## Draft Report of Working Group **FOOD PROCESSING INDUSTRIES** For 12th Five Year Plan

# Ministry of Food Processing Industries Government of India

**▲IL E S Clusters** 

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### Foreword

It is undeniable that the growth of the food processing sector would be critical for achieving 4 per cent average annual growth rate for Agriculture during the 12th Plan, which in turn may be considered pre-requisite for overall target for 9 per cent growth for Indian economy. The growth of food processing sector would further be essential to meet twin national objectives of "inclusive growth" and "food security".

The 11th Plan marked a significant progress for the Ministry in terms of both approach and scale of its programmes, with sufficient stress on appropriate backward linkages and emphasis on synergy between production and processing. The approach to the 12th Plan takes into consideration learning and experiences during implementation of the 11th Plan programmes. While the emphasis on infrastructure development continues during this Plan, equal emphasis is given to institution building and skill development. Above all, decentralization may be considered the central theme of the 12th Plan, aimed at making food processing a truly national initiative. The proposed National Mission on Food Processing would be structured to ensure maximum participation from State Governments. Relevant Government of India institutions would also be involved in the design and implementation of the schemes and programmes.

This Working Group Report is culmination of Ministry's intensive consultation with industry, academia, scientists and representatives of State Governments. Thus, the Report includes inputs from six separate Sub-Groups constituted by the Ministry and also deliberations during three Working Group meetings over this period.

I wish to place my appreciation to all the chairpersons of the Sub-Groups, the Members of the Sub-Groups and Working Group and the staff of IL&FS who have all contributed to finalization of this report.

New Delhi	(Rakesh Kacker)
12/00/2011	Secretary
12/09/2011	Ministry of Food Processing Industries

### **Executive Summary**

### **BACKGROUND AND APPROACH**

This Working Group Report for the 12th Plan on food processing industries may be regarded as essentially driven by increased belief in the role of the food processing sector in addressing core national concerns of agricultural productivity and food inflation. The foundation of food processing industry is a procurement plan for agricultural produces which ensures market for farmers and eliminates their uncertainties. The ability of industry to elongate shelf-life of products not only reduces threat of "problem of plenty" for farmers but also provides consumers with more diversified options.

The 11th Plan marked a significant step forward for the sector in terms of both approach and scale of its programmes. While the programmes of the Ministry had various novel components during the 11th Plan, most significant of them may be considered adoption of Public-Private Partnership spirit and stress on appropriate backward linkages. The 11th Plan approach may also be said to be driven by the Vision 2015 for the sector, prepared by the Ministry, which laid down specific targets for growth of the sector. Thus, the total plan outlay of the Ministry rose from ₹ 650 crore during the 10th Plan to ₹ 4,031 crore during the 11th Plan.

The key drivers of the 12th Plan approach are alignment with national objectives and efforts to address critical challenges of the sector. Thus, the driving principles of the 12th Plan would be inclusiveness of growth, food security, innovation, food safety and quality, enterprise promotion and skill development. Further, the Working Group (WG) has been guided by the key objectives of proposed National Manufacturing Plan, with stress on productivity and creation of jobs.

### **KEY RECOMMENDATIONS**

The recommendations of the Working Group for the 12th Plan may be considered continuation and further emphasis, albeit with appropriate learning, on 11th Plan strategy of infrastructure development and institution building. The elements of skill development and innovation would be significant additions for the 12th Plan strategy, with an overarching theme of decentralization. In brief, the strategy during the 12th Plan may be considered to be based on following three principles/ recommendations:

#### 1. Decentralization with Greater Involvement of State Governments

It has been realized that next leap forward in terms of ensuing requisite growth impetus and value addition (depth) to the sector can only be achieved through a process of effective decentralization. This would mean entrusting the state governments with responsibility of selection of beneficiaries

and implementation and monitoring of identified programmes. This has been designed as the central theme of the 12th Plan in form of National Mission on Food Processing (NMFP), considered essential to reach out to a much larger number of beneficiaries and facilitate necessary linkages between agricultural production and processing. Several of the programmes during the 12th Plan are thus proposed to be implemented though NMFP, as centrally sponsored schemes.

### 2. Focus on Policy Making and Coordination Instead of Project Implementation

The above decentralization process is also aimed at allowing the Ministry to focus on critical issues confronting the sector viz., lack of suitable variety for processing, need for innovation and product development, adherence to food safety and quality standards etc. To ensure progress on these issues, the Ministry would act in close coordination with Central Government agencies such as NHB, NCDC etc., and state governments. Further, the Ministry would have close collaboration with the Department of Scientific and Industrial Research of Ministry of Science and Technology for promoting innovations and product development. Above all, the Ministry would work with state governments on creation of enabling policy environment for promotion of the food processing industries. There would be continuing efforts at further strengthening of Institutions such as National Institute of Food Technology Entrepreneurship and Management (NIFTEM), National Meat and Poultry Processing Board (NMPPB) and Indian Grape Processing Board (IGPB), and Indian Institute of Crop Processing Technology (IICPT).

#### 3. Infrastructure Development with Focus on Creation of Value Chains

The Working Group believes that infrastructure development initiatives of 11th Plan aimed at creating integrated value chains, especially for perishables, would need Ministry's continuing attention. This has been found necessary in view of the nascent stage of food processing infrastructure in the country. The fragmented and unreliable supply chain corrodes the profitability of the sector and makes it unattractive for large investments. The infrastructure development initiatives of the Ministry aimed at setting up Mega Food Parks, Integrated Cold Chains and Modernization of Abattoirs have received encouraging response from private investors/municipal bodies, and are expected to make a significant positive impact in this direction.

### IMPLEMENTATION MECHANISM

As mentioned above, the Ministry has proposed to rely on state governments for implementation and monitoring of its large number of schemes, to be operated though NMFP. The draft note containing proposed structure and operation of NMFP has been shared with the all the state governments and further discussed with their representatives through arrangement of video conference. The response from the state governments has been very encouraging and this engagement would continue with them for finalization of NMFP structure. The implementation mechanism for infrastructure development schemes is already in place with provision of Programme/Project Management Agencies and such arrangements are also being recommended now for Schemes for Quality Assurance, Codex, R&D etc. The relevant organization of Central Government such as NHB and NCDC etc will also be suitably associated in implementation. They have shown their willingness during stakeholder consultation.

It is expected that the proposed institutional structure for implementation of NMFP would be ready by the middle of the first year of the 12th Plan. The WG proposes to provide adequate support to the state governments in creating and strengthening of appropriate institutional structures for this purpose. In addition, the WG has also suggested for a transition mechanism in operation of its existing schemes, proposed to be shifted under NFPM, so as not to create any inconvenience to beneficiaries.

### **BUDGETARY REQUIREMENTS**

The financial projections for the 12th Plan have to be looked at from the perspective of making growth of food processing sector truly a national goal and reflect both the potential of the sector and demand from the stakeholders.

S. No.	Schemes/Initiatives	2012-13	2013-14	2014-15	2015-16	2016-17	Total
1	Infrastructure Development Scheme	786.16	1074.50	1074	1114.75	1175	5224.41 (say, 5225)
2	National Mission on Food Processing	546	959	1506	1723	1799	6533
3	Strengthening of Institutions including Skill Development Programme	170	250	282	318	406	1426
4	Food Safety, R&D and Promotional Activities	112	132.5	160	183	203.5	791
5	Innovation Fund Scheme	10	50	50	50	30	190
6	Venture Capital Fund	50	100	125	125	100	500
7	Financial Commitments for 11th Plan projects, now proposed to be implemented under NFPM*	206	206	Nil	Nil	Nil	412
Grand Total		1880.16	2772	3197	3513.75	3713.5	15077

\* These include ₹ 400 crore of grant funds committed under Scheme for Technology Upgradation/Setting up/Modernization/Expansion of Food Processing Industries and ₹ 12 crore under HRD initiatives.

### LIKELY IMPACT

The proposed financial outlay of around  $\mathfrak{T}$  15,000 crore would have an aggregate component of around  $\mathfrak{T}$  10,300 crore towards providing part capital assistance to food processing projects. Based on design of the schemes and experience so far, this may be able to attract a total investment of around  $\mathfrak{T}$  35,000 crore in food processing sector. Considering an Incremental Capital Output ratio of around 4 for Indian Economy, though it may be less for food processing sector, an additional investment of  $\mathfrak{T}$  35,000 crore may lead to an additional output of  $\mathfrak{T}$  8,750 crore. This level of investment may also have potential of generating additional employment for at least one million people during 12th Plan, assuming creation of even 30 employment opportunities for each  $\mathfrak{T}$  1 crore invested.

### CONTEXT AND BACKGROUND

The continuing food inflation in the country has brought in sharp focus "supply side" constraints, especially in case of perishables. There is thus an increasing realization about the need to increase agricultural production in the country and a strategy to usher in second green revolution is under preparation. At the same time, it needs to be understood that it will not be enough only to produce more, but it is equally important to save each grain produced by reducing wastages. This would improve farmers' income and economic viability of agricultural operations. Such a strategy would also be essential to meet the twin national objectives of "inclusive growth" and "food security".

The growth of food processing sector would need to be a significant component of this strategy, considering its possible role in achieving increased agricultural production by ensuring better remuneration for Farmers. The food processing sector makes it possible by not only ensuring better market access to farmers but also reducing high level of wastages. A developed food processing industry will reduce wastages, ensure value addition, generate additional employment opportunities as well as export earnings and thus lead to better socio-economic condition of millions of farm families.

The Mid-Term Appraisal Report of the 11th Five Year Plan has also recommended accelerating agricultural growth through high value segment (horticulture, livestock and fisheries). To achieve this, it has suggested, inter-alia, the following:

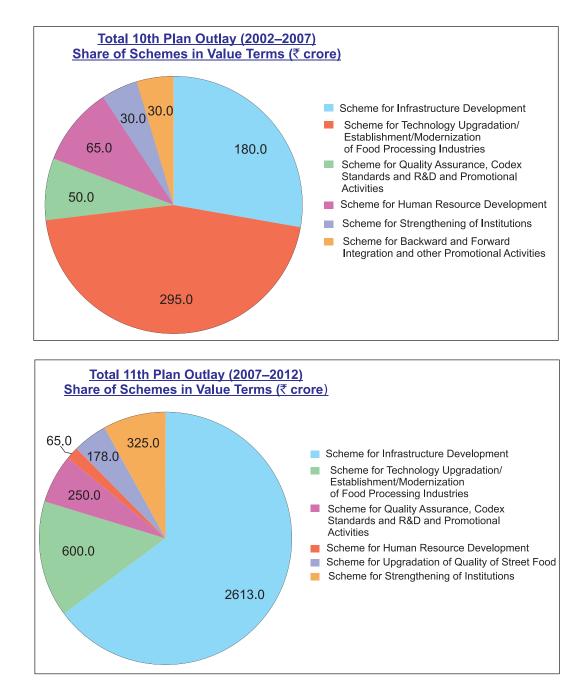
- i. To encourage "clustering" of farmers in groups through NGOs, be it in the form of "cooperatives", farmer clubs, or contract farming, etc.
- ii. To encourage organized logistics players, processors and modern retailers (both domestic and foreign) by freeing them from restrictions, and supporting them to link directly with clusters of farmers.

This is a matter of great satisfaction for the Ministry of Food Processing Industries that the above suggestions have already been the guiding principles of its 11th Five Year Plan.

### I. APPROACH DURING 11TH FIVE YEAR PLAN

The 11th Five Year Plan marked a significant step forward for the Ministry of Food Processing Industries in terms of both approach and scale of its programmes for the food processing sector. For the Ministry, the 11th Plan was also a concerted effort to seize the emerging opportunities of the food processing sector as the Indian economy came of age. The realization by the policy makers that the growth of the food processing sector would be key to growth of agriculture in the country allowed the Ministry to recast its programmes and schemes on a much wider scale and in an integrated manner, with stress on appropriate backward linkages to agricultural production.

The total plan outlay of the Ministry rose from  $\mathbf{\xi}$  650 crore during the 10th Plan to  $\mathbf{\xi}$  4,031 crore during the 11th Plan. The scheme-wise outlays for both the 10th Plan and the 11th Plan are given below:



As can be seen above, the maximum increase has been under Scheme for Infrastructure Development, where the plan outlay has increased from  $\gtrless$  180 crore to  $\gtrless$  2,613 crore. This was to emphasise the critical role of infrastructure development for food processing sector.

The 11th Plan approach may also be said to be driven by the Vision 2015 for the sector, prepared by the Ministry, which laid down specific targets in terms of increasing level of processing of perishables, value addition and share in global food trade. While the programmes of the Ministry had various novel components during the 11th Plan, most significant of them may be considered: (i) Spirit of Public-Private Partnership (PPP), and (ii) Integrated approach with stress on appropriate backward linkages.

2

The adoption of this approach by the Ministry, with requisite flexibility, led to its schemes and programmes entrusting greater responsibility to the private sector, even as efforts were made to ensure that schemes were demand driven and implemented in a transparent manner. Similarly, the stress on integration brought in features of "Hub and Spokes" and "Farm to Plate" in its various programmes and schemes.

The Mega Food Parks Scheme (MFPS), which may be regarded as the flagship programme of the Ministry during the 11th Plan, was characterized by both the above features. The Scheme, combining elements of both enabling infrastructure and core processing facilities, provides for mega food parks to be promoted by Special Purpose Vehicles (SPVs), with majority ownership by private sector even as equity of up to 26% in SPVs by the government agencies is allowed. Further, MFPS envisages mega food parks to have a "Cluster approach", which would have a Central Processing Centre (Hub) and Primary Processing Centres (Spokes) to ensure availability of raw materials for food processing units.

The Scheme for Cold Chain, Value Addition and Preservation Infrastructure is another significant initiative of the Ministry during the 11th Plan, which emerged out of the realization that any effort to promote food processing sector has to necessarily address the challenges of existing logistics constraints, specially for perishables, in the country. The Scheme, therefore, aims at enabling food processing units to create integrated and appropriate cold chain facilities for their needs, which would also lead to significant reduction in wastages of meat, dairy products, fish and agricultural perishables, specially fruits and vegetables.

