



Draft Detailed Project Report

Rai Food Processing Cluster

Submitted to,

Department of Industries and Commerce
Government of Haryana
(for assistance under Mini Cluster Scheme)

Report No. 2017-Chandigarh-0022

October 2017

Submitted by,

**M/s Common Research and Analysis
Private Limited**

Prepared by,

Ernst & Young LLP

***Under the project: MSME Ecosystem
Transformation in Haryana***

23 Oct 2017

Director
Department of Industries & Commerce
Government of Haryana
1st Floor, 30 Bays Building
Sector 17, Chandigarh

Dear Sir/Madam,

As part of our engagement for providing consulting services for 'MSME Ecosystem Transformation in the State of Haryana', we hereby submit the Draft Detailed Project Report (DPR) for setting up of Common Facility Centre (CFC) at Food Processing Cluster, Rai (Sonipat) for your kind perusal. The deliverable has been prepared in accordance with our engagement agreement with Directorate of Industries, Govt. of Haryana dated 03 January 2017, and our procedures were limited to those described in that agreement.

This Detailed Project Report is based on studies of and discussions with:

- ▶ Directorate of Industries, Govt. of Haryana
- ▶ MSME-DI, Karnal
- ▶ Members of Dal Millers & Food Processors Manufacturers Association
- ▶ Food Processing units located in and around Rai
- ▶ Representatives of Dal & Miller Association Rai
- ▶ Industry experts
- ▶ Secondary research

Our work has been limited in scope and time and we stress that more detailed procedures may reveal other issues not captured here. The procedures summarized in our Draft Detailed Project Report do not constitute an audit, a review or other form of assurance in accordance with any generally accepted auditing, review or other assurance standards, and accordingly we do not express any form of assurance. This draft Detailed Project Report is intended solely for the information and use of the Office of Director Industries-Haryana and is not intended to be used by anyone other than specified party.

We appreciate the cooperation and assistance provided to us during the preparation of this report. If you have any questions, please contact the undersigned.

Sincerely,



Amar Shankar, Partner - Advisory Services

Disclaimer

This Draft Detailed Project Report for development of Common Facility Centre (CFC) at Rai Food Processing Cluster has been prepared by Ernst & Young LLP (hereinafter referred to as 'EY' or 'Ernst & Young' or 'Us') and delivered to the 'Office of Director of Industries & Commerce - Government of Haryana (O/o of DI-HR)' (hereinafter referred to as 'the Client').

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Acknowledgement

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We would like to convey our sincere thanks to members of **M/s Common Research & Analysis Pvt. Ltd** for their support during the on-site visits and interactions with food processing units in Rai as well as facilitation in conducting stakeholder consultations. Further, we would also like to thank officials of **Dal Millers & Food Association** for providing support and information related to food processing units in Rai.

Also, we must extend our sincere thanks to food processing entrepreneurs and other key stakeholders who gave us their valuable time and insights with respect to various dimensions of the industry and its support requirements. Without their help, capturing of the industry insights would not have been possible.

Abbreviations

AoA	Article of Association
BEP	Break Even Point
CAGR	Compound annual growth rate
CFC	Common Facility Centre
CDCC	Cluster Development Coordination Committee
DCMSME	Development Commissioner, Ministry of MSME
DMFPA	Dal Millers & Food Processors Association
DIC	District Industries Centre
EPP	Enterprise Promotion Policy
EU	European Union
ECD	Electron Capture Detector
FDI	Foreign Direct Investment
FPI	Food Processing Industry
FSSAI	Food Safety & Security Authority of India
FID	Flame Ionization Detector
GC	Gas Chromatography
GDP	Gross domestic product
GSDP	Gross State Domestic Product
GVA	Gross Value Added
HFC	Haryana Financial corporation
HVAC	Heating, Ventilation & Air Conditioning
HR	Haryana
HSI IDC	Haryana State Infrastructure & Industrial Corporation
HUDA	Haryana Urban Development Authority
ITI	Industrial Training Institute
IRR	Internal Reserve Ratio
LC	Liquid Chromatography
LLP	Limited Liability Partnership
MoFPI	Ministry of Food Processing Industries
MoMSME	Ministry of Micro, Small & Medium Enterprises
MoA	Memorandum of Association
MSME	Micro, Small & Medium Enterprises

