

Model project Report: Mega Food Park

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1. Mega Food Parks Scheme

The Mega Food Parks Scheme (MFPS), a flagship program of the Ministry of Food Processing Industries (MFPI), Govt. of India, approved during the 11th five year plan, aims at accelerating growth of food processing industry in the country through facilitating establishment of strong food processing infrastructure backed by an efficient supply chain. It is also targeted towards achievement of the Vision 2015 of MFPI, which proposes to raise the processing of perishables from 6% to 20%, value addition from 20% to 35% and share in global food trade from 1.5% to 3% by the year 2015.

1.1. Major Objectives of MFPS

The key objectives of the scheme are outlined as follows:

- i. Provide state of the art infrastructure for food processing in the country in selected clusters to be identified in a demand driven manner.
- ii. Ensure value addition of agricultural commodities including poultry, meat, dairy, fisheries etc.
- iii. Establish a sustainable raw material supply chain for each cluster
- iv. Facilitate induction of latest technology
- v. Address issues of small farm size and small and medium nature of processing industries through a cluster approach with stakeholders managing the supply chain.
- vi. Provide an institutional mechanism for producers, processors, and retailers to work together to build in integrated supply chain from farm to retail.

1.2. Salient features of Scheme

The salient features of the Scheme are outlined as follows:

- The MFPS envisages a cluster-based demand driven approach for developing decentralized infrastructure including farm proximate facilities such as primary processing centres (PPC) and collection centres (CCs) and a Central Processing Centre (CPC). The CPC would have need-based common infrastructure like warehouses, cold storage including CA & MA, IQF, Tetra Pack, ripening chamber, Quality Control Labs and R&D Facility including incubation center etc. It would also have basic enabling infrastructure like road, water, power, ETP & STP etc. The grant assistance

shall be utilized exclusively towards creation of common infrastructure in CPC and PPCs in the park. Such facilities are expected to complement the processing activities of the units proposed to be set up at the CPC in the park.

- The supply chain will establish on-farm Primary Processing Centre cum cold chain facilities for aggregation of the produce at village level, which will be linked to the retail as well as to CPC through appropriate produce aggregation facility and collection centre cum cold chain and reefer transportation net works.
- The food processing units would be located at CPC. The developed plots at the CPC shall be leased out to them on a long term lease basis. The processing units that can be set up in the Parks are expected to be in line with the availability of various processable raw materials in the zone of influence. Such units can avail the benefits of common facilities on a user fee basis.
- The Mega Food Park is proposed to be owned by the Special Purpose Vehicle who own, operate and manage common infrastructure established within the Park and will also provide requisite technical and extension services. Thus, the Central Processing Centers, Primary Processing Centers and Collection Centers, backward linkage mechanism and front end linkages will be owned and managed by the SPV.

1.3. Pattern of Assistance

The Mega Food Parks Scheme provides for a capital grant of 50 percent of the eligible project cost subject to a maximum of Rs 50 crores in general areas and 75 percent of eligible project cost with a ceiling of Rs 50 crores in difficult and ITDP notified areas for creation of common Infrastructure facilities and requisite backward and forward linkages. As per the revised scheme guidelines, which came in to effect from 17.11.2011, the eligible project cost is defined as total project cost minus the cost of land, pre-operative expenses and margin money for working capital.

2. Mega Food Park Model

The Mega Food Parks (MFPs) have been envisaged to help in creation of enabling infrastructure for food processing and a comprehensive 'farm-to-plate' supply chain system. These Parks would provide state-of-the-art infrastructure for food processing in the country on a pre identified cluster basis. This is aimed at reducing wastages and ensuring value addition, especially in perishables like fruits and vegetables. This is further aimed at reviving the agricultural sector by increasing the returns for farmers besides making

processing more economically viable and help creating large employment opportunities particularly in the rural areas.

The proposed scheme for Mega Food Park is aimed at creating state of the art processing facilities in the major agricultural/horticultural clusters in the country. The scheme also will create opportunity to attract investment in the infrastructure for food processing in general paving the way for processing a range of value added products. The scheme also is expected to help the efforts of the Government of India to promote Secondary Agriculture in the country.

