Research Chronicler: International Multidisciplinary Refereed Peer Reviewed Indexed Research Journal
ISSN: Print: 2347-5021 www.research-chronicler.com ISSN: Online: 2347-503X

A Brief Study of Indian Agriculture: Some Issues and Challenges

Dr. Ashraf Ali

Project Girls High School, Sariya, Muzaffarpur, (Bihar) India

Abstract: Agriculture is the backbone of the Indian Economy"- said Mahatma Gandhi five decades ago. Even today, as we enter the new millennium, the situation is still the same, with almost the entire economy being sustained by agriculture, which is the mainstay of the villages in India. Not only the economy, but also every one of us looks up to agriculture sector for our sustenance too.

Key Words: Agriculture, issues, challenges

Agriculture is the backbone of the Indian Economy"- said Mahatma Gandhi five decades ago. Even today, as we enter the new millennium, the situation is still the same, with almost the entire economy being sustained by agriculture, which is the mainstay of the villages. Not only the economy, but also every one of us looks up to agriculture for our sustenance too.

Significance of Agriculture:

Although agriculture contributes only 21% of India's GDP, its importance in the country's economic, social, and political fabric goes well beyond this indicator. The rural areas are still home to some 72 percent of the India's 1.1 billion people, a large number of whom are poor. Most of the rural poor depend on rain-fed agriculture and fragile forests for their livelihoods.

The sharp rise in food grain production during India's Green Revolution of the 1970s enabled the country to achieve self-sufficiency in food grains and stave off the threat of famine. Agricultural intensification in the 1970s to 1980s saw an increased demand for rural labor that raised rural wages and, together with declining food prices, reduced rural poverty. Sustained, although much slower, agricultural growth in the 1990s reduced rural poverty to 26.3 percent by 1999/00. Since then, however, the slowdown in agricultural growth has become a major cause for concern. India's rice yields are one-third of China's and about half of those in Vietnam and Indonesia. With the exception of sugarcane, potato and tea, the same is true for most other agricultural commodities. The Government of India places high priority on reducing poverty by raising agricultural productivity. However, bold action from policymakers will be required to shift away from the existing subsidy-based regime that is no longer sustainable, to build a solid foundation for a highly productive, internationally competitive, and diversified agricultural sector Issues and Challenges.

It is here the challenge arises considering the implementation of the technology at various levels in the Global community. The need of the hour is not application of the technology but the adoption of appropriate technology, which would suit the particular level of the global community. In India, the farming practices are too haphazard and nonscientific and hence need some fore thought before implementing any new technology.

Applications of agricultural inputs at uniform rates across the field without due regard to in-field variations in soil fertility and crop conditions does not yield desirable results in terms of crop yield. The management of in-field variability in soil fertility and crop conditions for improving the crop production and minimizing the environmental impact is the crux of precision farming.

Thus, the information on spatial variability in soil fertility status and crop conditions is a pre-requisite for adoption of precision farming. Space technology including global positioning system (GPS) and GIS holds good promise in deriving information on soil attributes and crop yield, and allows monitoring seasonally- variable soil and crop characteristics, namely soil moisture, crop-phenology, growth, evapotranspiration, nutrient deficiency, crop disease, and weed and insect infestation, which, in turn, help in optimizing inputs and maximizing crop yield and income. Though widely adopted in developed countries, the adoption of precision farming in India is yet to take a firm ground primarily due to its unique pattern of land holdings, poor infrastructure, lack of farmers' inclination to take risk, socio-economic and demographic conditions.

Factors Contribution to Decline of Agriculture:

Slow Down in Agricultural and Rural Non-Farm Growth: Both the poorest as well as the more prosperous 'Green Revolution' states of Punjab, Haryana, Andhra Pradesh and Uttar Pradesh have recently witnessed a slow-down in agricultural growth and it ultimately lead for farmer's suicide. Some of the factors hampering the revival of growth are

Over-regulation of domestic agricultural trade: While economic and trade reforms in the 1990s helped to improve the incentive framework, over-regulation of domestic trade has increased costs, price risks and uncertainty, undermining the sector's competitiveness.

Poor composition of public expenditures:

Public spending on agricultural subsidies is crowding out productivity enhancing investments such as agricultural research and extension, as well as investments in rural infrastructure, and the health and education of the rural people. In 1999/2000, agricultural subsidies amounted to 3 percent of GDP and were over 7 times the public investments in the sector.

Inadequate infrastructure and services in rural areas:

Infrastructure is also a significant factor in the process of development but country like our rural Bharat has not possessed the infrastructure such as roads, electricity, fertilizer and pesticides availability which caused the vulnerable damage to the growth of agriculture.

Weak Framework for Sustainable Water Management and Irrigation:

Inequitable Allocation of Water:

Many states lack the incentives, policy, regulatory, and institutional framework for the efficient, sustainable, and equitable allocation of water. Deteriorating irrigation infrastructure: Public spending in irrigation is spread over many uncompleted projects. In addition, existing infrastructure has rapidly deteriorated as operations and maintenance is given lower priority.

Inadequate Access to Land and Finance:

Stringent land regulations discourage rural investments: While land distribution has become less skewed, land policy and regulations to increase security of tenure (including restrictions or bans on renting land or converting it to other uses) have had the unintended effect of reducing access by the landless and discouraging rural investments. Computerization of land records has brought to light institutional weaknesses: State government initiatives to computerize land records have reduced transaction costs and increased transparency, but also brought to light institutional weaknesses.

Government Interventions in Labor, Land, and Credit Markets:

More rapid growth of the rural non-farm sector is constrained by government interventions in factor markets — labor, land, and credit — and in output markets, such as the small-scale reservation of enterprises.

