

BOTTLENECKS IN INDIAN FOOD PROCESSING INDUSTRY

– Survey 2010



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Executive Summary

India is one of the world's largest producers as well as consumer of food products, with the sector playing an important role in contributing to the development of the economy.

Food and food products are the largest consumption category in India, with a market size of USD 181 billion. Domestically, the spending on food and food products amounts to nearly 21% of the gross domestic product of the country and constitutes the largest portion of the Indian consumer spending—more than a 31% share of wallet. Going forward, the Indian domestic food market is expected to grow by nearly 40% of the current market size by 2015, to touch USD 258 billion by 2015. (FICCI-EY report, 2009)

Food processing industry in India is increasingly seen as a potential source for driving the rural economy as it brings about synergy between the consumer, industry and agriculture. A well developed food processing industry is expected to increase farm gate prices, reduce wastages, ensure value addition, promote crop diversification, generate employment opportunities as well as export earnings.

In order to facilitate and exploit the growth potential of the sector, the government on its part has initiated extensive reforms. Some of the key measures undertaken by the Government include: amendment of the Agriculture Produce Marketing Committee Act, rationalization of food laws, implementation of the National Horticulture mission etc. The government has also outlined a plan to address the low scale of processing activity in the country by setting up the mega food parks, with integrated facilities for procurement, processing, storage and transport. To promote private sector activity and invite foreign investments in the sector the Government allows 100% FDI in the food processing & cold chain infrastructure. The recent budget has announced several policy measures, especially for the cold chain infrastructure, to encourage private sector activity across the entire value chain.

However, despite of continual efforts and initiatives of the Government to provide the required stimulus to the sector, processing activity is still at a nascent stage in India with low penetration. At the same time, though India is a key producer of food products, having an adequate production base for inputs, productivity levels are very low in the country. While India remains a top producer of food, production

yield levels are among the lowest amongst the BRIC countries. Also, the Indian export market, at USD 13.7 billion, has a share of only 1.4% of the world food trade.

Considering the criticality of the situation and the need to appropriately address the challenges faced by the sector, FICCI through its internal research identified 15 major factors hampering the growth of food processing sector and holding it back. (Mentioned below)

- *Comprehensive national level policy on food processing sector*
- *Availability of trained manpower*
- *Processing plants with cost effective technologies*
- *Cost effective food machinery & packaging technologies*
- *Constraints in raw material production*
- *Inadequate infrastructural facilities*
- *Access to Credit*
- *Market Intelligence*
- *Inconsistency in central and state policies*
- *Lack of Applied research*
- *Adequate value addition*
- *Lack of specific plan to attract private sector investment across the value chain*
- *Food safety Laws*
- *Weights & measures Act & Packaging commodity rules*
- *Taxation*

It is very pertinent to mention here that the challenges for the food processing sectors are diverse and demanding, and need to be addressed on several fronts to derive maximum market benefits. A combination of uncontrollable and controllable factors has affected the growth of the sector and has acted as a hindrance in achieving its potential.

The pan India survey conducted across the entire value chain reached 250 companies and the total of 125 responses were received. The respondents profile constituted of the top decision makers of food organizations.

The survey focused on:

1. To identify the challenges hampering the growth of food processing sector
2. To identify the five major challenges which the food processing companies come across in achieving their maximum potential.
3. To identify the top five challenges which need immediate action and policy intervention by the Government.

Key Findings

FICCI survey, through its weighted response approach was successfully able to rate each of the challenges faced by the sector according to its criticality as shown below:

Challenges Identified	Weighted %age of respondents
Comprehensive national level policy on food processing sector	34.46
Availability of trained manpower	25.53
Processing plants with cost effective technologies	16.59
Cost effective food machinery & packaging technologies	13.19
Constraints in raw material production	25.10
Inadequate infrastructural facilities	44.25
Access to Credit	20.85
Market Intelligence	13.19
Inconsistency in central and state policies	28.08
Lack of Applied research	21.27
Adequate value addition	9.78
Lack of specific plan to attract private sector investment across the value chain	17.87
Food safety Laws	28.51
Weights & measures Act & Packaging commodity rules	5.10
Taxation	21.70

From the complete analysis of the findings, the top five challenges that FICCI survey identified were:

Top Five Challenges Identified	Weighted %age of respondents
Inadequate infrastructural facilities	44.25
Comprehensive national level policy on food processing sector	34.46
Food safety Laws	28.51
Inconsistency in central and state policies	28.08
Availability of trained manpower	25.53

FICCI survey identified top five challenges which need immediate action to stimulate the growth of the sector:

- **Inadequate Infrastructure Facilities:**

As per the survey maximum percentage of respondents ranked inadequate infrastructure as the top most concern hindering the growth of the sector accounting to 44.25% of weighted response. The inadequate support infrastructure which is the biggest bottleneck in expanding the food processing sector, in terms of both investment and exports includes: long and fragmented supply chain, inadequate cold storage and warehousing facilities, road, rail and port infrastructure. Also, lack of modern logistics infrastructure such as logistics parks, integrated cold chain solutions, last mile connectivity, dependence on road over rail, customized transportation, technology adoption (barcoding, RFIDs) and government support via incentivizing private public partnerships are some of the lacunae that exist in supply chain & logistics sector in India.

