow of credit
 - Enhancing public sector investment
 - Enhanced support for research
 - Effective transfer of technology
 - Support for marketing infrastructure
 - Export promotion

The Ninth Five Year Plan Document reveals that development of the vast rain-fed areas of about 90MH would require over Rs.37, 000 Crores. Further, scientific treatment for soil and water conservation for 12 MH of arable and 3 M.H of non-arable land would require about Rs.7500 Crores.

4. CHALLENGES OF SUSTAINABLE AGRICULTURE DEVELOPMENT IN INDIA

Therefore there is need to tackle the issues related to sustainable agriculture development. The issues of sustainable development can be discussed under three broad types of farming systems viz. traditional production system, modern agriculture system and sustainable agriculture system. Further, we can compare them across three dimensions, ecological, economic, and social sustainability. Most of the traditional and conventional farm practices are not ecologically sustainable. They misuse natural resources, reducing soil fertility causing soil erosion and contributing to global climatic change. But sustainable agriculture has some major advantages over traditional practices:

Soil Fertility: Continuous fall in soil fertility is one of the major problems in many parts of India. Sustainable agriculture improves fertility and soil structure.

Water: Irrigation is the biggest consumer of fresh water, and fertilizer and pesticides contaminate both surface and ground water. Sustainable agriculture increase the organic matter content of the top soil, thus raising its ability to retain and store water that falls as rain.



Biodiversity: Sustainable agriculture practices involve mixed cropping, thus increasing the diversity of crops produced and raising the diversity of insects and other animals and plants in and around the fields.

Health and population: Chemicals, pesticides, and fertilizers badly affect the local ecology as well as the population. Indiscriminate use of pesticides, improper storage etc. may lead to health problems. Sustainable agriculture reduces the use of hazardous chemical and control pests.

Land use pattern: Over-exploitation of land causes erosion, landslides, and flooding clogs irrigation channels and reduces the arability of the land. Sustainable agriculture avoids these problems by improving productivity, conserving the soil etc.

Climate: Conventional agriculture contributes to the production of greenhouse gases in various ways like reducing the amount of carbon stored in the soil and in vegetation, through the production of Methane in irrigated field and production of artificial fertilizers etc. By adopting sustainable agriculture system, one can easily overcome this problem.

For agriculture to be sustainable, it ought to be financially reasonable over the long haul. Conventional agriculture includes more monetary hazards than sustainable agriculture in the long haul. Here and there governments are slanted to see send out arranged production frameworks as more significant than supply residential requests. This isn't right. Concentrating on sends out alone includes shrouded costs: in transport, in guaranteeing local food security, and so forth. Policies should treat residential interest and specifically food security as similarly critical to the unmistakable exchange balance Rajasthan. It is a mainstream confusion that particular wares guarantee high monetary returns. Be that as it may, market production infers certain dangers as markets are whimsical and change rapidly. Modest outside food may clear into the national market, leaving Rajasthan farmers without a market.

5. CONCLUSION

In fact agriculture determine the fate of a country like India where about two-thirds of the population still lives in rural India with agriculture as its livelihood, in spite of the increasing urbanization that has been taking place since many decades. Therefore if agriculture goes wrong, it will be really bad for the economy as the falling of agricultural growth not only affects employment but GDP too (thus increasing poverty). The larger objective for the improvement of agriculture sector can be realized through rapid growth of agriculture, which depends upon increasing the area of cultivation, cropping intensity, and productivity in Rajasthan. Rajasthan, increasing productivity is more important than the rest of the two. This is simply because of increasing urbanization, industrialization and the limited land size of the country. The



productivity can be increased by two ways. The first method is better with respect to productivity and sustainability. But due to increasing population, this method cannot provide a permanent solution. Thus, we can go for the second method, which may potentially cause environmental degradation in the economy and affect its sustainability.

Policy reforms are needed from now to avoid the negative developments in the years to come. These reforms may include the establishment of secure water rights to users, the decentralization and privatization of water Management functions to appropriate levels, pricing reforms, markets in tradable property rights, and the introduction of appropriate water-saving technologies.

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