

# Agri-Business: A Strategic Move Towards Rural Prosperity

Dr. N. S. Shetty\*

Farmers and the farm sector are under severe distress today. Since beginning of 1990s, the agricultural sector has lost its growth momentum and witnessed deceleration in its growth. The growth rate in agricultural GDP declined from 3.5 percent per annum in the 1980s to 1.5 percent per annum during the last fifteen years. While the share of agricultural sector in the total GDP declined from 38 percent to 18 percent during this period, the workforce engaged in agriculture declined only marginally from 69 percent to 65 percent. The people depending on agriculture for their livelihood remained unchanged at about 70 percent. In absolute terms, people depending on agriculture increased from 290 million at the time of independence to 750 million. India has the highest number of poor people in the world and 75 percent of them live in rural areas.

In the past, Indian agricultural policies and strategies mainly aimed at achieving food self-sufficiency and food security. The Government's proactive policy intervention in land reforms, public investment in irrigation, rural electrification, research and extension, support price policy, targeted credit program, fertilizers subsidy and agricultural trade restrictions, all have, no doubt, laid the foundation for green revolution and enabled the country to overcome food crisis and achieve self-sufficiency in food. Starting from a large deficit in production of food grains, the scenario changed to such an extent that India was able to build up sizable stock of food grains and stop imports totally, thus erasing the "begging

bowl" image of India. In recent years, however, the green revolution started showing signs of graying and diminishing returns. Food production remained more or less stagnant fluctuating around 200 and 210 million tons. In the case of wheat, pulses and oilseeds, production witnessed a declining trend, which forced India, once again, to revert back to food importation era.

The past policies and strategies, though, enabled the country to achieve self-sufficiency in food, neither led the rural sector into prosperity nor reduced the rural poverty. The diversification of agriculture to high value addition to take advantage of growing domestic and world market was completely ignored. The agriculture industry sector linkages, rural-urban interface and production-processing-market linkages were, consequently, very weak. It also reduced off-farm employment potential and scope for increasing farmers' income. Consequently, rural-urban disparity widened. Majority of farmers are, today, in the process of marginalization and pauperization.

According to official data, roughly 1.5 lakh farmers committed suicides between 1997 and 2005 (Sainath, 2007).

With the recent high growth in service and industrial sectors and rapid urbanization, the markets for agricultural products are undergoing a major transformation. The demand for value addition and quality agricultural commodities has increased tremendously. Urban consumer

\* Emiretus Professor, JKSH Institute of Management, Nitte.

orientation is, therefore, required in all spheres of agricultural production. Moreover, with signing of the GATT agreements in 1994 and the joining the World Trade Organization (WTO) as a founder member, globalization of Indian agriculture has become an inevitable process. Indian agriculture cannot remain insulated from the world market. All these would provide challenging opportunities for Indian agriculture to achieve higher growth and increase farmers' income. Time has, therefore, come for Indian agriculture to move from the present state of subsistence agriculture to vertically integrated agribusiness for producing a variety of tradable value added agriculture commodities for both domestic and world markets. Agri-business would also provide a way out of present sluggish agricultural growth and lead rural sector towards prosperity and thereby reduction in rural poverty.

In this paper, an attempt is made to examine the importance and likely implications of agribusiness in Indian agriculture. A brief overview of the past agriculture policy and development is presented as a backdrop. In the subsequent sections, an attempt is made to examine the need for moving from the present food-centric agriculture towards market-driven high value added agribusiness in the context of globalization. An attempt is also made to look into some of the issues and concerns particularly its impact on food security and small farmers' welfare. In the concluding section, some critical issues involved for policy and strategy in this regard are presented.

## I. An Overview

The post-independence history of Indian agricultural development can be broadly divided into three distinct development phases viz. Pre-green revolution phase-1947-67, Green revolution Phase- 1967-1990 and Liberalization phase-1991onwards.

## Pre-Green Revolution Period

For hundred years preceding Independence, Indian agriculture hardly made any progress and contributed to India's economic growth. The growth of the food grains output was negative and the per capita availability of food declined severely between 1891 and 1947. The average annual growth rate, which was 0.61 percent prior to British Rule, declined to negligible 0.03 percent during this period. Population was, however, increasing during this period at a low rate of 0.67 per cent per annum. Consequently, the per capita food availability declined at an annual rate of 1.14 percent per year (George Blyn, 1966). This led the country to periodical food crisis and famines. The famous Bengal Famine of 1942-43, in fact, provided the backdrop to India's agricultural policy at the time of Independence.

India, immediately after Independence, adopted planned development strategy, which emphasised rapid industrial growth with agricultural sector playing supporting role as provider of cheap food and surplus labor. This was, of course, consistent with the development thinking of the time, which viewed economic development as structural transformation from one of predominantly agricultural to a modern industrial and service society. Since food availability was a serious concern of the government during the period, the major plank of agricultural policy was of achieving food self-sufficiency. Of the various programs undertaken during the first two Five Year Plans, the large-scale irrigation development and the institutional changes through land reforms were more important. The land reform program to remove the functionless intermediaries particularly Jamindars and Jagirdars in the North was quite successful. Throughout the country, a uniform free holding land tenure system came into existence.