NABL	National Accreditation Board for Testing and Calibration Laboratories
NAFED	National Agricultural Cooperative Marketing Federation of India Ltd
NCR	North Capital Region
NH	National Highway
NIFTEM	National Institute of Food Technology & Entrepreneurship Management
NSDP	National State Domestic Product
NSIC	National Small Industries Corporation
NPV	Net Present Value
PNB	Punjab National Bank
PAN	Permanent Account Number
PAT	Profit After Tax
ROCE	Return on Capital Employment
SIDBI	Small Industries Development Bank of India
SME	Small, Medium Enterprise
SPV	Special Purpose Vehicle
UAM	Udyog Aadhar Memorandum
USA	United States of America
WDV	Written Down Value

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Executive summary

The Government of Haryana through the Department of Industries and Commerce intends to transform the MSME sector of the state and put it on a growth path. Several incentives have been offered under the state's ambitious 'Enterprise Promotion Policy (EPP) 2015' to provide an impetus to growth of the MSME sector. Towards this, the state aims to strengthen the technology infrastructure as well as enhance productivity and competitiveness of various MSME clusters across the state by leveraging funding under the State Mini Cluster Scheme providing grant under its EPP 2015.

In this context, this Detailed Project Report (DPR) has been prepared to seek grant-in-aid assistance under the State Mini Cluster Scheme to set up a state-of-the art Common Facility Centre (CFC) in Food Processing cluster Rai, at Sonipat District, Haryana.

About the Rai Food Processing Cluster

In the simplest of terms, food processing can be defined as the set of methods and techniques used to transform raw ingredients into food or food into other forms for consumption by humans or animals. Food processing typically takes clean, harvested crops or slaughtered and butchered animal products and uses these to produce attractive, marketable, and often long-life food products.

India is one of the largest producers of agricultural products in the world, owing to diverse agro-climatic conditions, abundant livestock & cost competitiveness. India ranks No. 1 in the world in production of milk (fresh, whole, buffalo), pulses, ginger, chick peas, bananas guavas, papayas and mangoes further, India ranks no. 2 in the world in production of rice, wheat, potatoes, garlic, cashew nuts, groundnuts, dry onion, green peas, pumpkins, gourds, and cauliflowers. With such a huge production base, it comes as no surprise that food processing sector has become one of the significant contributors to the country's economy.

The food processing industry (FPI) constitutes more than 8% to India's GDP through manufacturing. The sector also adds 8.39 %to the GVA of Agriculture sector. In addition, the sector is also one of the largest employment generators. As per MoFPI data, registered FP enterprises employ around 17.71 lakh people while unregistered enterprises provide livelihood to 47.92 lakh people. The organised sector is estimated to account for 58 per cent of India's food processing industry.

There are about 40 units in Rai cluster predominately engaged in primary as well as secondary processing of pulses (*dals*). These units are mainly located in Food Park at Rai Industrial area with NH1 as the nearest major national highway. The annual turnover of the cluster is about INR 4000 Crore. The Rai food processing cluster is a mix of MSMEs and large enterprises which produce several products like variety of Dals & Besan.

Diagnostic Study and Interventions

A diagnostic study was undertaken by the cluster members in June-July 2017 to map the existing business processes in the cluster, identify the gaps, and understand the requirements of the cluster. The diagnostic study report (DSR) was compiled by the cluster stakeholders in close coordination with the District Industries Centre, Sonipat. The awareness level of the cluster units (on new food processing technologies, cluster development initiatives, etc.) was found to be low. Additionally, it was observed that most of the cluster units deploy out-dated technologies and are unable to meet the requirements of the market due to lack of availability of modern machines/equipment for testing facilities. Due to non-availability of testing lab facilities, units are unable to test the raw materials and finished products. These were the major pain areas that necessitated an urgent intervention. In this context, the units decided to establish a CFC.