- **Absence of Comprehensive national level policy on food processing sector:**

The food processing sector is governed by statues rather than a single comprehensive policy on food processing. India urgently needs a national food processing policy which incorporates tax breaks for the sector. The policy to be effective will have to be comprehensive and adopt a number of legislative, administrative and promotional measures. *The survey showed absence of comprehensive national level policy on food processing sector as the second most critical factor hampering Industry's growth, receiving 34.46% of weighted response.* The respondents felt that policy should evolve through detailed discussions between all the stakeholders across the entire value chain on

pan India basis and should promote the development of viable agri-business and agro-industry models based on different agro-climates and regions.

- **Food Safety Laws & Inconsistency in State and Central policies:**

The Indian food regulations comprise various food policies that have been enacted at different points of time, and are under the ambit of various ministries of Government of India (GOI). Historically they were introduced to complement and supplement each other in achieving total food sufficiency, safety and quality. The result is that the food sector in India is governed by a number of different statutes rather than a single comprehensive enactment. This incremental approach has led to incoherence and inconsistency in the food sector regulatory scenario. In addition the multiplicity of ministries and administering authorities at both the central and state level has resulted in a complex regulatory system that is not well integrated adding an additional burden on the food industry. *The respondents of the survey identified food safety laws as the third critical factor hampering Industry's growth, receiving 34.46% of weighted response and Inconsistency in state and central policies as the fourth major challenges for food processing sector accounting for 28.08% of weighted response.*

- **Lack of adequate trained manpower:**

Many positive developments in the food processing sector have also resulted in the apprehension about the emerging skill shortages due to mismatch between the demand for specific skills and available supply. In fact, of late, shortage of skilled, semi-skilled and unskilled workers has emerged as a critical factor impacting the competitiveness of Indian food industry. *The FICCI survey showed that lack of adequate trained manpower was also a major hindrance to the growth of the sector, accounting for 25.53% of weighted responses making it as fifth most important item of concern.* At each level in the value chain, there are strong deficiencies in technical knowhow and support. *According to recent FICCI survey on skill demand in food processing industry, it has been observed that a majority percentage of organizations are dissatisfied with the skills of the available trained manpower. For instance, 58% of the respondents were dissatisfied with technical skills and knowledge needed for the job. Also 72% showed discontent with employees' ability to use appropriate and modern tools, equipment, and technologies specific to their jobs.*

Apart from the above major challenges hampering the growth of sector, the respondents also identified constraints in raw material production, taxation , access to credit, processing plants with obsolete technologies, lack of applied research etc as other major challenges for the growth of food processing sector.

Indian food industry is gradually making an important mark in the global food arena as a large producer and exporter of agro food products. At present small players dominate the Indian food processing industry. The favorable policy environment and holistic approach to address the major challenges identified in this survey, augurs well for India, which is well on track to become one of the leading food nations of the world.

Key Recommendations:

Whilst, the Government initiatives aimed to bring about regulatory reforms and infrastructure development in agriculture marketing; and private sector investment in infrastructure creation have created the much desired vibrancy in the sector in recent times, however, there is a paramount need to take big ticket measures to catapult the growth of food processing sector and take it to the high growth trajectory.

Some of the measures that could be taken to spur the growth of the sector are as follows:

- **Address Infrastructure bottlenecks to give further impetus to the sector-**

- a) Overcoming long & fragmented supply chain:**

To overcome the long and fragmented supply chain, contract farming can emerge as a significant opportunity for companies whereby they can create direct farm linkages to source appropriate quality, quantity and varieties of inputs. Currently, contract farming is supported by the governments of few key producing states in India. A few companies have been successful in linking up with farmers, and some models of contract farming based on profit sharing or social investment may emerge in the future.

- b) Providing impetus to logistics & supply chain sector:**

1. Dedicated freight corridors in rail supplemented by concretized dual carriageways for the State & National highways, will directly reduce the cost of goods supplied.

2. There is a need to develop a single entity of all multi-modal transportation, instead of splitting into rail, surface and air as separate Ministries & entities. This entity needs to remain customer & industry centric rather than as the Governmental control mechanism.
3. Support to private rail operators by providing access to infrastructure of Indian railways at concessional rates; tax holidays for purchase of wagons and creation of infrastructure, especially that of rail terminals for cargo consolidation and aggregation.
4. Provide further incentives to FTWZs, one of the major drivers of warehousing business.
5. The Government should provide industry status to this sector and formulate a separate Ministry for Supply Chain & Logistics sector.
6. Support development of organized strategic logistics hubs by helping in land acquisition and by providing tax incentives/ tax holidays
7. Tax incentives to Multi modal Logistical Centres which also have manufacturing/exporting capabilities.
8. Incentivize 3PL operators in setting up end-to-end logistics and warehousing set-up
9. Incentives for setting up warehousing/cold storage infrastructure and customized transportation network development

- **Formulation of Comprehensive National Level policy on Food Processing**

The comprehensive policy will ensure private sector investment in infrastructure development, increased farm productivity and up gradation of quality and give further impetus to the food processing sector. The comprehensive national level food processing policy would also ensure institutional strengthening , capacity building across the value chain and would also seek to promote innovation in general and technological innovation in particular.

- **Need for Second Green Revolution in Agriculture**

The first Green Revolution has run its course. Cereal yields are rising very slowly, water tables are plunging, and agricultural growth is also low. India needs a second Green Revolution which takes rice and wheat cultivators beyond the grain production stage to agro-food processing and gives value addition and would also solve the issue of constraints in raw material procurement. This high end initiative requires commitment from all the stakeholders in the food value chain.