The Scheme for Modernization of Abattoirs was the third important component of the Infrastructure Development Scheme of the Ministry. This Scheme aimed at creating infrastructure for hygienic and more humane slaughtering of animals leading to availability of spirit hygienic meat to the domestic consumers as well as exports. This Scheme also has the flexibility for spirit of Public-Private Partnership. The Scheme has generated huge demand from the states. The 11th Plan approach of the Ministry also gave special stress on creation of institutional structures to guide the growth of the sector in the desired direction. The establishment of National Meat and Poultry Processing Board and Indian Grape Processing Board may be considered as significant milestones during this period. The Indian Institute of Crop Processing Technology was also upgraded to a National Centre of Excellence in the country. Above all, a National Institute of Food Technology Entrepreneurship & Management (NIFTEM) has been established by the Ministry as a Centre of Excellence to cater to all aspects of technology, entrepreneurship, research, skill development and management for the sector at the apex level.

The significance of project development and management also received special focus during 11th Plan. During this period, the Ministry has engaged private sector agencies as Programme Management Agency/Project Management Agency for requisite assistance in implementation of various schemes. This has been done with objectives of ensuring effective monitoring and greater transparency in implementation of schemes.

The above initiatives by the Ministry have yielded some encouraging results and appreciation from various stakeholders. The response to various schemes though has been a mixed experience, with infrastructure development schemes for setting up mega food parks and modern abattoirs throwing up initial challenges in implementation. On the other hand, response of the industry to scheme for promoting integrated cold chains has been truly satisfactory.

### II. APPROACH TO 12TH FIVE YEAR PLAN

The approach to 12th Five Year Plan for the Ministry is to be prepared in the backdrop of recognized need to significantly increase agricultural productivity and promote investments in storage and processing facilities. The key drivers of the 12th Plan approach need to be therefore aligned with the following national objectives:

- (a) Inclusiveness of growth
- (b) Ensuring food security
- (c) Innovation, enterprise promotion and skill development
- (d) Food safety & quality

Further, the Ministry would be guided by the key objectives of proposed National Manufacturing Plan, enunciated by the Steering Committee on Industry, Planning Commission, as follows:

- 1. Increase growth of manufacturing sector to 2–4% more than GDP growth to make it the engine of growth for the economy and increase its share to 25% of overall GDP by 2025.
- Increase the rate of job creation in manufacturing to create 100 Million additional jobs by 2025.
- 3. Increase "depth" in manufacturing, with focus on the level of domestic value addition
- Enhance global competitiveness of Indian manufacturing through appropriate policy support.
- 5. Ensure sustainability of growth, particularly with regard to the environment.

The Ministry believes that food processing sector has a significant role to play in achieving the above objectives of the Manufacturing Plan. It is widely accepted that the food processing sector is the most appropriate sector for creating jobs for rural poor, and thus reduce the burden on agricultural sector for creation of their livelihood. This is due to their familiarity with the agricultural sector which would make it easier to train and place them in food processing enterprises. The multiplier effect of investment in food processing industry on employment generation is also believed to higher than any other sector. This would also address the concerns regarding lack of skilled manpower in food processing sector. Various studies suggest that the industry is grappling with the shortage of refrigeration mechanics, electricians and fitters and food safety professionals etc. There are a few institutions only that provide qualified manpower for food processing sector. Hence, one of the major emphasis of 12th Plan would be on mapping the skill gaps and identify priority areas for human resource development for increasing the productivity of workers/units in the sector.

The Ministry has also adopted the stress of the Manufacturing Plan on the need for joint ownership of plans by different stakeholders and linking recommendations to the underlying objectives and strategies. The Ministry is committed to continue its efforts during 12th Plan to meet its targets of Vision 2015 and above all, would be using the learnings of the 11th Plan which would be reflected in programmes and schemes of 12th Five Year Plan.

In line with the above principles, the Ministry's approach to the 12th Plan has been given a final shape over last 3 months based on extensive discussion with all stakeholders. The Working Group, while preparing the 12th Plan approach, had broadly focused on following areas:

1. Define the medium- and long-term goals to be achieved in the food processing sector and specify the milestones to be achieved in the 12th Plan period in order to achieve the long-term goals.

- 2. Assess the present situation, policies, programmes and achievements of the food processing sector, analyse the reasons for shortfall, if any and suggest appropriate measures. Also, suggest schemes that are to be terminated in the 11th Plan or initiated or continued in the 12th Plan period.
- 3. Examine constraints in food quality and safety issues and to suggest framework for addressing the same.
- 4. Suggest measures for human resource development and also review the working of existing R&D institutions and suggest measures for their re-organization/linkages.
- 5. Estimate the requirement of institutional finance/credit needs of the industry, analyse the impact of fiscal incentives provided by the government and suggest strategy for channelizing higher investments in the sector.
- 6. Examine infrastructure gaps in food processing sector and suggest strategy for augmentation including PPP models.
- 7. Suggest measures for strengthening and coordination of institutional network and recommend strategy for promoting value chain linkages in the food processing sector.
- 8. Review the existing coverage of food processing schemes for SC/ST/Minorities/Women/ SHG/Farmer associations and suggest measures for inclusive growth.
- 9. Review the existing planning and monitoring mechanisms at Central/State/Local levels and suggest strategy for effective inter-departmental convergence and coordination.

The proposed 12th Plan approach given below is based on the above mentioned guiding principles and includes inputs from 6 separate Sub-Groups constituted by the Ministry and also deliberations of its own 4 meetings over this period.

### III. DECENTRALIZED APPROACH: GREATER INVOLVEMENT OF STATES

It has been realized that Ministry's next leap forward in terms of ensuing requisite growth impetus and value addition (depth) to the sector can only be achieved through a process of "effective decentralization". This would mean greater involvement of state governments in implementation of various schemes and programmes of the Ministry. This may then be regarded as the central theme of 12th Plan approach of the Ministry which has suggested not only appropriate modifications in present central sector schemes but also proposed launching of a National Mission on Food Processing (NMFP). This is considered essential by the Ministry to reach out to a much larger number of beneficiaries through its various schemes. A judicious combination of central sector, centrally sponsored/additional central assisted schemes are being proposed to:

- i. Create better awareness for need and significance of food processing sector in rural areas.
- ii. Facilitate necessary linkages between initiatives in agricultural sector and promotion of food processing units.

Ensure greater participation of state governments and district administrations in various programmes. As the Food Safety and Standards Act, 2006, became effective from 5 August 2011, essentially an earlier initiative of the Ministry, the compliance with food safety regulations through better hygiene standards would be both an opportunity and challenge for the food processing sector in the country and adequate emphasis is thus being given to this aspect during

12th Plan. Similarly, the research and incubation facilities need to be demand driven and linked to the market to derive optimal advantages for the sector. There are significant measures being proposed to promote innovation, to ensure competitiveness of the sector, through proposed Innovation fund even as a dedicated Venture Capital Fund would be designed to provide adequate risk capital to entrepreneurs in the sector.

The following chapters would deal with major focus areas of the 12th Plan which would be facilitating creation of enabling infrastructure, development of human resources and provision of direct assistance in form of subsidy to increase viability of the sector for its rapid growth.

### DEVELOPMENT OF INFRASTRUCTURE FOR FOOD PROCESSING

The food safety net for each and every of the over a billion citizens—a number that is growing—requires enhanced agricultural production...in the form of a Second Green Revolution.... The choice before the nation is clear—to invest more in agriculture and allied sectors with the right strategies, policies, and interventions. This is also a 'necessary' condition for 'inclusive growth' and for ensuring that the benefits of growth reach a larger number of people.

### Economic Survey, 2010–11

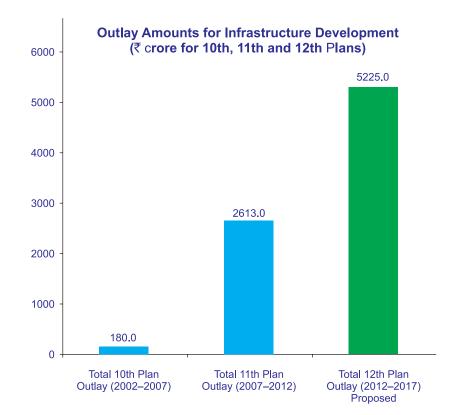
As mentioned in the previous chapter, the development of food processing infrastructure has a critical role to play in containing food inflation. The core of food processing sector is a longterm procurement plan which would ensure a market for growers and eliminate uncertainties. A procurement plan for food processing industry is aimed at ensuring supply of raw materials (agricultural produces) by offering remunerative prices to famers on a long-term basis and this is considered to be critical for containing large price variations and thus food inflation.

The food processing industry has the ability to convert raw agricultural produces into products with much longer shelf life resulting in reduction of wastages. This also reduces the threat of the temporary "problem of plenty" at harvest time for farmers thus giving them confidence to increase production.

The Ministry has acknowledged the above and therefore given infrastructure development schemes a pride of place amongst its various programmes/schemes. About 50% of the annual plan outlay is devoted to these schemes. This was also found necessary due to the nature of the food processing sector in the country which is dominated by Micro, Small and Medium Enterprises (MSMEs).

### OUTLAY AMOUNTS FOR INFRASTRUCTURE DEVELOPMENT IN ₹ CRORE FOR 10TH, 11TH AND 12TH PLANS

Plan	Outlay Amount (₹ crore)
Outlay for Infrastructure Development Scheme in 10th Plan (2002-2007)	180.0
Outlay for Infrastructure Development Scheme in 11th Plan (2007-2012)	2613.0
Outlay for Infrastructure Development Scheme in 12th Plan (2012-2017)	5225.0



Consequently, the investment in food processing infrastructure is abysmally low in the country, especially in the rural areas, making the sector subject to fragmented and unreliable supply chain, which further corrodes the profitability and in turn makes the sector relatively unattractive for large investments. The market on its own has not corrected this imbalance.

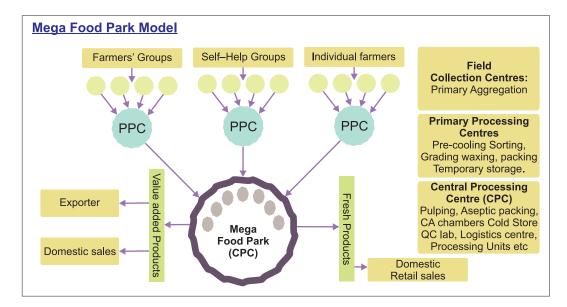
To address this key concern, the Ministry had come out during the 11th Plan, with three schemes addressed at correcting this imbalance viz., Mega Food Parks Scheme, Scheme for Cold Chain, Value Addition and Preservation Infrastructure and Scheme for Modernization of Abattoirs.

A summary of these schemes is provided in Table 2.1.

S. No	Components	Salient Features
i.	Mega Food Parks Scheme	Capital grant of 50% / 75% of the project cost (excluding cost of land) in general areas/difficult areas, subject to a maximum of ₹ 50 crore.
ii.	Scheme for Cold Chain, Value Addition and Preservation Infrastructure	Capital grant of 50% / 75% of the project cost (plant and machinery and technical civil work only) in general areas/difficult areas subject to a maximum of ₹ 10 crore
iii.	Scheme for Modernization of Abattoirs	Capital grant of 50% / 75% of the project cost (Plant machinery and technical civil work only) in general areas/difficult areas subject to a maximum of ₹ 15 crore

Table 2.1 Summary of 11th Plan Schemes for Infrastructure Development

In particular, the Mega Food Parks Scheme (MFPS) and the Scheme for Cold Chains have been designed to address the above concerns with the involvement of the private sector. The Scheme for Modernization of Abattoirs, on the other hand, is expected to be operated largely through municipal authorities though the private sector can also avail the benefits of



this scheme. Considering the overall visibility and interest of the stakeholders, the ensuing sections give details of MFPS and SICC including brief review of their implementation during 11th Plan and proposals for 12th Plan. As it is now proposed to cover the Scheme for Modernization of Abattoir under National Mission on Food Processing, this Scheme would be covered in the related chapter.

### I. MEGA FOOD PARKS SCHEME

The primary objective of MFPS is to provide excellent infrastructure for food processing sector along the value chain, especially for perishables like fruits and vegetables. This is aimed at making food processing economically more viable and generate large employment opportunities, particularly in rural areas. The Scheme is designed to bring farmers, processors and retailers (market) together so as to ensure maximization of value addition, minimize wastages and improve farmers' income.

The Scheme envisages a cluster-based approach and "Hub and Spoke" Model comprising farm proximate facilities such as Collection Centres, Primary Processing Centers (PPC) and a Central Processing Centre (CPC). The food processing units are to be located at CPC with need based Core Processing facilities (modern storage, processing, packaging, safety standards etc) and Basic Enabling Infrastructure (captive power plant, effluent treatment facilities etc). However, as the Mega Food Parks are demand driven and are based on cluster approach, the size, structure and facilities within the Parks may vary depending on region, product-mix and overall business plan of the promoters.

The Mega Food Parks are to be owned and managed by a Special Purpose Vehicle (SPV), to be registered under Companies Act, 1956, which may comprise various stakeholders from food processing industry, infrastructure development companies, farmers' bodies, retailers, state government agencies, financial institutions etc. However, the equity by the government agencies in SPV is not to exceed 26% so as to ensure the private sector character of a SPV. At present, each SPV needs to have at least three entrepreneurs/business units independent of each other with no common directors and at least one of them should be from the food processing sector

with at least 26% equity in the SPV. For being eligible for selection, the combined net worth of promoters of SPV has to be at least  $\stackrel{\textbf{<}}{\phantom{l}}$  50 crore, of which the food processor(s) should have net worth of at least  $\stackrel{\textbf{<}}{\phantom{l}}$  10 crore.

While the minimum area required for a CPC is 50 acres, the area for CPC may be much more than this. In fact, the Mega Food Parks are expected to have a regional approach and these may be spread over a large area (a zone) with requisite infrastructure at various locations, viz., 50–100 acres of land for central processing and 2–5 acres of land in surrounding region for setting up PPCs. The Collection Centres are considered optional and may not require much investment. The investment required for setting up a typical Mega Food Park is estimated to be around ₹ 120–150 crore which is likely to facilitate an investment of around ₹ 250 crore from food processing and ancillary units in CPC.

