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Opportunities and Challenges in agribusiness in India

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Introduction

The Indian Agriculture sector has made considerable progress in the last few decades with its large resources of land, water and sunshine. India is presently the world's largest producer of pulses and the second largest producer of rice and wheat. The country is also the largest producer, consumer and exporter of spices and spice products in the world and overall in farm and agriculture outputs, it is ranked second. From canned, dairy, processed, frozen food to fisheries, meat, poultry, and food grains, the Indian agro industry has plenty of areas to choose for business.

In Indian agriculture the factors like high soil productivity, supply of balanced crop nutrients, efficient water management, improved crops, better plant protection, post-production management for value-addition and marketing, are responsible for higher yield as compared to most of the other countries.

Achievements of Indian agriculture like development of HYVs, new hybrids of different crops, research in the area of vaccine production, varietal development through somoclonal variations, developing better quality products and transgenic in crops such as brinjal, tomato, cauliflower and cabbage have strengthened the field. In the new millennium, the challenges in Indian agricultural sector are quite different from those met in the previous decades. The enormous pressure to produce more food

from less land with shrinking natural resources is a tough task for the farmers. To keep up the momentum of growth a careful economic evaluation of inputs like seeds, fertilizers, irrigation sources etc are of considerable importance.

Considering the irrigation needs in Indian agriculture, emphasis be given to promote the proven cost-reducing micro-irrigation technology of drips irrigation which helps conserve water reduces fertilizer inputs and ensures higher productivity. Farmer awareness programmes coupled with subsidy incentive may prove helpful strategies. The sustainable method of irrigation needs to be popularized. Salinity and water logging problems in the commands of major irrigation systems need to be minimized by recognizing and incorporating corrective measures. Further, proper drainage facilities involving farmer's groups need to be created. Watershed approach to management of water in rainfed areas should continue to get the due thrust.

Diffusion of fertilizer consumption in Indian agriculture has been quite widespread. The imbalances in the use of N, P and K have become highly conspicuous. The intensity of fertilizer use has gradually gone up from about 3 kg/ha. In early Sixties to about 88 kg/ha in 1997-98. Therefore, wider

distribution of fertilizer needs to be promoted by covering regions with low use of fertilizers such as central and eastern regions of Uttar Pradesh (in the case of wheat and rice) through creation of an extensive network of rural infrastructure (including roads and credit) for establishing an appropriate interface of input markets and output markets in these regions.

In Indian agriculture, multiplication, distribution and availability of good quality seed is crucial to accelerated food production. With entry of MNCs in seed production and distribution and consequent effects of patenting under the WTO regime, providing quality seeds to farmer at an affordable cost will be a measure challenge in future. To meet the growing competition companies should adopt modern processing technologies and seed growers have to be trained in cost reducing methods of growing quality seed material.

Indian agriculture has to become more cost-effective to meet the growing challenges and opportunities arising out of WTO agreements and the consequent globalization impacts. For this, future growth of agriculture has to be yield based. Development of infrastructure is essential to support this growth.

The farm credit system in Indian agriculture, evolved over decades has been instrumental in enhancing 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.

Indian agriculture has potential and prospects in the following areas of agri business.

India is the third largest producer of fruits and the 2nd largest grower of vegetables. The total production is about 27.83 MT in fruits and 54 MT in vegetables. The farmers can grow any type of vegetable and fruits throughout the year.

Flowers are estimated to be grown in about 35,000 ha in India of which 10,000 ha are under modern flowers like rose, carnation, orchid, etc. Major flowers grown are jasmine, marigold, rose, etc. In many countries including Israel flowers are cultivated under green house conditions. In India, the land and climate are suitable to grow all types of flowers throughout the year in one part or the other.

India has attained self sufficing in food. It is now exporting rice and wheat to some countries including China. There is a vast scope of exporting the cereals to various countries.

Though India's irrigated area is about one third of the world, the area under drip and sprinkler irrigation is very meager compared to total drip and sprinkler area in the world. The area under drip is 1,60,000 ha and under sprinkler, it is about 0.60 Mha. It is estimated that in the next 7 years, the area under drip and sprinkler will be about 1 Mha and 5 Mha respectively.