The DSR was presented to the state government during second meeting of the State Level Steering Committee (SLSC) on 16th August 2017 and was subsequently approved. The minutes of meeting is attached as **Annexure-1**. The SPV was granted permission to go ahead with preparation of Detailed Project Report (DPR) for the cluster. The DPR was validated by the Director Industries & Commerce on 25th October 2017 at New Delhi. The minutes of DPR validation meeting are provided as **Annexure-2**.

Proposed Common Facility Centre

The proposed CFC will have the following facilities:

- ▶ Testing facilities to ensure consistency and uniformity of the food products
- ▶ Testing facilities for food safety and standards regulations
- ▶ Testing for conformity issues against standards such as quality and purity
- ▶ Testing for phytochemical & microbiological testing

Such a common facility will significantly support the activities of firms in the cluster, and there is no similar facility available in the district. The proposed common facilities will be utilized by the SPV members and will also be available to non-members units within and outside the cluster. The facility will provide a much needed infrastructural push to the cluster units and will enable them to become more competitive.

Special Purpose Vehicle for Project Implementation

After the diagnosis study, the cluster units came together to form a Special Purpose Vehicle (SPV) by the name and style of '**Common Research & Analysis Pvt Ltd.**' The SPV has been set up as a private limited company under section 8 of the Companies Act, 1956 and rule 7 of the Companies (Incorporation) Rules, 2013. DIC, Sonipat has played an important role in SPV formation by cluster stakeholders. The SPV already includes about 11 members who are subscribing to the necessary equity base of the company. The proposed CFC will be implemented on public-private partnership basis through the SPV '**Common Research & Analysis Private Limited**' by availing support from Government of Haryana (under EPP 2015).

The SPV members have a track record of cooperative initiatives. SPV members are also members of a prominent cluster association (Dal Millers Association). Cluster members have been autonomously undertaking several soft interventions to enhance knowledge and exposure of the cluster units on new trends in food industry and enhancing productivity of their units. This includes exposure to cluster development initiatives in other clusters, registration under UAM, awareness programs on new trends in testing, food & packaging. These programs were conducted by the SPV's own contribution.

Project Parameters, Viability and Sustainability

The CFC Foods Research Pvt. Ltd. with support from State Government (under the Mini Cluster Scheme) aims to set up a Common Facility Centre having state-of-the-art "NABL Testing Lab" for cluster units with a total project cost of about **Rs. 445.16 lakhs**. However, the maximum eligible project cost as per the scheme guidelines is Rs 200 lakhs, with government of Haryana's grant restricted to 90% of max eligible project cost i.e. to Rs 180 lakhs. Hence, the SPV members have proposed to contribute entire amount beyond Rs. 180 lakhs, taking their overall contribution to about **59.5 % of the total project cost**. The total contribution of SPV members will amount to **Rs. 265.16 lakhs**. Support from State Government is envisaged for **Rs. 180.00 Lakhs**.

The cost of the project and proposed means of finances is tabulated below:

S. No.	Particulars	Total Project Cost	Amount as per Guidelines	Remarks
1	Land & Building			
	a. Land Value	74.88	50	Max 25% of project cost of INR 200 lakhs
	b. Land Development	0.00		
	c. Building & Other Civil Works	81.87		
	A.	156.75	50	50
2	Plants & Machinery			
	a. Indigenous	246.72	150.00	
	b. Imports	0.00	0.00	
	c. Secondary Machines	11.21	0.00	
	B.	257.93	150.00	
3	Miscellaneous fixed assets			
	(fixture, furniture, firefighting equipment, first aid equipment, backup power supply, etc.)	5.00		Not Eligible for Grant
	C.	5.00		

4	Preliminary & Preoperative Expenses			
	(Legal & administrative expenses, registration, civil engineering drawings with estimates & tender forms, telephone, stationery,	5.18		
	(establishment cost, travel, overheads during construction period including salaries, machine testing cost and other services, PMC etc.)			
	D.	5.18		
5	Contingency			
	a. Building @ 2%	1.64		
	b. Plant & Machinery @ 5%	12.90		
	E.	14.53		
6	Margin money for working capital			
	(Working capital required @ 80% C.U.)	5.76		
	F.	5.76		
	Total	445.16	200.00	