- **Inter Ministerial Working Group to Address the Issues**

The Government should set up Inter Ministerial Working Group (IMWG) under the leadership of Ministry of Food Processing to look at comprehensively addressing various issues that are holding this sector back.

- **Undertake appropriate measures to address the skill Gap Issue in the sector:**

- a) The government should allocate separate budget for human resource development for food processing sector for enhancing and up gradation of the skills and implementation of the various schemes for skill development. All the skills development cells and other organizations and ministries should work in tandem for effective implementation of the objectives set.
- b) There is a need for immediate adoption of ITI's by the food processing industry in various clusters across the country to upgrade the lower end skills. The candidates after training could be directly employed by the industry; this model is already prevalent in some parts of the country at a small scale, but now it needs a big push from the industry.
- c) Food processing Industry should partner with few food technology/processing institutes on a pilot basis for up gradation of higher end skills, and the same could be replicated for more and more institutions. However, the government needs to address the regulatory/policy issues to facilitate this engagement at a broader scale rather than on piece meal basis.

- **Implementation of GST as per the set deadline**

Government should ensure timely implementation of GST to provide incentive to the food processing sector, while removing subjectivity in treatment and classification of various food products. Some packaged foods which are of daily necessities, be classified at lower rate of taxation. The key impacts foreseen are:

- a) **Location of manufacturing plants would be determined on the basis of demand rather than tax implications**– This means that total landed costs and infrastructure considerations would govern the location of manufacturing plants rather than tax implications. This would thereby spurt growth for infrastructure as well as transportation and logistics.
- b) **Distribution networks may undergo significant change** - With the onset of GST, companies would not require setting up of warehouses in each state. Tax dynamics will no longer shape supply-chain networks. Economies of scale and larger operations would be possible, and it

would also enable the development of a hub-and-spoke system of delivery for outbound movements.

- c) GST is first and foremost expected to remove disparities in taxes across states hence make India as one market helping free movement of goods with minimum Logistics resources spend.

- **Implementation of Food Safety and Standards Act (FSS Act)**

Government should ensure the enforcement of the Food Safety and Standards Act in spirit including increasing radically the number of trained inspectors and state of the art lab facilities.

Given the objective of the FSSA and the mandated transparency, it is important that the following Principles are adopted to have world class rules which would foster innovation and serve the interest of the consumers at large.

- Science should get the preeminence.
- Proper risk Assessment based on the available science, before any standards are framed.
- Constituted bodies such as Food Authority, Scientific Panels & Scientific Committees must be given defined tasks with specified object of rule making.
- Public and Industry participation at an early date.
- Public hearings to achieve transparency.

Any adhoc and haste approach to adopt old PFA Rules, must be avoided.

- **Implementation of all the provisions of Model Act across all States/UTs.**

One of the major issues holding the sector back is the non implementation of all the provisions of the Model Act across all the States/UT's. The Government should ensure speedy implementation of all the provisions of the act.

- **Credit Access to Food Processing Industries**

The Government should establish a National bank, on the lines of NABARD, to lend credit to food processing industries. This will ensure speedy disbursals of the funds to food processing sector, always grappling, with the issue of lack of access to credit from banks. Also, the state governments should play a catalytic role in partnership with banks, financial institutions and technical and management institutions so that small and unorganized players become globally competitive.

- **All Industry incentives under single window clearance**

Government should bring all Industry incentive policies under single window clearance. A nodal body under Food processing Industry with single window clearance of all issues, must be created so that no separate rules and regulations comes from different ministries to impact the sector without due deliberations.

- **Open up multi brand retail to bring in more global investments in the infrastructure and logistics domain; and in turn contribute to the growth of supply chain & logistics sector in particular and economy in general**

Multi brand retail is an easier way of creating ideal environment for the use of modern logistics infrastructure like transportation, hubs, IT, cold chain etc. The organized retail is expected to grow from current 4% to 10% by 2010-11, thereby creating a huge demand for the availability of modern logistics infrastructure. However, the use of modern infrastructure can also be accelerated through various other initiatives, such as supporting modernization of general trade such as supporting star retail outlets etc. These outlets can be served by organized modern supply chain players.

- **Create a state specific plan to attract domestic and foreign investment in this sector.**
- **Promote agri-food parks by involving industry participation for better functioning of these parks.**
- **Make concerted efforts to enhance private sector investment in infrastructure development, increasing farm productivity and up gradation of quality.**

Chapter I – Introduction

India is one of the world's largest producers as well as consumer of food products, with the sector playing an important role in contributing to the development of the economy.

Food and food products are the largest consumption category in India, with a market size of USD 181 billion. Domestically, the spending on food and food products amounts to nearly 21% of the gross domestic product of the country and constitutes the largest portion of the Indian consumer spending- more than a 31% share of wallet. Going forward, the Indian domestic food market is expected to grow by nearly 40% of the current market size by 2015, to touch USD 258 billion by 2015. (FICCI-EY report, 2009).

With a population of more than one billion individuals and food constituting a major part of the consumer's budget, this sector has a prominence next to no other businesses in the country. Moreover the importance of this sector to India's economy becomes all the more relevant, considering the fact that this sector continued to perform well, despite fall in GDP number and poor performance by many other industries, during recession in 2008-09.

The industry encompasses a gamut of activities involved in reaching the final product to the consumer, starting with farming activity to produce inputs, processing of the inputs to create products and the associated supply chain involved in delivering the products.