2.1. Features of the Mega Food Park

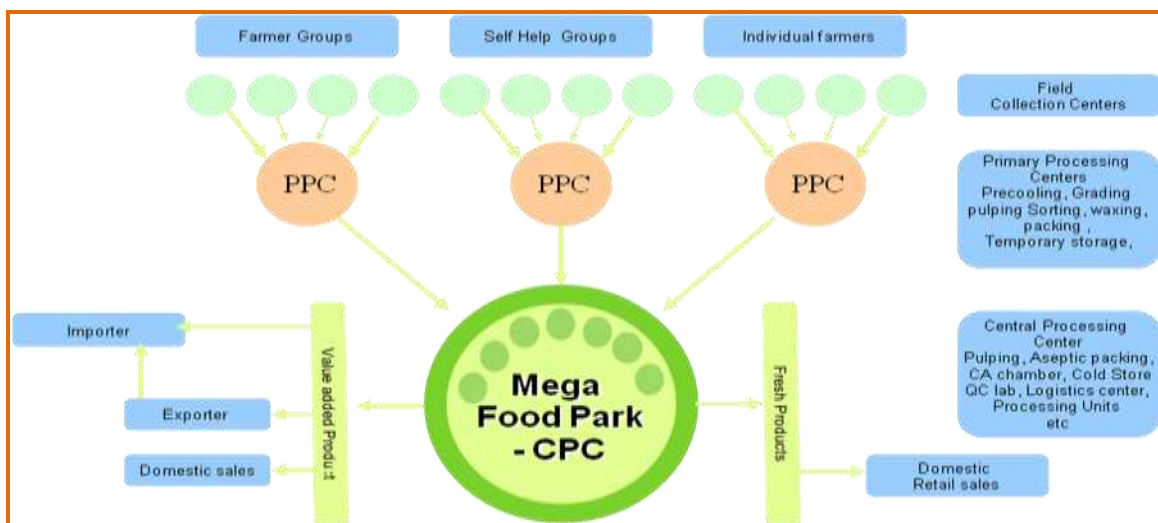
Salient features of Mega Food Park are outlined below:

- Mega Food Park is based on the demand driven hub and spoke model with provisions of strong backward and forward linkages that create a sustainable agro horticultural value chain. It contains three vital components viz. the Central Processing Centre, Primary Processing Centers (PPC) and the integrated cold chain network that connects the CPC with the PPCs. The CPC and PPCs would be suitably linked to major consumption centers such as tier 1 and tier 2 cities and export markets.
- The Central processing Facility would be developed in the spirit of a typical Industrial Park model, yet customized to the need of food processing sector. Thus, it would have basic infrastructure which would include road, water and power including captive power plant, STP & ETP and other utilities. Based on need assessment and proposed product mix to be handled in the Park, it would also have common core processing infrastructure components which would include warehouse for raw material and finished goods, Cold Storage, IQF with deep freeze facility, Ripening Chambers, Integrated pack house for perishables and Silo facility for bulk storage of grains. Such facilities would be available for use by prospective units in the Park on a user fee basis. The ownership and maintenance of such common facilities shall be vested with SPV.
- These Parks will comprise of farm level infrastructure like Primary Processing Centers (PPCs) for sorting/grading/packing etc., cold chain/logistics and a Central Processing Centre (CPC). The CPC may have facilities like CA chambers, Aseptic packaging, Irradiation Plants, Quality control labs etc. along with requisite utilities like power and water supply, effluent treatment plants etc.
- The Mega Food Parks will be owned and managed by a Special Purpose Vehicle (SPV) in which potential stake holders could be the food processors, farmers' bodies, retailers, state government agencies, financial institutions etc. The stakeholders, other than the Government, will have majority share holding of the SPV. As per existing Scheme guidelines, the SPV should have at least three independent entities, with at least one of them should be from food processing

experience and should have at least 26 percent equity in SPV. The combined net worth of SPV should be at least Rs.50 crore and the member with food processing experience should have a minimum net worth of Rs.10 crore.

