RECENT TRENDS AND FUTURE PERSPECTIVES OF AGRICULTURAL ENHANCEMENT IN INDIA

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Abstract

Subsequently 20 years of foreign contributors neglected, cultivation is back on the front lines again because food insecurity and hunger are growing at high food prices. Product and production of food in developing countries, especially in India and smallholders, will become essential in the coming years. However, this calls for a series of difficult technological, institutional and political issues, including ground markets, seed and input research, agricultural growth, credit, rural infrastructure, customer connections, rural non-farm jobs, trade and the stabilization of food prices. This paper analyses the economic literature in this area.It will also address the role and interaction between farmers, convicting of the Green Revolution and the foundation for agricultural growth, issues relating to income diversification for farmers, rural development approaches, world trade challenges and sustainable development policies, at their core.

Key words: Agriculture, India, Farming, Marketing, System

Introduction

Agriculture remains a key part of growth, especially in low income countries where the sector is substantial in overall and aggregated revenues. In order to reap the impacts of neglect and prosperity during the first decade in the 21st century, agriculture, this was a major concern for developing countries, investors and the international community in the sixties and the seventies, faded from the development agenda in 1980s and 1990s (shown in Figure 1).There is renewed interest in problems in the sector, as the International Development Assessment, Science and Technology-IAASTD, 2009 (World Development Report, World Bank Agriculture for Development and Cross-Cover Agriculture) all stem from the national consultations processes of researchers, policy makers, and funding agencies [1].



Figure 1: Illustrates Agricultural support trends, assistance commitments, 1973-2007, five-year averages shifting and annual estimates, 2007 constant costs [OECD DAC].

For example, during their meeting in Aquila, Italy in 2009, the G8 countries committed \$22 trillion to invest in agriculture. The commitments were committed to the food, environment and financial crises simultaneously following and after three world crises. Over a four-year stretch, food prices have risen twice. Food prices peaked in June 2008, and the UN Food and Agriculture Organization (FAO) reported another high record in March 2011. Drought, explosion and monsoon floods in several countries have caused devastation from Russia to Pakistan. This has led to malnutrition, food insecurity in developed countries and poverty vulnerability[2].

There are two agricultural problems. The first is the need in developing countries, especially India to increase food production and productivity. A variety of problems must be tackled in order to accomplish thisownership, seed and supplies research and development, irrigation, fertilizers, agricultural expansion, credit, rural structure, storage and business connections. The second issue is food price fluctuations, mostly due to uncontrolled events in the developing countries. An array of interconnected acts will lead to ensuring the required food for the most vulnerable countries and citizens. This article has a modest intention to study the agricultural economic literature and concentrate on crucial issues for farm production and the reduction of poverty.

The role of farming in interacting agriculture with other economic sectors is addressed within the development process. Agriculture contributes by creating income and employment in rural areas to raise wealth and poverty in developed countries and to food supplies at good rates in urban areas. The sector is very significant in low-income countries where about 60% of employees are working in agriculture. 25% of gross domestic product (GDP) is paid for (but only 9% in middle and 1% in high income countries). Rural areas are home to 3 billion of the 5.5 billion inhabitants in developing countries. For 86% of these rural households, agriculture is the main livelihood source. Roughly 75% of the poor people still live in rural areas, deriving much of the farm sector's revenue and related activities. In agriculture provides food, income and jobs. Agriculture is a majoryet very difficultdimension of development policy to balance industry and agriculture. The views of agro pessimists have recently been expressed in the literature on the basis of observation that agriculture is often the least profitable in developing countries[3].

Let us look back at the Green Revolution determinants and examine the underpinnings of agrarian development. The agricultural mode has been intense and includes the adoption of new varieties by farmers, irrigation and a heavy use of (predictable environmental effects) fertilizers and good institutions, thanks to the continuous increase of yield in developed countries. In the next decades, massive productivity increases will be required in India to coincide with the rest of the world. Therefore, the problem is something else. Any further expansion of croplands (the source of slow increases in yields in the past) would not be feasible with few exceptions. A development and expansion of sustainable irrigation systems is needed for new seeds resistant to climatic risks and tailored to local conditions. Institutional and economic problems are the worst. Loweducation insurance and credit markets, restricted consumer access and knowledge for the market, and precarious property and rights of use are also not able to internalize the benefits of productivity (comparing them to large farms). Thus, though new research and developments likeGenetically modified organism (GMO) and extension lead services are essential for future growth and poverty reduction, the right of fundamental institutions is a prerequisite for development and a priority on the agribusiness development agenda[4].

