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**Emerging Environment for Agribusiness and Agro-industry
Development in India: Key Issues in the Way Forward**

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Executive Summary

Economic development of a country is accompanied by transformation of agricultural sector from a subsistence primary product oriented system to commercialized agriculture producing high value and processed products. With economic growth rate at 8-9% per annum Indian economy is moving ahead on the path to development. Socio-economic environment is also undergoing a major change with higher incomes, increasing urbanization and increasing number of working women leading to high demand for processed foods. With high potential demand in domestic and export market this sector can contribute significantly to enhanced farm incomes and employment generation. On the supply side, as leading producer of many agricultural commodities, vast arable land and agro climatic diversity India has the potential to be the “food basket” of the world.

Recognizing the potential of the food processing sector in driving economic growth this sector has been recognized as a sunrise sector for the Indian economy and has been given priority status by the government. Several measure have been undertaken to overcome the constraints and make this a strong and dynamic sector:

- Deregulating the sector from licenses, import duties and relaxing FDI norms
- Addressing the major policy issues in the development of this sector : i) modifying the Agriculture Produce Marketing Committee (APMC) Act, to enable the private sector to procure directly from the farmers; ii) harmonizing the plethora of currently existing food safety regulations and replacing it with the Food Safety and Standards Act (still to be implemented)
- Initiatives to create agricultural infrastructure by investment in packaging centers, modernized abattoirs, terminal markets, value added centers, irradiation centers, etc.
- Creating supporting institutions and mechanisms like Agricultural and Processed Food Products Export Development Agency (APEDA), “Agribusiness Clinics” and “Agri centers” to provide technical support to farmers, Small Farmers Agricultural Consortium to provide venture capital funds for projects
- Institutional changes to carry out projects in Public Private Partnership mode to capitalize on the flexibility of the private sector, while maintaining the accountability of the public sector.

These efforts have had a significant impact as the processed food sector is attracting a lot of investments. This sector registered a growth rate of 8.5 percent during 2006-07. However, several schemes and projects which look good on paper have not taken off as expected. Key problems include weakness in implementation, lack of creating forward and backward linkages resulting in huge losses due to sub-optimal or non use of created infrastructure.

From the development perspective, three critical issues for inclusive and equitable growth are: i) involvement of small and marginal farmers in modern value chains. Work of NGOs, donor groups and government agencies in linking farmers to markets is an important step in this direction. Other initiatives such as “Rural Business Hub”, formation of “producer companies” will contribute to linking farmers to markets. ii) As most of the processing is in the unorganized sector, enabling this sector to meet the requirements of the new food safety laws is critical to link them to the modern system. iii) Finally, balanced regional growth is important so that far flung regions of North-east and other lagging states do not get left out of the modern value chains.

Emerging Environment for Agribusiness and Agro-industry Development in India: Key Issues in the Way Forward

1. Introduction

Indian food-processing sector is undergoing rapid transformation. As a country moves on the path of development, agricultural sector evolves from traditional subsistence level farming to commercial agriculture producing high value and processed products. Strong macro-economic fundamentals (sustained economic growth rate of 8-9%) and the changing socio-economic scene are driving what was once a traditional, small-scale processed food production system into a modern industry aimed at catering to the evolving tastes and needs of discerning consumers. There is high potential demand in the domestic as well as export market. On the supply side, with vast arable land and agro-climatic diversity, India has the potential to be a food basket of the world. With this interaction of demand and supply forces the food processing sector has the potential to be the driver of economic growth and enhance rural incomes. Food Processing Industry is widely recognized as a 'sunrise industry' with a vision to make India the Food Basket of the world, achieve what has been achieved in the field of computer technology.

In accordance with the vision, food processing sector has been given “priority status” and several measures have been taken to bring dynamism in the sector – liberalizing the sector by de-licensing, automatic approvals of FDI, tax exemptions for exports, processing and imports of processing technology. Several schemes have been proposed to enhance post harvest infrastructure – processing and packing houses for fresh produce, modern abattoirs, creation of Agri Food Parks, value added centers and irradiation facilities. Major policy changes to encourage private sector investment in this area include modifying the APMC Act to enable private players to procure directly from the farmers, streamlining the food quality and safety regulations for easier compliance.

As a consequence of these efforts, Food and Beverages Industry in the country has shown positive growth trends during April-March 2006-07, according to a survey conducted by the Federation of Indian Chambers of Commerce and Industry (FICCI). The survey also projects higher growth during 2007-2008 in almost all the products belonging to Food and Beverage segment. The survey stated that the improvement has been reflected both in volume terms and in terms of value for most of the products. The overall food and beverage industry has achieved a growth rate of about 8.5% in terms of value during 2006-07.