During the first Two Five Year Plans, the agriculture sector witnessed an average growth rate of 2.74

percent per annum. Food grains production increased from 50 million tones in 1950 to 89 million tones in 1964. Increase in production during the period mainly came from area expansion and increase in irrigated area. There was no significant contribution from yield increase (Rao, 1989).

Though, the increase in food production was significant, the recurrent drought during the mid-sixties aggravated the food crisis situation. The rapid increase in population growth and increase in demand for food as a result of increased per capita income during the period also contributed to food crisis in mid-sixties (Dantwala, 1996). To meet the demand, the country relied on softer option of importation of PL-480 food.

### **Green Revolution**

In the context of food crisis situation, a new agricultural strategy was adopted in 1968, which emphasized the introduction of high yielding varieties (HYV) of seeds and technological package of inputs such as fertilizers, pesticides, and improved husbandry practices. With the limited scope for acreage expansion, the yield increase was recognized as the main source for increasing food production. To facilitate effective implementation of the new strategy, the government in late sixties undertook two important measures. First, the price policy was used as an incentive instrument to stimulate production growth. The Agriculture Cost and Price Commission (originally known as Agricultural Price Commission) was set up to determine remunerative support and procurement prices for various food crops. Food Corporation of India (FCI) was established with responsibility to procure food grains and manage buffer stocks and thereby provide guaranteed market to farmers' produce. Second measure is nationalization of major commercial banks with an objective of branch expansion in rural areas and targeted credit program for agriculture. Agriculture

was considered as priority sector for bank advance. The rural branch expansion and targeted credit policy thrusts brought bank credit virtually at the doorsteps of the agricultural producers. As a result of these developments, the flow of credit from commercial banks to agriculture production increased tremendously during this period, which enabled the farmers to adopt new high yielding technological package (Thingalaya, 1997).

In the initial phase (1967-68 to 1978-79), the green revolution confined to only Northwestern regions consisting of Punjab, Haryana and western part of U.P. Food production increased from 89 million tones to 125 million tones. Increase in production came mainly from wheat. In the second phase (1977-78 to 1988-89), the green revolution spread from wheat to other crops such as rice, jowar, bajra, pulse, oilseeds and cotton and from Northwestern regions to other regions of the country. During this period, the food production increased from 125 million tones to 176 million tones. The overall agriculture growth rate achieved was 3.5 percent per annum.

The green revolution enabled the country to achieve self-sufficiency in food and also to sustain it. Food production increased from 50 million tones at the time of Independence to 180 million tones in late eighties. Wheat production increased tenfold; from 6 million tones to 60 million tones. Rice production increased threefold; from 23 million tones to 75 million tones. The country was able to build a buffer stock of 30 million tones and export about 1.5 million tones wheat and 3.5 million tones of rice by the end of 1980s. The food production growth kept pace with population growth rate in spite of its doubling since Independence.

### **Liberalization Phase**

The economic crisis of 1990-91 led to the country to adopt economic reforms, which aimed at liberalization of the economy to restore macro-



economic stability and laid the foundation for achieving higher growth on sustainable basis. In the agricultural sector, the process of economic reforms and gradual opening up of Indian agriculture to world market was expected to turn the terms of trade in favor of agriculture, improve efficiency, increase private investment and provide better incentives to farmers than has been in the past. Both growing domestic and world markets are expected to provide driving force to stimulate higher growth in agriculture. However, economic reforms implemented during the early 1990s mostly confined to the industrial and service sectors and not directly impinged on the agricultural sector. Industry first and anti-agriculture bias appears to have come in the way of implementing economic reforms in agriculture.

During reform period of 1990s, the acceleration in growth in industrial and service sectors was accompanied by a significant deceleration in the rate of agricultural growth. As against 7 to 8 percent average annual growth rate in non-agricultural sectors, agricultural sector growth rate declined from 3.5 percent per annum in 1980s to 1.5 percent in 1990s. Though food production reached its peak level of 213 million tons in 2003-04, it remained below the level of 210 million tons thereafter. There was also decline in public investment in agriculture in the recent years. Public investment as a percentage of agricultural GDP declined from four in 1980s to 1.8 in 1990s. This phase is also characterized by policy fatigue, resulting in technology, extension and production fatigues (Swaminathan, 2007). The agriculture sector is, now, fast heading for a total collapse, if no remedial measures are taken on war footing basis.

## II. Agribusiness : A Real Way Out

Green revolution had not brought prosperity to rural areas. People below poverty line increased from 50 per cent in 1960s to 53 percent in 1970s, which slightly declined to 49 per cent in 1980s. Only

in recent years, it is stated to be less than 30 per cent, but this estimate was questioned. While share of agricultural GDP declined from 38 per cent to 18 percent, in terms of dependence of work force, the percentage of work force depending on agriculture declined only marginally from 70 per cent in 1970s to 65 percent in early 1990s. In China, the proportion of work force depending on agriculture declined from 77 per cent to 49 per cent during the same period. China was also successful in reducing rural poverty significantly.