Food processing industry in India is increasingly seen as a potential source for driving the rural economy as it brings about synergy between the consumer, industry and agriculture. A well developed food processing industry is expected to increase farm gate prices, reduce wastages, ensure value addition, promote crop diversification, generate employment opportunities as well as export earnings. This sector is also capable of addressing critical issues of food security and providing wholesome, nutritious food to our people.

Food Processing has emerged as the sunrise sector in India, having huge growth potential and opportunities that are still untapped. In order to facilitate and exploit the growth potential of the sector, the government on its part has initiated extensive reforms. Some of the key measures undertaken by the Government include: amendment of the Agriculture Produce Marketing Committee Act, rationalization of food laws, implementation of the National Horticulture mission etc. The government has also outlined a plan to address the low scale of processing activity in the country by setting up the mega food parks, with integrated facilities for procurement, processing, storage and transport. To

promote private sector activity and invite foreign investments in the sector the Government allows 100% FDI in the food processing & cold chain infrastructure. The recent budget has announced several policy measures, especially for the cold chain infrastructure, to encourage private sector activity across the entire value chain.

In order to raise India's processed-product quality to international standards, to address health concerns and harness the export opportunity, the government is establishing a network of quality control and testing laboratories and testing centers across India, supported by R&D through research institutes.

However, despite of continual efforts and initiatives of the Government to provide the required stimulus to the sector, processing activity is still at a nascent stage in India with low penetration. The level of processing is currently low across the product categories. For example, only 2.2% of the total production of food and vegetables is processed, as compared to 65% in the US or China. At the same time, though India is a key producer of food products, having an adequate production base for inputs etc, productivity levels are very low in the country. While India remains a top producer of food, production yield levels are among the lowest amongst the BRIC countries. Also, the Indian export market, at USD 13.7 billion, has a share of only 1.4% of the world food trade.

Thus considering the criticality of the situation and the need to appropriately address the challenges faced by the sector, FICCI has identified some of the major bottlenecks hampering the growth of the sector and conducted a pan India survey to analyze the most important ones which require immediate action and policy intervention from the Government.

The challenges for the food processing sector are diverse and demanding, and need to be addressed on several fronts to derive maximum market benefits. A combination of uncontrollable and controllable factors has affected the growth of the sector and has acted as a hindrance in achieving its potential.

The Uncontrollable factors include fragmentation of land holdings which has resulted in lack of scale and has made investments in automation unviable; regional climatic variations which impact the production; and the constraints in land availability due to competing pressure from urbanization, constructions and industrialization. These factors are difficult to address and hence have to be discounted for while accounting for the inadequate growth of the sector.



It is the controllable factors which can be addressed by companies and the Government, which impact the production levels and hence need proper actions. Even today we are grappling with issues of quality and quantity of raw produce, low labor productivity with slow adoption of technology. On the Infrastructure front, we have supply chain and wastage related problems and low levels of value addition etc. The other issues of concern, holding this sector back are impaired access to credit; inconsistency in state and central policies, which requires all of us, at the Center and at the State level to work as one single cohesive unit.

Chapter II - The Study

To identify the major challenges hampering the growth of Indian Food Processing Industry which would in turn set a platform to build a vision for the sector, FICCI conducted a pan India survey across the entire food value chain and across various states. The survey aimed at understanding from the Industry itself, five major obstacles which they come across in achieving their maximum potential.

The survey focused on:

1. Identifying the challenges hampering the growth of food processing sector.
2. Identifying the five major challenges which the food processing companies come across in achieving their maximum potential.
3. Identifying the top five challenges which need immediate action and policy intervention by the Government.

The survey was circulated amongst 250 Companies and the total responses received were 125, which constituted our sample size.

FICCI through its internal research identified 15 comprehensive factors, which tend to hinder the growth of the sector. These were:

- *Comprehensive national level policy on food processing sector*
- *Availability of trained manpower*
- *Processing plants with cost effective technologies*
- *Cost effective food machinery & packaging technologies*
- *Constraints in raw material production*
- *Inadequate infrastructural facilities*
- *Access to Credit*
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- *Inconsistency in central and state policies*
- *Lack of Applied research*
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- *Food safety Laws*
- *Weights & measures Act & Packaging commodity rules*
- *Taxation*



The respondents profile constituted of the top decision makers of food organizations. A comprehensive list of the above factors was circulated to them and the respondents **ranked these challenges on a scale of one to five.**

To analyze the importance of each factor, weights were allocated to each rank – First rank was rated equivalent to 5 points and fifth rank rated equivalent to 1 point. Further, weighted sum of responses was computed for each challenge. Factor with the **highest weighted response was identified as the top most concern and similarly the one with the lowest weighted response as the fifth item of concern.**

Chapter III - Key Results and Findings

FICCI survey, through its weighted response approach was successfully able to rate each of the challenges faced by the sector, according to its criticality.

A snapshot of weighted percentage of respondents ranking each of the challenge as top five areas of concern, has been shown below:

Challenges Identified	Weighted %age of respondents
Comprehensive national level policy on food processing sector	34.46
Availability of trained manpower	25.53
Processing plants with cost effective technologies	16.59
Cost effective food machinery & packaging technologies	13.19
Constraints in raw material production	25.10
Inadequate infrastructural facilities	44.25
Access to Credit	20.85
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Inconsistency in central and state policies	28.08
Lack of Applied research	21.27
Adequate value addition	9.78
Lack of specific plan to attract private sector investment across the value chain	17.87
Food safety Laws	28.51
Weights & measures Act & Packaging commodity rules	5.10
Taxation	21.70

From the complete analysis of the findings, the top five challenges that FICCI survey identified were:

Top Five Challenges Identified	Weighted %age of respondents
Inadequate infrastructural facilities	44.25
Comprehensive national level policy on food processing sector	34.46
Food safety Laws	28.51
Inconsistency in central and state policies	28.08
Availability of trained manpower	25.53



It is well known that the nascent Indian food processing industry holds tremendous potential to grow. However, there are weaknesses that need to be addressed.