While steps have been taken in the right direction, the critical issues in the way forward are inclusive and equitable growth by ensuring participation of small and marginal farmers, backward areas and regions and small and micro enterprises in modern value chains. It has been observed in various developing countries around the world that benefits of the modernizing sector do not automatically accrue to all stakeholders in the system. Particularly at risk are small scale farmers, faced with increasingly strict agro-industry standards and contractual arrangements, and small scale traders, processors, wholesale markets and retailers, who must compete with large food suppliers and manufacturers.

Recognizing the importance of agro industry development in enhancing rural incomes and agribusiness development with inclusive growth involving has been a key focus of FAO's work. FAO's interest and commitment in promoting and supporting agribusiness development originates from a few rather simple observations (Santacoloma and Hernando, FAO, 2004). First, it has become clear that worldwide the most rapid growth in agriculture has for quite some time been occurring in post-production activities. This is in large part being driven by the growing number of middle income consumers even in lower income countries and their demands for better quality value-added products. Second, agri-food systems world-wide are increasingly being dominated by vertically coordinated, if not vertically integrated, organizations. High concentration and vertical co-ordination of agri-food systems is already a reality in high income countries. The same patterns are emerging rapidly in parts of the developing world, particularly in South America and Southeast Asia.

Third, the near absence of agro-industry and agribusiness resulting in low level of value addition of agricultural commodities has been one of the main causes for stagnation in rural incomes. Conversely, when looked at across countries and regions, substantial agribusiness sector generating high value addition to the outflow of goods, correlate with a higher level of agricultural GDP and rural incomes. Thus, with increasing incomes, agribusiness development is inevitable. The real issues relate to ensuring equity and fairness in the changes that will be taking place.

This study is a part of the FAO's South Asia regional study to understand the emerging agribusiness environment in the countries in this region. The overall objective of the paper is to get an overview of the emerging agribusiness sector, characteristics of an enabling environment, and address critical issues in the way forward. Specific questions addressed in this paper are:

- i. What is the current situation of agro industries development in India?
- ii. What are the challenges to development of a processing sector?
- iii. What are the future prospects – what is the vision for the industry?
- iv. What are the characteristics of an enabling environment?
- v. What are critical issues from development perspective?

The paper is based on review of secondary literature on the emerging changes in agriculture and agribusiness environment in India and other countries, following recent trade press reporting the changes in this sector and the impact of these changes, web search, interviews with key stakeholders and the author's previous work in the area of supply chains and value chains in agricultural commodities.

The rest of the paper proceeds as follows. Current situation of agricultural production and processing is presented in the next section. This is followed by identifying the traditional challenges to agro industry and agro processing sector in Section 3. Section 4 discusses the future vision and characteristics of an enabling environment to achieve this vision. Section 5 focuses on critical issues for equitable and inclusive growth and Section 6 presents the concluding comments.

2. What is the current situation of agro industries development in India?

India is a one of the leading producer of agricultural and livestock commodities – grains, fruits and vegetables, milk, etc. However the share of these products going for processing is very small. Also, India's share in world trade of processed food is 1.6%, and value addition is 20% (Ministry of Food Processing, Annual Report 2005-06).

Table: 1 Size of Processing relative to production

Commodity	Production	World Position	% Processed
Milk	91 Mn Ton	I	35%
Fruits and Vegetables	150 Mn Tons	II	2%
Livestock	485 Mn	I	21%
Grains	204 Mn Tons	III	
Fish	6.3 Mn Tons	III	
Source: Ministry of Food Processing Industries, Annual Report 05-06			

Key issues in food processing in India are the low level of processing, consumer perception regarding processed food, and unorganized nature of the processing sector. The level of processing at the industrial level needs a closer look. Lower level of processing reported at the industrial level does not mean that Indians do not consume processed foods. Instead, most of the processing is done at the household level – jams, pickles, jellies and other traditional items are usually made at home and preserved through traditional means such as storing with salt, sun-drying etc. Another important aspect of the processing sector relates to traditional Indian food habits and the perception that “processed food is not fresh”. This has also led to low consumption of processed foods. However, this notion is changing in the recent years because of exposure to a variety of processed foods in the supermarkets and higher awareness about the nutritional aspects of processed foods.

Currently most of the processing is in the unorganized sector. Technically, organized sector means the units registered under Section 2m of Factories Act, 1948, whereas the rest is categorized as unorganized sector. Primary food processing is a major industry with several thousand rice-mills/hullers, flour mills, pulse mills and oil-seed mills. There are several thousands of bakeries, traditional food units and fruit, vegetable and spice processing units in unorganised sector. In the organised sector, there are over 820 flour mills, 418 fish processing units, 5198 fruit and vegetable processing units, 171 meat processing units.