The Situation Assessment Survey of Farming Community commissioned by the Ministry of Agriculture, Government of India and carried out by National Sample Survey Organization (NSSO) in 2005 has brought out the pathetic conditions of farmers, be it in income, expenditure or indebtedness (NSSO, 2005). According to the survey, the average annual income of the farmer household was Rs 25380, out of which farming accounts only 45 percent (Rs11628) and remaining from other sources. Can the farm household survive with this level of income? Do farmers have any incentive to remain in farming? Farming is increasingly becoming an unviable activity. No wonder that the farmers, who keep others alive, are now forced to take their own lives and 40 percent of them want to leave farming if there is an alternative option. The situation can aggravate further, if immediate and adequate measures are not taken to improve the income level of farm households

From the above, it is clear that farmers are in great distress. Moreover, the recent slow down in the growth of agriculture is of serious concern. Since agricultural growth has strong backward and forward linkages with other sectors, sustainability of present high growth in other sectors depends on high agricultural growth performance in future. While in 1960s, the linkage was primarily through the production channel, at present, it translates primarily through the demand channel (Shastri et al, 2003).

All these call for immediate remedial measure to make farming commercially viable and thereby increase income of farmers. At present per hectare value added in agriculture is very low because of dominance of food crops in the production mix. The majority of the farmers being smallholders, without surplus production, are excluded from the market. The urgency of introducing high value agriculture, emphasizing the increase in value added per hectare or income rather than increase in output at increased costs and improvement in productivity have now become imperative (Vyas, 1994). An optimum mix of the area and commodity approach is therefore required. The demand channel for industrial and service sectors, ultimately, depends on farm income and purchasing power of farmers. To sustain the present higher growth in these sectors in the long run depends on increase in income of the Bottom of Pyramid Indian market. Time has, therefore, come for Indian agriculture to have another revolution like green revolution, but of different type. The road map for revival of agricultural sector requires agribusiness revolution to achieve productivity growth, value addition and improve income of farmers. Instead of being a parking lot to poor farmers, agricultural sector should become a place for lucrative income and ample employment opportunities.

Agribusiness means value additions through commercialization and industrialization of agriculture production. It means vertical and horizontal integration of rural producers with appropriate secondary and tertiary organizations such as processing industries, marketing intermediaries and exporting agencies. Creation of such a processing and marketing chain starting from the farm gate to retail outlets is essential. During the last fifty years, India achieved only transition from subsistence peasant agriculture to mixed farming with food crops as dominant and cash crops or dairy as only supplementary. Though, the green revolution laid the foundation for modernization, India has not yet moved towards

modernized and well diversified agriculture with high productivity and specialization geared to value addition for both domestic and global markets. Now such a transition and move towards agribusiness became indispensable. Having achieved green revolution and white revolution, India now badly needs agri-business revolution to achieve higher income growth, rural prosperity and reduction in rural poverty.

Agribusiness is also a driving force for higher growth in the context of liberalization and globalization of agriculture. It results in diversification, more production and more export of high value added agricultural commodities, which would ultimately benefit farming community in terms of higher income. The enhanced agricultural income would trigger demand for industrial and service products through its backward and forward linkages and thereby sustain their higher growth. It would also stimulate and sustain off-farm activities in rural areas (Hazel and Haggblade, 1991) and thereby provide ample employment opportunities to rural people. With emergence of off-farm economic activities, growth could be widely diffused reducing inter-sectoral and rural-urban income inequalities. In the long run, it will lay the foundation for a stable and sustainable secular growth process in agricultural sector. There is enough empirical evidence to show that agribusiness is the only and surest way of improving rural employment, increasing small farmers' income and thereby reducing rural poverty.

To widen the market horizons for commodities produced beyond the domestic market, it requires product adaptation, transportation, processing, switching to new types of products, technological upgrading, quality control, financial intermediation and global market link. Considerations of costs, quality, timeliness, and reliability ultimately determine the competitiveness of Indian agriculture commodities in the global market. Since

the requirement of the global market are different and the market is highly competitive, the agricultural production, processing and marketing activities need to be undertaken on integrated market driven business like basis. This requires linking of agribusiness firms to farming community through vertically and horizontally integrating production, processing and marketing.

### III. Prospects for Agribusiness

India is blessed with diverse and favourable climatic and agro-ecological conditions suitable to grow a variety of tradable agricultural commodities. Green revolution during the last three decades has proved the potential and dynamism of the agricultural sector. Converting the deficit into surplus country in food despite the growing population in a large country like India, in itself is a remarkable achievement and perhaps unparalleled anywhere in the world. If Indian agriculture has to achieve a higher growth now and improve farmers' income, it should tackle the agriculture from four angles: first, market-led diversification in product-mix, second, productivity growth, third, value addition and fourth looking beyond domestic market. Though Indian agriculture is one of the largest in the world, its productivity in terms of output per unit of land is one of the lowest in the world. The average yield in India for all crops is less than 20 percent of the world's highest and ranges between 40 to 50 percent of its potential. This, clearly shows enormous scope for India to move from the present food dominated production system to diversified production system without adversely affecting food security.

Similarly, there is good scope for increasing farmer's earning through efficient and effective value addition. Value addition should be

understood in the context of adding value to product produced by farmers. In India, at present, value addition to raw food material is only 7 percent, while it is 23, 45, and 188 percent in China, Philippines and UK respectively. Studies also reveal that more than four dozen value added products are produced from derivatives of paddy in a country like Japan, which produces hardly 2 percent of the total paddy production. While India is the second largest producer of fruits and vegetables, it processes less than 2 percent as compared to 30 percent in Thailand and 80 percent in Malaysia. There is also immense potential for value addition in floriculture, herbal and medicinal plants, spices and livestock products.