The actual total project cost is estimated to be Rs. 445.57 lakhs. As indicated above, assistance to the project from the Govt. of Haryana is envisaged to the tune of Rs. 180 lakhs. SPV contribution is to the tune of Rs. 265.16 lakhs (over 59.5%) of the total project cost. The means of financing are presented below:

S. No.	Source of finance	Project cost upto INR 200.00 lakhs (max eligible as per scheme)		Project cost over INR 200.00 lakhs		Total Amount (INR in lakhs)
		Percentage Contribution	Amount (INR in lakhs)	Percentage Contribution	Amount (INR in lakhs)	
1	Grant-in-aid under Mini Cluster Scheme (Govt. of Haryana)	90	180	0	0	180.00
2	Contribution of SPV	10	20	100	245.16	265.16
	Total	100	200	100	245.16	445.16

The viability and sustainability of the project is evident from the project economics as well as the cooperative spirit and profile of the SPV. Some indicators of the viability are as follows:

Project's financial indicators

S. No.	Particulars	Estimates
1	BEP (cash BEP at operating capacity of 80%)	31.05%
2	Av. ROCE (PAT/CE) sans Grant	44.63%
3	Av. ROCE (PAT/CE) with Grant	74.94%
4	Internal Rate of Return (IRR)	35.58%
5	Net Present Value (at a discount rate of 10 per cent) - incorporating viability gap funding (grant) by GoH	NPV is positive and high (Rs. 604.51 lacs) at a conservative project life of 10 years
6	Payback period	3.56 years with Grant-in-aid assistance from GOH
7	DSCR	Not Applicable (non-availment of term loan in this project)

As evident from the financials above, with viability gap funding under Mini Cluster Scheme of GoH, the project is highly viable and sustainable. The project is expected to generate surplus from the fourth year of operation. Risk and sensitivity analysis considering a decline in user charge/ capacity utilization also validates the project sustainability.

Project Implementation

Project implementation is envisaged to involve a time-frame of about 10 months upon receipt of approval of grant-in-aid assistance from the Government of Haryana under State Mini Cluster Scheme. The project will be implemented by the SPV in close association with DIC, Sonapat. It is proposed to constitute a Cluster Development Coordination Committee (CDCC), constituted under the Chairmanship of Director of Industries, Government of Haryana to oversee all cluster development projects in Haryana under State Mini Cluster Scheme. The committee may operate under the overall monitoring of the State Level Steering Committee (SLSC).

In addition, for implementing this CFC project, a Project Management Committee (PMC) comprising of the JD, DIC Sonapat, and representatives of the SPV, PNB Bank, NIFTEM and EY experts shall be constituted to directly oversee effective monitoring and implementation. The project will be implemented through the SPV, and the PMC will report

progress of implementation to the CDCC as well as State Level Steering Committee and DIC, Sonipat.

The potential for the Rai Food Processing cluster to grow is enormous, with an increasing demand of food products in the region as well as in the country. The strengths of the Rai Food Processing cluster lie in its location (both geographically & industrially), with a thriving food processing, agro industry in the region. As a result, many local food processing have come up in the region.

This cluster has the ability to increase its output and market share by manufacturing high quality food products. The proposed facility will be open to all cluster firms to enable them to get the testing of their products sample to cater to the food product requirements of the market. The facility will also provide an opportunity to small units to increase their capacity utilization and profitability. The CFC will also enhance the co-operation and joint action among cluster stakeholders to improve their competitiveness to meet the demands of the domestic as well as international markets.