- As the proposed Mega Food Parks are supposed to be demand driven, the size, structure and facilities within the Parks may vary depending on region/produces etc. However, the investment required for setting up a typical Mega Food Park in a cluster is estimated to be around Rs.120 Crore for common infrastructure including farm level infrastructure and central processing facilities. The additional investment by individual food processors in the park is estimated to be about Rs.300 Crore.
- A defining feature of the proposed Parks is that it does away with the requirement of big piece of land at a particular location. The Parks would be spread over a large area (a zone) with requisite infrastructure at various locations, viz. 50 -100 acres of land for central processing and 5-10 acres of land at various locations for PPCs.
- The proposed PPCs may also have facilities for transfer of technology, information kiosks, supply of inputs etc. They would be linked to CPC as well as organized retailers for procuring raw material for processing and catering to fresh segment.
- The geographical limit of the clusters for these Parks would be delineated based on the products and quantity of raw material. Appropriate product mix would be chosen based on availability of raw material in the identified clusters to ensure minimum of 200 days of working of Mega Food Park. The product mix should also be compatible in terms of usage of common facility.
- The proposed model provides for strong backward linkages, which would be established by involving farmer groups/traders/commission agents and attempts would be made to federate them into an appropriate structure, including possibility of a producer company.

Mega Food Park Model



3. Cluster Mapping

The cluster approach envisaged in the MFPS is one of the most essential aspects of the project.

The mega food park Cluster may be defined as a geographic region where identified crops are sourced, processed and transformed into finished product for marketing. From sourcing to finished product, a region without any physical boundary would be required, which would consist of several Collection Centers for sourcing of raw produce, a number of Primary Processing Centers and a Central Processing Unit where produces are not only transformed to finished product but are also stored for marketing during off season. The entire zone can be termed as the Zone of Influence (ZoI).

The clusters would typically include similar business units operating in a similar industrial sector. They will be located near each other and will compete among themselves only if catering to the same end-product category, in similar markets, and they will also share common inputs such as raw materials, labor with specific skills sets. Thus it can be said that clusters can encompass the entire value chain of a broadly defined sector from raw produce to end products.

This cluster should produce significant quantities of vegetables, fruits, and food grains, which are necessary raw material required to undertake various food processing activities in the Mega Food Park. The cluster should also enjoys relatively better infrastructure in terms of connectivity, power supply etc, which will enable the Mega Food Park in attracting prospective entrepreneurs for setting up of their units in the proposed Mega Food Park.

Based on the availability of produce within the Zone of Influence and the processing opportunities, a number of focus crops should be identified for the Mega Food Park. Following criteria should be adopted for identifying focus crops in the cluster:

- Availability of sufficient quantities of raw material
- Processability of the produce
- Seasonality
- Proposed product mix
- Marketability of end products

The geographical limit of the identified cluster may be suitably delineated based on the diversity and quantity of raw material available and contiguity of the potential area for future expansion. Also, comparative advantage of crops in terms of processability, marketing opportunities, seasonal advantage, local consumption, export/import substitution, scope for intensification and productivity improvement should be duly taken into consideration. Since Mega Food Park would require continuous supply of large volume of raw material, this would necessitate investment in food processing infrastructure,

strengthening of supply chain to reduce wastage, prevent quality deterioration and timely availability of various focus crops. Appropriate product mix should also be chosen based on raw material available in the cluster and their scope for processing and value addition.

Development of Mega Food Parks (MFP) need a diverse and sustainable agricultural raw material supply region serving as a catchment area for sourcing of agricultural produce. In addition to identification of focus crops in the cluster, it is also important to analyze the existing marketing system and value chains to identify the flow of agricultural produce and identify critical gaps so as to identify key interventions that would be taken up by the Food Park so as to build an efficient supply chain for various units in the mega food park.

Based on the supply strengths of the cluster, it would then be important to identify location of primary processing centers and collection centers within the catchment area so as to secure smooth flow of raw material to the processing units in the MFP.

4. Identification of CPC, PPC and CCs

The Mega Food Park is envisaged to provide an efficient and sustainable supply chain. Based on surplus raw material available and infrastructure assessment, potential locations for Central Processing Centre (CPC) and Primary Processing Centers (PPCs) will be identified and mapped which would be further supported by cold chain infrastructure to reduce wastages and check quality deterioration. Strong backward linkages would be established by involving farmer groups/traders/CA and federating them into appropriate entities wherever possible.