FICCI survey has identified top five bottlenecks which need immediate action to stimulate the growth of the sector:

I) Inadequate Infrastructure Facilities:

According to FICCI survey, maximum percentage of respondents ranked inadequate infrastructure facilities as the top most concern hindering the growth of the sector accounting to 44.25% of weighted response. As per industry responses, inadequate support infrastructure is the biggest bottleneck in expanding the food processing sector, in terms of both investment and exports.

Key concerns in this area are:

A) Long and fragmented supply chain: Companies in the processed food manufacturing space face problems on the inbound supply chain side in terms of inconsistency of inputs quality, high level of wastages as the product reaches the manufacturing base and unwanted cost additions with minimal value additions. This is due to the long and fragmented supply chain which results in these wastages and price escalations. This creates the requirement for companies to invest in creating backward linkages through contract farming, which would enable the company to control the inputs at an assured quality level with minimal wastages.

B) Inadequate cold storage and warehousing facilities: India's existing food cold storage facilities can accommodate 21.7m tons of produce compared with a requirement for more than 31m tons which indicates a shortfall of 10m tons of cold storage facilities for agriculture produce. (KPMG report, 2009) Also, Cold storage facilities now available are mostly for single commodity like potato, orange, apple, grapes, pomegranate and flowers etc. which result in poor capacity utilization. Without a strong and dependable cold chain vital sector like food processing industry which is based mostly on perishable products cannot survive and grow.

Warehousing which is a key requirement in the overall supply chain, is mostly dominated by unorganized players. 20% of warehousing is organized currently with 70% of the organized market controlled by the Government (FICCI-EY Report, 2009). Involvement of more private players will help in the better development of warehousing facilities.

C) Challenges related to logistics:

i) Road infrastructure in India still faces challenges related to quality and connectivity: Indian national highways account for only 2% of the total road network but carry 40% of all cargo. This puts a lot of pressure on the highways due to the high traffic volumes and, accordingly, results in delays in transit. Further, the balance road network (not including highways) is not well developed, which impacts transit time and the extent of damage to cargo.

Normal distance covered by truck/trailers in India is 250-300 km/day vs. International norm of 600-800 km/day. Most roads in India are designed to carry a maximum gross weight of 16.2 tons vs. 36 tons in the US.

ii) Rail haulage network suffers from several key issues limiting its possibility of being used extensively for transport of food products: Key Issues-

- Lack of last mile connectivity from rail transporters
- Inefficiencies due to the current monopoly in rail haulage leading to delays, etc.
- Flexibility provided by road transport operators

iii) Port Infrastructure: This is a key challenge for external trade. While over last few years, port capacity may be increasing, lack of connectivity to these ports leads to cost escalations and delays in the goods transferred. Also, high dependence on manual labor and low technology usage affects the turnaround times at ports, impacting the overall supply chain lead time. This can cause adverse effects especially for food and food products. For example, the cost of an import container in India costs at around USD 500-520 per box as compared to USD 300-350 in foreign ports.

II) Absence of Comprehensive national level policy on food processing sector:

The food processing sector is governed by statutes rather than a single comprehensive policy on food processing. India urgently needs a national food processing policy which incorporates tax breaks for the sector. The policy to be effective will have to be comprehensive and adopt a number of legislative, administrative and promotional measures. ***Absence of comprehensive national level policy on food processing sector has been identified as the second most critical factor hampering Industry's growth, receiving 34.46% of weighted response.*** The respondents felt that policy should evolve through detailed discussions between all the stakeholders across the entire value chain on pan India basis and should

promote the development of viable agri-business and agro-industry models based on different agro-climates and regions.

III) Food safety laws:

In India multiple regulations for food have been enacted at different points of time to supplement each other. This incremental approach has led to incoherence and inconsistency in the food sector regulatory scenario. The food sector in India has been governed by a multiplicity of laws under different ministries. A number of committees, including the Standing Committee of Parliament on Agriculture in its 12th Report submitted in April 2005, have emphasized the need for a single regulatory body and an integrated food law.

To this effect, The Food Safety and Standards Act, 2006 consolidated eight laws governing the food sector and established the Food Safety and Standards Authority (FSSA) to regulate the sector. The Food Safety and Standards Act, 2006, aimed to integrate the food safety laws in the country in order to systematically and scientifically develop the food processing industry and shift from a regulatory regime to self-compliance.

However, the key problem that industry anticipates from implementation of the Act is the initial phase of disorder that will be introduced. ***FICCI survey has identified implementation bottlenecks in food safety laws as the third critical area of concern for the food processing sector, with 28.51% of weighted responses.*** The small and medium scale industries that do not vigorously keep track of the regulatory changes will find it difficult to identify the procedural and compliance changes brought by the Act. Industry is also apprehensive that during the transition phase, uncertainty will prevail till the food processing industries and the regulators can come to a common platform.