The Mega Food Park facilities, PPCs and Collection Centres, may be located in a radius of 100–120 km from CPC, though this would depend upon business plan of the project. In some cases, such facilities have been planned at a further distance to procure specific produces. It is expected that each Park may generate direct involvement of 4,000–5,000 farmers in the catchment area for procurement of raw materials, and thereby would enhance their income levels by way of providing competitive remuneration for their produce.

### A. STATUS OF IMPLEMENTATION

While it was initially proposed to set up 30 Mega Food Parks during the 11th Plan, it was decided to implement the Scheme in phases. Thus, in the first phase, proposals were invited in October, 2008 for setting up 10 Mega Food Parks, one each in 10 different States. Of these 10 projects, final approval has been given to 8 projects so far, one project each in Andhra Pradesh, Assam, Jharkhand, Karnataka, Tamil Nadu, Punjab, West Bengal and Uttarakhand. These projects are presently under different stages of implementation with projects in Andhra Pradesh and Uttarakhand also starting partial commercial operations. The final approval to remaining two projects in Maharashtra and Uttar Pradesh, delayed due to withdrawal/cancellation of earlier approved projects, is expected this year.

The Ministry has also given in-principle approval to 5 new Mega Food Park projects, in the second phase, in April 2011. The process of according final approval to these projects is on. Simultaneously, the Ministry is in the process of obtaining approval for setting up 15 remaining Parks of the 11th Plan and would be inviting Expression of Interest in this regard once the approval comes.

### **B. LEARNING DURING IMPLEMENTATION OF MFPS**

The Mega Food Park projects are first of its kind initiatives in the food processing sector and involve certain complexities and challenges during implementation. The process of approval for these projects has often become long and even progress of the projects under implementation has been found to face some serious challenges.

At present, MFPS provides for a two-stage approval process comprising in-principle approval and final approval. The approval process, as per existing guidelines, may take up to around 10 months to accord final approval to a project. In the event of a project failing to meet conditions for final approval, this process gets further stretched. It has been found that such delays have been caused primarily due to inability of applicants in meeting condition of possession of land and structuring of project SPV. The 12th Plan proposals have therefore tried to address the key concerns.

While the progress of MFPS has been rather slow initially, it is expected to gain momentum gradually. Some of the projects under implementation in the first phase, after initial issues due to above mentioned reasons, have started showing better progress and are likely to be completed by next year.

It has also been found that the initial policy of allocating one project to each State has led to some very good proposals not being selected in larger States. Also, in a heartening response to MFPS, many state governments have been approaching Ministry to allot more projects to their States. The feedback from some large industry houses in the sector has also been encouraging recently. It is believed that the Scheme is addressing a critical need of the country, which needs to be continued further during 12th Plan, though with some modifications.

### C. RECOMMENDATIONS FOR 12TH PLAN

In view of the above, the Sub-group for Infrastructure Schemes has recommended continuation of MFPS during the 12th Plan, with provision for 30 more Mega Food Park projects. This has been worked out essentially on the basis of larger States estimated to require 3–5 such Parks, depending on the availability of raw materials and size of market. It is also being proposed to launch a Scheme for Mini Food Parks during 12th Plan to cater to the need for smaller states, especially in the North-eastern region, but also for disadvantaged regions of other states.

The Scheme for Mini Food Parks is being proposed to provide for a maximum grant of  $\mathbf{z}$  20 crore, over a minimum area of 30 acres, and may facilitate setting up of 15 such Mini Food Parks during 12th Plan. Other provisions/guidelines of this Scheme may remain largely same as applicable to Mega Food Parks Scheme.

Based on the issues identified during the 11th Plan, following major revisions are being proposed in the guidelines of MFPS during the 12th Plan:

#### i. Need for Large and Credible Promoters

Considering the size of investments required in a Mega Food Park project, it is considered essential that promoters of such projects have not only sufficient experience but also requisite financial resources. This is also critical due to nature of investments, as like in any infrastructure project, these projects have a long gestation period with slow returns.

The weak response to the Scheme from large corporates of the sector has been discussed extensively during recent months and it has been found that the requirement of the Scheme, in terms of at least 3 independent entities (initially it was 5 entities), discouraged large food processors. It has been suggested that any business entity, proposing to invest around ₹ 50 crore (through equity/debt) in such projects, would not like to be constrained by conditions such as inclusion of at least 2 more equity partners in SPV.

It has also been seen that many projects under implementation have suffered due to lack of trust and coordination among various equity holders. In some cases, such conflicts have even endangered the projects, as various entities seek to have control over the Board of Directors of SPVs. In other cases, it has been found that this mandatory requirement has encouraged related and associate entities, though with no direct evidence of such relationships, to pose as independent to be eligible under the Scheme, thus nullifying the proposed advantages of a collective structure.

In view of the above, it has been proposed to revise the Scheme under 12th Plan, so that even one business entity may be eligible to promote a SPV for setting up a Mega Food Park project. Considering other requirements of the Scheme, in terms of minimum equity of 26% and minimum net worth of  $\mathbf{\overline{t}}$  10 crore for a food processing company, the proposed revision would ensure that only a food processing/agri-business operator may be in a position to promote such SPV on its own.

### ii. Possession of Requisite Land for Project

Acquisition of suitable land for the project along with change in land use has been found another major reason for delay in according final approval to a project. As per existing guidelines, a project may need to acquire requisite land within 6 months of in-principle approval of the project.

Many projects in the first phase have been delayed due to inability of the selected Bidder to procure land. In fact, in some cases like Uttar Pradesh and Punjab, the projects had to be cancelled and proposals had to be invited again due to this reason. At the same time, it would be difficult to find promoters who would have with them readily available land of the requisite area. It is therefore being proposed to give larger preference to those proposals which already possess the required land .along with necessary permission to use it for a MFP at the time of submission of Expression of Interest itself.

#### iii. Greater Involvement of State Governments

In keeping with the principal thrust of the 12th Plan of the Ministry towards decentralization, it is being proposed to provide for greater role of the state governments in both selection and implementation of the Mega Food Park projects. Although the Ministry has been inviting representatives from the concerned state governments in the meetings of the Approval Committee for projects, some of the state governments have sought a greater role in this regard.

It has also been experienced that many projects under implementation have faced delays in getting requisite approvals from state agencies (approval for sub-lease of land, land use changes etc.) due to "lack of ownership" from state governments. The Ministry is therefore proposing to make representatives of the state governments as members of the Technical Committee, which is responsible for making recommendations on the projects to the Approval Committee.

The above modifications in the Scheme guidelines are likely to significantly enhance interest level from potential investors, ensure quicker approval process and more efficient project implementation. In addition, based on the concurrent evaluation of MFPS by IL&FS Cluster Development Initiative Ltd and feedback from various stakeholders, further changes in the guidelines of MFPS are being proposed. These changes are aimed at ensuring more objective evaluation criteria, greater involvement of farmers' groups and creation of appropriate backward linkages etc. A detailed note on the proposed changes in the guidelines of the Scheme has already been prepared and is being examined by Ministry.

### II. SCHEME FOR COLD CHAIN, VALUE ADDITION AND PRESERVATION INFRASTRUCTURE

There is a need to narrow the gap between producer prices and consumer prices through proper marketing support. The development of marketing infrastructure and storage and warehousing and cold chains...driven by modern technology will go a long way in addressing this need.

#### Economic Survey, 2008–09

The above sentiments expressed in the *Economic Survey* two years back have been adequately supported by the concerted action from the Government of India. The Union Budget for FY 2010 provided for investment linked tax incentives for setting up and operating cold chain and warehousing facilities for agricultural produces. Under this policy, all capital expenditure, other than on land, goodwill and financial instruments would be fully allowable as deduction. Further, the Ministry of Finance has now taken a decision to include modern storage capacity including cold chains and post-harvest storage under Scheme for Support to Public Private Partnerships (PPPs) in Infrastructure, which provides for Viability Gap Funding of up to 40% of the project cost.

The significance of cold chain facilities for reducing undesirable level of wastages in perishables is thus fully accepted now. It is realized that for increasing level of processing and value addition to agricultural produces, cold chain facilities need to be considered an absolute necessity. It may be noted here that setting up of cold chain facilities remains a challenge for entrepreneurs in the country due to high capital and operating costs and limited market penetration.

Cold chain network in India is practically non-existent with stand alone cold storage facilities passing of as cold chain network. Most of the cold stores are single chambered, single product facilities which mainly stock potato and potato seed for about 6 months a year and lie idle during the rest of the year. The entrepreneurs, setting up cold chain projects, have to grapple with the procurement issues as well which lead to low capacity utilization. Although, the Department of Agriculture and Cooperation (DAC), Ministry of Agriculture has been implementing programmes including Scheme for post harvest management through National Horticulture Board (NHB) and under National Horticulture Mission (NHM), these are mainly for setting up of cold storages and sorting/grading facilities for fresh horticultural produces..

The Ministry of Food Processing Industries has been fully aware of the need for comprehensive cold chain solutions for food processors. The Scheme for Integrated Cold Chain, Value Addition and Preservation Infrastructure was therefore launched during 11th Plan to provide integrated cold chain and preservation facilities without any break, from the farm gate to the consumer. The Scheme is designed to link farms to value addition facilities through an efficient supply chain and includes sectors such as dairy, meat, poultry and fishery too in addition to fruits and vegetables. The eligible components under the Scheme are as follows:

- a. Minimal Processing Centre at the farm level and this centre is to have facility for weighing, sorting, grading waxing, packing, pre-cooling, Controlled Atmosphere (CA) / Modified Atmosphere (MA) cold storage, normal storage and IQF.
- b. Mobile pre-cooling vans and reefer trucks.
- c. Distribution hubs with multi product and multi CA /MA chambers cold storage /Variable Humidity Chambers, Packing facility, CIP Fog treatment, IQF and blast freezing.
- d. Irradiation facility.

To avail financial assistance, any two of the components, from (a), (b) or (c) above will have to be set-up by the units. Considering the functional nature of the facility, Irradiation facility has been treated as a standalone one for the purpose of availing grant.

### A. STATUS OF IMPLEMENTATION

As in the case of MFPS, the Ministry decided to implement this scheme in phases and therefore approved only 10 projects in the first phase during FY 2008-09. These projects have shown encouraging progress and eight of them have already started commercial operation.

Based on the above experience and feedback from industry, the Ministry obtained approval for removal of ceiling on number of cold chain projects and for upscaling of the Scheme within approved financial budget for 11th Plan. In the 2nd phase, the Ministry received 164 proposals from around the country even as the Scheme provides for stiff eligibility parameters in terms of minimum net worth (1.5 times of grant sought), appraisal note from banks/financial institutions and sanction letter from bank, in case of term loan.

Out of 164 proposals, 39 cold chain projects have been approved initially which met all eligibility parameters within stipulated timeline. The approved proposals envisage a total investment of about  $\stackrel{\textbf{R}}{\textbf{R}}$  850 Crore which would be creating an additional aggregate cold chain capacity of about 2.5 lakh MT in the country. Most of these projects are under implementation and a significant part of them may be completed by end of this year.

Considering very encouraging response from industry, the Ministry has decided to cover more cold chain projects under the Scheme during 11th Plan and has already received inprinciple approval from the Planning Commission in this regard. The requisite approval from the Government is being sought in this regard.

### **B. LEARNING DURING IMPLEMENTATION OF SCHEME**

While the response and its progress on the ground has been very satisfactory, the Sub-group report has raised some concerns regarding overlapping of some of the project components assisted under this Scheme with projects being assisted by NHB and under NHM. There is thus need to ensure better co-ordination with these agencies to avoid duplication of efforts.

It has also been observed that due to national level selection of eligible projects, some of the States have not been able to get any cold chain projects. It is therefore proposed to provide for a mechanism for state-wise allocation of projects to ensure regional balance.

The sheer number of proposals has posed serious challenges for the Ministry in selection of projects. While the Ministry had appointed a professional agency (Project Management Agency) to evaluate all these proposals in a transparent manner, through prescribed eligibility and evaluation parameters, there are still regular representations being received by the Ministry for further consideration of projects. The Sub-group report has therefore recommended experimenting financial bidding process for selection of projects to be assisted under the Scheme.

### C. RECOMMENDATIONS FOR 12TH PLAN

It is being proposed to support 120 more integrated cold chain projects during 12th Plan, out of which 20 projects would be of irradiation facilities. This is considered feasible in view of the

response to the Scheme, as mentioned above. The level of assistance would be reviewed to bring parity with the schemes of Department of Agriculture & Cooperation, to the extent feasible. In case required, competitive bidding with standardized projects would be taken up to bring about greater objectivity in the selection process. In addition, the Scheme may make requisite linkages to value addition/processing, as the mandatory requirement under the Scheme, so as to clearly differentiate such projects from those assisted by NHB/NHM.

The state-wise selection and financial bidding process would also necessitate preparation of Model Projects for various States, along with requisite technical parameters. There would also be involvement of state governments along with agencies such as NHB, NHM and NCDC in the selection and implementation of projects.

In a significant move to decentralise the process of assistance, it is also proposed to support smaller cold storage projects (non-horticultural produces) and reefer vehicles through state governments. This would be done through proposed National Mission for Food Processing (NMFP), the central vehicle for decentralisation of the Ministry's programmes and schemes during 12th Plan. The details of proposed NMFP are provided later in this report.

### III. SCHEME FOR MODERNIZATION OF ABATTOIRS

Value addition in meat sector has been almost non-existent except in the case of buffalo meat processing which is primarily meant for the export market. Livestock markets and abattoirs are mostly in unorganised sector. For the meat sector to be more vibrant, profitable, export oriented and provider of safe meat, it is necessary that a perceptible shift from unorganized to organized sector takes place.

### Mid-Term Appraisal of 11th Five Year Plan

The rise in per capita income in the country has witnessed an increased demand for meat products in recent years. It is to be noted that meat consumption remains a "luxury" for majority of non-vegetarian population in India. However, as the purchasing power of the people rise, there has been a perceptible shift towards meat and poultry consumption, which is also being reflected in food inflation figures. The poultry industry has though risen to this challenge and a number of organized players have entered this segment to take optimum advantage of this increasing demand. But the domestic supply chain of the poultry sector also leaves much to be desired.