With recent high income growth in industrial and service sectors and resultant consumers' boom in India, the demand for value addition in agricultural commodities has increased tremendously. A new dimension from the consumer point of view is also added in the present changing market scenario i.e. how a consumer perceives the value delivered to him through a bundle of product services. Consumer orientation is, therefore, required in all spheres of agricultural production. Broadly there are three ways in which value addition to farm produce is possible:

- Post-harvest primary processing: proper cleaning, grading, and packaging.
- Secondary processing: basic processing, packaging, branding etc.
- High-end processing: supply chain management, modern processing technology, packaging of processed foods, branding, marketing etc.

Though, India is a very large producer of agricultural products, it is now only a marginal player in world trade. While India produced around

<sup>1</sup>As per National Food Processing Policy , Draft Document, 2000.

<sup>2</sup>Figures quoted from M.S Swaminathan: Agriculture Cannot Wait: New Horizons in Indian Agriculture, Academic Foundation, New Delhi 2007.



10 per cent of world agricultural output, its share in world trade in agricultural commodities was only around 0.8 per cent (Nayyar and Sen, 1994). Agricultural exports continued to remain confined to traditional exports such as coffee, tea, cocoa, spices and tobacco. Even in case of these commodities, before independence, India was a major exporter, but not now. The ratio of agriculture exports to agriculture GDP never exceeded 3 percent. No concerted attempt has been made to promote exports of high value added horticulture, floriculture and other agricultural products. The food grains remained largely insulated from world markets. The reluctance to open up the food sector mainly stems from the fear of food security. In the case of other products, trade is allowed only as a "residual" between domestic demand and supply.

The goal of self-sufficiency for domestic market is important, but it alone cannot drive the Indian agriculture sector to higher growth path. To achieve higher growth, it should exploit international market opportunities for high value added tradable agricultural commodities. India is today the second largest producer of food, number one producer of milk and second largest producer of fruits and vegetables. Most of these commodities are produced mainly for domestic consumption without much value added. Due to poor handling of produce, post harvest losses and absence of marketing and processing linkages, farmers are deprived of income benefit from the growing international market.

With the signing of the GATT agreements in 1994 and joining the WTO as a founder member, Indian agriculture has, now, entered into a new era. It can no longer remain insulated from world market. Being one of the largest producers of agricultural products, India can be a big beneficiary and become a major player in the global market. A WTO Study estimated that the improved market access, as a result of WTO commitments, alone would

provide rise in agricultural trade prospect to the extent of \$450 billion. It would be appropriate to note, in this regard, the observation of an eminent agricultural economist Prof. Khusro: "If one could make, at this stage, a rough quantitative assessment of the potential losses from the GATT provisions and set them off against the potential benefits the Indian farmers, manufacturers, and traders will obtain through GATT, an estimated 20 percent losses and 80 percent gains to our people would perhaps be an underestimate of our net gains" (Khusro, 1994).

To benefit from globalization, however, Indian agriculture has to be efficient and globally competitive. Agriculture sector has to be operated in more openness and competition. Agricultural production need to be oriented towards customers' preferences, quality consciousness and timeliness and reliability of supply. The global market forces will play dynamic role in determining product-mix, investment level, price structure, quality of production and pattern of international trade. What is needed is an efficient value-adding link from the producer to the consumer. This can be achieved only through agribusiness revolution.

Theoretically, the process of liberalization and globalization of Indian agriculture would involve expanded export market through improved market access as a result of the WTO policy commitment, freeing of agricultural exports, the terms of trade moving in favour of agriculture and improvement in farmers' income. Agriculture trade becomes the driving force for agricultural high value added production growth and diversification. All these require higher private investment, growth of agro-processing, value added backward and forward linkage off-farm activities and market inclusiveness of small farmers, who constitute majority of farming community.

The government now recognized the importance of agribusiness and taken number of steps in its

recent Exim Policies. All the quantitative restrictions on agricultural commodities are now removed. The national policies on seed development and food processing announced in 1988 for the first time permitted entry of private enterprises in seed production and food processing. The Indian food processing industry is now regarded as a "sunrise" industry. 1991-92 Economic Reforms exempted all agro-based products from exercise duties and permitted foreign direct investment between 51 and 100 per cent equity. The government has decided to set up 20 agri-export zones for farm goods and processed products. The government also announced transport subsidy for fruits, flowers, vegetables, dairy and processed grain products and additional duty exemption for primary and processed foods exports in retail packs of 1 kg or less. All these measures will go a long way in development of agribusiness and boosting agricultural exports.