3. What are the key challenges to development of agro processing sector?

Most of the challenges to food processing in India are typical to that of other developing countries – socio economic environment, subsistence agriculture, fragmented value chains and lack of infrastructure for post harvest management and processing. Some issues are country specific: role of federal and state government, policies regarding marketing of agriculture produce, and food safety regulations.

i) Socio Economic Environment and Demand for Processed Foods:

As highlighted in the vision document of the MOFPI, sub-optimal growth of the food processing industry can be attributed to the vicious circle of high unit cost low demand, low capacity utilization again leading to high unit cost. Affordability is also a major issue in the domestic market. Price differential between fresh and processed food in India is very high relative to convenience, hygiene and health values of the processed food. In the developed countries processed and fresh food compare well in prices. Further, low income Indians are very price sensitive since food accounts for over 50% of the family budget. Per capita income in India is US\$ 640 as compared with US\$ 1360 in China.

ii) Policy Issues in Food Processing

- **Agriculture Produce Marketing Committee (APMC Act)**

Agricultural produce marketing in India has traditionally been dominated by government sector. Agricultural commodities are marketed through regulated APMC (Agricultural Produce Marketing Committee) markets. Agriculture is a state subject in India and as such the APMC Act is under the purview of the state government.

Some of the key areas of concern regarding the APMC act are:

- The APMC Act of most states prohibits transactions outside the regulated mandis
- The APMC Act of most states does not encourage direct marketing and contract farming
- The prohibitions under the APMC Act do not allow investment by the private sector for improving the infrastructure
- They do not facilitate procurement of agricultural produce directly from farmer's fields
- The purchaser has to be a registered agent at the wholesale market (Commission Agent).

These regulations can cause delay in supply and also loss of produce due to multiple handling and the time involved in the same. In an effort to provide a fair playing ground to the private sector and to encourage private sector investment in the area of agriculture, the central government has proposed the Model Act which addresses most of the above concerns and enables companies to procure directly from farmers. Many states have already amended APMC Act on the lines of the proposed Model Act, or are in the process of amending it. Nevertheless, there are vested interests and the process in some states is much slower than others.

- **Essential Commodities Act**

The Essential Commodities Act (ECA) 1955 was put in place after independence to control production, supply and distribution of essential agricultural commodities. At a time when India was facing acute food shortages, this act was put in place to ensure availability of food products. In the context of liberalization and a relatively comfortable food situation these controls are no more required. It is recognized that controlling the movement of products by licensing of dealers, limits on stocks and control on movements will only hamper the growth of the agricultural sector and promotion of food processing industries. This act has been amended in 2003 to encourage free movement of agricultural commodities across regions.

- **Food Quality Regulation**

There are multiple laws/ regulations prescribing varied standards regarding food additives, contaminants, food colors, preservatives and labeling. Currently, there are 13 laws enforced by 9 ministries:

- *The Prevention of Food Adulteration Act (PFA)*, 1954 focuses primarily on the establishment of regulatory standards for primary food products, which constitute the bulk of the Indian diet.
- *The Standards of Weights and Measures Act, 1976* and Standards of Weights and Measures (Packaged Commodities) Rules, 1977 are legislative measures designed to establish fair trade practices with respect to packaged commodities.
- *The fruit and vegetable processing sector is regulated by the Fruit Products Order, 1955 (FPO)*, which is administered by the Department of Food Processing Industries. *Meat Food Products Order, 1992* administers the permissible quantity of heavy metals, preservatives, and insecticide residues for meat products.
- *Milk and Milk Products Order, 1992* order regulates the production, distribution, and supply of milk products; establishes sanitary requirements for dairies, machinery, premises; and sets quality control standards for milk and milk products.
- *The Destructive Insects and Pests Act, 1914, and Plants, Fruits, and Seeds (Regulation of Import in India) Order, 1989* regulate imports of planting seeds into India, and prohibit imports of seeds for sowing and planting materials without a valid permit.

As discussed in the section on enabling environment, there has been a move to harmonize these laws to one Food Safety and Standards Law.

- **Taxes on Processed Food**

High level of taxes and multiplicity of taxes are the two key issues with food taxation. A study conducted by Arthur Andersen points out that the food taxation is highest in India among Asian countries of India, Indonesia, Philippines, Malaysia, Sri Lanka, China, and Thailand. The Central excise as well as the state taxes (octroi and sales) is applicable in India. According to the above mentioned study, excise duty on processed food is not levied in any of the other Asian countries except for Thailand where excise is levied just on carbonated drinks and fruit juices. In India, excise duty ranges from eight per cent to 18 per cent on processed food and 40 per cent on

carbonated drinks. The study points out that octroi on food items is levied only in India while other Asian countries do not levy it. In India, Maharashtra levies the highest seven per cent octroi on processed food. Sales tax in India averages second behind that in China.