PPCs will have modular needs-based facilities which would include sorting, grading, packing and transit storage facilities. These centers may also have facilities for transfer of technology, information kiosks, supply of inputs etc. They will be linked to the Central Processing Center of the Park as well as with potential retail markets for procuring raw material for processing and catering to fresh segment as well. Collection Centers will serve as aggregation points in the catchment areas of each of the PPC, from where produce will be aggregated for onward dispatch. Farm produce will be brought at these collection centers by the producers or village aggregators. From here, depending upon the type of item, it will either be taken directly to the CPC for storage, value addition and processing or to the nearest PPC for intermediate processing after which it will be sent to the CPC or to the fresh retail markets.

5. Envisaged Project Components

The Mega Food Parks projects needs to be conceptualized and developed based on adequate demand assessment and thus, primarily should be demand driven and pre-marketed. The types of common facilities and capacities therein should be finalized based on the need assessment and the type of product mix available in the region/cluster. Hence, the facilities in each project shall vary based on these two factors as well as other related reasons and business plan envisaged by SPV. As per the existing Scheme guidelines, the mega food park project would have following components:

- **Central Processing Hub (CPC):** The CPC is the hub of value addition and combines agro-processing, collection, quality control and food testing, trade and other related activities. To augment the efficiencies of processing within the CPC, not only adequate basic infrastructure will be developed such as roads, in-house captive power plant and water supply and waste management, but also specialized common post-harvest infrastructure such as IQF, deep freeze and dry warehousing facilities, pack house with sorting and grading facility, ripening chambers and common cold storage facility.
 - **Common Core Processing Infrastructure:** Following could be the proposed core processing facilities in the park. It may, though, be noted that the components proposed and capacities indicated therein may vary from project to project depending on specific business plan as envisaged by SPVs. Also, certain components like silo storage facilities may be considered in cases where there is large production of food grains and cereals.

#	Core Processing Facilities	Capacities
1	Cold Storage	4000 MT (2 Chambers x 2000 MT)
2	Deep Freeze	1600 MT (4 Chambers x 400 MT)
3	Pack House (Washing, Sorting, Grading, Packaging etc)	2 MT/Hr
4	Dry Warehouse for Raw Materials	5000 MT
5	Dry Warehouse for Finished Goods	5000 MT
6	Platform for Storage Silos	25000 MT (5 Nos. x 5000 MT)
7	Unloading Shed for Storage Silos	25000 MT (5 Nos. x 5000 MT)
8	IQF (including pre-process set-up & packaging of finished goods)	2 MT/ Hr
9	Ripening Chambers	125 MT (5 Nos. x 25 MT)
10	CA/MA Storage Chamber	500 MT
11	Quality Assurance, Food Testing & Product Development Lab	

- **Basic Enabling Infrastructure:** This would include roads, Common parking facility, Water supply, treatment and distribution system, Storm water drains and disposal system, Effluent & Sewerage collection, treatment and disposal arrangement, Water - recycling system, Electrical substation and power distribution system, Internal Communication network, Street lighting, Fire fighting system and security.
- **Non-core Infrastructure:** It may include reception area, training centre, office, guest house etc.
- **Land Use Pattern:** The land use plan places strong emphasis on open and green spaces. It should also be arrived at in accordance with the statutory planning norms. Following indicative land use pattern may be adopted for the Mega Food Park:

Land Use : CPC	Indicative Percentage
Plots	40
Core infrastructure	22-25
Basic Enabling Infrastructure	20
Non- core infrastructure	2
Standard Design Factory Sheds	1-2
Green and Open Space	10
Total	100

- **Primary Processing Centre:** PPCs would provide for primary processing facilities such as storage, washing, sorting, grading, weighing and packaging. It may also have certain need based processing facilities as may be required. While the PPCs would be directly linked to the CPC, they would also have linkages to retail markets in major consumption centers within as well as in neighbouring States. Produce collected at the PPCs would be transported using reefer vans for highly perishable produce while all other items shall be transported under ambient conditions. PPCs will also serve as a point of contact with farmers and would be the points of price discovery. These centers may also have facilities for transfer of technology, information and supply of inputs etc.