We extend our scope and look at the entire rural industry and look at the reasons for the diversification of rural households' incomes and the examination of different rural development approaches. Other jobs are a significant income source for rural households, and an important way to address the need of insurance and credit markets, for poor and effective rural households out of poverty. The rural non-farm market, however, offers additional employment opportunity, a poverty alleviation instrument and does not automatically guarantee upward mobility by diversifying farmers' incomes. This needs adequate preparation, information and access to non-farm work. Rural planning initiatives therefore need to take account of these needs in their strategies. Previous experiences showed that the private supply of certain goods and facilities which without difficultyflop, which is why it is necessary for the "status of enabling" to organize and initiate these activities without being the only

service provider. Its implementation can benefit from efforts of the private sector and the skills of local civil society. An effective management of joint resources and local initiatives can be achieved through new methods such as communitybased growth. Howeverthe lessons from the past get value among members of the society of egalitarian interests and social capital. The centralization of the programme and its decentralization are therefore vital to the sustainable development of rural areas[5].

In lowincome countries, poverty reduction is critical to the framework of World Trade Organization (WTO) trade negotiations. These trade barriers should be further reduced by developing countries, as exports to lowincome countries primarily constitute agricultural products, which are often lost to current protectionism. This must be accompanied by the elimination of trade barriers by development countries in order to be successful in the negotiations. Price instability and beggar-thy-neighbor policies aimed at stabilizing the price of food and ensuring national food safety have hurt vulnerable and disadvantaged communities during the 2008 food crisis and have reversed previous advances in global chronic poverty reduction. Trade and market intervention have struggled or met with little success in stabilizing agricultural prices. Even when domestic prices were able to be stabilized by unilateral policies, external market volatility increased, leading to a vicious cycle of similar responses by other countries. The primary goal of the stabilization strategy should focus on mitigation and risk management measures for the lowest income classes (which have been greatly affected by the change in food prices). Some social security networks and insurance schemes have seen to make up for agricultural price shocks and to help poor households escape food shortages and cope with exceptional earnings shocks. However, the best measure for shielding small farmers from income shocks is an ex ante practice such as increased production, which decreases the risk of shock.But ex ante strategies such as increased productivity that decrease shock risks are the best way to protect farmers in small scale against income shocks[6].

Literature Review

The Indian agriculture sector is well known for its varied climate trends, crop patterns and various policy recommendations. It cannot be confidently said that the production of food grain due to poverty, malnutrition and hunger has achieved full self-sufficiency. Agriculture development cannot be boosted by policy change alone. Reasonable and cost effective public expenditure such as rural infrastructure, irrigation, farm science, and education and rural health must accompany these policy reforms. However, Robert E. Evenson et al. are responsible for the future of agriculture based on the structure of government fiscal policy and the correct type of public expenditure[7]. India today is one of the world's largest agricultural research ventures. Through the use of modern technology and innovation, it has now achieved the gradual scale of agricultural development. There is a falling trend of research and development in many developing countries, for which overall productivity has decreased substantially. Restoring agricultural R&D spending growth may be important in order to avoid a crisis of longterm food prices, Julian M. Alston et al. [8]. The advancements in agriculture, genetic enhancement, the usage as a whole of chemical fertilizers and pesticides and the adoption in developing countries of agricultural equipment and machinery, cultural and management practices. Research has been the main source of emerging technology and management in both the public and private sectors. The R&D department of private sector in reality grew much faster than the expenditure on agricultural research, Wallace E. Huffman et al.[9]. Electronic engineering and environmental activities have recently been attempted to incorporate the effectiveness of products, processes and practices in the agricultural region. With the eco innovation strategy, lower natural resource use, less carbon pollution volumes and strong incentives to environmentally sustainable business practices can be achieved. Certain creative farming core businesses will in fact boost productivity and their contribution to GDP. The effects of the atmosphere and climate change, which play the main role in development and other economic activities, may well be closely examined. In combination with the storage, marketing, recycling, jobs and clientbased strategies on the whole idea of green revolution, the farm and the rural community seems to be optimistic, Lynn M Martinet al.[10]. The economic survey report mentioned, following incidents in the Indian agriculture sector.