A comprehensive study report prepared for MOFPI reported that majority of the laboratories in India do not have accreditation, and only few laboratories are fully equipped to cater the domestic and export regulatory testing needs of the food industry. This report emphasizes a greater need of manpower development and up gradation of the laboratories in terms of infrastructure and sophisticated equipments. With the advent of the Act that will levy heavy penalties for non-conformances, a need for accredited laboratories is of paramount importance. Industry anticipates that shortage of testing laboratories and equipment and trained manpower might hamper the implementation of the Act.

The Act also mentions certain terms like 'Food Safety Management System' and 'Risk Analysis' whose definition calls for adoption of 'Good Manufacturing Practices', 'Good Hygienic Practices' and 'Hazard Analysis and Critical Control Point'. These international concepts need to be understood, articulated and elaborated very progressively. This will call in for a major shift in the mindset of people, both from the regulatory agencies as well as the food processing industry.

Thus it can be said that implementation of the Act is a mammoth task not only for the food processing industries but also for the GOI to incorporate the proposed changes in the existing structure and functioning of the government machinery. To fully realize the benefits of the Act, FSSAI needs to maintain total transparency in rule framing. Involvement of industry and other stakeholders at the earliest stages of rule framing and transparent public consultation, directly or through representative bodies, during the preparation, evaluation and revision of food law is essential for setting of sound scientific standards.

The new Food Act (FSSA) is the outcome and over 5 years efforts of the Industry. Much, however, would depend on its smooth implementation based on the Regulations. Given the Scheme of the FSSA & its object it is clear that it made the distinction between the adulterated food, which are harmful to human health and food products, which are not harmful to human health. All litigations which are of minor and technical violations and not related to allegation of "Adulteration" be disposed and if required by way of payment of one time compounding fees. The new rules also should allow the same process to enable to have a proper system of implementation through a process of migration from 'Enforcement to Enablement'.

The greatest Challenge therefore, in today's context is Rule Making Process under FSSA. At all cost a mechanical adoption of the PFA Rules, 1955 must be avoided by following the aforesaid science based approach with complete transparency.

IV) Inconsistency in the Central and State Policies:

Several schemes are launched by government of India with varied objectives but the same beneficiary-food processing sector like Ministry of Commerce and allied trade promotion bodies (for trade promotion), Ministry of Agriculture (for market development of raw agricultural commodities), Ministry of Small scale industries (for upliftment of small scale industries- 74% of food processing industries in India fall under SME), Ministry of Health and Family welfare (for food safety) etc. Some of these schemes are centre driven while others are state driven, these work in complete silos with no coordination.

Multiplicity of government institutions and Overlapping schemes is identified as the fourth most critical area of concern for the sector, with 28.08% of weighted responses.

Additionally, industry faces a lot of procedural hindrances with Government of India in implementing schemes and disbursing incentives. There is an urgent need to understand the bottlenecks that the beneficiaries face, be it research institutions, laboratories, industry or other stakeholders in availing incentives and scheme benefits. This will provide a useful insight and information that can be referred while drafting future schemes.

V) Lack of adequate trained manpower:

According to FICCI survey, lack of adequate trained manpower was also observed as a major hindrance to the growth of the sector, accounting for 25.53% of weighted responses making it the fifth most important area of concern.

From 2004 to 2008, there was high growth recorded in the Indian food industry, from USD 141 billion to USD 181 billion, a compounded annual growth rate (CAGR) of 6.4 %. Going forward, the Indian domestic food market is expected to grow by nearly 40% of the current market size by 2015, to touch USD 258 billion by 2015. These figures indicate that the sector has indeed moved on to a 'new' and 'higher' growth trajectory. (FICCI –Ernst & Young study 2009)

These positive developments however have also resulted in apprehension about the emerging skill shortages due to mismatch between the demand for specific skills and available supply. In fact, of late, shortage of skilled, semi-skilled and unskilled workers has emerged as a critical factor impacting the competitiveness of Indian food industry.

At each level in the value chain, there are strong deficiencies in technical knowhow and support. In comparison to the amount of research carried out in this field, there is still a gap in the transference of this from the laboratory to the industry. In addition, knowledge flows from the academic circles or centres to the commercial centres of manufacture of primary or tertiary processed food. While at the farm level, farmers are not aware about the types and timing of crops to be taken, chemicals to be used, channel managers are not aware of managing storage conditions and handling of the ultimate produce at the customer end.

According to recent FICCI internal research on skill demand in food processing industry, it has been observed that a majority percentage of organizations are dissatisfied with the skills of the available trained manpower. **For instance, 58% of the respondents were dissatisfied with technical skills and knowledge needed for the job. Also 72% showed discontent with employees' ability to use appropriate and modern tools, equipment, and technologies specific to their jobs.**

This gap needs to be bridged by finding the right balance between applied research, capacity building, training and development of policy and regulatory frameworks, ensuring a strong, public-private partnership, identifying additional resources to support the initiative and by making technologies more accessible to the workers.

Apart from the above five major areas of concern, there are other issues which are serious cause of alarm for the industry and need to be addressed in proper course of time:

Some of these are:

A) Constraints in raw material production:

India is the second largest of producer of fruits & vegetables, and rice. However, availability of right quality of produce at the right time and the required quantity to the industry are the major constraints.

The survey showed that approx 25.10 % of weighted respondents feels that constraint in raw material production in a big hurdle for the sector. The root causes of this include inferior quality planting materials/seeds, lack of HYV of industrial importance crops, improper practices of cultivation, inadequate availability of inputs, and lack of modern farm machinery, inadequate extension efforts and unclean harvesting methods.