- **Credit**

The agricultural supply chains in India are very fragmented with a large number of intermediaries. This structure of the chain leads to limited scale of financing as well as higher risk, given the lack of control each of the players has on the supply chain. At the farm level, financing is largely dependent on unorganized sources of credit due to bottlenecks in access, timeliness in availability and adequacy of credit from organized sources. The key hurdles faced by banks in financing farmers are their inability to provide adequate collateral as security and potential for default in the absence of an assured market for their produce

The food processing enterprises primarily comprise small and medium sized companies , a large proportion of which have stand alone operations with no linkage with farmer, and reliant on other organizations to undertake marketing/further processing of their products. Consequently, companies in the food processing sector usually bear a steep cost of interest for the high risk perception associated with the nature of their operations. In contrast, agricultural supply chains in developed are well integrated/coordinated where large companies have interest in all levels of operation – input supply, storage, transportation etc. A high level of integration leads to more control and less risk in the supply chain.

- **Scope of Center and State Government**

Agriculture is a state policy in India. The central government can provide a direction for the states, but eventually the implementation rests with the state government. The progress in implementing various policies, projects and schemes depends on the initiatives, efforts and ideologies of state governments. For example, the Model Act which is an amendment to the APMC Act has been modified in about 15 states over the past 2-3 years, but many state governments are yet to modify the Act.

iii) Traditional and Subsistence Farming, Market Linkages and Infrastructure

Similar to the situation in many developing countries, most of the farming in India is at subsistence level which leaves limited produce for marketable surplus. The approach to farming is traditional and modern practices of farming have not been widely adopted. Post harvest management and infrastructure has not received much attention, which limits the availability of storage of raw materials for processing. Further, sale of agricultural produce is characterized by a long chain of intermediaries, which has severe implications on cost efficiency and flow of information through the chain, about the quality and quantity required for processing. Similarly, traditional marketing channels for food retailing food distribution and retailing is also fragmented which leads to high distribution cost.

iv) Institutional: Poor linkages between industry, Government and institutions

Traditionally, government has been the dominant player in the agricultural sector, especially in the areas of marketing and infrastructure development. The involvement of private sector has

been limited to marketing of inputs and undertaking processing of some basic items. The linkages between private and public sector have been very poor but this situation is changing dramatically as many new initiatives are being undertaken in Public Private Partnership mode.

4. What are the Characteristics of Enabling Environment for Agribusiness in India

The vision of the stakeholders in the industry defines how the industry is likely to move in the future. Ministry of Food Processing Industries had commissioned a Vision document for the growth of FPI sector. Based on the vision document for the Ministry of Food Processing Industries (2005-2015), the industry targets are as follows:

- **Industry should aim to increase processing of perishables 20%**
- **Increase value addition from the present level of 20% to 34%**
- **Share in global trade up from 1.6% to 3%**

These initiatives will almost triple the size of processed food industry by 2015. Tripling of the size of industry is estimated to generate direct employment of 28 lakh and indirect employment of 74 lakh.

Major industry players have the vision "to link India's small farmers to global supply chains in agriculture, just as its software writers and call-center works have been linked to other segments of the global economy." This is a big jump from an agricultural sector barely eking out a living to one feeding the world. The true picture may lie in the existence of a truly emerging market, with all the promises and all the challenges of an emerging market.

Creating a strong and dynamic food processing sector requires policies and plans for improvement of food processing infrastructure including upgradation of technology and enforcement of quality standards, promoting investment in food processing, thus assisting in domestic market and export growth. Some of the main aspects of the enabling agribusiness environment are discussed below.

i) Changes in Socio Economic Environment

Like the emerging situation in several developing countries changes in the socio economic environment is leading to higher demand for processed foods. This change is characterized by urbanization, higher incomes, less time available for cooking, increasing globalization and exposure to global markets, increasing number of nuclear families. There is higher acceptance of processed food because of higher consumer awareness about nutritional aspects. There is rising demand for ready-to-cook and ready-to-eat convenience foods. 'Demonstration effect' through explosion in information and communication technologies is creating a new demand for "western type" foods.

Another aspect of the socio-economic change is the increase in the number of supermarkets and organized retailing in India. Investment in organized retailing is increasing dramatically with many domestic conglomerates investing in this sector. It is observed in other countries around

the world that the transformation in the processing sector has occurred simultaneously with transformation in the retail sector. The reason behind this simultaneous growth of processed food and retailing is the increased efficiency in distribution because of economies of scale in distribution (Reardon, et.al, 2003).

ii) Changes in Policy Environment

Following liberalization in 1991, government followed a liberalised overall policy regime, with specific incentives for high priority food processing sector to provide a conducive environment for investments and exports in the sector. The government has accorded a high priority to the food processing sector to encourage commercialisation and value addition to agricultural produce; for minimising pre/post harvest wastage, generating employment and export growth. Recognizing that a robust and dynamic food processing sector is to play a vital and stellar role in the new emerging global economy, all policies and plans for the food processing industries is coordinated by the Ministry of Food Processing Industries. The Ministry was reconstituted in September 2001. The thrust of the changes has been in: deregulation of the industry, addressing the policy changes required to provide a fair playing field to the private sector, focus on development in infrastructure and creating support institutions. The Annual Report of the Ministry of Food Processing Industries (2005-06) describes in detail the recent government initiatives (www.mofpi.com). An overview of the major changes brought about in this sector is presented here.