The prime considerations for selecting the locations of PPCs within the 'Zone of Influence' of the project are as follows:

- PPCs should be located in such a way so as to ensure uniform distribution over the 'Zone of Influence' as this will balance the collection of raw materials.
- PPCs should be selected in order to have an optimum area under Zone of Influence to ensure a wider product mix to support round the year processing operations at the CPC

- PPCs should be located in areas commanding adequate availability of processable surplus.
- The selected locations should have good road and/ or rail connectivity

PPC would have following components:

- Common Core Processing Infrastructure: It may include dry warehouse, cold storage, sorting and packing hall etc.
- Basic Enabling Infrastructure: Road, Water supply, electricity, communication lines etc
- Non-core infrastructure: Admin building

6. Estimated Project Cost and Means of Finance

Total cost of the project for setting up of project has been estimated at approximately Rs. 150 crores. The component wise cost has been estimated on the basis of quotations received for plant and machinery from various manufacturers and on the basis of industry and engineering estimates for civil work. The component-wise break up is provided in table below.

Table: Estimated Project Cost

Description	Amount (Rs Lakh)
Land	700
Land & Infrastructure Development	4500
Buildings	4600
Plant & Machinery	3100
Utilities & other fixed assets	200
Preliminary and Pre-Operative Expenses	1200
Contingencies	600
Margin Money for Working Capital	100
Total cost of project	15000

The cost of the project is proposed to be financed through a mix of equity and debt and grant assistance under the Mega Food Parks Scheme. The indicative means of finance is as follows:

Table: Means of Finance

Particulars	Amount (Rs Lakh)	Share (%)
Equity	4000	26.66
Grant from MoFPI	5000	33.33
Debt	6000	40.00
Total	15000	100.00

6.1. Assumptions in Project Cost

The key assumptions under major project components and costs therein are outlined as below:

- (a) **Land:** The total land size for Central Processing Center has been considered as 70 acres. A cost of Rs.7.20 lakhs per acre has been considered while arriving at the cost of land. However, the cost of land may vary greatly from project to project as it would largely depend on the location and other attributes of a particular land. The total land area of 10 acres is assumed for all five PPCs (two acres each). The land cost has been taken as Rs 15.0 lakhs / acre based on the prevailing market rate in the identified areas. Therefore, a total of Rs. 7 crore has been assumed towards cost of land for the project.

Particulars	Acre	Rate/ Acre (Lakh Rs)	Amount (Lakh Rs)
CPC Land Cost	70	7.20	507.00
Registration Cost	70	7%	35.28
Total CPC land			539.28
PPCs			
Total for 5 PPCs	10	15	150.00
Registration cost		7%	10.5
Total PPCs Land			160.50
Total Land Cost			700.00

- (b) **Land and Infrastructure Development:** The estimated cost for development of land and construction of basic enabling infrastructure/utilities such as boundary wall, gate, security cabin at gates, green area development, roads, water treatment & supply, storm water drains, sewage collection and treatment, ETP/STP, electrical supply and distribution system, parking etc. is Rs. 4562.76 lakhs (*Rs 4377.76 lakhs at CPC and Rs 185.00 lakhs at PPCs*).
- (c) **Buildings:** The civil construction involves construction of core processing infrastructure components, non-core facilities and Standard Design Factory sheds for MSMEs. The major common core processing facilities are Dry Warehouses, Cold Stores, Ripening facilities, IQF, Silos, Quality Control and Food Testing & Product Development Lab etc. Non-core facilities include mainly admin block, shopping complex, canteen, worker’s amenities, guest house etc. The estimated cost of civil work for core processing facilities is Rs. 4,105.64 lakhs (*Rs 2198.14 lakhs at CPC and Rs 1907.50 lakhs at PPCs*). The estimated cost of buildings for non-core infrastructure is Rs 479.48 lakhs (*Rs 456.98 lakhs at CPC and Rs 22.50 lakhs at PPCs*). The cost of Standard Design Factory Sheds (SDFs) for MSMEs is estimated at Rs 100.00 lakhs.