As a result of these policy initiatives, the private sector is already looking at agribusiness to cater to high-end-domestic and world market demand. Many multi-national companies have launched ambitious plans in the production of seeds, food processing, horticulture, floriculture, medicinal and aromatic plants, alcoholic breweries (wines), poultry, deep-sea fishing, aquaculture, dairy products, animal husbandry, and meat processing to both domestic and world market. They include Rallis Kisan Kendra, the e-Choupals of ITC, Cargill Seeds, Pioneer Overseas, Monsanto, Pepsi Foods, Unilever, Nestle and General Foodshabe. Agribusiness is also now becoming attractive to Indian corporate giants with opening up of agriculture to world market. As a result of these exemplary initiatives of the corporate sector, food processing, fruits and vegetables, floriculture and

seed production sub-sectors have already registered impressive growth and benefitted farm community by way of increasing their income. What is required is widening and deepening of this process throughout the country.

The lessons from Chinese model of Town and Village Enterprises (TVEs) are quite revealing in this regard<sup>3</sup>. TVEs have been one of the fastest sources of growth in China since reforms began in 1978. They are set up and operated strictly on business principles to undertake various agricultural activities. They linked townships to rural areas, boosted off-farm activities and made rural enterprises competitive in both domestic and international market. Their growth performance has been extraordinary; 25.7 percent per annum. Their share in GDP rose from 13 per cent in 1985 to 32 percent in 1994 (Chandra, 1995).

#### **IV. Strategies and Organizational Models**

Two agribusiness models are commonly adopted all over the world for value addition through integration of production, processing and marketing. First model is cooperative model, wherein farmers are organized on cooperative basis for production, processing and marketing. The second model is the contract farming wherein farmers are contracted to produce and the processing industries or marketing agencies organize distribution of inputs, procurement of produce, processing, quality control and marketing and also exporting. The cooperative model is successfully adopted in India for dairy and sugarcane. In other spheres of agricultural activities, it has not succeeded. Contract farming

---

<sup>3</sup> The Town and Village Enterprises (TVEs) Model of China, which led to emergence of rural enterprises at a large scale and rapid rate, became a vehicle to increase rural income, absorb a large amount of surplus labour and check the migration to urban areas. Their growth has been critical in transforming rural economy into market economy.



model is successfully adopted all over the world by private agribusiness firms. Usually, they would not like to deal through cooperative organizations as intermediaries; instead they would like to deal directly with farmers with contract arrangements.

It is proved all over the world that it is profitable for the agribusiness firms or corporations to operate production through the vertically integrated contract system and limit their operations to processing and marketing. This would ensure smooth flow of private capital to agriculture, credit delivery to small scale farmers, proper input use and technological update. Farmers are assured about the input delivery, credit, technical advice and marketing. The system will ensure quality, supply reliability and timely delivery of products. Moving agriculture towards agribusiness will boost farm and off-farm activities, trigger growth impulses in other sectors through backward and forward production and consumption linkages, which generate rural employment and ensure rural prosperity.

Agribusiness can successfully realize its potential by applying the principles of Supply Chain Management (SCM) collaboration with farmers, non-exploitative vertical and horizontal integration, market reforms, precision farming, contract farming, demand-driven diversification, and extensive and intensive use of information technology for real time communication across the chain. SCM demands enlightened commercial self-interest, where all the links in the network work towards maximizing the value for all including the consumer in collaborative way. The key elements of supply chain success are quality, price, timely delivery and relationships with suppliers. The supply chain performs both physical and market functions. Forward contracts enhance supply chain efficiencies by providing both knowledge and material inputs. This facilitates hassle-free availability of credit from banks at competitive rates. Contract farming permits control over

standards of production demanded by niche markets, both domestic and foreign. Physical function refers to converting raw material into finished products and moving them from production centers to consumption points. The super market chains such as Wal-Mart takes care of suppliers' needs for finance and logistics.

In India, the supply chain network is yet to develop. It requires an intensive collaboration among producers, processors, logistics providers, wholesalers and retailers to supply what the consumers in India and abroad want cost effectively. Technology transfer forms an integral part of SCM model. They include gene revolution, eco-technology, information network, and geographical information system. Biotechnology offers options to farmers for crop diversification and cost effectiveness. Horizontal collaboration among policy makers, researchers, extension agencies, technology companies and financial institutions thus add strength to the chain. Agribusiness thus means network of whole chain and not just production and processing.

## I. Issues and Concerns

Agribusiness does not mean corporatization of agriculture. It does not result in displacement of small farmers by large-scale corporate farming. There is a fear in some quarters that the entry of corporate sector in agriculture is a threat to farming community and will lead to marginalization of small farmers. Since 75 percent of farmers in Indian agriculture are small and marginal farmers, it is important to take note of these concerns and to bring out the implications of agribusiness on well-being of small farmers.

The empirical studies done during the last two decades evidently show that green revolution has bypassed the small and marginal farmers and the gains of new technology have gone mainly to the

large and medium farmers. With emphasis on food, small farmers were net purchaser of food rather than market players for surplus food. What the small farmers are badly in need of, is income diversification options through assured and profitable market for their produce. It is, therefore, naïve to argue that integrating production with processing and marketing would result in corporatization of agriculture and marginalization or displacement of small farmers. The agribusiness firms are not interested in entering agricultural production directly by undertaking large scale farming. Instead, they found profitable to operate production through the vertically integrated contract system and limit their operation at secondary and tertiary levels to processing and marketing rather than large scale farming by itself.