Rural poor have little access to credit: While India has a wide network of rural finance institutions, many of the rural poor remain excluded, due to inefficiencies in the formal finance institutions, the weak regulatory framework, high transaction costs, and risks associated with lending to agriculture.

Weak Natural Resources Management:

One quarter of India's population depends on forests for at least part of their livelihoods. A purely conservation approach to forests is ineffective: Experience in India shows that a purely conservation approach to natural resources management does not work effectively and does little to reduce poverty. Weak resource rights for forest communities: The forest sector is also faced with weak resource rights and economic incentives for communities, an inefficient legal framework and participatory management, and poor access to markets. Weak delivery of basic services in rural areas: Low bureaucratic accountability and inefficient use of public funds: Despite large expenditures in rural development, a highly centralized bureaucracy with low accountability and inefficient use of public funds limit their impact on poverty. In 1992, India amended its Constitution to create three tiers of democratically elected rural local governments bringing governance down to the villages. However, the transfer of authority, funds, and functionaries to these local bodies is progressing slowly, in part due to political vested interests. The poor are not empowered to contribute to shaping public programs or to hold local governments accountable.

Measures Needed Areas:

Strengthening institutions for the poor and promoting rural livelihood Promoting Community-Based Rural Development: State Government efforts in scaling up livelihood and community-driven development approaches will be critical to build social capital in the poorest areas as well as to expand savings mobilization, promote productive investments, income generating opportunities and sustainable natural resource management. Direct support to self-help groups, village committees, user's associations, savings and loans groups and others can provide the initial 'push' to move organizations to higher level and access to new economic opportunities. Moreover, social mobilization and particularly the empowerment of women's groups, through increased capacity for collective action will provide communities with greater "voice" and bargaining power in dealing with the private sector, markets and financial services. Strengthening Accountability for Service Delivery: As decentralization efforts are pursued and local governments are given more prominence in the basic service delivery, the establishment of accountability mechanisms becomes critical. Local governments' capacity to identify local priorities through participatory budgeting and planning needs to be strengthened. This, in turn, would improve the rural investment climate, facilitating the involvement of the private sector, creating employment opportunities and linkages between farm and non-form sectors.

Enhancing agricultural productivity, competitiveness, and rural growth Enhancing productivity: Creating a more productive, internationally competitive and diversified agricultural sector would require a shift in public expenditures away from subsidies towards productivity enhancing investments. Second it will require removing the restrictions on domestic private trade to improve the investment climate and meet expanding market opportunities. Third, the agricultural research and extension systems need to be strengthened to improve access to productivity enhancing technologies. The diverse conditions across India suggest the importance of regionally differentiated strategies, with a strong focus on the lagging states. Improving Water Resource and Irrigation Drainage Management: Increase in multi-sectoral competition for water highlights the need to formulate water policies and unbundle water resources management from irrigation service delivery.

Other key priorities include:

(i) Modernizing Irrigation and Drainage Departments to integrate the participation of farmers and other agencies in irrigation management;

(ii) Improving cost recovery;

(iii) Rationalizing public expenditures, with priority to completing schemes with the highest returns; and

(iv) Allocating sufficient resources for operations and maintenance for the sustainability of investments. Strengthening rural non-farm sector growth: Rising incomes are fueling demand for higher-value fresh and processed agricultural products in domestic markets and globally, which open new opportunities for agricultural diversification to higher value products (e.g. horticulture, livestock), agro-processing and related services. The government needs to shift its role from direct intervention and overregulation to creating the enabling environment for private sector participation and competition for agribusiness and more broadly, the rural non-farm sector growth. Improving the rural investment climate includes removing trade controls, rationalizing labor regulations and the tax regime (i.e. adoption of the value added tax system), and improving access to credit and key infrastructure (e.g. roads, electricity, ports, markets).

Improving access to assets and sustainable natural resource use balancing poverty reduction and conservation priorities: Finding win-win combinations for conservation and poverty reduction will be critical to sustainable natural resource management. This will involve addressing legal, policy and institutional constraints to devolving resource rights, and transferring responsibilities to local communities. Improving access to land: States can build on the growing consensus to reform land policy, particularly land tenancy policy and land administration system. States that do not have tenancy restrictions can provide useful lessons in this regard. Over the longer term, a more holistic approach to land administration policies, regulations and institutions is necessary to ensure tenure security, reduce costs, and ensure fairness and sustainability of the system.

Improving access to rural finance: It would require improving the performance of regional rural banks and rural credit cooperatives by enhancing regulatory oversight, removing government control and ownership, and strengthening the legal framework for loan recovery and the use of land as collateral. It would also involve creating an enabling environment for the development of Micro-finance institutions in rural areas.

References:

1. David Rindos (1984): “The Origins of Agriculture: An Evolutionary Perspective” Academic Press,
2. Bottelier, Pieter What India (2007): “Can Learn from China and Vice Versa", China & World Economy, Volume 15, Number 3, May-June , pp. 52-69(18)
3. Aggarwal G.C (1995): "Fertilizer and irrigation management for energy conservation in crop production": Fuel and Energy Abstracts, Volume 36, Number 5, pp. 383-383(1), Elsevier Publisher.
4. Schuh, G.E. (2002): Developing country interests in WTO agricultural policy. Political economy of international trade law: essays in honor of Robert E. Hudec / ed. by D.L.M. Kennedy and J.D. Southwick. Cambridge: Cambridge University Press, p. 435-449.
5. Society of American Foresters (1997) Agriculture and Forestry in China; Journal of Forestry, Volume 15, Number 8 -1 December, pp. 1014-1016(3).
6. Kulshreshtha, S. (1996): “Indian agriculture and GATT and WTO: Some Reflections - India and WTO”: Udhayam Offset, Madras.