Regulations and Controls: The key steps towards deregulation of the industry include:

- FDI Norms: 100 % FDI in food infrastructure
- No industrial license required for all food and agro processing industries
- MRTP (Monopolies and Restrictive Trade Practices Act) and FERA (Foreign Exchange Regulation Act) norms relaxed to encourage investment
- Liberal export/import except for items on negative list
- Capital goods for food processing industry (including second hand machinery) freely imported

Addressing Policy Issues affecting Agro Processing: Two major policy changes include Modifying the APMC Act and addressing the food safety regulation

- **Modifying the APMC (Agriculture Produce Market Committee) Act** on the lines of Model Act prepared by the government is a major policy change in agricultural marketing. The Model Act has features that enable procurement of agricultural produce from the farm gate. Aspects relating to contract farming are also covered in this Act (<http://agmarknet.nic.in>). Many states have already amended APMC Act on the lines of the proposed Model Act, or are in the process of amending it. Nevertheless, there are vested interests and the process in some states is much slower than others.
- To address the issue **Food Safety and Standards Regulation** to integrate the various food laws for ease of implementation and monitoring. After the enactment of the proposed Food Safety and Standards Bill, 2005 in India, the food processing sector would be governed by only one law and one regulator, instead of presently applicable 13 different laws. This will

give a boost to the food safety sector by giving ensuring easier compliance with the food safety norms.

Taxation: The government has proposed a comprehensive Goods and Services Tax (GST) by 2010. This will serve to integrate the economy and make India a single common market. Industry players are of the opinion that the GST will provide a relief to the Food and Beverages sector against the multiple taxes imposed at various levels today.

iii) Credit and Finance

Though several steps have been taken to enhance credit availability in the past few years, the Union Budget for financial year 2006-07 was hailed as the first-ever Union Budget that has focused attention on food processing and food technology. Key measures undertaken include (Food and Beverage News, March 2006)

- Decision to treat the food processing sector as a priority sector for bank credit
- Creating of separate window with a corpus of Rs. 1000 crore to NABARD for refinancing loans

These measures will enable an enhanced flow of resources to a wider cross section of entrepreneurs which will help to catalyze growth in small enterprises around local production bases. The budget also provided for enhancing credit at the farm level by various means – reduction of interest rate on short-term credit, improved micro finance credit policies including provision of credit to investment through self help groups.

At a broad level, more funds are being channeled in the food processing sector, but the accessibility of these funds at the level at which they are required continues to be a problem. The Vision document prepared for the Ministry of Food Processing Industries presents in detail some recommendations to overcome the hurdles in access to credit at the farm level as well as food processing level. Major recommendations include – use of ware house receipts, amendments in priority sector lending, restructuring government schemes, modifying evaluation parameters by banks/financial institutions (MOFPI, 2005)

iv) Emphasis for Infrastructure Development

Upgrading infrastructure for food processing, is a key priority for the Ministry of Food Processing. Several initiatives for upgrading the infrastructure are presented in the Annual Report of the Ministry of Food Processing Industries, 2005-06.

- **Food Parks:** The idea behind setting up of food parks is that small and medium entrepreneurs find it difficult to invest in capital-intensive activities. Therefore, as a part of the strategy to develop food-processing infrastructure, the Ministry has been pro actively pursuing the task of setting up of food parks in different parts of the country. In the food parks, common facilities like cold storage, food testing and analysis laboratory, affluent treatment plant, common processing facilities, packaging centre, power supply, water supply, seminar / conference / training facilities etc can be assisted.
- **Packaging Centre:** The scheme aims to provide facilities for packaging, which will help to enhance shelf life of food products and make them internationally acceptable.

- ***Modernised Abattoirs:*** The scheme aims at scientific and hygienic slaughter, causing least pain to the cattle and ensuring better byproduct utilization.
- ***Integrated Cold Chain facilities:*** The scheme is intended to improve viability of cold storages and enhance cold storage capacity.
- ***Value added centres:*** The Scheme is intended to enhance value addition leading to enhanced shelf life, higher total realization and value addition at each level of handling.

v) **Supporting Institutions**

Several supporting institutions and mechanisms have been put in place to meet the changing needs of the agro processing sector – enhancing farmer information about markets and modern farming practices, developing linkages with private sector, providing venture capital, providing support for exports, etc.