B) Lack of applied research:

Though Central institutes, like CFTRI, CIPHET, IHR, selected IIT'S and IIM's and State Agricultural University offer specialized courses on food technology and also undertake applied research but most of the R&D institutions have not been able to develop innovative products, processes and machinery of global stature as reflected in India's share in global trade. The key reasons for this are segregation of academics from applied research, inadequate industry interface, low commercial orientation and lack of collaborative efforts with global peers. **According to the survey, lack of applied research is another important area of concern for the sector with 21.27% of weighted responses.** Technology is still being imported for establishment of large scale exported-oriented units for production of items like banana

paste, concentrates of various fruit juices, sorting, cleaning, washing, waxing and packaging of raw fruits and vegetables. It is this gap which needs to be addressed and India should move towards self-sufficiency in above technologies as well.

C) Taxation issues:

The applicable taxation regime for secondary and tertiary food products has affected pricing levels which in turn has impacted its consumption. The tax component typically accounts for about 12-14% of the maximum retail price of processed food products. These high rates of taxation translate into high consumer prices which in turn impacts consumption. Non-uniformity in tax structure and high excise duties on various products are big cause of worry for the industry, and the ***survey has highlighted it as a predicament for the food industry, accounting for 21.70 % of weighted responses.***

D) Access to credit:

Setting up of the food processing units is capital intensive due to huge initial capital cost requirements. Therefore in order to assist this burgeoning industry to realize its potential, GoI has declared the financing of food processing sector as a priority sector. However, the processing industry is not complacent with the way the scheme is being implemented and procedural hurdles that are involved in realizing loans/subsidy from financial institutions and supporting agencies like APEDA, NHB and other state government promotional agencies. ***FICCI survey has revealed that inadequate access to credit is also a major issue of concern for the industry, receiving 20.8% of the weighted responses.*** Volatility of farm loan advances, combined with the high transaction costs involved in disbursement (typically 6% to 7% of the loan amount) has limited the activity of private organized institutions largely to top section of the farmers, thus choking credit for marginal farmers at the bottom of the pyramid.

This forces the marginal farmer to accept loans from private money lenders at exorbitant interest rates, affecting cash flow. The lack of credit access to farmers limits the working capital available, hindering investments in technology and high yielding inputs.

E) Processing plants with obsolete technologies:

Many of the food processing plants are old and use traditional technologies, resulting in low processing efficiency realization. This increases the per unit operational cost of processing. Most of the enterprises are run on a small scale and have limited ability to do product development by themselves, or the technology for improving their quality. Many enterprises experience difficulties in coping rapidly with market changes, owing to lack of new technology and development of new products and improvement



of processing technology. Therefore, a major modernization drive needs to be initiated among the processors. Awareness about the scaling up of operational capabilities, new technologies and their advantages, institutional support to processing units for the adoption of these technologies, also needs to be created among the processors.

Chapter IV: Recommendations

Whilst, the Government initiatives aimed to bring about regulatory reforms and infrastructure development in agriculture marketing and private sector investment in infrastructure creation have created the much desired vibrancy in the sector in recent times, however, there is a paramount need to take big ticket measures to catapult the growth of food processing sector and take it to the high growth trajectory.

Some of the measures that could be taken to spur the growth of the sector are as follows:

- **Address Infrastructure bottlenecks to give further impetus to the sector-**

- a) **Overcoming long & fragmented supply chain:**

To overcome the long and fragmented supply chain, contract farming can emerge as a significant opportunity for companies whereby they can create direct farm linkages to source appropriate quality, quantity and varieties of inputs. Currently, contract farming is supported by the governments of few key producing states in India. A few companies have been successful in linking up with farmers, and some models of contract farming based on profit sharing or social investment may emerge in the future.

- b) **Providing impetus to logistics & supply chain sector:**

1. Dedicated freight corridors in rail supplemented by concretized dual carriageways for the State & National highways, will directly reduce the cost of goods supplied.
2. There is a need to develop a single entity of all multi-modal transportation, instead of splitting into rail, surface and air as separate Ministries & entities. This entity needs to remain customer & industry centric rather than as the Governmental control mechanism.
3. Support to private rail operators by providing access to infrastructure of Indian railways at concessional rates; tax holidays for purchase of wagons and creation of infrastructure, especially that of rail terminals for cargo consolidation and aggregation.
4. Provide further incentives to FTWZs, one of the major drivers of warehousing business.
5. The Government should provide industry status to this sector and formulate a separate Ministry for Supply Chain & Logistics sector.
6. Support development of organized strategic logistics hubs by helping in land acquisition and by providing tax incentives/ tax holidays

7. Tax incentives to Multi modal Logistical Centres which also have manufacturing/exporting capabilities.
8. Incentivize 3PL operators in setting up end-to-end logistics and warehousing set-up.
9. Incentives for setting up warehousing/cold storage infrastructure and customized transportation network development.

- **Formulation of Comprehensive National Level policy on Food Processing**

The comprehensive policy will ensure private sector investment in infrastructure development, increased farm productivity and up gradation of quality and give further impetus to the food processing sector. The comprehensive national level food processing policy would also ensure institutional strengthening , capacity building across the value chain and would also seek to promote innovation in general and technological innovation in particular.