Unfortunately, the meat sector remains unorganized except buffalo meat processing for export market. This has led to not only continuous upward pressure on meat prices, but also increasing concerns regarding hygiene standards of meat products. Quality and hygiene levels in the meat market continue to be major issues due to unscientific breeding, primitive and crude slaughtering and de-feathering techniques, lack of basic infrastructure facilities including facilities for handling carcass/flaying, cross–contamination in slaughter and improper handling during carriage and transportation. These issues lead to high wastages of meat, contamination and deterioration in quality and also avoidable cruelty to animals during whole process. It was thus felt that both qualitative as well as quantitative capacities of abattoirs need to be upgraded and they are required to be appropriately linked with commercial processing of meat, both for domestic consumption and export markets besides discouraging unauthorized slaughtering. Creation of the infrastructure of Meat Testing Laboratories also needs to be looked at.

In view of the above, during 11th Plan, the Ministry had launched a comprehensive Scheme for Modernization of Abattoirs across the country. The Scheme is mainly aimed at promoting scientific and hygienic slaughtering of animals, by-product utilization and value addition, provision of chilling facility to prevent microbial activity in slaughtered animals and better forward linkage facilities for finished meat and meat products.

The Scheme is to be implemented with the involvement of local bodies (Panchayats and Municipal Corporations) and also has the flexibility for facilitating involvement of private investors through competitive bidding. Professional agencies are also being involved by the Ministry for project appraisals, implementation and monitoring of projects.

### A. STATUS OF IMPLEMENTATION

As in the case of Mega Food Parks and Integrated Cold Chain projects, the Ministry initially decided to take up 10 abattoir projects in the first phase. The approved 10 projects are under various stages of implementation in Dimapur (Nagaland), Kolkata (West Bengal), Ranchi (Jharkhand), Shimla (Himachal Pradesh), Hyderabad (Andhra Pradesh), Patna (Bihar), Ahmednagar (Maharashtra), Jammu (Jammu & Kashmir), Srinagar (Jammu & Kashmir) and Shillong (Meghalaya). Two of these projects viz. Dimapur and Ahmednagar have been completed and commissioned. The third project at Hyderabad is likely to be completed by December, 2011. Other projects have also received requisite approvals, including environmental clearance, and are under construction.

Major challenges of the Scheme remain identification and acquisition of land and complex regulatory issues related to such projects. Considering the challenges of the sector, though, the progress of the Scheme may be considered satisfactory.

### B. RECOMMENDATIONS FOR 12TH PLAN

In view of the satisfactory progress and further interest shown by various state governments, the Sub-group report has recommended continuation and further upscaling of this Scheme. It is proposed to establish 90 new abattoirs and modernize 150 existing abattoirs during 12th Plan. It is also being recommended that while these projects may remain owned by municipal bodies, the responsibility of Operation and Management (O&M) of these facilities may be ideally done by private sector, appointed through a transparent bidding process. Finally, this Scheme is recommended to become part of the proposed NMFP to be implemented by state governments since most of the proposals are from the Municipal Bodies who are closely connected to the state governments.

However, as the system of approval of abattoir projects at the State level, as a component of NFPM, may take some time to come into operation, it is proposed that the Scheme for Modernisation of Abattoir may continue to be operated as Central Sector Scheme by the Ministry till 31 March 2014. It is envisaged that under Central Sector Scheme, during first two years of the 12th Plan, 40 abattoir projects would be take up which would include 20 projects for setting up new abattoirs and 20 others for modenisation of existing abattoirs. In addition, the Ministry would continue to be directly responsible for remaining grant to be given to projects sanctioned during the 11th Plan.

### NATIONAL MISSION ON FOOD PROCESSING (NMFP)

The most significant initiative being proposed during 12th Plan is launching of a National Mission on Food Processing (NMFP). This would be decidedly a paradigm shift in the Ministry's approach and is driven by the need to make food processing truly a national initiative. It is also fully realized that unless state governments become implementing agencies of Ministry's various schemes and programmes, there would remain a limitation on size and depth of Ministry's programmes. The success achieved by initiatives like National Horticulture Mission also suggests that Ministry may adopt a similar approach to reach farmers and small entrepreneurs. The SMEs account for large majority of food processors in the country. The Ministry's proposal for NMFP is thus guided by twin principles of Decentralization and Outreach.

The experience of direct implementation of several schemes over the years has made the Ministry fully appreciate inherent challenges in both approval and monitoring of large number of assisted projects around the country. In case of the Scheme for Technology Up-gradation/Setting up/Modernization/Expansion of Food Processing Industries, for instance, there remains a huge backlog of proposals even after the decision to implement this Scheme through banks/financial institutions during 11th Plan. The decision to entrust responsibility of appraisal and disbursement to banks/financial institutions in this case has though helped the process, the number of pending cases remains huge and monitoring of projects is a serious concern, especially in terms of impact assessment which would be key to planning. The proposed NMFP is likely to significantly add to the Ministry's capacity in terms of planning and monitoring of assistance through this Scheme. This would also allow the Ministry to develop technical parameters and model project reports, recommended by the Sub-group on infrastructure, to provide more focused assistance to a much larger number of beneficiaries.

Several of the Ministry's programmes during 12th Plan are now proposed to be implemented though NMFP, which would allow the Ministry to focus on development of critical areas like infrastructure, skills, R&D and strengthening of nodal institutions. It would also encourage grass-root participation and ensure regional balance. A list of major schemes/programmes of the Ministry to be covered under the Mission during 12th Plan is given at the end of this chapter.

### I. OBJECTIVES OF NMFP

- a. To spread the message of significance of food processing for enhancing agricultural productivity and farmers income in the country.
- b. To assist the state governments in creating requisite synergy between their agricultural plans and development of food processing sector.
- c. To assist the state governments in addressing both institutional and infrastructural gaps along the Value Chains and thus create efficient Supply Chains for agricultural produces.

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- d. To promote initiatives for skill development, training and entrepreneurship which would meet needs of both post-harvest management and food processing industry.
- e. To assist MSMEs in setting up/modernization of food processing units by providing need based support in terms of capital/technology/skill etc.
- f. To assist food processing industry to meet requisite standards in terms of food safety laws and market demand, both domestic and international.

### **II. FIVE GUIDING PRINCIPLES**

- a. Organizing the unorganized food processors, including Self-Help Groups, to help them reap advantages of Mission initiatives.
- b. Ensuring advantages of programmes/schemes/institutions/infrastructure of NMFP reach Micro and Small Enterprises on preferential basis.
- c. Dedicated, professional, sensitive and accountable support structure to initiate and implement the Mission initiatives in a transparent manner.
- d. Mission initiatives to be shaped and driven by proposed beneficiaries.
- e. Adoption of best practices for scaling up programmes/initiatives.

### **III. STRUCTURE OF THE MISSION**

The proposed structure would be a three-tier structure at National, State and District levels.

### A. NATIONAL LEVEL

At the apex level, there would be a Mission Directorate in the Ministry of Food Processing Industries with a Governing Council and an Executive Committee.

A Governing Council would be constituted under the Chairmanship of the Minister of Food Processing Industries and may comprise of Ministers and senior officials from relevant Ministries/Institutions, Industry associations and representatives of select state governments. The Council would be responsible for laying down priorities of the Mission and making its operational guidelines. It would also have periodical review of progress of the Mission and give its suitable recommendations.

An Executive Committee, on the other hand, would be constituted under the Chairmanship of Secretary of the Ministry, with a Joint Secretary of the Ministry as Member Secretary, and would have representatives from relevant Ministries/Institutions, Industry associations and select state governments to oversee the activities of the Mission and approve State Action Plans. The Committee would ensure smooth functional linkages among various levels and would be the link between Ministry and various state governments.

The Mission Directorate, with a Joint Secretary as Mission Director, would be provided with adequate resources, including manpower, to carry out its responsibilities.

### B. STATE LEVEL

At the State level, too, a similar structure would be provided. Thus, there would be a State Food Processing Mission, which may be guided by a General Body headed by Chief Minister/concerned

Minister and comprise of Ministers from relevant Departments/Institutions, Industry Associations, Experts etc. An Executive Committee under Chief Secretary/Development Commissioner/ Principal Secretary/Agriculture Production Commissioner/Secretary (Industries) may be set up which would be responsible for implementing the Schemes/programmes of the Mission.

A senior officer, at level of Director, may be designated as the Mission Director at State level who would be overall responsible for all activities under the Mission. The State level Mission may be required to have dedicated professionals and domain experts who would be supported by NMFP on need basis. Each State would be encouraged to set up a State Vision/Plan Document for the food processing sector.

### C. DISTRICT LEVEL

At the District level, District Industries Centres may be nodal body for planning, implementation and monitoring of various programmes of Mission. In case of the States, with food processing under independent department/directorate, a nodal office may be set up at major food processing clusters to undertake this responsibility. Also, in case of food processing being attached with Department of Agriculture, a suitable agency may be identified at the District level. A district level committee can be formed by the State Government whenever considered necessary. Some mechanism for coordination with other agencies/schemes at District/State level should also be developed.

Thus, all three tiers of the Food Processing Mission would work in close co-ordination with each other and would be guided by the common objective of promoting processing and value addition to the sector. The requisite administrative and financial support for the above proposed structure may be provided by Ministry.

### **IV. IMPLEMENTATION MECHANISM**

A Project Management Unit may be appointed in the Ministry for smooth implementation of all Schemes/programmes under Mission. This PMU may provide necessary support to the Mission Directorate in co-ordination with state governments to ensure regular monitoring and impact assessment of various projects. This PMU may be a professional agency consisting of a multi-disciplinary team of experts in the areas of food technology, cold chains, infrastructure development, project finance, training & capacity building, MIS etc.

### V. MAJOR PROGRAMMES/SCHEMES TO BE COVERED UNDER NMFP

### A. SCHEME FOR TECHNOLOGY UP-GRADATION / SETTING UP / MODERNIZATION / EXPANSION OF FOOD PROCESSING INDUSTRIES

The above Scheme may be regarded as the signature initiative of the Ministry which also provides to it maximum footprints around the country. During 11th Plan, the Ministry has already provided assistance to around 2,000 units under this Scheme with around similar number of units likely to be assisted with proposed enhancement in budget allocation. It is thus only appropriate that this Scheme may now be implemented through Mission with suitable modifications. Under this Scheme, the Ministry provides 25% / 33% of the project cost (Plant & machinery and technical civil works only) as capital grant, subject to a maximum of ₹ 50 lakh/₹ 75 lakh in general areas and difficult areas respectively. Although there has been a persistent demand for increasing the limit of capital grant, but this does not seem to be feasible in view of the limited resources for and galloping demand on the Scheme. But a system of giving preference to the proposals involving use of modern technology/equipment may be devised through benchmarking of various technologies/equipments. It is further being proposed to provide for larger incentives to projects located in difficult areas, aimed at encouraging more proposals from these areas. The existing scheme of Mini Mission-IV under Horticulture Mission for Northeastern Region and hilly and difficult areas, designed for this purpose earlier, would be therefore discontinued.

Finally, under the Scheme for Technology Up-gradation/Setting up/Modernization/ Expansion of Food Processing Industries, over 2,500 applications are likely to be pending by end of this year, which may require fund requirement of around ₹ 400 crore. It is proposed that all these proposals would be cleared in initial two years of the 12th Plan by continuing this Scheme as Central Sector Scheme on existing funding pattern. However, no new applications would be accepted under Central Sector Scheme after 31 March 2012.

### B. SCHEME FOR SUPPORTING COLD CHAIN FACILITIES FOR NON-HORTICULTURAL PRODUCES AND REEFER VEHICLES

At present, NHM/NHB programmes provide funding support for standalone modern cold storage facilities horticultural produces. However, such support is not available for nonhorticultural projects dealing with dairy, fish, poultry, meat etc.

It is proposed to support such projects now under NMFP with the same funding pattern as available under the Central Sector Scheme supporting integrated cold chains, i.e., capital grant of 50% and 75% of the project cost for general areas and difficult areas respectively. This initiative would also support projects for acquisition of reefer vehicles for efficient transportation of food processing products.

### C. SCHEME FOR CREATING PRIMARY PROCESSING CENTRES/COLLECTION CENTRES IN RURAL AREAS

A major initiative envisaged under NMFP is creation of large number of Primary Processing Centres/Collection Centres near farms in rural areas across the country. It is believed that creation of primary processing centres for perishables, which may include, inter-alia, facilities for sorting, grading, pre-cooling, transportation etc., would significantly reduce existing unacceptable level of wastages for such produces. The weakest links in the supply chains are identified as those close to farms which are also regarded as most critical for effectiveness of such chains.

The need for a special scheme for such facilities has also been felt as most of the existing schemes are geared towards supporting projects for storage and processing with primary processing regarded as only part of such projects. In this process, such facilities have not received due attention from entrepreneurs. The proposed scheme would thus promote creation of these farm proximate facilities which may ideally be promoted and operated by various farmers' groups.

### D. SCHEME FOR MODERNIZATION OF ABATTOIRS

As mentioned in the section dealing with initiatives under Infrastructure Development, it has been decided to operate the above scheme for setting up and modernisation of abattoirs under NMFP. However, considering initial challenges of operations, the Ministry would operate this as Central Sector Scheme during first 2 years of the 12th Plan.

From the 3rd year of the 12th Plan, though, all the initiatives under the Scheme would become primary responsibility of the concerned state governments. It is proposed to establish 90 new abattoirs and modernize 150 existing abattoirs during 12th Plan. Out of which, 40 projects would be under Central Sector Scheme and remaining would be under Centrally Sponsored Scheme under NMFP.

### E. SCHEME FOR MODERNIZATION OF MEAT SHOPS

This Scheme has been designed to address increasing concern about public health arising out of contamination and poor quality of meat being made available from meat shops in urban areas. It is believed that small investments by these meat shops in basic infrastructure (e.g. tiles, SS wash basin, exhaust and ventilation systems) and equipment (cutting table with SS base, deep freezer, sealing machine etc.) would go a long way in promoting hygienic meat consumption and thus give further fillip to this sector. Each meat shop is proposed to be provided with maximum grant of  $\mathbf{T}$  3 lakh, depending on eligible items, through this Scheme which may be implemented as part of NMFP through local urban bodies. It is proposed to modernisation 10,000 meat shops during the 12th Plan in the country.