- ***Agricultural and Processed Food Products Export Development Authority (APEDA)***

The Agricultural and Processed Food Products Export Development Authority (APEDA) was instituted in 1986 to develop agricultural commodities and processed foods, and to promote their exports. APEDA's mandate is to maximize foreign exchange earnings through increased agro exports, to provide better income to the farmers through higher unit value realization and to create employment opportunities in rural areas by encouraging value added exports of farm produce. APEDA has played a key role in identifying new markets, and providing support systems to exporters and manufactures, and introducing new products to the international market.

- ***Agri-Clinics and Agri-Business Centers***

The Ministry of Agriculture, Government of India, in association with NABARD has launched a unique programme to enhance the reach of modern farming technologies to farmers across the country. This program aims to tap the expertise available in the large pool of Agriculture Graduates. Through this program, agricultural graduates are trained in offering professional extension services to farmers by setting up an AgriClinic or AgriBusiness Centre. To provide support to this program, government is now also providing start-up training to graduates in Agriculture, or any subject allied to Agriculture like Horticulture, Sericulture, Veterinary Sciences, Forestry, Dairy, Poultry Farming, and Fisheries, etc. Those completing the training can apply for special start-up loans for venture

Under the Government of India scheme of Agri-Clinics and Agri-Business centre, about 2615 agriculture graduates have been trained through 58 identified training centers. After completion of the training 436 agripreneurs have already taken up 40 types of different agriventures. More details about the implementation of this scheme can be found on the website created for this initiative (www.agriclinics.net)

- *Small Farmers Agribusiness Consortium*

The establishment of the Small Farmers' Agri-Business Consortium (SFAC) in 1994 was a sequel to the Finance Minister's 1992-93 Budget Speech including Government of India's intention to set up an autonomous body for the promotion and development of small farmers' agri-business activities. Such a body would be funded by institutions such as the RBI, NABARD, IDBI and the like. The Consortium's membership would include various Development Banks, Public Sector Corporations, Private Sector Companies, Scientific Institutions, and Farmers' Associations. The SFAC was envisaged as a catalytic/facilitating agent to promote the type of activities enumerated on the principles of economic efficiency, environmental soundness and social equity, so that farm enterprises would yield not only more quality products but also more productive jobs and higher income in rural areas. (www.sfacindia.com)

- *Setting up Institute of Food Technology*

Ministry of Food Processing Industries proposes to set up a "National Institute of Food Technology Entrepreneurship and Management (NIFTEM)". NIFTEM objectives would be development of world-class food technologists, creation of entrepreneurs and managers in the food industry, providing business incubator services; undertaking research, provide training etc.

vi) Institutional Change: Initiatives in Public Private Partnership Mode

It is well recognized that neither the public sector by itself, nor the private sector on its own can take forward the food processing sector to a higher level. Consequently there is strong focus on Public-Private Partnership initiatives to bring together efficiency and flexibility of the private sector with the accountability and social interest of the public sector. Most of the major infrastructure development projects – modern terminal markets, development of abattoirs, food parks etc, are being undertaken in the PPP mode. Also, areas like extension which have traditionally been the domain of public sector are also now being implemented in PPP mode with setting up of institutions such as ATMA (Agricultural Technology Management Association).

It should be highlighted that the industry bodies Confederation of Indian Industries (CII) and Federation of Indian Chambers of Commerce and Industry (FICCI) have played a very strong role in bringing together various stakeholders to hold dialogues and discussions at various platforms and consequently forge partnerships based on mutual areas of interest.

5. Critical Issues in way Forward

As is evident in the discussion on creating an enabling environment, several very significant changes have been brought about to overcome the major constraints in the food processing sector. Because of the various initiatives in the public and private domain, food processing sector in India is growth at a rapid pace. According to a survey conducted by the Federation of Indian Chambers of Commerce and Industry (FICCI), the industry has achieved a growth rate of 8.5% in value terms. The survey also projects higher growth during 2007-2008 in almost all the products belonging to Food and Beverage segment. The sector is also attracting a lot of foreign investments. The food and beverage sector which got PE investments of a mere 4.2 euro million

in 2005 to 2006, saw the funds soar to 106.4 million euro through 11 deals in 2007 and is likely to cross 2.1 billion euro in 2007-08 (Business Standard, 2007).