Agribusiness has already proved that with proper organizational support for production inputs, value addition and marketing of products, the size of operational holding is not a constraint even for the sophisticated products. In fact, small holdings have their own merits for agribusiness: opportunities to introduce appropriate intensity in farming, compulsion to collaborate with neighbors, homogeneity in composite farming and marketing etc. They fit into the SCM model well. What is required is mobilization of small and marginal farmers in their command area for production of required tradable agricultural commodities and linking them with their business network for value added processing and export marketing. Contract farming, thus, brings farmers into the mainstream of the economy by transforming agriculture into business and reducing the market risks.

Agribusiness would also ensure smooth flow of private capital to small scale agriculture, credit delivery to small farmers, proper input delivery and its end use, technical and extension guidance, technological update, quality of the products and guaranteed markets for farm produce. At the secondary and tertiary level, the system will ensure

quality, quantity and timely delivery of products. Since the highly competitive world market requires product adaptation, transportation, processing, quality control, financial intermediation and global marketing link, these forward and backward linkages between small producers and agribusiness firms can be achieved only through the entry of corporate sector. In fact, this is the only way to make small farms into viable units, link small farmers into global market and bring prosperity to rural areas.

The agribusiness linkage is thus for mutual benefit of both small farmers and corporate sector. For example, the export of fruits and vegetables, cut flowers, fish and fish meat, which are perishable, requires high tech agriculture with huge capital investment in processing and cold storage facilities. It also requires high standard of managerial capability to compete and respond to global market conditions. All these cannot be left to small farmers to undertake. The private corporate sector involvement is indispensable. Agribusiness is thus a strategic tool to bring the income diversification option, value addition to their products, modern technology and world market link to the door-step of small and marginal farmers and thereby lead to their economic prosperity. A recent study in Karnataka has shown that agribusiness has brought prosperity to small farmers in rural areas and injected considerable optimism among rural people (Panini, 1999).

There is also a fear in some quarters that in this arrangement, the corporate sector has the monopoly of marketing and farmers will be exploited. Since most of the small farmers are small and marginal farmers, they have no bargaining power. There is, however, no empirical evidence to prove this concern. Moreover, it is in the self-interest of the agribusiness firms to ensure that farmers produce more and quality products on continuous basis by providing incentives on sustainable basis. Closer farmer agribusiness firm

relationships would be of win-win type. Effective linkages need to be built between farmers and processors on a mutually beneficial contractual agreement, particularly when a large number of small farmers are to be involved in contract arrangements. Common interest stakeholders association can also play role of enhancing the bargaining power of the farmers and negotiate effectively with industry.

Fear of corporate sector domination is thus somewhat exaggerated on ideological grounds. Farmers usually accept the products advocated by the agribusiness firms only if the products decisively outperform the available alternatives in terms of income to them (Damodaran, 1999). What is important is the arrangements made by the agribusiness firms with the producers have to be open, transparent and mutually beneficial. Stakeholders' organizations can play crucial role in ensuring this arrangement. Moreover, it should be noted that at present, the monopolistic marketing system under the Agricultural Produce Marketing (APMC) Act is more trader-friendly than small farmer-friendly. Market circuit is fairly long with exploitative large number of market intermediaries between producers and consumers. Small farmers with no real surplus are outside market ambit and also suffer from late payment for their produce, unscientific and arbitrary grading resulting under pricing, high transaction costs and exploitative practices of traders and market intermediaries, who form cartels. All these can be avoided by vertically integrated agribusiness.

From the above, it is clear that agribusiness would provide opportunities for economic advancement for all section of rural people. More particularly, small farmers and rural work force would benefit

from lucrative returns and ample off-farm employment opportunities for the rural poor with enough thrust to crash through the poverty barriers. A significant change in terms of income, employment and standard of living in rural areas facilitated by agribusiness firms has already been found in Karnataka, Andhra Pradesh, Punjab and Haryana. Agribusiness firms operating in these areas are, in fact, evoking considerable interest among small farmers, who see their association with agribusiness firms as opening the doors to economic prosperity.

Food security is another area of concern<sup>4</sup>. It is argued that the entry of agribusiness and resultant diversification may pose a threat to food security at national level (Patnaik, 1996; Krishnaswamy, 1994; Mishra, 1997; Vaidyanathan, 1999; and Vyas, 2001). Farmers would shift from food crops to more and more to high value added tradable agricultural commodities to maximize their income. This trend was observed in the cropping pattern in some parts of the country particularly in Punjab and Haryana, which led to deceleration in the volume of food crops. India, therefore, needs to guard against becoming a major exporter of luxury agricultural commodities and depending on import of food grains to meet food needs like Mexico. In 1960s, Mexico was self-sufficient in food. During 1980s, with opening up of agricultural trade, their agricultural sector grew faster by shifting to high value added agricultural exports from low value food crops. Agricultural sector boomed; food imports doubled. Mexico became a major agricultural exporter of luxury agricultural commodities and food self-sufficiency became the victim (Nanda, 1995).