Introduction



1. Introduction

1.1 Overview of the cluster

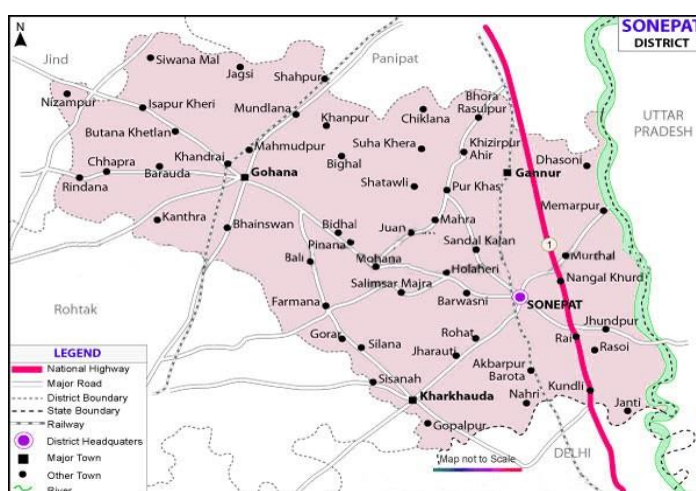
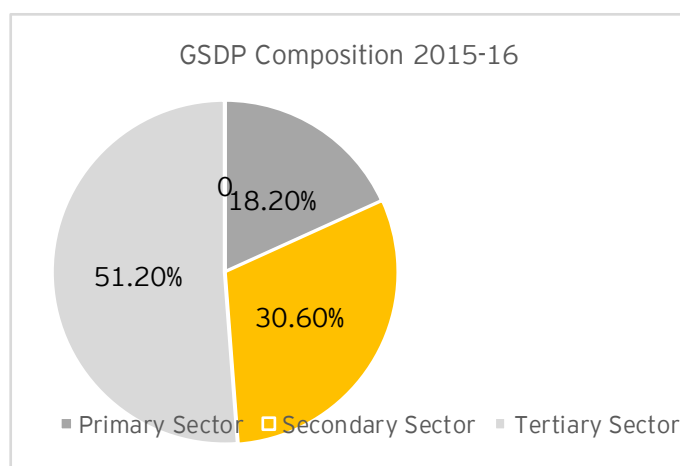
There are about 40 units in Rai cluster predominately engaged in primary as well as secondary processing of pulses (dals). These units are mainly located in Food Park, Rai Industrial area with NH1 as the nearest major national highway. The annual turnover of the cluster is about INR 4000 Crore. The Rai food processing cluster is a mix of MSMEs and large enterprises which produce several products like variety of Dals & Besan.

1.2 About the State & District

Haryana is 11th state in the country in terms of GSDP, with growth rate of around 6.5%. Haryana contributes to nearly 3.4% of the India's GDP. With just 1.37% of the country's geographical area and 1.97% of country's total population, the state is counted among the top few states with the highest per capita income. The state economy is predominantly agriculture.

The industry sector contributes about 18% of the total GSDP of the state. Haryana is fast emerging as one of the most favoured investment destinations in India. The globalization of markets and a resilient economy have given an incredible drive to the industrial sector in Haryana, which already has a competitive advantage in terms of strategic location, basic infrastructure, and a large skilled, educated and young workforce. Besides, the State has an investor-friendly policy and regulatory environment. It is one of the leading states in terms of industrial production, especially passenger cars, mobile cranes, two-wheelers & tractors. It is the 2nd largest contributor of food grains to India's central pool, accounts for more than 60% of the export of basmati rice in the country, and is 3rd largest exporter of software.

Figure 1: GSDP Composition 2015-16



Sonipat is one of the most industrialized and historical districts of Haryana. Sonipat district came into existence on December 22, 1972. It was carved out of Rohtak district to which Sonipat tehsil was attached since 1912. The district borders Delhi union territory in south, Panipat District in the north, Jind District in the north-west, Uttar Pradesh state in the east with the Yamuna River acting as a border and Rohtak District in the west (see figure2).

1.3 Industrial Scenario of Sonipat District

In the 1960s, the onset of green revolution, progress in dairy farming, and increase in agricultural production provided an impetus to the growth of agro-based & agriculture oriented industries in the region. Subsequently, the region witnessed a transition from agriculture to industrialization. The Haryana government also undertook several initiatives to promote industrial development in the region. The state ensured creation of massive infrastructure in terms of complete electrification, provision of road transport and expansion of administrative, educational and health facilities in small towns. Consequently, Sonipat became a major industrial hub with presence of a large number of industries across various segments such as dairy, food processing, rice milling, pharma, plastic, agriculture implements and so on. The region along the NH 1 particularly witnessed tremendous growth of the food processing industries during the late 90s. MoFPI, around the same time, came up with the scheme to establish food parks all over the country to accelerate the growth of Indian food processing sector.