- a) The productivity growth rates are well below global expectations in the agriculture sector.
- b) After a green revolution in the 1980s, productivity levels of rice and wheat have fallen.

c) A gradual decrease in soil fertility has been observed by the decreased fertilizer efficiency. In addition, in the last few years the subsidy for food has risen considerably.

d) The survey shows that GDP was increased to 15.2% in the 11th Plan and then decreased further to 13.9% in 2013-14.

e) The number of growers from 127.3 million (Census 2001) has also deteriorated to 118.7 million (128.2 million) (Census 2011).

f) Indian farming is still precipitation dependent. Approximately 60% of all food and oil seeds produced are grown in the Kharif season, with only approximately 35% of all area irrigated.

g) India is currently in an anomalous condition, with large stocks of food grains, for the first part, being substantially self-sufficient and with high food inflation. The main cause of high inflation is artificial scarcity.

h) Excess government interventions used to create a marketing system simply acted as obstacles to trade in domestic and foreign marketing.

Discussion

3.1. Reformation in Structure:

Structural changes are required, mainly focused on land reforms, in order to increase productivity in agriculture and generate jobs for this sector. Introduced in 1991, Structural and Stabilization Policies gave precedence to manufacturing, tax reform, trade and investment, banking and capital markets. No special kit designed specifically for agriculture was offered. Free trade, however, will offer the agricultural market price incentives, which lead to increased investment and production in this sector. Structural changes will lead to better trading conditions for agricultural goods, trade advantages and specializations, the implementation of new technologies like biotechnology, an increase in private irrigation investment and marketing infrastructure such as storage and transportation. The economic survey of India 2014-15 has recommended the following structural reforms for the progress of developing a national common market and trade.

a) To review the Agricultural produce market committee (APMC)Act, the Act of the essential committee (EC), the Land Tenancy(LT) Act, and all of those legally established mechanisms whose terms are restrictive and impose free trade barriers.

b) To launch alternative marketing activities, such as direct marketing and contract agriculture.

c) To review the inclusion under the General Goods and Service Tax of agricultural related tax (GST).

d) Instead of non-tariff trade barriers, we need stable commercial policies focused on tariff intervention.

e) Developing and initiating competition in the agriculture sector and promoting the scale of investment in the private sector.

f) To provide successful government action in order to prevent artificial scare and other bottlenecks in the production and distribution of food grains.

The status of India worldwide depends, according to Moody in his report on credit perspectives, on agricultural reforms, as they influence fiscal deficit and inflation. In 2015-16, these changes aimed to reduce the fiscal deficit by 3.6%. We may include decentralized procurement of produce, disposal of surplus food grain and subsidies for food and fertilizer by direct cash transfer.

3.2. Reformation in Technology:

Though India is seen as the work surplus economy, farmers across the country are bound to use technology to enhance farm productivity. The technical reform of agriculture was implemented in the 1960s. The aim was to

increase overall productivity by introducing the high yield verities(HYV)of seeds. It also introduced chemical fertilizers, pesticides and technological developments in the agricultural sector's productivity and growth in 11th five year plan to keep up with increased efficiency. The same category of revolution was perceived. The new machines were built to efficiently grow, operate the field, harvest, grade, and packaging and add value. We can also quote a certain number of objectives set by Mr. Narendra Modi, our Premier, who recently addressed the nation to increase farm productivity and implement agricultural technology. He prioritizes the implementation of modern technologies, so that farmers can cater to the overall growth of agriculture. He also suggested "Lab to ground," which is the country like India's biggest obstacle. He said that our real talent is the radical farmers. The key task of different research and agricultural institutions is to train farmers to awareness and actual benefits through radio and other electronic multimedia. Government as well as the private sector must carry investment, equipment and productivity to accelerated growth in the farm sector.