India's share in the world market has risen to 0.7%. If the trend continues it is expected that the trade may go upto 1.5%. This is because of rising exports and the opening up of the domestic market rapidly. India will make its presence felt on the world trade scene.

In Indian agriculture, rural women play a vital role and participate in all stages of crop production, as they constitute 50% of rural labour force. They contribute in agricultural operations like, transplanting, manuring and

fertilizing, harvesting, threshing, winnowing, drying and carrying the product. To better exploit the emerging opportunities', there is need for changing property rights in favour of women, evolving technologies to suit women farmers, increasing the number of women extension workers, educating and training women farmers.

Indian Agribusiness - Key Facts

1) Varied agro climatic zones
2) Second largest arable land (161 million ha) in the world
3) Largest irrigated land (55 million ha) in the world
4) Largest producer of Wheat (72 million tons), accounting for nearly 15 percent of global Wheat production
5) Largest producer of Pulses (15 million tons), accounting for nearly 21 percent of global Pulse production
6) Largest producer of Milk (96 million tons), accounting for nearly 17 percent of global Milk production
7) Largest producer and exporter of Spices
8) Second largest producer of Tea, accounting for nearly 28 percent of the global Tea production
9) Second largest producer of Rice (92 million tons), accounting for nearly 22 percent of global Rice production
10) Largest exporter of the world's best Rice Basmati.
11) Second largest producer of Fruits (50 million tons) & Vegetables (100 million tons)
12) Second largest producer of Sugarcane (296 million tons), accounting for nearly 21 percent of the global Sugarcane production
13) Third largest producer of Coarse grains (31 million tons), including maize, accounting for nearly four percent of the global Coarse grain production
14) Third largest producer of Edible Oilseeds (25 million tons), accounting for nearly seven percent of the global Edible Oilseed production

Market Size

The Indian agricultural services and the agricultural machinery sectors have cumulatively attracted foreign direct investment (FDI) equity inflows to the tune of US$ 365.79 million in the period April 2000-September 2014, according to the Department of Industrial Policy and Promotion (DIPP). In 2013-14 India achieved a record food grain production of 264 million tonnes (MT), beating the previous year's (2012-13) 257 MT, according to data provided by Department of Economics and Statistics (DES). Also, agricultural profitability has increased over the last decade with record increases in MSPs (minimum support prices) for agricultural produce for all covered crops. India is the second largest producer of sugar in the world and the government has aimed to increase the exports from 1.3 MT in 2013 to an average of 2 MT in 2014 and 2015. Spice exports from India are expected to reach US$ 3 billion by 2016-17, on the back of creative marketing strategies, innovative packaging, strength in quality and a strong distribution network. The Indian spices market is pegged at Rs 40,000 crore (US$ 6.46 billion) annually, of which the branded segment accounts for 15 per cent. India is

the largest producer of milk since 1998 and accounts for about 17 per cent of the world's milk production. The average growth in milk production in the country in the last decade was 4.2 per cent as against the world average of 2.2 per cent, indicating a healthy trend. The procurement target for rice during Kharif Marketing Season (KMS) 2014-15 has been finalised as 30.05 million tonnes (MT).

Investments

Prompted by the Indian government's initiatives, there has been various investments in the Indian agricultural sector. The major investments and developments in agriculture in the recent past are as follows:

1) Metahelix Life Sciences has launched a new variety of maize hybrid seeds for improved productivity. The new hybrid MM 2100 has plant structure with upright leaves that allows higher growth and the cob size does not get reduced due to less gap between plants.
2) The International Crops Research Institute for Semi-Arid Tropics (ICRISAT) and Ramoji Film City (RFC) have signed a MoA (Memorandum of Agreement) on Sustainable Management of Water Resources and Sustainable Agriculture Development through the establishment of an Agriculture Theme Park at RFC.
3) Tata Global Beverages (TGB) has initiated research and development (R&D) under
   Project Sustainable Plant Protection Formulation (S-PPF) to evaluate the viability of biological or non-pesticidal methods for plant protection of tea crops. The project is a collaborative effort between TGB, Rallis and Tata Chemicals.
4) The Agricultural and Processed Food Products Export Development Authority (APEDA) has signed a Memorandum of Understanding with Maharashtra State Warehousing Corporation (MSWC) for setting up of infrastructure for cold storage at Gultekdi, the wholesale market yard in Pune. The proposed project involves facilities for cold storage, pre-cooling and blast freezing.