Empirical evidences, however, clearly shows that

---

<sup>4</sup>Food security is defined as physical and economic access for all people at all times to enough food for an active and healthy life. A country is food secure when it is able to provide nutritionally balanced adequate food to all citizens under all circumstances. Here food security refers to food availability through food self sufficiency in food production.



there is no justification for such a fear in the long run. All over the world, evidences show a close complementary relation between the food and commercial crops. Though, in the short run, cash crops may compete with food crops for acreage expansion, in the long run, the cash crops generate higher income, which in turn enable farmers to invest on new technology and improve productivity of food crops. The increase in income results in higher capital investment, better factor utilization and higher productivity in the case of both food and cash crops. The decline in food production in Haryana and Punjab is mainly attributed to rapid urbanization and resultant decline in land availability for cultivation and non-viability of growing exclusively food crops. Diversification is thus not necessarily at the cost of food crops. In fact, it improves viability of growing food crops. Moreover, the increase in income of rural poor improves their economic access to food.

It should be also noted that India has one of the lowest crop yield per hectare in the world and compare poorly even with the neighboring countries. China has at present food production three times more than of India's with only 47 million hectares under irrigation as against India's more than 60 million hectares irrigated land under food production. This clearly shows enormous scope for India to increase food production by increasing crop yields even with less acreage. Moreover, it should be noted that though small and marginal farmers constitute 75 percent of farm community, they cultivate less than 20 percent of area under cultivation. There is good scope for increasing food production by better capacity utilization and productivity growth in the case of large and medium scale farmers<sup>5</sup>.

Agribusiness is, thus, not necessarily at the cost of

food crops. It may result in increase in production of both food and cash crops and improve availability of food at both household and national level. While the food self-sufficiency continues to remain as one of the primary agricultural policy objective, the policy focus should not ignore the need for promoting income diversification options offered by both domestic and world market for the benefit of resource poor small farmers through agribusiness. During the last fifty years, small and marginal farmers had not benefited from the government policy of neither price support nor subsidies. The price support policy benefitted only large and medium farmers, who had surplus food production. The food production centric policy and absence of income diversification options made their situations vulnerable. Small and marginal farmers in India are therefore in dire need of income generation and income diversification options.

## VI. Policy Implications

Six decades of the agriculture development in India is definitely not a smooth process. The transformation of the stagnant peasant agriculture into a dynamic commercial agriculture was a challenging task. Converting the deficit into a surplus country in food production in the context of high population growth rate of above two per cent per annum was itself a remarkable achievement. However, with the present sluggish growth, Indian agriculture is today in deep crisis. Though achieving food security through increasing food production is an important policy objective, it alone cannot drive Indian agriculture to higher growth and enable the country to overcome the present agrarian distress. Moreover, with liberalization and globalization, the agricultural sector has to be economically strong and dynamic and operate in

---

<sup>5</sup>It is empirically proved that intensity of cropping and productivity in the case of small farmers in India are considerably higher than large and medium farmers. Under capacity utilization exists in the case of medium and large farmers.

more openness and competition. All these require major shifts in the agricultural policies, perspectives and strategies both at macro and micro levels.

India is a vast country bestowed with diverse agro-climatic conditions, which enable to produce a variety of tradable agricultural products to gain advantage of growing both domestic and global markets. By diversifying agriculture to produce a variety of tradable commodities and integrating with processing and marketing through agribusiness, India could not only achieve higher growth, but also create opportunities for economic advancement for all sections of rural community. Instead of continuing as a parking lot to the poor people, the agricultural sector can become a place for lucrative returns and ample employment opportunities. Time has now come for India to run agriculture as an agribusiness rather than merely subsistence agriculture. In order to achieve this, India should take a hard look at the specific weaknesses of its agricultural sector and take corrective steps.

Indian agriculture today badly needs private sector participation to provide value addition and increase farmers' income and thereby stimulate production growth. A shift from green revolution to agribusiness revolution with emphasis on market-led diversification, productivity growth, value addition and look beyond domestic market to increase income of farmers should be seen as the major plank of agricultural policy in India. It is gratifying to note that the government in its recent Exim Policies removed most of the trade restrictions and opened the agricultural commodities to global market. There, however, still exist many policy-induced distortions and bottlenecks, which come in the way of entry of agribusiness firms in Indian agriculture.

Considering the present constraints and bottlenecks, the pre-requisites for successful

agribusiness revolution in Indian agriculture require the following strategic initiatives:

- i. Identification of potential high value added tradable agricultural commodities and producing areas in different agro-ecological zones based on agronomic potential and comparative advantage - Agribusiness requires market driven commodity approach: produce and supply what the customers need and not sell what farmers produce.
- ii. Conducive and enabling environment for vertical integration of small holdings with appropriate secondary and tertiary organizations for input supply, credit delivery, quality control, procurement, processing and exporting. What is needed is an efficient value adding link from the producer to consumer. There still exists in this link policy induced distortions and restrictions which required to be removed to induce private sector entry to agribusiness.
- iii. Government and public sector monopoly on agricultural marketing restricts private sector entry in agricultural marketing and movement of agricultural produce under APMC Act. Traditional mandi system is not market friendly to small farmers and, in fact, acts as bottleneck to agribusiness. Act should be amended to free the agricultural marketing and provide facilitating regulatory mechanism.
- iv. Infrastructure support starting from irrigation, all-weather quality rural roads, uninterrupted power supply and good communication network, warehouses and cold storage facilities. Rural infrastructure is at present in pathetic conditions and requires to be improved to reduce transaction costs and improve competitiveness and tradability of agricultural products.