- **Need for Second Green Revolution in Agriculture**

The first Green Revolution has run its course. Cereal yields are rising very slowly, water tables are plunging, and agricultural growth is also low. India needs a second Green Revolution in India which takes rice and wheat cultivators beyond the grain production stage to agro-food processing and gives value addition and would also solve the issue of constraints in raw material procurement. This high end initiative requires commitment from all the stakeholders in the food value chain.

- **Inter Ministerial Working Group to Address the Issues**

The Government should set up Inter Ministerial Working Group (IMWG) under the leadership of Ministry of Food Processing to look at comprehensively addressing various issues that are holding this sector back.

- **Undertake appropriate measures to address the skill Gap Issue in the sector:**

- a) The government should allocate separate budget for human resource development for food processing sector for enhancing and up gradation of the skills and implementation of the various schemes for skill development. All the skills development cells and other organizations and ministries should work in tandem for effective implementation of the objectives set.
- b) There is a need for immediate adoption of ITI's by the food processing industry in various clusters across the country to upgrade the lower end skills. The candidates after training could

be directly employed by the industry; this model is already prevalent in some parts of the country at a small scale, but now it needs a big push from the industry.

- c) Food processing Industry should partner with few food technology/processing institutes on a pilot basis for up gradation of higher end skills, and the same could be replicated for more and more institutions. However, the government needs to address the regulatory/policy issues to facilitate this engagement at a broader scale rather than on piece meal basis.

- **Implementation of GST as per the set deadline**

Government should ensure timely implementation of GST to provide incentive to the food processing sector, while removing subjectivity in treatment and classification of various food products. Some packaged foods which are of daily necessities, be classified at lower rate of taxation. The key impacts foreseen are:

- I) Location of manufacturing plants would be determined on the basis of demand rather than tax implications– This means that total landed costs and infrastructure considerations would govern the location of manufacturing plants rather than tax implications. This would thereby spurt growth for infrastructure as well as transportation and logistics.
- II) Distribution networks may undergo significant change - With the onset of GST, companies would not require setting up of warehouses in each state. Tax dynamics will no longer shape supply-chain networks. Economies of scale and larger operations would be possible, and it would also enable the development of a hub-and-spoke system of delivery for outbound movements.
- III) GST is first and foremost expected to remove disparities in taxes across states hence make India as one market helping free movement of goods with minimum Logistics resources spend.

- **Implementation of Food Safety and Standards Act (FSS Act)**

Government should ensure the enforcement of the Food Safety and Standards Act in spirit including increasing radically the number of trained inspectors and state of the art lab facilities.

Given the objective of the FSSA and the mandated transparency, it is important that the following Principles are adopted to have world class rules which would foster innovation and serve the interest of the consumers at large.

- Science should get the preeminence.
- Proper risk Assessment based on the available science, before any standards are framed.

- Constituted bodies such as Food Authority, Scientific Panels & Scientific Committees must be given defined tasks with specified object of rule making.
- Public and Industry participation at an early date.
- Public hearings to achieve transparency.

Any adhoc and haste approach to adopt old PFA Rules must be avoided.

- **Implementation of all the Provisions of Model Act across all States/UT's.**

One of the major issues holding the sector back is the non implementation of all the provisions of the Model Act across all the States/UT's. The Government should ensure speedy implementation of all the provisions of the act.

- **Credit Access to Food Processing Industries**

The Government should establish a National bank, on the lines of NABARD, to lend credit to food processing industries. This will ensure speedy disbursements of the funds to food processing sector, always grappling, with the issue of lack of access to credit from banks. Also, the state governments should play a catalytic role in partnership with banks, financial institutions and technical and management institutions so that small and unorganized players become globally competitive.

- **All Industry incentives under single window clearance**

Government should bring all Industry incentive policies under single window clearance. A nodal body under Food processing Industry with single window clearance of all issues, must be created so that no separate rules and regulations comes from different ministries to impact the sector without due deliberations.

- **Open up multi brand retail to bring in more global investments in the infrastructure and logistics domain; and in turn contribute to the growth of supply chain & logistics sector in particular and economy in general**

Multi brand retail is an easier way of creating ideal environment for the use of modern logistics infrastructure like transportation, hubs, IT, cold chain etc. The organized retail is expected to grow from current 3% to 10% by 2010-11, thereby creating a huge demand for the availability of modern logistics infrastructure. However, the use of modern infrastructure can also be accelerated through various other initiatives, such as supporting modernization of general trade

such as supporting star retail outlets etc. These outlets can be served by organized modern supply chain players.

- **Create a state specific plan to attract domestic and foreign investment in this sector.**
- **Promote agri-food parks by involving industry participation for better functioning of these parks.**
- **Make concerted efforts to enhance private sector investment in infrastructure development, increasing farm productivity and up gradation of quality.**



Conclusion

The Indian food industry presents a very large opportunity to every stakeholder. This is primarily driven by a robust consumer demand, the changing nature of the Indian consumer, who is more informed and willing to try new products; and the strong production base of the country. Needless to add, the several gaps in the current production and delivery systems actually present a huge opportunity for the growth of companies willing to bet long term in this sector.

However, the growth of food processing companies has been sub-optimal because of high cost, low level of productivity, high wastage and lack of competitiveness of Indian food products in the global market. Therefore, to fully leverage the growth potential of the sector, current challenges that are being faced by the industry need to be properly addressed and steps need to be taken to remove the bottlenecks hampering the sectoral growth. FICCI survey has thus acted as a first step in identifying these challenges, thus providing a roadmap for all the stakeholders to work on, and thus contributing in realizing the immense potential of this industry.