Some facts presented by the Press Information Bureau, Government of India throw some light on the recent growth in exports of agricultural and processed products. Agricultural exports from India have increased from Rs 10,169 crores in 2001-2002 to Rs. 17,918.07 crores in 2005-06. The total quantity of fresh fruits and vegetables exported was about 1296 thousand MT valued at Rs. 1363 crore during the year 2004-05 and about 1465 thousand MT valued at Rs. 1658 crore in 2005-06 (an increase of about 21%). Export of processed fruits and vegetables valued at Rs. 1551 crore in 2004-06. This was increased to Rs. 2455 crore during 2005-06 (about 58% growth). Export of animal products like buffalo meat, sheep/goat meat, poultry products, dairy products, animal casing and processed meat is valued at Rs. 2466 crore in 2004-05 and Rs. 3566 crore in 2005-06 (an increased of about 44%).

Though many steps have been taken in the right direction, several constraints still remain. Interviews and discussion with industry stakeholders highlighted some areas which require further refinement for effective implementation of the schemes and projects proposed by the government. First is the issue of problems in availing funds to start the ventures. This refers to the funds for proposed schemes and projects. Though the funds have been kept aside for starting various agricultural ventures, the agripreneurs still find it difficult to avail these funds. This is because of procedural complications and bureaucracy. Second issue refers to lack of comprehensive planning. Oftentimes expensive infrastructures have been put in place, but underutilization of this infrastructure is grossly underutilized. This is because of lack of developing forward and backward linkages regarding the use of infrastructure. Third, on the policy front, more needs to be done in creating conducive environment for private sector participation. Regulatory framework for managing contracts with farmers is important. Currently there is no regulation in place to ensure compliance to the contract from both parties – farmers as well as company. The functioning of the contract depends on trust between the two parties. However, there need to be a system in place to protect the rights of the farmers as well as the companies.

Key Issues from the Development Perspective

Three aspects of inclusive growth are very important: i) inclusion of small and marginal farmers in the emerging modern value chains ii) linkage between small and medium enterprises involved in food processing and iii) regionally balanced growth.

i) Inclusion of small farmers in modern value chains

This is an era of rapid changes and growth for the agricultural sector in India. Overall, it is recognized that with rapid economic growth, incomes are increasing, but at the same time income inequality is also increasing very rapidly. It is very important to ensure that the growth is inclusive and that small and marginal farmers are not left out of the development process. Agriculture marketing is changing from traditional marketing to more co-ordinated links between farmers, traders, processors, exporters and retailers. In this changing situation, NGOs, donors and government extension agencies can promote farmer welfare by developing linkages

between farmers and markets. An FAO publication “linking farmers to markets” reviews the experiences of approaches to linking farmers to markets. Factors affecting the success of linkages, enabling policy environment for the success of such initiatives are discussed in detail, followed by recommendations for NGOs, donor groups and government agencies involved in these initiatives.

Two recent initiatives on linking farmers to markets need to be mentioned. First is the “Rural Business Hub” initiative jointly launched by CII (Confederation of Indian Industries and Ministry of Panchayati Raj proposes encourage participation between private companies and panchayats (local governance bodies) in a region. The idea is to create economically viable ventures with partnerships between private companies and panchayats. This project has been initiated on a pilot scale in some areas. Second, the concept of Producer Companies has also been initiated in some parts of India. For example, World Bank has initiated a project to develop producer companies through the Madhya Pradesh District Poverty Initiative Project (MPDIDP). The producer companies works towards aggregation of produce and developing backward and forward linkages to induce market driven agricultural growth. These Producers companies are controlled and owned by the farming community and managed by professionals.

ii) Small and Micro Enterprise linkage with modern agribusinesses

Agro-processing sector in India is dominated by small and micro enterprises. In recent years, there is increasing investment in this sector by major Indian conglomerates and multinational companies. Thus, a modern sector parallel to the traditional sector is emerging. The modern sector will have a positive impact on the food processing sector by bringing in new technologies, economies of scale, and higher food quality standards. Thus, in the coming years, small and micro enterprises will be competing directly with the big companies. Special initiatives need to be undertaken to upgrade the small and micro enterprises to make them more competitive in this changing environment. Technologies specific to small and micro enterprises need to be upgraded. Central Food Technology and Research Institute (CFTRI) is already undertaking some steps in this direction. Special training needs to be provided to this sector to enable them to meet the requirements of the new food safety regulations. Finally, approaches to link these enterprises to big companies need to be explored.

iii) Regionally balanced growth

As agriculture is a state subject in India, private sector investment in a state are driven by the policies, initiatives and ideologies of the state government. The state departments of Punjab and Maharashtra have been very proactive in attracting private sector investment in the area of agro processing. Farmers have benefited from the linkages developed with the private sector. In the recent years, many other states have taken initiative on this front and invited industry at state level forums to forge partnerships and MOUs between state governments and private sector. Despite, these initiatives, several states have been completely left out in these initiatives. The North eastern states specifically are very further away from these initiatives because of the distances.