- v. Promotion of commercially oriented village institutions to mobilize, train and organize the production capacity of small farmers and provide technical and business advisory services. There is a need to develop institutional mechanism for carrying out awareness programs, motivating and training and organizing them as self-help groups to benefit from agribusiness.
- vi. Promotion of demand driven small farmer and product oriented agricultural research and technological support. Public-private sector participation in agricultural research is required to improve value addition, productivity, quality and commercial viability.
- vii. Provision of financial assistance to agribusiness firms for production, processing and exporting on integrated basis.
- viii. Establishment of product-specific Agro-Export Zones (AEZs) for end-to-end vertical integration, effective transfer of technology and provision of infrastructural facilities and incentives in geographically contiguous area in all states. Though the Government has initiated setting up of 20 AEZs, they are still in infant stage and required to be strengthened to play catalytic role in agribusiness revolution.

increasingly more knowledge and skill-based activity. Without a proper agriculture research and technological support, it will not be possible for India to play a significant role in emerging competitive world market. This requires firm agricultural research and technology base. During the last fifty years, the public sector dominated agriculture research focused on food crops, particularly wheat and rice. Very little work is done on oilseeds, horticulture, floriculture, sericulture, herbs, animal husbandry, forestry, and fisheries. There is an urgent need to involve private sector participation and change research priorities in agricultural products by keeping in view the demand factors in both domestic and international markets. Biotechnology is another area of research priority, which will go a long way in improving viability of Indian agriculture.

Another area of the major handicaps faced by the Indian agriculture sector is the lack of information and market intelligence data as well as developments in global market. We do not have institutional mechanism both at the center and state levels to systematically collect and disseminate information to farmers, market intermediaries, processors and exporters. India's strength in Information and Communication Technology provides challenging opportunities for taking digital and knowledge connectivity to every village. Farmer-centric Rural Knowledge Centres should be promoted in every village.

With globalization, agriculture is becoming

## References

- Blyn, George, 1966 : *Agricultural Trends in India, 1891-1947*, Philadelphia, Pennsylvania University Press.
- Chandra, N.K. 1995 : *China's Tryst with Globalization*, *Economic and Political Weekly* Jan. 25.
- Dantwala M.L. 1996 : *My Academic Dialogues: Agricultural Price Policy and The Green Revolution*, *India Journal of Agricultural Economics*, Vol.51.
- Gulati. A. 1998 : *Indian Agriculture in an Open Economy: Will It Prosper?*, in *India's Economic reforms and Development*, Edited by Ahluwalia I.J. and Little I.M.D.
- Hazell, P.B.R. and Haggblade, S. 1991 : *Rural-Urban Linkages in India*, *Indian Journal of Agricultural Economics*, Oct-Dec.
- Khusro, A.M. 1994 : *Smelling the Rat*, *Indian Express*, 20, January.



- Mishra, S.N. 1997 : Agricultural Liberalization and Development Strategy in Ninth Plan, Economic and Political Weekly, March,29.
- Nayyar, D. and Sen, A. 1994 : International Trade and Agricultural Sector in India, Economic and Political weekly, May 14.
- NSSO, 2005 : Situation Assessment Survey of Farmers, GOI, New Delhi.
- Panani, M.N. 1999 : Trends in Cultural Globalization: From Agriculture to Agribusiness in Karnataka, Economic and Political Weekly, July 31.
- Patnaik, U. 1996 : Export Oriented Agriculture and Food Security in Developing Countries and India, Economic and Political Weekly, Special Number.
- Rao, C.H.H. 1989 : Technological Change in Indian Agriculture: Emerging Trends and Perspectives, Indian Journal of Agricultural Economics, Oct-Dec.
- Rao, V.M. 1995 : Beyond Surpluses Food Security in Changing Context, Economic and Political Weekly, Jan. 28.
- Shetty, N.S. 1998 : Fifty Years of Agricultural Development- Experiments and Experience, Key Note Address to Mangalore University Economic Association.
- Shetty N.S., Thingalaya N.K. and Moodithaya M.S. 2003 : WTO and Its Implications for Indian Agriculture, Research Report submitted to The Indian Institute of Banking And Finance, Oct.
- Sainath P. 2007 : Maharastra: Graveyard of Farmers, The Hindu, Nov. 14.
- Shastry D.V.S. et al 2003: Sectoral Linkages and Growth Prospects: Reflection on Indian Economy, Economic and Political Weekly June, 14.
- Swaminathan M.S (Ed.) 2007 : Agriculture Cannot Wait: New Horizons in Indian Agriculture, Academic Foundation, New Delhi..
- Thingalaya, N.K. 1997 : Banking Development in Independent India,
- Vaidyanathan, A. 2000 : India's agricultural Development Policy, Economic and Political Weekly, May 13.
- Vyas, V.S. 1994 : Agricultural Policies for the Nineties: Issues and Approaches, Economic And Political Weekly, June 25, 1994.
- Vyas V.S. 1999 : Agriculture Trade Policy and Export Strategy, Economic and Political Weekly, March 27.

### Remember...

*"Remember that dark brown starved man,  
bending under a scorching sun,  
scratching a little plot of land to eke out a living  
any thing you do, do for his benefit"*

**- Mahatma Gandhi**