Further, as the system of approval of Abattoir project at the State level, as a component of NFPM, may take some time to come into operation, it is proposed that the Scheme for Modernization of Abattoir may be continued to be operated as Central Sector Scheme by the Ministry till 31 March 2014.

### F. SCHEME FOR HUMAN RESOURCE DEVELOPMENT (HRD)

All the activities being conducted by the Ministry under this Scheme would be now made partly available to the state governments through NMFP. In case of Skill Development for the food processing sector, which is a gigantic task, the same would be implemented through NIFTEM which would work as the apex body to plan strategic roll out, implement and monitor this development of around 3 million skilled people for the food processing sector during next 7–8 years. This would be achieved by networking with the existing government/non-governmental/ private organizations as well as establishing some new structures wherever required.

The Ministry would handle/coordinate all the work pertaining to skill development till such time NIFTEM becomes fully operational and capable enough to handle the skill development as envisaged in the foregoing. The Ministry would continue to give the overall policy framework and monitor progress achieved by NIFTEM in this direction.

### i. Creation of Infrastructure Facilities for Running Degree/ Diploma/Certificate Courses in Food Processing Technology

This is to encourage introduction of specialized courses in food processing technology in recognized Colleges/Educational Institutions. Apart from Degree/Diploma courses, certain

short duration Certificate courses may also be considered under the Scheme. These courses may be of duration of 3–6 months and initiated preferably through Industrial Training Institutes/ Polytechnics. The level of assistance available for creation of requisite infrastructure is proposed to be enhanced from existing ₹ 75 lakh to ₹ 1 crore for each proposal.

### ii. Entrepreneurship Development Programme (EDP)

This is to promote entrepreneurship in food processing sector. Eligible institutions may be provided assistance of  $\mathbf{R}$  2 lakh per EDP during 12th Plan. The Curriculums for such programmes may be standardized with the assistance of NIFTEM to keep them abreast of developments in the food processing industry and till such time the existing curriculum would be continued.

### iii. Food Processing Training Centre (FPTC)

These Centres are basically meant for development of rural entrepreneurship and transfer of technology for processing of food products by utilising locally grown raw material and providing hands-on experience at such production–cum-training centres. Thus, these Centres would be helpful in promoting entrepreneurship/skill development as well as transfer of technology.

The entire outlay for HRD activities during the 12th Plan would now be implemented under NFPM though the Ministry would be directly releasing remaining assistance for projects sanctioned during 11th Plan, for which ₹ 6 crore each for next two years has been provided.

### G. SCHEME FOR PROMOTIONAL ACTIVITIES

Out of the total proposed budget for various promotional schemes of the Ministry, 50% of funds would be made available to state governments through Mission during 12th Plan. Some of the promotional activities to be funded under Mission would be as follows:

### i. Organizing Seminar/Workshops

For organizing seminars/workshops, state agencies and industry associations would be eligible for grant up to 50% of the cost, subject to a maximum of ₹ 7 lakh per event.

### ii. Conducting Studies/Survey

For conducting studies/surveys or preparation of feasibility reports etc., agencies would be eligible for grant up to 50% of the cost, subject to a maximum of ₹ 10 lakh for each proposal.

#### iii. Support to Exhibitions/Fairs

In case of financial assistance to any institution/organization for organizing a fair/exhibition or sponsoring/co-sponsoring of a fair/exhibition, quantum of assistance may be decided on merits of the proposal by State Mission, subject to a maximum assistance of  $\mathbf{\overline{7}}$  7 lakh.

### iv. Advertising and Publicity

The proposed activities under the Mission would need to be given adequate publicity to ensure their optimal utilisation. This would be more critical during initial years. Thus, there would be provision for funds for dissemination of information and creation of necessary awareness about various schemes to be covered under the Mission.

### H. SCHEME FOR UPGRADATION OF QUALITY OF STREET FOOD

During the 11th Plan, the Ministry had contemplated a plan scheme in the form of "Upgradation of Quality of Street Food" with a view to improve hygienic condition of street food and for upgradation of capacity of stakeholders. This scheme was initiated by the Ministry on a very small scale, on pilot basis. However, the Ministry of Finance and Planning Commission did not support the scheme.

The issue of proposing this scheme as a new scheme during the 12th Plan has been deliberated upon. The Working Group is of the view that upgradation of quality of street food may be more appropriately handled by the Department of Housing and Urban Alleviation, therefore, suitable reference may be made to the concerned Departments.

In case, it is required to be implemented as a Scheme by the Ministry of Food Processing Industries, then it would also be proposed as a component of NMFP. The financial projections for this scheme are therefore not being indicated.

### VI. FUNDING PATTERN FOR NMFP

All these schemes would be implemented as centrally sponsored schemes or through Additional Central Assistance route by giving the responsibility of implementation to the state governments. The detailed guidelines of these schemes would though be drawn up in discussion with the Planning Commission and state governments later.

NMFP will also take into account need for specific initiatives of state governments. In case of state plan to take up other additional activities, same may also form a part of admissible components of NMFP, subject to prior approval of MFPI. NMFP will have window for facilitating dovetailing of resources for achieving optimum output.

### STRENGTHENING OF INSTITUTIONS AND SKILL DEVELOPMENT

### I. STRENGTHENING OF INSTITUTIONS

### A. MAJOR INITIATIVES DURING 11TH PLAN

The creation of appropriate Institutions and their strengthening may be regarded as one of the major achievements of the Ministry during 11th Plan. This was done with an understanding that food processing itself is a huge and diverse sector and such diversity requires focused attention on various sub-sectors. It was also realized that many of these sub-sectors, ranging from wine to poultry and meat, did not have requisite institutional support. The need for such institutions was also felt as these sub-sectors have till now remained rather small parts of the economy, but are expected to grow exponentially in the coming years.

Thus, the Ministry gave special focus on creation of institutions like National Institute of Food Technology Entrepreneurship and Management (NIFTEM), National Meat and Poultry Processing Board (NMPPB) and National Grape Processing Board (NGPB) during 11th Plan. During this period, Indian Institute of Crop Processing Technology (IICPT) was also given assistance for modernization.

### National Institute of Food Technology Entrepreneurship and Management (NIFTEM)

Of the above institutions, creation of NIFTEM is certainly the largest initiative of the Ministry in recent years. The Institute, being set up on a 100 acre plot at Sonepat, Haryana, is proposed as an apex institution for the sector, with an overarching mandate on various aspects of the food processing industry. NIFTEM would work as "Sector Promotion Organization" or Business Promotion Organization" of the food processing sector. Major objectives of NIFTEM are given as:

- i. Working as a "One Stop Solution Provider" to all the problems of the sector.
- ii. Working for "Skill Development" and "Entrepreneurship Development" for the sector.
- iii. Facilitating business incubation services with its ultra modern pilot plant for processing of fruits and vegetables, dairy, meat and grain processing.
- iv. Conducting Frontier Area Research for development of the Sector.
- v. Developing world class managerial talent with advanced knowhow in food science and technology.
- vi. Providing intellectual backing for regulations which will govern food safety and quality and at the same time foster innovation.
- vii. Functioning as a knowledge repository on various aspects of food processing such as product information, production and processing technology, market trends, safety and quality standards, management practices among others.
- viii. Working for upgradation of SME food processing clusters.

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- ix. Facilitating business incubation services with its ultra modern pilot plans for fruit and vegetables, dairy, meat and grain processing.
- x. Promoting cooperation and networking among existing institutions within India and as well as with international bodies.

Amongst various novel features of NIFTEM would be creation of "Theme Centres" which are aimed at promoting thought leadership and innovation–driven practices in the key sector of food processing. Each Centre would have world-class manpower and infrastructure for research and training and would enter into long term associations with international institutions in from of faculty exchange programme or joint research initiatives in various food processing areas such as dairy, seafood, wine etc. In addition, there would also be Cross Sectoral Theme Centres which would work in areas like management studies/business incubation, trade/knowledge management and networking, packaging and engineering, food standards, nutrition etc.

### National Meat and Poultry Processing Board (NMPPB)

National Meat and Poultry Processing Board (NMPPB) is another much needed institution for a sector, which is mostly unorganized and has remained neglected, due to both historical and cultural reasons. The Ministry is though fully seized of the huge potential of this sector in coming years and has therefore mandated NMPPB to guide the sector through its future growth path. The Board would have focus on evolving and adherence to modern standards of hygiene and quality in this sector, through initiatives for standardization, testing etc.

#### National Grape Processing Board (NGPB)

The growth potential of wine sector necessitated creation of National Grape Processing Board (NGPB). This Board, located at Pune amidst grape growing area, would be aiming at making Indian wine a preferred product in both domestic and foreign markets. For this purpose, NGPB is creating a detailed Action Plan with special stress on increasing efficiency and quality upgradation.

Finally, the decision to modernize Indian Institute of Crop Processing Technology (IICPT), at Thanjavur, Tamil Nadu, was in keeping with the challenges of food security which would require focused efforts at efficient grain processing.

### **B. RECOMMENDATIONS FOR 12TH PLAN**

Most of the above initiatives are still under process of development and would only be making intended impact during 12th Plan. The Ministry would be therefore giving its close attention to completion of all the above initiatives and would also undertake supplementary efforts during the 12th Plan so as to ensure optimal utilization of the facilities. Apart from strengthening existing institutions, the Ministry would also work closely with other existing institutions like CFTRI, CIPHET and other institutions dealing with food processing related work.

In this direction, the Ministry proposes establishment of 10 Regional centres for NIFTEM and 8 IICPT centres across the country. This would be done in phases and state governments would be associated with this process so that these centres can help in addressing state specific problems. The proposed network of these NIFTEM and IICPT centres would be instrumental in both spreading the mandate of these centres and implementation and monitoring of their programmes and schemes. In a significant related decision, based on recommendations of the concerned Sub-group report, it is proposed to bifurcate the NMPPB and create separate Boards for meat and poultry. The necessary steps would be taken soon and suitable provisions would be made in the 12th Plan for expanding their activities. Thus, the existing NMPPB would be converted into a Board looking after meat processing only. This is being proposed as it has been felt that both meat and poultry sectors are sufficiently large, with their own special needs and separate sets of stakeholders, to warrant dedicated Boards.

It is further proposed to set up a National Meat Processing Training Centre and 20 Meat Quality Labs in the country to ensure all round development of this sector.

#### National Food Processing Development Council (NFPDC)

Another major initiative is to set up a National Food Processing Development Council (NFPDC). This is an Advisory body to give policy direction to the food processing sector. The proposed Council is chaired by the head of the Ministry (Union Minister) and include Ministers in-charge of the sector at the level of the state governments, senior officers from the Central and state governments and representatives from industry bodies and related institutions.

A similar structure has been encouraged at the level of the state governments. Action on these lines is being initiated now itself so that these bodies are in place from the start to guide the 12th Plan efforts.

These bodies will get subsumed in Proposed NMFP structure in 12th Plan.

In addition, it is proposed to develop Centers of Excellence and Incubation Centres at identified agricultural and management institutions for promoting product development and research efforts in food processing. NIFTEM may spearhead such efforts under proposed Innovation Fund Scheme, details of which are given in the subsequent chapters.

In case there is a requirement, a Food Processing Board may also be set up to cover certain specific areas not covered by the other initiatives.

#### II. SKILL DEVELOPMENT

The achievement of avowed national objective of "inclusive growth" rests largely on generation of sufficient productive and gainful employment opportunities to absorb growing labour force. The 11th Plan aims at generation of 58 million work opportunities. Further, the National Skill Development Corporation set up in 2008 in PPP mode has been mandated to achieve the target of creation of skilled workforce of 150 million persons by 2022 under the National Skill Development Policy.

As mentioned in the approach to 12th Plan, the Ministry would be making skill development a core objective of its future plan in alignment with the national objective. The proposed skill development programme of the Ministry may be said to be guided by two major factors: (i) To meet the employment needs of the burgeoning rural youth and (ii) To provide a large pool of skilled workers to food processing industry.

This skill development programme may be designed in line with Special Projects for Skill Development of Rural Youths under SGSY of Ministry of Rural Development (MoRD). These projects, being run largely through private sector initiatives, are designed to equip the unemployed rural youths from the BPL Households with marketable skills, which would enable them to either secure placement in the industry or pursue sustainable self employment opportunities through micro enterprise. MoRD provides funding support up to 75% of the training cost, with a maximum total project cost of ₹15 crore per project. Balance is to be mobilized by the Implementing agencies through contributions from State Government, industry and other sources.

The programme would be thus demand driven and may consist largely of short- term training courses to meet needs of the industry. These training programmes may be organized by professional agencies with requisite experience, but necessarily in the partnership with the industry. Such training courses would have provision of certification by independent assessment agencies, to facilitate better acceptance in the market.

The proposed skill development programme may thus provide requisite funding support to Agencies willing to run these specialised short term courses. Such funding may depend upon the nature and duration of these courses and may be further linked to number of youth trained and placed with the industry.

A significant feature of existing skill development programmes of MoRD for sectors like textiles, construction etc. is a mandatory requirement of placement with industry for majority of trainees, while some of them may be also encouraged to set up their own micro units. This aspect though may need to be carefully considered for the food processing sector, as there are not many medium and large scale units in the sector which would be in a position to provide jobs to these workers. On the other hand, a large majority of food processing units which would need these workers may not be in a position to provide jobs in the nature of organized sector.

A major emphasis of proposed skill development programme may also be on post-harvest management which is a huge requirement for the sector. This may then have some common components with the initiatives of the agricultural departments. However, with the proposed National Mission, it may be possible to arrive at necessary co-ordination in this regard.

It is to be appreciated here that the above gigantic and nationwide skill development programme would need to be planned strategized, implemented, monitored and evaluated in a focused and professional manner. NIFTEM would be made responsible to plan strategic roll out, implement and monitor this skill development initiative, targeted to reach 3 million people, during next 7–8 years. This would be achieved by networking with the existing government/ non-governmental/private organizations as well as establishing some new structures wherever required. The Ministry would handle/coordinate all the work pertaining to skill development till such time NIFTEM becomes fully operational and capable enough to handle the skill development as envisaged in the foregoing. The Ministry would continue to give the overall policy framework and monitor progress achieved by NIFTEM in this direction.