Government Initiatives

The Government of India has adopted and implemented several initiatives . Some of the recent major initiatives are as follows:

- The Ministry of Food Processing Industries has taken some new initiatives to develop the food processing sector, which will help to enhance the incomes of farmers and export of agro and processed foods, among others. It also includes the opening of Mega Food Parks and reduction in excise duties for Food Processing machinery.
- The Government of Telangana has allocated Rs 4,250 crore (US$ 687.38 million) for the first phase of farm loan waiver scheme. The scheme is expected to benefit 3.6 million farmers who had taken loans of Rs 100,000 (US$ 1,617.37) or below before March 31, 2014.
- The Government of India plans to launch a new insurance scheme to protect farmers and their incomes against production and price risks. The new insurance scheme is expected to encourage farmers towards crop diversification.
- The Ministry of Agriculture, Government of India, has signed a Memoranda of Understanding (MoU) with 52 countries to provide better agricultural facilities for cooperation in the field of agriculture and allied sectors.

- India and Bhutan plans to strengthen strategic cooperation in the field of agriculture and allied sectors.
- The Government of India plans to invest Rs 50,000 crore (US$ 8.08 billion) to revive four fertiliser plants and set up two new plants to produce farm nutrients. In addition, the government is also in talks with the Government of Iran to set up a 1.2 million tonnes per annum (MTPA) urea plant in Iran on the lines of India's joint venture (JV) with Oman.

Opportunities in agribusiness

The government's liberal FDI policies have opened the doors for several foreign companies to set up operations in India. Also, there is scope for the use of genetically modified crops to increase the yield in farms. The 12th Five-Year Plan's estimates of expanding the storage capacity to 35 MT and the target of achieving an overall growth of four per cent will help in improving the growth of the agriculture sector.

Furthermore, Dairy Vision 2025 has been planned to take stock of the current situation across the dairy value chain and evolve strategies for increasing productivity and profitability of farmers.

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Challenges in agribusiness

Unemployment and Poverty:

More than 50% of the rural families with an annual income below Rs.11,000, are unable to meet even the essential needs. Thus, in a developing country like India, economic development should ensure prosperity among the rural people. Rural development and improvement in agricultural production are essential not only to ensure social justice but also to maintain self-sufficiency in food supply. With our population expected to exceed 1.35 billion, the annual demand for food is anticipated to rise from the present level of 195 m tons to 250 m tons by 2025 A.D. As food security is a pre-requisite for economic progress and is the challenge in agribusiness.

In the new millennium, the challenges in Indian agricultural sector are quite different from those met in the previous decades. The enormous pressure to produce more food from less land with shrinking natural resources is a tough task for the farmers. To keep up the momentum of growth a careful economic evaluation of inputs like seeds, fertilizers, irrigation sources etc are of considerable importance.

Considering the irrigation needs in Indian agriculture, emphasis be given to promote the proven cost-reducing micro-irrigation technology of drips irrigation which helps conserve water reduces fertilizer inputs and ensures higher productivity. Farmer awareness programmes coupled with subsidy incentive may prove helpful strategies. The sustainable method of irrigation needs to be popularized. Salinity and water logging problems in the commands of major irrigation systems need to be minimized by recognizing and incorporating corrective measures. Further, proper drainage facilities involving farmer's groups need to be created. Watershed approach to management of water in rain fed areas should continue to get the due thrust.

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Thus, Indian agriculture is poised for a great leap forward. The important paradigm shifts in agriculture post liberalization are from the following.

1) Subsistence farming to commercial farming
2) Imported –oriented to export-oriented
3) Crop specialised to farm diversified
4) Organic inputs to bio-inputs
5) Exploitative agriculture to experimental and sustainable agriculture
6) Limited post harvest technology to more post harvest technology
7) Supply-driven technology to demand-driven technology
8) Transfer of subsidies to investment (Mohanty, 2005)
9) Unorganized farming and peasantry to organised/co-operative farming.
10) Risk-aversion to risk acceptance (appetite?)