- (d) **Plant and Machinery:** The total estimated costs of plant and machinery is Rs 3122.54 lakhs. Major components include refrigeration systems for Cold Storage, IQF, Deep Freeze Storage, CA Storage, Ripening Chambers, Sorting/Grading/Packing line with material handling equipment, Silos and Quality Assurance, Food Testing and Product Development Lab etc. The cost of plant & machinery is based on the quotation received from reputed suppliers. The quotations indicate only basic price of the equipment whereas taxes, duties, transit insurance, VAT, freight and loading / unloading charges are payable extra. The final cost of P&M is, therefore, estimated by adding 15.3% towards aforementioned additional.
- (e) **Miscellaneous Fixed Assets:** The cost of misc fixed assets for the project is estimated at Rs 186.00 lakhs. The major components included under this head are MIS and IT system, office equipments and furniture & Fixtures , security etc.
- (f) **Preoperative Expenses:** The provision towards preliminary and pre-operative expenses includes expenditure towards preliminary expenses such as detailed design and engineering, construction supervision and interest during construction period, business development expenses, site insurance, security, salary & wages during construction period etc. It is envisaged that the project will be completed over a period of two years and the interest during construction period of 2 years is capitalized in the project cost.
- (g) **Margin Money for Working Capital:** The project will generate revenue by charging rental from the users of the facilities. Rentals will be charged from users on monthly basis. Once the project commences operation, it would incur major operational expenses on monthly basis towards electricity bills, manpower expenses, and other administrative expenses. Therefore, the project would require cash flow on monthly basis to meet the requirement of working capital. The total estimated working capital for first year of operation would be Rs 528.36 lakhs, 25% of the estimated working capital required has been assumed as the margin money, which comes to around Rs. 132.09 lakhs.

7. Proposed Business Plan

The business plan of Mega Food Park, taking into account the proposed business model in line with the Mega Food Parks Scheme, is as follows:

- SPV would provide developed land plots and SDF sheds to various units in the park on long term lease
- The project will provide warehousing facility to various players such as grain traders, distributors/stockists of cement, fertilizers etc. The project will generate revenue by charging rental from the users.
- Cold storage facility (multi-commodity, deep freeze etc.) will be rented out to farmers, traders, wholesalers and organized retailers and food processors for storage of various fruits, vegetables, spices and dairy products etc.
- SPV will also put ripening chambers on rental for ripening of banana, mango, papaya etc to various traders and wholesalers.
- SPV will provide facilities such as IQF, sorting/grading/packing lines etc on rental to the users on job work basis
- SPV would provide material handling and logistics facilities and equipments (crates and refer vans) on rental basis to user
- SPV would also be supplying power and treated water to units in the CPC. SPV would be recovering the supply cost with a mark-up of about 15% (mainly to recover the transmission and distribution losses) on the cost. The power and water cost would be recovered proportionately (as SPV would be using about 20% of power and about 2% of water for core-processing facilities) from the units. SPV would also recover the cost of effluent treatment from the units.
- Non-core facilities would also be given on rental basis to various users by the SPV
- SPV will also be recovering infrastructure management fee from the units on annual basis.

Mega Food Park (MFP) is conceived for providing enabling infrastructure like plots, processing infrastructure etc for prospective tenants thereby ensuring revenues for the park. By providing infrastructure and services which otherwise would have been commercially unviable for such units to set up on individual basis, MFP frees the entrepreneurs from investing in capital intensive infrastructure components. This strategy ensures win-win situation for both the MFP developers and the tenants by making their relationship mutually beneficial. Keeping the above strategy in mind, the following are the various ways of revenue generation for the MFP developers.

- Lease of developed plots to prospective companies/entrepreneurs for setting up processing facilities

- Levy of user charges for various common facilities in core infrastructure such as
 - Warehouses, cold storages, ripening chambers
 - Sorting, grading facility for fresh produce
 - IQF including deep freeze
 - Utilities like Water, Steam, STP, WTP, Power etc
 - Maintenance charges for all tenants
 - Parking, office space, canteen services
- Rentals from standard design factory sheds for MSEs
- Levy of charges against various services to be offered by SPV to units in the Park
- Levy of various utilities charges on a monthly basis from units in the Park

The above is an illustrative representation of proposed revenue streams and as the implementation of the project progresses, more avenues for revenue generation can be explored and put in place to reduce gestation make the project commercially viable on a long term.