# FOOD SAFETY, RESEARCH & DEVELOPMENT AND PROMOTION

Food quality and safety standards have been a matter of deep concern for the Ministry. The concern has been due to a larger responsibility towards public health but also due to a discernible link between safety standards and growth of the sector itself. All the growth factors (e.g., growing middle class, globalization), which are often cited to establish huge potential of food processing sector, have also meant a much evolved class of domestic consumers for whom quality and safety standards are non-negotiable. In addition, for accessing the large international market, safety standards of our food processing industry have long been considered a strong barrier.

## I. THE FOOD SAFETY AND STANDARDS ACT, 2006

The Ministry can thus take justifiable pride in taking initiatives towards bringing about a comprehensive legislation for food safety in the country. The Food Safety and Standards Act, 2006 came into effect from 5 August 2011, with the notification of enabling Rules and Regulations. This has thus consolidated all existing food laws in the country with the repealing of existing Central Acts such as Prevention of Food Adulteration Act, 1954; Fruit Products Order, 1955; Meat Food Products Order, 1973; Vegetable Oil Products (Control) Order, 1947; Edible Oils Packaging (Regulation) Order 1988; Solvent Extracted oil, De-Oiled Meal and Edible Flour (Control) Order, 1967; and Milk and Milk Products Order, 1992.

The Act has laid down science based standards for manufacturing, storage, distribution and sale of all food products. This has also given shape to a new unified structure in form of Food Safety Standards Authority of India at the Centre and Commissioners of Food Safety at State level. The above Act may be regarded as a significant milestone for not only development of food processing sector but also for maintaining public health in the country.

#### **CODEX STANDARDS**

In this context, it may also be useful to refer to Codex Standards which have become reference point for international trade in food products. These standards have been developed by FAO and World Health Organization (WHO) to protect the health of consumers and ensure fair practices in food trade. In the event of a trade dispute, Codex standards are accepted as reference documents for its settlement.

Considering the critical nature of quality and safety standards for the food processing sector, the Ministry has been engaged in facilitating creation of laboratories and promotion of appropriate quality and safety standards. The Ministry has been providing assistance to both public and private sector institutions for setting up and modernising food labs in the country. Further, there is provision of grant of appropriate incentives to units which adopt safety and quality assurance mechanisms such as Total Quality Management (TQM) including ISO 9000, ISO-14000, Hazard Analysis and Critical Control Points (HACCP), Good Manufacturing

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Practices (GMP) and Good Hygiene Practices (GHP). All these attempts to ensure food quality and safety standards though would require concomitant progress in terms of well-equipped laboratories across the country.

While the quality and safety standards remain critical for the sector, the real impetus to the sector has to come only from a much higher level of Research and Development (R&D) efforts. Due to justified national priority for enhancing agricultural productivity, most of the R&D efforts till now have concentrated on productivity aspects, with not much to demonstrate in the area of food processing. This aspect though now needs much more focus. It is to be appreciated that development of new products, based on available raw materials in the country, would need to be accorded much higher priority to ensure sustainable growth of the sector. This should be a matter of concern for all that lack of "processable variety" of raw materials has often been cited as the reason by the food processors for their preference for imported content even as the wastages of fruits and vegetables remain at an unacceptably high level in the country.

A major reason for such incongruity may be lack of credible efforts made towards development of food products which may use domestic agricultural produces profitably. As mentioned in the Chapter related to strengthening of Institutions, the establishment of NIFTEM is likely to make a significant impact in this direction. It may be noted that proposed Incubation Centres and Theme Centres are all designed to promote new products and practices in the food processing sector.

Finally, this Chapter also deals with promotional efforts made by the Ministry for ensuring greater acceptability of processed food products in the country as also visibility of its various Schemes and Programmes for the sector. Such efforts are being made both directly by the Ministry as also by funding other agencies for organizing seminars/workshops/fairs and conducting studies/surveys.

#### II. MAJOR 11TH PLAN INITIATIVES

#### A. SCHEMES FOR QUALITY ASSURANCE, CODEX, R&D & PROMOTIONAL ACTIVITIES

#### a. Scheme for Setting up/Upgradation of Quality Control/Food Testing Laboratory

This is aimed at encouraging setting up of modern food testing laboratories in the country, both in public and private sectors. Under this Scheme, Central/State Government organizations and Universities (including deemed Universities) are eligible for grant support limited to the entire cost of capital equipments required for setting up/modernization of laboratories. All other implementing agencies are eligible for grant limited to 50% / 70% of the cost of capital equipment required for setting up/upgradation of such laboratories in general areas/difficult areas.

#### b. Scheme for Implementation of HACCP, ISO 14000, ISO 22000, GMP and GHP

This is to promote adoption of quality and safety standards by food processing units which would help them in reaching a larger domestic and international market. Further, this also encourages other implementing agencies to adopt quality management systems. Under this Scheme, grant assistance is provided to Central/State Government Organizations/ IITs, Universities and private sector to the extent of 50% / 75% of project cost in general areas/difficult areas with a maximum assistance of ₹ 15 lakh and ₹ 20 lakh respectively.

#### c. Scheme for Research and Development

This Scheme is aimed at encouraging R&D initiatives in industry in the field of preservation, processing, packaging, storage etc. Such R&D efforts are expected to lead to product and process development which would make the industry more efficient and commercially sustainable. Under this Scheme, grant assistance is provided to all Universities, IITs, Central/State Government Organizations, R&D Laboratories and CSIR recognized R&D units in private sector. For the Government Organizations, grant support is available to the tune of 100% of the capital cost. For all other implementing agencies, the grant support is available up to 50% / 70% of the capital cost for general areas/difficult areas.

#### d. Scheme for Promotional Activities

The details of the Scheme for Promotional activities are also provided in the section of this Report dealing with proposed National Mission. This Scheme is to support organizing of industry specific seminars and workshops as also exhibitions and trade fairs. Further this provides support for conducting studies and surveys which would be helpful for the sector. There is no limit envisaged for financial assistance if Ministry is directly engaged as a sponsor/co-sponsor for such activities. However, if other implementing agencies are to take up these activities, the Scheme provides for grant support up to 50% of the cost, with a maximum limit of ₹ 3 lakh in case of seminars/workshops and studies/surveys.

### III. EXPERIENCE DURING 11TH PLAN

The response to the above mentioned Schemes of the Ministry for quality and safety standards as well as for R &D has not been very encouraging during the 11th Plan. Most of the proposals received were for assistance in setting up/moderrnisation of labs from Central/State Government organizations and Universities. There is not much interest shown though from the private sector. The response to grant assistance for adoption of quality and safety standards has particularly been poor with only around 15 proposals supported during this period.

The industry feedback suggests that provision of grant assistance of only 50% of capital equipments (in general areas) is not found attractive for setting up food labs. Also, this does not provide for any support for related civil works and miscellaneous fixed assets. This is also considered inconsistent with the other Schemes of the Ministry which provide support to project related technical civil works.

In case of the Scheme for food safety standards, lack of awareness and inadequate number of enabling consultants have been cited as major reasons for poor response. There are also challenges related to compliance with requisite procedures by food processing units (mostly SMEs) as safety standards like HACCP have stringent requirements for maintenance of records and periodic audits by certification agencies. These also have managerial and cost implications.

### IV. RECOMMENDATIONS FOR 12TH PLAN

As the Food Safety and Standards Act, 2006 becomes effective from August, 2011, the need for setting up of adequate food testing labs has increased manifold. It is therefore proposed to create a network of 108 food testing labs in the country which may be of minimum specified standards, though customized to the needs of the local region/industry. The Government

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agencies/departments setting up/modernizing labs are already provided up to 100% assistance for purchase of requisite equipment. It is now proposed to provide these agencies capital grant support up to 70% / 90% of cost of technical civil work in general areas/difficult areas. Further, for encouraging private sector enterprises also to set up/modernize food labs, it is proposed to increase the quantum of grant assistance up to 70% / 80% of the lab equipment in general areas/difficult areas. The projects by private sector agencies would be eligible for grant support up to 33% / 40% of cost of technical civil work in general areas/difficult areas.

For encouraging adoption of quality and safety standards (HACCP, ISO 22000), the Ministry proposes to make the package of incentives more attractive and in line with increased compliance cost. It is proposed to cover at least 100 units during the 12th Plan under quality and safety standards. To achieve this, it is proposed to increase grant assistance to 60% / 75% of total cost, subject to a maximum of ₹ 25 lakh / ₹ 30 lakh for both Government and private agencies. With the Food Safety & Standards Act coming into force, it has become necessary to create a network of labs for meeting the expected much increased demand for testing of food products/samples. Accordingly, the relevant industry bodies would be involved in dissemination of information and identification of food processing units for coverage under the Scheme.

For promoting more result oriented R&D efforts, it is proposed that while the project duration may remain up to three years, the recurring cost for support may be considered only for two years. The Central/State Government Organizations/Universities may continue to receive entire project cost as grant. In addition, it is proposed to provide for Institutional charges at 15% of grant amount for such Institutions. This is being recommended considering requirement for such charges in these Institutions. This is likely to encourage more such Institutions undertaking R&D projects for the sector.

In case of private sector agencies, it is being recommended to increase grant assistance up to 60% / 80% of the cost of equipment in general areas/difficult areas. There may be also provision for assistance for requisite components such as manpower and consumables to these agencies.

A significant addition proposed during 12th Plan would be a Scheme for Setting up/ Strengthening of Codex Cell. This is aimed at strengthening/setting up of codex cell in the Ministry as well as at the level of stakeholders such as industry associations, national research institutions. This is to enable larger participation in codex deliberations and adequate projection of national view point in codex system. This would include computerization, compilation and maintenance of codex documents, study/survey for scientific data generation, engagement of consultants for preparing discussion/position papers, code of practices etc.

Finally, based on the experience gained during the 11th Plan and also learning from implementation of some other Schemes of the Ministry, it is proposed to provide for a Project Management Agency for implementation of the Schemes for quality and safety standards. This has been particularly found desirable to ensure a much larger coverage of food processing units under these standards. This may also assist the Ministry in better monitoring and impact assessment of these Schemes.

As far as Promotional Activities including Advertisement & Publicity are concerned, the Ministry may need to give exclusive focus on these two items on all-India basis, in addition to such activities taken up by the States/UTs under National Mission on Food Processing.

# INNOVATION AND VENTURE CAPITAL, CREDIT AND FISCAL ISSUES

India needs innovation to accelerate its growth and it needs innovation to make growth more inclusive as well as environmentally sustainable.... India needs more 'frugal innovation' that produces more 'frugal cost' products and services that are affordable by people at low levels of incomes without compromising the safety, efficiency, and utility of the products. The country also needs processes of innovation that are frugal in the resources required to produce the innovations. The products and processes must also have 'frugal impact' on the earth's resources.... Innovation requires a financial system which is supportive and inclusive.

Mid-Term Appraisal of 11th Five Year Pan

### I. PROMOTING INNOVATIONS

The need for innovation has never been felt more as India strives to find a delicate balance between growth aspirations of its poor and increasing concerns about environmental degradation. The decision to declare 2010–2020 as a "Decade of Innovation" and setting up of National Innovation Council (NIC) may be regarded as significant steps in this direction. In keeping with this national goal, the Ministry has decided to make innovation in food processing, part of its central theme of planning for the 12th Plan.

As mentioned in the previous sections of this Report, dealing with strengthening of institutions and promotion of R&D, the establishment of NIFTEM is part of this belief to encourage product and process innovations in food processing sector. Further, the existing schemes as well as proposed measures for promoting R&D efforts are also expected to promote innovation. It is though felt that encouraging innovations may require much more efforts and thus it is now proposed to introduce some direct measures for this purpose.

#### A. NEED FOR INNOVATION FUND

The relatively small level of food processing in the country may be largely attributed to lack of adoption of appropriate technology and absence of an enabling environment for "incubation" of small entrepreneurs, two issues which are largely interdependent. Most of technology innovations, appropriate for Indian conditions, are likely to come from small entrepreneurs. However, conversion of such innovations into business enterprises would require creation of an enabling environment for supporting small entrepreneurs, responsible for such innovations.

#### **B. INNOVATION FUND FOR FOOD PROCESSING**

The proposed Innovation Fund for Food Processing would be thus designed to identify and reward innovations in a judicious manner. The Fund would aim at supporting potential entrepreneurs with sole focus of transforming their innovations into viable business opportunities.

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These entrepreneurs would be encouraged to present their business proposals, containing innovative solutions, with focus on business applications and commercial sustainability.

The proposals may be examined by a Technical Committee, equipped to screen ideas and innovations in terms of their business applications. The selected proposals may then be provided with "Incubation facilities", at designated institutions, for requisite nurturing along with financial support. Such financial assistance may be in from of soft loan or grant or a mix of both, based on nature of proposals.

The proposed Innovation Fund may thus encourage market-oriented applied research and innovation and would act as a bridge between lab and industry. The Fund is likely to assist small entrepreneurs, especially from rural areas, in bringing about indigenous and low cost solutions to address sector specific concerns such as limited shelf-life and low processability of local agricultural produces.

#### C. STRUCTURE AND OPERATION OF INNOVATION FUND

The proposed Innovation Fund may be structured and operated under the aegis of NIFTEM, considering inherent synergy with overall mandate of this Institution. The Fund would though be designed in partnership with selected banks and technology institutions. Such partnerships would be essential to enable the Ministry in smooth implementation of this novel initiative, which would require not only a deep understanding of technology but also appreciation of business applications.

It needs to be appreciated that the Institutions providing incubation facilities would have a major role to play in success of this initiative. A major gap with the existing efforts in this direction remains lack of adequate "handholding" to such innovations/enterprises, with major reliance on provision of funding support. This may not be though the right approach. All such innovative ideas need to be provided with adequate support in suitable structuring of the project and making of a business plan which would make them commercially sustainable. The proper selection of the Institutions providing incubation facilities and their active participation in the programme would be therefore critical. It may further be desirable to associate professional agencies which would have sufficient experience in enterprise development.