The paradigm shifts are giving rise to new challenges to both the people and the government. The main challenges are as follows.

1) Adaptation to Micro/Medium Scale agribusiness projects in India
2) Imperative of Infrastructure Development - Agri-Infrastructure
3) Agri-Education
4) Agri-Clinics
5) Agri-Profesionals
6) Better Management of Public Expenditure.
7) Public Private Partnerships
8) Management Contract
9) Rural development in terms of rural resource utilization, rural livelihood and rural Ecology.
10) Indian farm-holdings are very small
11) Existing Government schemes have inequitable distribution and/or have led to market distortions.
12) Economies of Scale build up difficult
13) WTO Challenge
14) Movement form a subsidy-supported set-up to a equity-based set-up
15) Fiscal compression in Agriculture
16) Emerging ecological issues such as “ecological footprint” and “hoof prints”.

MANAGEMENT SUPPORT

The agricultural development programme requires the following management support for enhancing its profitability:

1) **Finance :** Land development, irrigation systems and arrangements for marketing require huge investments. The present financial resources for agricultural development are neither adequate nor timely. Some of the activities such as water resource development and land shaping need soft loan. Additional finance with village level distribution network are needed for developing this industry.

2) **Information Services :** Information on new crops, technologies, systems

and demand for the produce would help to optimize profits. The information services can also provide the latest know how and experiences with new varieties, new technologies, pest and disease outbreaks and their control.

3) **Transfer of Technology :** As a large section of the farmers are not adequately educated to make effective use of the technologies and information services, special efforts are needed to motivate and educate the backward farmers. This is expected to be carried out by the Agricultural Extension Officers. These field officers need to study the cost benefit analysis of various crops and help the farmers to select suitable crops. For effective transfer of technology, these officers and field workers should be oriented from time to time. To enhance profits through cost reduction and better price recovery, human resource development should be an important component of the agri-business. This should start with confidence building in small farmers.

4) **Marketing Services :** Inadequate marketing network is a major bottleneck in agriculture. The farmers should be oriented to make a swift forecast of the demand for various commodities and exploit the opportunities. There is good scope for setting up market outlets to reach the customers without involving too many middlemen. Business houses can establish a direct link with farmers' organisations for procuring raw materials. Such agencies can support farmers with seeds of improved varieties, finance and other critical inputs for optimising their crop yield.

5) **Management Personnel :** A critical input for successful agri-business is dedicated personnel with managerial skills. The managers should be familiar with the local agricultural laws and socio-economic conditions of the region. The real challenge is to bring small farmers into the network of efficient producers, for ensuring their share in the success.

6) India has no doubt provided opportunities for multinationals to participate in industrial development with new technologies and resources. However, we cannot neglect agriculture and expect economic progress sans rural development. The opportunities in agri-business are enormous and can be easily enchased with locally available technologies. Now is the time for young managers to accept this challenge for mutual benefits.

Reference:

1) S.S. Archarya, Agribusiness In India: some facts and Emerging issues, Agricultural economic research review Vol 20 (Conference Issue) 2007 pp 409-424.
2) Acharya S. S. (2006) Agricultural Marketing and Rural Credit for Strengthening Indian Agriculture, Asian Development Bank, INRM Policy Brief No. 3.
3) Singh, Sukhpal (2007) Agribusiness in South Asia: A Fact Sheet, Make Trade Fair Campaign, www.maketradefair.com.
4) Hardeep singh, Manoj Kr. Goel, Amit Kr. Singhal (2012), Challenges in Rural & Agriculture Market , VSRD international journals of Business and Marketing VSRD-IJBMR, Vol. 2 (6), 2012, 299-304.

5) Prof. H. L. Nagaraja Murthy (2013), Agricultural Business management: Agriculture Economy, Agriculture marketing, cooperative Marketing Agencies(1st Edition 2013) Himalaya Publishing house.
6) Agricultural and Processed Food Products Export Development Authority (APEDA).
7) National Bank for Agriculture and Rural Development (NABARD)
8) www.krishiworld.com
9) http://agmarknet.nic.in/
10) http://mandiboard.nic.in/