Another key aspect of regional development is the political ideologies of the states. Because of the political ideologies, states like West Bengal and Kerala have a policy which does not encourage private sector investment. There are ongoing initiatives in these states to develop the agricultural sector, especially Kerala has been very proactive in developing the agro industry and agro processing sector through government interventions. However, it is widely recognized in the development literature that in changing business environment with high private sector investment, government plays a critical role in creating an enabling environment for private sector investment and providing a regulatory and monitoring framework for effective functioning of the system.

6. Concluding Comments

India's next frontier of innovation is in the area of agribusiness and agro processing. Food processing industry is widely recognized as a 'sunrise industry' in India having huge potential for uplifting agricultural economy which has been stagnant in the past few years, exposing traditional Indian agriculture to modern technologies, creating large scale processed food manufacturing and food chain facilities and consequently generate employment and export earnings. The vision for the food processing sector in India is to make India the food basket of the world, and achieve what has been achieved in the computer technology sector. The government and private sector have been very proactive in pursuing this vision in a committed manner. Several forums, conferences, meetings and gatherings have been organized in the past few years, to understand the issues and constraints facing this sector. Building on the input provided through dialogue between stakeholders, many dramatic changes have been brought about to make the sector dynamic, strong and competitive in the global market:

- Liberalizing the sector by removing many restrictions imposed by licensing, import and export duties and taxes;
- policy changes to provide a fair playing field to private sector in agriculture marketing;
- rationalizing food safety regulations for easier compliance;
- ensure availability of credit at farm and processing level,
- invest in developing modern infrastructure for post harvest management and value addition;
- creating supporting institutions at all levels— Agriclincs to provide technology at farm level, APEDA to support the agri export industry,

The positive impact of these efforts is already evident in high growth rate of 8.5 percent achieved by this sector in 2006-07. FDI investment in this sector is likely to reach a record high of 2.1 billion Euros in 2007-08. Many multinational companies have already identified the potential of the Indian market. Soft-drinks, grains processing, dairy products and confectionary are some of the areas where MNCs are already present. The process of disintermediation has begun and supply-chain efficiencies are set to improve.

Though several steps have been undertaken in the right direction, more needs to be done to ensure effective implementation of the plans and schemes proposed. Comprehensive planning by creating backward and forward linkages is required for efficient functioning of the infrastructure created and minimize losses due to under utilization of capacity. On the policy front, strong regulatory framework for managing contracts with farmers is important.

Critical issues on the development front include ensuring participation of small and marginal farmers in modern value chains. This can be done by undertaking projects for linking farmers to markets. The competitive environment for the large number of small and micro enterprises is changing because of increasing competition with large companies and multinationals. These SMEs can be upgraded to meet the competition by investing in modern technology research catering to SMEs, conduct training to meet the food safety requirements, and develop linkages with large companies. Finally, most of the developments in agro processing is limited to the progressive states such as Punjab and Maharashtra. For balanced regional growth, special effort has to be on involving lagging states such as Bihar and Orissa and the flung north eastern states in the emerging modern system.

References

Agriclinics and Agribusiness Centers (www.agriclinic.net)

Andrew Shepherd, “*Approaches to linking produces to markets: A review of experiences to date*”, Agricultural Management, Marketing and Finance, Occasional Paper, Food and Agricultural Organization of the United Nations, Rome, 2007

Ministry of Food Processing Industries, *Annual Report of Ministry of Food Processing of India 2005-06*, New Delhi, India

Ministry of Food Processing Industries: “*Vision 2015: Strategy & Action Plan for Food Processing Industries in India: Volume I*”, Ministry of Food Processing Industries, Government of India, New Delhi, April, 2005

Press Information Bureau, Government of India “*Food Processing Sector India’s Investment Destination*”, Nov. 5, 2007

<http://pib.nic.in/release/release.asp?relid=32413>, accessed on 11th November, 2007.

Reardon, T., Timmer, C.P., Barrett, C.B. & Berdegue, J. 2003. The Rise of Supermarkets in Africa, Asia, and Latin America. *American Journal of Agricultural Economics* 85(5).

Sabyasachi Samajdar, “*Food & beverage, the next sunrise industry: FICCI study*” Food and Beverage News, New Delhi, August 25, 2007 (www.fbnnews.com) accessed on 04/11/07.

Sabyasachi Samajdar, “*Apex Chambers Welcome Budget*” Food and Beverage News, New Delhi, March 11, 2006 (www.fbnnews.com) accessed on 04/11/07

Santacoloma Pilar, Riveros Hernando, FAO, 2004. *Alternatives to improve negotiation and market access capabilities of small-scale rural entrepreneurs in Latin America*, Food and Agricultural Organization of the United Nations, Rome, 2004.

Small Farmers Agribusiness Consortium (www.sfacindia.com)