#### D. VENTURE CAPITAL FUND FOR FOOD PROCESSING SECTOR

A large majority of food processing enterprises continue to face serious constraints in access to bank credit due to issues like low net worth, lack of tangible security and absence of a proven track record, usual concerns for SME sector. The food processing enterprises though suffer from additional limitations due to seasonal operations and thus lower capacity utilization. It also means higher inventory requirements which further erode profitability of the food processing units. Further, the market development and quality assurance costs are relatively higher for food processing sector. All these constraining factors have resulted in bankers being wary of providing adequate finance to the sector.

The Ministry proposes to create a dedicated Venture Capital Fund (VCF) for food processing sector to address this concern. A dedicated VCF may allow food processing units to leverage their limited resources in a more effective manner. Further, the provision of Strategic Capital through VCF may be combined with management support and marketing linkages.

To be sure, there have been various efforts made for creating venture capital funds in India in recent years, both in public sector and corporate sector. Most of these capital funds though suffer from relatively narrower definition of "ventures/projects" which are eligible for support and often feel inclined to support initiatives only in modern sectors like Information Technology and Biotech which promise projected returns justifying strategic stakes in them. In this process, food processing enterprises, which may have a much larger potential of creating livelihood opportunities, have little funding support.

The approach to the proposed Fund would be, therefore, different from normal venture/angel funds, often more interested in projections for divesting their "strategic" stakes at appropriate stage. The proposed Venture Capital Fund would though encourage "viability" but its touchstone would be "livelihood" and would thus prefer projects which have a potential to impact largest number of rural poor.

#### E. STRUCTURE AND OPERATION

The Ministry may create this Venture Capital Fund in partnership with selected banks and financial institutions and proposes to provide an initial corpus of ₹ 500 crore for this purpose. The Venture Capital Fund would provide support to projects across the entire agri-business value chain.

The start of process would be registration as a Venture Capital Fund with SEBI. This may be done as a Company or a Trust under the aegis of NIFTEM. The next stage would be creation of an Operation Manual containing, inter-alia, investment criteria and evaluation process. In the beginning, it may be also useful to enter into partnerships with existing Venture Capital companies like SIDBI Venture for co-investment opportunities.

Considering the proposed approach, the structure of such a Fund should ideally meet the twin criteria of autonomy and accountability, a sure prescription for a Public-Private Partnership (PPP) Model. However, as the ownership of the Fund may initially remain with the government, the Ministry may engage a private sector agency for Operation and Management of this Fund.

Such private sector agency may be banks and financial institutions or other professional agencies with sufficient experience in management of equity/venture funds. The engagement of a private sector agency may be necessary to ensure critical autonomy for operation of such Fund, though it would be tempered with social accountability, ensured by public sector ownership.

The Fund may in the long run be owned by a PPP structure and managed by Board/Committee which would have majority of members from private sector with requisite experience.

# II. ISSUES AND RECOMMENDATIONS ON CREDIT ACCESS

#### A. COMMODITY BACKED FINANCING

Commodity backed lending is believed to be one of the best forms of funding for a food processing company world over. Although, commodity financing has taken roots in India, there are some serious policy concerns coming in way of its growth. The banks are not allowed to cover their portfolio of commodity assets in the commodity exchanges. Thus, the exposure of a

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bank to commodities is unhedged and this reduces its risk appetite. Also, warehouse receipt is a non-transferable security. Thus, a bank can take pledge of a warehouse receipt but it cannot enforce the pledge except in physical form. This limits the flexibility of the bank. There are also issues regarding banks considering commodity backed financing as off-balance sheet lending, with the pledge of commodities outside the regular working capital arrangement. These issues need to be suitably addressed by agencies like Warehouse Development and Regulatory Authority and Reserve Bank of India.

#### **B. FACTORING SERVICES**

Factoring services provides liquidity to the trade channel through vendor and dealer/distributor financing. The factoring services are not well developed in India as trade finance option because the Bill of Exchange (BOE) between the two parties enables the banks to have recourse to both the corporate and the trade partner and it increases the contingent liability of the corporate. Indian corporate/food processing companies are not favourably disposed towards such an arrangement. While vendor bill discounting offers limited risk to the banks due to the guarantee provided by large Corporates, invoice discounting of dealers/distributors are not developed limiting the availability of credit to trade channel.

#### C. LENDING TO PRIORITY SECTOR: SUBSECTOR LIMITS

The Banks are presently required to meet priority sector lending targets. A target of 40% of adjusted net bank credit (ANBC) or credit equivalent amount of off balance sheet exposures (OBE), whichever is higher, as on 31 March of the previous year, has been stipulated for lending to the priority sector by domestic SCBs, both in the public and private sectors. Within this, sub-targets of 18% and 10% of ANBC or credit equivalent amount of OBE, whichever is higher, have been stipulated for lending to agriculture and the weaker sections respectively.

Of this priority sector target of 18% to agriculture, 13.5% is required to be provided as direct agricultural advances, while indirect agricultural advances may account for balance 4.5%. It has been seen that many banks, specially private sector banks, find it difficult to meet direct target of indirect advances, even as 4.5% for indirect advances is not enough to meet increasing credit demand. It is recommended that sub-limit for indirect advances to agricultural advances may be increased suitably which may encourage banking sector to extend more credit to food processing sector.

# III. FISCAL ISSUES AND RELATED RECOMMENDATIONS A. VALUE ADDED TAX (VAT)

While apparently, there are a host of fiscal incentives available to food processing sector, including exemption from income taxes for a limited period, the high incidence of taxation remains a concern. This has happened because processed food products have been over the years regarded as luxury products meant for rich segments of the population. Thus, while the primary agricultural commodities are mostly exempted from taxation, processed food products are subject to Central Sales Tax of 4%. Under VAT, levied by state governments, most processed food products are taxed at 12% to 13%. Apart from VAT, other taxes such as purchase tax,

entry tax, octroi etc., are also levied on food products. In addition, Central Excise Tax (CET) is levied on all branded products.

The present system of taxation follows narrow banding, which gives rise to various classification related anomalies. Rationalising the tax structure by adopting a broadband would help the sector immensely. This can be best brought about by introducing a "broadbanded" definition for the sector for both taxation and licensing purposes especially imposing a "low" and 'uniform/flat" rate of Excise and CST as per a broad banded definition. The industry believes that this would have a major positive impact by allowing flexibility in manufacturing, capacities and innovation within categories leading to a reduction of transaction cost by at least 5% to 10% as well as direct cost reduction of 8% to 16%. Considering the proposed implementation of GST soon, the above issues may be considered while finalising its structure.

#### **B. EXCISE DUTIES**

Packing material for manufacture of foods products still attracts high taxes though in some cases finished goods are exempted from tax. This duty on packaging material is counterproductive and industries are left with no other option but to pass on the duty to the customers. It is important that packing materials, to be used by exempted processed food industry, in printed form is exempted from tax.

#### C INCOME TAX RELATED

Under sub-section (11A) of section 80 IB of the Income Tax Act, 1961 a deduction from profits up to specified amounts [100% for the first 5 assessment years and thereafter, 25% (30% in the case of a company) for another 5 assessment years] is allowed in the case of an undertaking deriving profit from the business of processing, preservation and packaging of fruits or vegetables or from the integrated business of handling, storage and transportation of food grains subject to specified conditions, if such undertaking begins to operate such business on or after the 1st day of April, 2001. This benefit has been extended to other related sectors such as horticulture, poultry, meat, marine and aquaculture in the Union Budget of 2010–11. It has been requested by the concerned Sub-Group to provide for 100% deduction under sub section 11(A) of section 80 IB of the Income Tax Act, 1961, for 10 assessment years at a stretch. This is likely to further contribute to the growth of the sector.

FINANCIAL PROJECTIONS FOR 12TH PLAN

## I. INFRASTRUCTURE DEVELOPMENT SCHEME

As mentioned earlier, the financial requirements under Infrastructure Development Scheme would include three initiatives viz., Mega Food Parks Scheme, Scheme for Integrated Cold Chain, Value Addition and Preservation Infrastructure and Scheme for Modernization of Abattoir (only for 1st 2 years of 12th Plan).

In addition, there would also be provision for Scheme for Mini Food Parks proposed to be launched during next plan period. Further, the financial projections for both mega food parks and cold chain projects would also provide for projects approved during 11th Plan which would remain under implementation during next plan and thus need to be provided with requisite funds.

#### A. MEGA FOOD PARKS SCHEME AND SCHEME FOR MINI FOOD PARKS

The total financial outplay proposed during 12th Plan for Mega Food Parks Scheme is ₹ 1500 crore, which would be ₹ 50 crore each for 30 new projects. For the proposed Scheme for Mini Food Parks, the requirement would be ₹ 300 crore, at the proposed grant of ₹ 20 crore each for 15 such projects. In addition, a provision of ₹ 90 crore is being made for project management expenses at the rate of 5% for total of ₹ 1,800 crore of grant proposed. Finally, the financial requirement for projects approved during 11th Plan under MFPS is estimated at around ₹ 1,295 crore.

Thus, the total proposed financial outlay under Mega Food Parks Scheme and Scheme for Mini Food Parks would be ₹ 3,250 crore, including project management expenses. This amount would also be used for requisite grant support to Food Park projects, approved under the 8th and 9th and 10th Plans and presently under implementation. The year-wise projected requirement is given below:

S. No.	Phase-wise projects	2012-13	2013-14	2014-15	2015-16	2016-17	Total
1	1st Phase: 10 MFP Projects	180	140	Nil	Nil	Nil	320
2	2nd Phase: 5 MFP Projects	95	105	25	Nil	Nil	225
3	3rd Phase: Remaining 15 MFP Projects in 11th Plan	75	225	375	75	Nil	750
	Total Capital Outlay for 11th Plan Projects		470	400	75	Nil	1295
5% of Ca	Project Management Expenses @ 5% of Capital Outlay for 12th Plan projects		23.5	20	3.75	0	64.75

#### Table 7.1 Financial Projections for MFPS & Scheme for Mini Food Parks (₹ Crore)

contd...

S. No.	Phase-wise projects	2012-13	2013-14	2014-15	2015-16	2016-17	Total
4	4th Phase: 10 MFP Projects and 5 Mini Food Park Projects for FY 2013-14	Nil	100	100	260	140	600
5	5th Phase: 10 MFP Projects and 5 Mini Food Park Projects for FY 2014-15	Nil	Nil	180	180	240	600
6	6th Phase: 10 MFP Projects and 5 Mini Food Park Projects for FY 2015-16	Nil	Nil	Nil	180	420	600
Total Ca projects	pital Outlay for 12th Plan	Nil	100	280	620	800	1800
	Management Expenses @ apital Outlay for 12th Plan	-	5	14	31	40	90
	Grand Total		598.5	714	729.75	840	3249.75 (Say, 3250)

# B. SCHEME FOR INTEGRATED COLD CHAIN, VALUE ADDITION AND PRESERVATION INFRASTRUCTURE

The total financial outplay proposed during 12th Plan under the above Scheme would be  $\overline{\mathbf{x}}$  1675 crore, including requirements for projects approved under 11th Plan. This would include  $\overline{\mathbf{x}}$  1200 crore towards implementation of 120 new projects, 20 of them for irradiation projects, to be taken up during 12th Plan. In addition, there would be requirement of  $\overline{\mathbf{x}}$  425 crore towards implementation of 74 such projects approved during 11th Plan. Out of these 74 projects, 39 have already been approved and rest 35 projects are likely to be approved during this financial year. Finally, there is a provision of  $\overline{\mathbf{x}}$  50 crore towards project implementation expenses at around 3% of total outlay of  $\overline{\mathbf{x}}$  1625 crore. The year-wise projected requirement is given below:

S. No.	Phase-wise projects	2012-13	2013-14	2014-15	2015-16	2016-17	Total
1	39 Cold Chain Projects	140	72	Nil	Nil	Nil	212
2	35 Cold Chain Projects proposed for FY 2011-12	110	103	Nil	Nil	Nil	213
3	40 Cold Chain Projects proposed for FY 2013-14	Nil	150	200	50	Nil	400
4	40 Cold Chain Projects proposed for FY 2014-15	Nil	Nil	150	150	100	400
5	40 Cold Chain Projects proposed for FY 2015-16	Nil	Nil	Nil	175	225	400
Total Capital Outlay		250	325	350	375	325	1625
Project I	Management Expenses	10	10	10	10	10	50
Grand Total		260	335	360	385	335	1675

# Table 7.2Financial Projections for Integrated Cold Chain,Value Addition and Preservation Infrastructure (₹ Crore)

S. No.	Phase-wise projects	2012-13	2013-14	2014-15	2015-16	2016-17	Total	
1	Grant commitments relating to projects sanctioned during 11th Plan	38.66	Nil	Nil	Nil	Nil	38.66	
2	Projects proposed under Central Sector Scheme during 12th Plan	128.75	111.34	Nil	Nil	Nil	240.09	
Total Ca	pital Outlay	167.41	111.34	Nil	Nil	Nil	278.75	

Table 7.3 Scheme for Modernization of Abattoirs (₹ Crore)

#### Table 7.4 Total for Infrastructure Development Scheme

S. No.	Phase-wise projects	2012-13	2013-14	2014-15	2015-16	2016-17	Total
1	Mega Food Parks Scheme	367.5	598.5	714	729.75	840	3249.75
2	Scheme for Integrated Cold Chain, Value Addition and Preservation Infrastructure	260	335	360	385	335	1675
3	Scheme for Modernization of Abattoirs	167.41	111.34	Nil	Nil	Nil	278.75
	Grand Total		1044.84	1074	1114.75	1175	5203.50

# **II. NATIONAL MISSION ON FOOD PROCESSING**

Considering decentralisation being the central theme of 12th Plan for the Ministry, it is only appropriate that a significant part of financial outlay proposed would be for various initiatives under National Mission on Food Processing. The total financial projection for NMFP is given at ₹ 6533 crore, out of which ₹ 2600 crore would be towards the Scheme for Technology Upgradation/Setting up/Modernization/Expansion of Food Processing Industries.