7.1. Proposed Framework for Recovery of Charges

1. **Charge I** – Lease rentals through long term lease of developed plots to units in the Park and rentals from MSME units for usage of Plug n' Play facility
2. **Charge II** – Charges based on usage of the facilities like
 - a. Parking for trucks (both inward and outward)
 - b. Weighbridge
 - c. Cold storage facilities
 - d. Ripening chambers
 - e. IQF and Deep Freeze
 - f. Rentals of plastic crates
 - g. Laboratory samples testing and others.
3. **Charge II** – Monthly variable Utility charges will be based on monthly consumption of utilities such as water, power, effluent treatment, steam, will be charged from the member units as per actual consumption and on cost basis.
4. **Charge III – Monthly Rentals from other Facilities**

The SPV will outsource common facilities like shops, canteen, banks and other space to different agencies for providing requisite facilities. These agencies / individuals will be charged on actual for the facilities like water, electricity utilized by them.

5. The operations of the units will be adequately supported by requisite capacities to absorb the cost of the infrastructure to recover the capital and operational costs as briefly described above.
6. The MFP shall enter into an Agreement with the units. The Agreement shall provide rights to the units for setting up food processing facilities in the park.

8. Projected Financial Performance

The revenue projection of the mega food park project shall largely depend on the specific business plan envisaged by SPVs and thus, the revenue statements will differ from project to project. Based on the project components and estimated project cost, an indicative profitability statement for the project is given below for reference:

Table: Profitability Statement

Rs in Lakh

Year	1	2	3	4	5	10	13
Capacity Utilization	50%	65%	75%	85%	90%	90%	90%
Revenue							
CPC							
Land Lease Rentals	250.30	433.86	433.86	433.86	183.56	0.00	0.00
Rentals from SDF Sheds	22.50	39.00	39.00	39.00	16.50	0.00	0.00
Core Infrastructure	1116.83	1599.66	2033.94	2540.60	2965.39	4844.36	6527.54
Non Core Infrastructure	111.45	159.37	202.28	252.18	293.71	473.03	629.60
Enabling Infrastructure	1767.43	2527.43	3207.89	3999.17	4657.86	7501.53	9984.54
Management Fee	69.41	127.25	139.98	153.97	169.37	272.77	363.06
Total CPC	3337.93	4886.57	6056.95	7418.78	8286.39	13091.69	17504.74
Revenue PPC							
PPC- I	53.42	76.39	96.95	120.87	140.77	226.72	301.76
PPC - II	53.42	76.39	96.95	120.87	140.77	226.72	301.76
PPC - III	53.42	76.39	96.95	120.87	140.77	226.72	301.76
PPC - IV	53.42	76.39	96.95	120.87	140.77	226.72	301.76
PPC - V	53.42	76.39	96.95	120.87	140.77	226.72	301.76
Total PPCs	267.08	381.93	484.76	604.33	703.87	1133.58	1508.80
Total Revenue	3605.01	5268.50	6541.71	8023.11	8990.26	14225.28	19013.54
Expenses							
Power	1404.99	2009.14	2550.07	3179.08	3702.69	5963.23	7937.05
Water	195.76	258.15	300.72	344.08	366.06	366.06	366.06
ETP	248.86	323.52	373.30	423.07	447.95	447.95	447.95
Fuel	262.80	375.80	476.98	594.64	692.58	1115.40	1484.60
Employee Cost	316.20	347.82	382.60	420.86	462.95	745.58	992.37
Maintenance	125.56	138.12	151.93	167.13	183.84	296.07	394.07
Insurance	79.94	79.94	79.94	79.94	79.94	79.94	79.94