3.3. Reformation of institution:

Agriculture reform for the abolition of the zamindari regime, the consolidated ownership of land, crop insurance schemes etc. was implemented after the time of independence. However, dynamic changes have been found in the recent period of growth in the institutional reforms of agriculture. In the 1980s the programme of land creation was initiated for the first time. The Protection against Drought, flooding and crop disease was introduced. Gramin banks have been established to provide financial assistance in the form of loans and other cooperative societies. The primary goal was to provide farm loans at a lower interest rate. With the combined support of National Bank for Agriculture and Rural Development (NABARD) and Reserve bank of India (RBI) and the credit of rupee 50,000, Kishancredit card has been introduced. Similarly afterwards, Public distribution system (PDS), Food corporation of India (FCI), Minimum support price (MSP)schemes and programs have been implemented to offer poor and land-less farmers a subsidized rate of funding and food grains. In case, the biofertilizers are a significant source of nutrient supply to plants because of atmospheric nitrogen fixation and soil nutrients maintenance. Biofur-processing agents, such as bio-fertilizers and bio-pesticide are generated from the renewable energy sources in cheaper price and environment friendly. The main component of the Integrated Plant Nutrient System (IPNS) is the initiative (Lab to Land Project, University of North Maharashtra). Priority is given to the agriculture in the recent budgetary announcement. In order to help micro-irrigation, the construction of the water bowl and the Pradhan Mantri Krishi Sinchai Yojana has allocated rupee 5,300 crore. The emphasis has been centered on small and marginal farmers in order to support the agricultural sector with the aid of effective credit for agriculture. The Government set the specific goal for agricultural credit rupee 8, 50,000 crore. It was proposed that rupee 34, 699 crore should be allocated to the performance of schemes such as Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA).

India is historically called the agricultural country since more than 60 percent of the population is directly and indirectly dependent on agriculture for its livelihood. Indian agriculture will achieve the global standard when it comes to the main challenges and goals, if the policy framework and its execution can be properly coordinated. It can be a long way toward catering for accelerated agricultural development, following a policy recommendation.

3.4. Advanced and Durable Agriculture:

Different revolutionary agriculture has been created to meet the food scarcity, natural hazards and poverty challenges of India. Over the last five years, organic agriculture has expanded nearly 29 times and faced the challenges successfully. It has generated debt free and profitable livelihoods dependent on quality. It has developed by 25-30% each year with the subject of consumercentered and a modern marketcontrolled farming method. Likewise, greenhouse agriculture technology has 3-4 times higher efficiency than usual farming. Likewise, due to cost effectiveness, lack of pesticides and insecticides and a temperature regulated air, polyhouse farming has increased farm production by about 10 times the previous time. These success stories of various creative farm patterns will increase the productivity of agriculture with the government and various institutions. India has prepared a paper entitled the National Action Plan (NAP) on climate change, in order to face the climate challenges. It offers guidance for improvements in public-private partnerships, policy planning

at national level. The global vision for changing longerterm patterns for sustainable development has been opened up.

3.5. Development in Infrastructure:

Some governmentbased initiatives to build infrastructure in the villages of India are MNREGA, Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY), Rural Electricity Distribution Backbone (REDB), Indira Awas Yojana (IAY), and District Rural Development Agency (DRDA). The government needs to merge different schemes, according to which the fund is to be used and corrupt activities can be controlled in different levels. In line with the Millennium Development Goals (1990-2015), the effect of rural infrastructure plays an increasing role in eradicating poverty. The Rural Infrastructure Development Fund (RIDF) has provided up to 90 percent of the total amount of support for implementation and budgetary support from (NABARD) for the rest of the costs.

3.6. Advancement in Technology:

The government of India grants 21 scientific-based voluntary groups operating at the village level according to the Department of Science and Technology (DST). In the areas of technologies generation and transition for a sustainable livelihood in rural areas, this will support research and development activities. It also promoted the thematic networking and collaboration between different field groups centered on science and technology. In 2006, theNational Food Security Mission NFSM started to increase food grains in the 11th plan cycle to 20 million tonnes of food grain (10 million metric tonnes for rice, 8 metric tonnes for wheat and 2 million metric tonnes for pulse). Some effects have already been seen by increasing yields in various regions. In 2005, a programme was launched in order to encourage state governments to revitalize expansion of the Agricultural Technology Management Agency (ATMA). This scheme offers the chance to boost the extension system. In terms of agricultural development, the return on investment for research and expansion would be much higher than other investments.