As mentioned earlier, detailed guidelines for funding under NFPM would be drawn up later. The year-wise and scheme-wise projections for NMFP are given as below:

S. No.	Schemes	2012-13	2013-14	2014-15	2015-16	2016-17	Total
1	Scheme for Technology Up-gradation/Setting up/ Modernization/Expansion of Food Processing Industries	200	300	600	700	800	2600
2	Scheme for Modernization of Abattoir	Nil	Nil	206	318	271	795
3	Scheme for Modernization for Meat Shops	12	90	90	60	48	300
4	Scheme for HRD*	45	55	65	75	85	325
5	Scheme for Promotional Activities	45	50	55	60	65	275
6	Administrative Support to State Mission/DSA	30	30	30	30	30	150

Table 7.5 Financial Projections for NMFP (₹ Crore)

contd...

S. No.	Schemes	2012-13	2013-14	2014-15	2015-16	2016-17	Total
7	Cold Chain Projects for Non-Horticultural Produce	20	40	60	80	100	300
8	Creating On farm Primary Processing Centres/ Collection Centres in Villages	200	400	400	400	400	1800
Total Capital Outlay for Ministry		552	965	1506	1723	1799	6545

\* ₹ 12 crore only (₹ 6 crore each for first two years) would be separately provided for HRD initiatives for Central Sector Scheme during 12th Plan to meet commitments for projects already sanctioned during the 11th Plan.

Considering nature of projects to be sanctioned under HRD initiatives of NMFP, further details have been worked out for these initiatives as given below:

	No	Einensiel Outley			Year (₹ i	in Crore)		
5.	No	Financial Qutlay	2012-13	2013-14	2014-15	2015-16	2016-17	Total
а	(i)	Creation of infrastructure facilities for running Degree/ Diploma courses in Food Processing Technology	27.00	36.00	49.00	58.00	67.00	237.00
	(ii)	Committed liability of ongoing projects approved i`n 11th Plan	4.00	4.00	_	_	_	8.00
b	(i)	Entrepreneurship Development Program (EDP)	5.00	5.50	7.00	7.50	8.00	33.00
D	(ii)	Committed liability of ongoing projects approved in 11th Plan	1.00	1.00	-	-	-	2.00
	(i)	Food Processing Training Centre (FPTC)	7.00	7.50	9.00	9.50	10.00	43.00
с	(11)	Committed liability of ongoing projects approved in 11th Plan	1.00	1.00	_	_	_	2.00
		Total Capital Outlay	45.00	55.00	65.00	75.00	85.00	325.00

#### Table 7.6 Financial Projections for HRD initiatives of NMFP

# III. STRENGTHENING OF INSTITUTIONS AND SKILL DEVELOPMENT

Of the proposed financial projections on strengthening of institutions, the major part would be on completion of NIFTEM and establishment of its 10 Regional Centres. The skill development programme would also be provided with an outlay of ₹ 520 crore. The year-wise projections are given as below:

S. No.	Institutions	2012-13	2013-14	2014-15	2015-16	2016-17	Total
1	NIFTEM	80	45	50	65	80	320
2	IICPT	10	12	14	16	16	68
3	NMPPB	21	49	44	61	109	284
4	IGPB	15	20	25	15	15	90
5	Establishment of 10 NIFTEM & 8 IICPT Regional Centers	22	22	22	34	34	134
6	National Food Processing Development Council	2	2	2	2	2	10
7	Skill Development Programme	20	100	125	125	150	520
	Total Capital Outlay	170	250	282	318	406	1426

#### Table 7.7 Financial Projections for Strengthening of Institutions and Skill Development

# IV. FOOD SAFETY, R&D AND PROMOTIONAL ACTIVITIES

The major part of proposed expenditure under this head would be on setting up and upgradation of Quality Control and Food Testing Laboratories. Out of ₹ 200 crore under the head "Promotional Activities including Advertisement & Publicity", barring ₹ 5 crore per year for promotional activities undertaken by MOFPI, rest will be meant for Advertisement and Publicity of the MOFPI. The year-wise projections are given as below:

# Table 7.8Financial Projections for Food Safety, CODEX,<br/>R&D and Promotional Activities (₹ Crore)

S.	Schemes / Initiatives			Yea	ar		
No	Scheme	2012-13	2013-14	2014-15	2015-16	2016-17	Total
1.	Scheme of Quality Assurance, Codex, R&D.						
(a)	Setting Up/Up-gradation of Quality Control/Food Testing Laboratory	60.00	72.00	88.00	100.00	112.00	432.00
(b)	Implementation of Hazard Analysis and Critical Control Points (HACCP), ISO 14000, ISO 22000, Good Manufacturing Practices, Good Hygienic Practices etc.	3.00	4.00	5.50	7.00	8.00	27.50
(C)	Research and Development	14.00	16.00	20.00	24.00	26.00	100.00
(d)	Strengthening of Codex cell	2.00	2.00	2.00	2.00	2.00	10.00
(e)	PMA expenses towards monitoring of the scheme excluding Promotional activity component.	3.00	3.5	4.5	5.00	5.5	21.50
(f)	Scheme of Promotional activities including Advertisement & Publicity	30.00	35.00	40.00	45.00	50.00	200.00
	Total Capital Outlay	115.00	136.00	164.5	188.00	209.00	791.00

# V. INNOVATION FUND SCHEME AND VENTURE CAPITAL FUND

While the Ministry would be providing an initial corpus of ₹ 500 crore for Venture Capital Fund over 5 years, this may also be supplemented by suitable partnership with suitable banks/ financial institutions. The year-wise projections are given as below:

# Table 7.9Financial Projections for Innovation Fund and<br/>Venture Capital Fund Schemes (₹ Crore)

S. No.	Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	Total
1	Innovation Fund Scheme	10	50	50	50	30	190
2	Venture Capital Fund	50	100	125	125	100	500
Total Capital Outlay		60	150	175	175	130	690

# VI. SUMMARY OF FINANCIAL PROJECTIONS FOR 12TH FIVE YEAR PLAN

There is a total financial projection of ₹ 15,077 crore for the 12th Five Year Plan. More than 75% of this is accounted for by Infrastructure Development Scheme and National Mission on Food Processing. Further, out of around ₹ 11,750 crore under these two initiatives, an amount of ₹ 9500 crore has been proposed towards part capital support to projects like Mega Food Parks, Integrated Cold Chains, Modernization and Abattoirs and setting up of other food processing units. The scheme-wise and year-wise projections are given as below:

#### Table 7.10 Summary of Financial Projections for 12th Five Year Plan

S. No.	Schemes/Initiatives	2012-13	2013-14	2014-15	2015-16	2016-17	Total
1	Infrastructure Development Scheme	786.16	1074.50	1074	1114.75	1175	5224.41 (Say, 5225)
2	National Mission on Food Processing	546	959	1506	1723	1799	6533
3	Strengthening of Institutions including Skill Development Programme	170	250	282	318	406	1426
4	Food Safety, R&D and Promotional Activities	112	132.5	160	183	203.5	791
5	Innovation Fund Scheme	10	50	50	50	30	190
6	Venture Capital Fund	50	100	125	125	100	500
7	Financial Commitments for 11th Plan projects, now proposed to be implemented under NFPM*	206	206	Nil	Nil	Nil	412
	Grand Total	1880.16	2772	3197	3513.75	3713.5	15077

\* These include ₹ 400 crore of grant funds committed under Scheme for Technology Upgradation/Setting up/Modernization/Expansion of Food Processing Industries and ₹ 12 crore under HRD initiatives.

A brief impact assessment of 12th Plan projections is given in the following chapter.

# EXPECTED IMPACT OF 12TH PLAN WITH STRESS ON DISADVANTAGED REGIONS/SECTIONS

## I. STATUS OF FOOD PROCESSING SECTOR

The food processing sector has made considerable progress during 11th Plan period. As per the Reports of Annual Survey of Industries, (2004–05 and 2008–09), total output from food products and beverages units was an estimated ₹ 405,367 crore in 2008-09 (₹ 204,255 crore in 2004–05) and accounted for 12.39% of total factory output. Also, the food products provided for maximum of 13% of employment in the factory sector in 2008–09, ahead of textiles sector at 12%. However, in terms of Gross Value Added (GVA), the food products and beverages sector together accounted for only 7.7% of total GVA from all industries.

A close look at economic data of National Accounts Statistics (NAS) has also suggested encouraging trends in the sector. The Gross Domestic Product (GDP) of food processing sector, including both registered and unregistered manufacturing has risen from ₹ 44, 355 crore in 2004–05 to ₹ 66,078 crore in 2009–10 (at 2004–05 prices), recording an average annual growth rate of 8.5% during this period. Out of above, the GDP of registered manufacturing units from food products and beverages sector has risen from ₹ 22,148 crore in 2004–05 to ₹ 43,910 crore in 2009–10 (at 2004–05 prices), registering an impressive average annual growth rate of around 15%.

It may be appreciated that determining the level of food processing in India is extremely challenging considering structure of the sector. It may also be argued that level of food processing in India may not be easily comparable to figures available for other countries, due to unique food habits in the country. For example, conversion of flour to bread (roti) is predominantly a household activity in India even though bread manufacturing accounts for a significant part of food processing activity in other countries. The same may be argued for cooking of rice, too.

However, it has been attempted to assess the level of processing by analysing relationship between GDP of registered manufacturing units from the sector to GDP of Agricultural and fishing sector (factor cost). The level of processing of agricultural produce including fishery, if so defined, has risen from 4.4% in 2004–05 to 7.46% in 2009–10. Interestingly, the level of processing for unregistered manufacturing from the sector has shown a decline during this period, from 4.41% to 3.77%, which may suggest a much needed move towards increased formal structure of the sector.

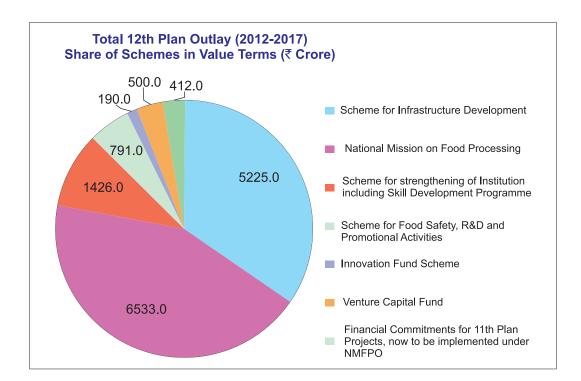
The increasing level of processing and overall growth rate of sector during the 11th Plan period suggest that food processing sector may be reaching an inflexion point in the country and thus may be now ready to emerge truly as a "sunrise sector".

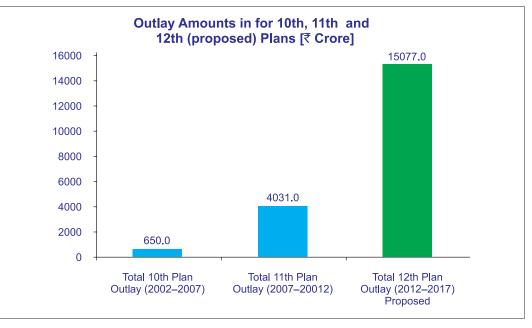
# II. EXPECTED IMPACT FOR 12TH PLAN PROJECTIONS

The Ministry's strategy for the 12th Plan, with details given in the preceding chapters, would be thus to assist and guide the sector at this crucial phase. The central strategy of decentralisation would be aimed at increasing the outreach of the Ministry in a significant manner and thereby 45

take food processing as a message to all districts of the country. The initiative of National Mission on Food Processing Mission is likely to be a path changer for this purpose. The continued and increased emphasis on infrastructure development schemes, facilitating setting up of many more Mega Food Parks and Integrated Cold Chain projects in the country, may be considered an integral part of this strategy to reach parts of the country, still largely untouched by this sector.

The financial projections for the 12th Plan have to be looked at from the above perspective and reflect both the potential of the sector and demand from the stakeholders. The scheme-wise proposed outlay of ₹ 15,077 crore during the 12th Plan is presented below:





The total financial outlay of around ₹ 15,000 crore would have an aggregate component of around ₹ 10,300 crore towards providing capital assistance to projects such as food parks, cold chains, abattoirs, on-farm infrastructure and other food processing units. Based on the design of the schemes for supporting these projects, the proposed capital assistance of ₹ 10,300 crore during the 12th Plan, may be able to attract a total investment of around ₹ 35,000 crore in food processing sector. This has been arrived at assuming multiples of 6 in case of Mega Food Parks (including investment in food processing units), 2.5 in case of Integrated Cold Chains and 3 in case of initiatives under National Mission.

Considering an Incremental Capital Output ratio of around 4 for Indian Economy, though it may be less for food processing sector, an additional investment of ₹ 35,000 crore may lead to an additional output of ₹ 8,750 crore. This level of investment may also have potential of generating additional employment for at least one million people during 12th Plan, assuming creation of even 30 employment opportunities for each ₹ 1 crore invested.

As has been mentioned earlier, the Ministry would be targeting skill development of 3 million persons under its proposed skill development programme. This programme would thus prepare rural youth for working with food processing industry and ensure that the sector, with above projected investment and growth, does not face any manpower issues.

Finally, all the above initiatives are likely to increase the level of processing, reduce existing wastages and assist in achieving national objectives of increasing productivity, ensuring food security through increase in income of the farmers.

# III. BENEFITS TO DISADVANTAGED SECTIONS/REGIONS

The Ministry's programmes are well designed to address inter-regional balances and provide additional incentives for projects located in difficult areas. The difficult areas are defined to include not only north-eastern states and hilly states (J&K, Uttarakhand, Himachal Pradesh) but also ITDP notified areas of other States. Thus, most of these regions which have a significant number of tribals and other disadvantaged sections of people, do get preference in terms of additional grant assistance. It may be noted that that most of the Ministry's initiatives would be aimed at increasing the processing level of fruits and vegetables. It is also accepted that cultivation of vegetables remains dominated by communities belonging to socially backward sections of population. Thus, the Ministry's initiatives are likely to contribute to both social and economic upliftment of these people.

Finally, the Ministry would take special care to ensure that benefits of all its programmes, including proposed skill development programme, reach the disadvantaged sections of population, including SC/ST and women.