Admin & Selling Overheads	61.00	67.10	73.81	81.19	89.31	143.83	191.44
Provision for Crates replacement	40.17	57.42	73.00	90.95	105.90	170.10	226.80
Total Expenses	2735.28	3657.01	4462.34	5380.93	6131.22	9328.17	12120.29
EBITDA	869.73	1611.49	2079.37	2642.18	2859.04	4897.11	6893.25
Interest Long Term Debt (LTD)	814.12	786.62	707.32	616.74	513.31	0.00	0.00
Interest Working Capital borrowing	55.48	78.10	96.29	117.29	132.31	206.09	272.42
Depreciation	629.04	629.04	629.04	726.86	726.86	726.86	350.48
PBT	-644.96	104.03	635.51	1172.67	1480.67	3964.15	6270.34
Tax	0.00	19.25	117.57	216.94	105.48	1307.04	1933.48
Net Profit (PAT)	-644.96	84.78	517.94	955.73	1375.18	2657.11	4336.86
Net Cash from Operations	-15.92	713.82	1146.98	1682.59	2102.05	3383.97	4687.35

The above table indicates that the project will be able to achieve profit from 2nd year of operation, which will reach to Rs 955.73 lakhs in the 4th year of operation and to Rs 2657.11 lakhs in the 10th year of operation.

Table: Financial Performance Indicators

Year	1	2	3	4	5	6	7
EBITDA Margin	24.13%	30.59%	31.79%	32.93%	31.80%	31.23%	32.13%
PAT margin	-17.89%	1.61%	7.92%	11.91%	15.30%	12.30%	14.41%
Return on Capital Employed (ROCE)	-6.65%	0.92%	5.69%	10.24%	13.92%	11.76%	14.52%
Current Ratio	2.41	2.19	2.63	3.41	4.42	5.06	5.76
Debt-Equity Ratio	0.70	0.62	0.52	0.40	0.28	0.18	0.09
Total Liability to Net Worth Ration(TOL/TNW)	1.75	1.61	1.29	0.95	0.64	0.43	0.25
Debt to EBITDA ratio	7.39	3.74	2.66	1.87	1.48	1.11	0.69
Interest Coverage Ratio	1.00	1.86	2.59	3.60	4.43	5.62	8.21
DSCR	1.00	1.13	1.44	1.81	1.94	2.03	2.28
Average DSCR	1.82						
Project IRR	14.91 %						
Equity IRR	19.40 %						

From the analysis of the above indicators, it is evident that the financial health of the projects seems to be good. The project is earning good returns and profit margins. Annual DSCR is showing increasing trend and the average DSCR is about 1.82, which indicates that the project will be able to repay its debt liabilities. Moreover, the time series analysis of debt-equity ratio shows that project will be easily able to reduce its debt burden from its capital structure.

9. Project Implementation Framework and O&M

The Mega Food Park is proposed to be owned by the Special Purpose Vehicle. This SPV will own and manage common infrastructure established within the Park and will also provide requisite technical and extension services. Thus, the Central Processing Centers, Primary Processing Centers and Collection Centers, backward linkage mechanism and front end linkages will be owned and managed by the SPV. In case of PPCs, SPV may consider leasing out operation and management of these to interested professional agencies or entrepreneurs in the region.

Since the O&M management is a critical component of the overall functioning of Mega Food Park (MFP). The overall O&M management would be broadly coordinated through distinct functions namely Operations & Maintenance, Sales & Marketing, Finance and Administration. The key lies in the well-defined functions and the linkages between organizations and how well the operations department and the outsourced agencies, as the case may be, take this forward for efficient functioning of the MFP.

9.1. Role of SPV

The role of SPV for the Project would be as under:

- The SPV for the project should be formed and registered. The shareholders of SPV would appoint their representatives in the Board of Directors and recruit manpower that would be responsible for implementation of the Project in a transparent, efficient, and timely manner.
- SPV shall ensure that the shareholders/members contribution for the Project is made available in time to meet financial obligation during project implementation. SPV would also obtain from concerned statutory authorities necessary sanction / approval etc requisite for commencement and operation of the Project.
- SPV would have to appoint a Project Management Consultant (PMC) from the approved panel of PMC drawn by the Ministry. The PMC would assist SPV in appointing requisite professional agencies like design contractors, construction contractors, suppliers of equipments, operations and management contractor. PMC would extend necessary technical support to SPV to obtain such clearances.