3.7. Interference of Private Sector:

The priority for Public Private Partnership (PPP) for infrastructure and other growthrelated services has been issued in recent years. Approximately 1 lakh popularservices centers for IT based and non-IT services in about 600,000 villages have been developed with the sustainable, commercial and socio-economic objectives. VariousSelf-help group (SHG)s, Community-based organizations private institutions such as SKS have been established to provide rural community with financial support for projects related to growth. Rural living opportunities and infrastructure projects with interferences in the private sector can be found by providing urban facilities in rural areas (PURA).

In general, the Agriculture-for-Development Mission remains significantly incomplete, as reported by Byerlee et al.[11]. We believe that economists should focus on the most pressing issues such as ownership rights, agricultural enlargement, rural infrastructure and food price stabilization. At this moment, the utmost important problem is advancing food security and establishing effective management systems for the vulnerable. Economists and politicians were unable to find the appropriate policy tools to curb the instability of food prices. There is no promise of macroeconomic approaches to price stabilization on national markets. Social security networks to assist the poor people against income shocks are likely to reduce adverse repercussions and avoid persistent poverty for the households; however, they need good targeting arrangements and a steady institutional climate. Beggar-thy-neighbor trade strategies have proved ineffective to stabilize prices and guarantee national food security and harmful to the vulnerable and reversed past gains. Agricultural production can best be protected against income shocks, but that's the most challenging scientifically and institutionally.

In those nations, new ways must be sought to improve productivity. In the future, there will be an exhaustion of the potential of further land expansion to increase farm production and intensification. India therefore requires high yields that are suited for its Green Revolution to local conditions. In order to incorporate these crop specimens into modern value chains, it should be tackled the existing obstacles such as low education, lack of

infrastructure, lack of loans and of insurance markets and insecure ownership rights. In addition, new ways of disseminating knowledge and learning could promote farmer adoption and productive cultivation, including the use of communication technologies in expansion services. Increased productivity of smallholders in developed countries would also be an instrument for long-term food protection. Since the Lewis model, the role of agriculture in production has been the subject of major literature. The past 60 years have witnessed a major transformation of countries we continue to call "development" through conventions: China, Brazil, India and Turkey. The main element of agriculture today in developing countries is much more robust than ever. In some parts of the world, mostly in India, productivity is stagnating, resources scarce and degradation have declined and economic structural growth has stalled, while considerable migration from rural and urban areas to minerals and export-led growth in some cases. Significant advances have benefited it (from new technology to new financial and insurance markets). In both the low and high value commodity markets and as a sector, it becomes more sustainable; it is more integrated both in the domestic and global economies. The literature has sometimes helped to illustrate the challenges of the process of systemic economic change and the main institutional and political obstacles. In our opinion, the Green Revolution and the acceptance of rewards for conventional farming have benefited policymakers in two "scientific revolutions." In the majority of developing countries, prices and trade policies have been a huge sector tax and essentially counterproductive for growth. The (relevantly recent) focus on empirical analysis has greatly enabled the measurement and measurement of the effect on agriculture of certain policies.

Conclusion

The paper addressed the role of agriculture in growth in economic literature. The key problem is how agriculture can be used to support the economy's structural transformation. We began by considering the role and interactions of agriculture in the development process with other sectors.. Agricultural development is extremely capable of reducing poverty in developing countries. Because of this opportunity, it is vital to improve farm productivity in the developing countries and an indispensable step in achieving the Millennium Development Goals. Around 75% of today's rural poor will profit enormously from higher farm income. In addition, in many India countries, for example, in developing economies which depend largely on this sector, agriculture could generate economic growth. However, this involves substantial improvements in production, based on a variety of factors and new technology and the usage, agricultural scale and land and environmental problems which we do not have solutions to "silver ballots." The structural problems related to business failures, the lack of markets and property rights are the most challenging. Since of its connections with small towns and rural areas, agriculture can become a medium for growth and create job opportunities for the rural nonfarm economy. This process could be helped by rural development and communitydriven development. For several of the tasks proposed in this document, government would have an important role to play. However, they should not be the sole supplier. The largest source of investment funds and service providers would be the private sector. Donors, Non-Governmental Organization (NGO) and civil society organizations, both locally and externally, will also play a vital role in implementing these initiatives. It will be necessary to identify the correct mix of these players and to create effective cooperation between them.

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