Under the MoFPI's food park scheme, a sprawling 116-acre food park was approved to be setup in the FY 2001-02 in Rai Industrial area. Around the same period, Food processors in Delhi were finding it very difficult to expand the operations in the city's prominent industrial regions due to paucity of space, increase in real estate prices and surge in labour costs. Rai Food Park's proximity to Delhi and lower land costs made it an attractive location for the processors to expand their operations. By the end of 2010, several major units including Yakult Danone India, Unique Fragrances started their operations at the park. Besides the above, a number of small units had also started production activities. Several other big players like Aditya Birla Retail Ltd, Reliance Retail Ltd, and Bikanerwala Foods Pvt Ltd. also followed suit and established their units in the park. Currently, Rai industrial area comprises of approx 125 MSMEs and large units engaged in food processing activities. Majority of units are engaged in processing of pulses and cereals and manufacturing of related food products.

1.4 Geographical Traits

The district of Sonipat is bounded by 28° 48'15" to 29° 17'10" North latitude and 76° 28'40" to 77° 12'45" East longitude. The total area of district is 2,260 sq km, covering 5.11 % area of the state. The district headquarter, Sonipat is connected by metalled roads with important cities of the state and to Delhi. It is also connected by broad

gauge railway line with Delhi and Chandigarh. Gohana, Ganaur, Rai & Kundli are the other important towns in the district.

1.5 Demographic Trends and Economic Structure

According to the 2011 census, the total population of the district as per 2011 census is 1,450,001 of which male and female were 781,299 and 668,702. The district has a population density of 683 per square kilometre.

The existing area under industrial use is developed by HSIIDC. The Food Park Rai is also developed by HSIIDC.

2. Sector Overview

In the simplest of terms, food processing can be defined as the set of methods and techniques used to transform raw ingredients into food or food into other forms for consumption by humans or animals. Food processing typically takes clean, harvested crops or slaughtered and butchered animal products and uses these to produce attractive, marketable, and often long-life food products.

Segment wise, the domain of food processing is quite broad & diverse. From simple cleaning and packaging of food grains to manufacturing of value added products like beverages, packaged foods, it is food processing all around. The major segments of food processing have been illustrated in figure 3 as below.



Figure 2 Major Segment of Food Processing

In fact, the food processing sector is one of the world's largest from the perspective of the number of companies involved in the sector, as well as in terms of its total economic value. The global as well as the national scenario have been discussed in the following sections.

2.1 Brief Global Scenario

Despite the global economic downturn, the global food processing industry continues to grow appreciably due to rising demand for pre-packaged food. The food processing industry includes a diverse group of companies involved in the processing of products like fish, meat, milk, crops and water. It includes millions of Small & Medium Enterprises (SMEs) worldwide and also some of the largest companies in the world. Many of these companies deliver products directly to consumers, while others specialize in Business-to-Business activities (ingredients, commodity markets). The food processing is one of the

largest contributors to the world's GDP. In 2016, the global food processing market was valued at approximately US\$ 4,601 billion, constituting around 5.4% of the world's GDP. The revenues are expected to reach \$4.675 trillion by 2017 given a year-on-year growth of 1.6%. Despite the large size of the industry, only 6% of the processed food is traded the world over as compared to bulk agricultural commodities where 16% of produce is traded. The food processing sector has seen substantial growth in developing economies with increase in GDP, per capita income and the resultant changes in lifestyle. Organized retailing and availability of better processing technologies too have contributed to the accelerated growth of the sector. In a global comparison, EU food and drink industry ranks first in terms of turnover, ahead of China and the US. Altogether, these countries generate 59% of the world's food and drink turnover. EU is the no. 1 exporter of the food & drinks products, constituting about 18% of global exports of food & drinks. USA is the top importer, with value of imports reaching about US\$ 96 billion in 2014. Countries such as Indonesia, India and Malaysia have grown in importance & contribute greatly to the global food trade². The top importing as well as exporting nations have been illustrated in Figure 4.

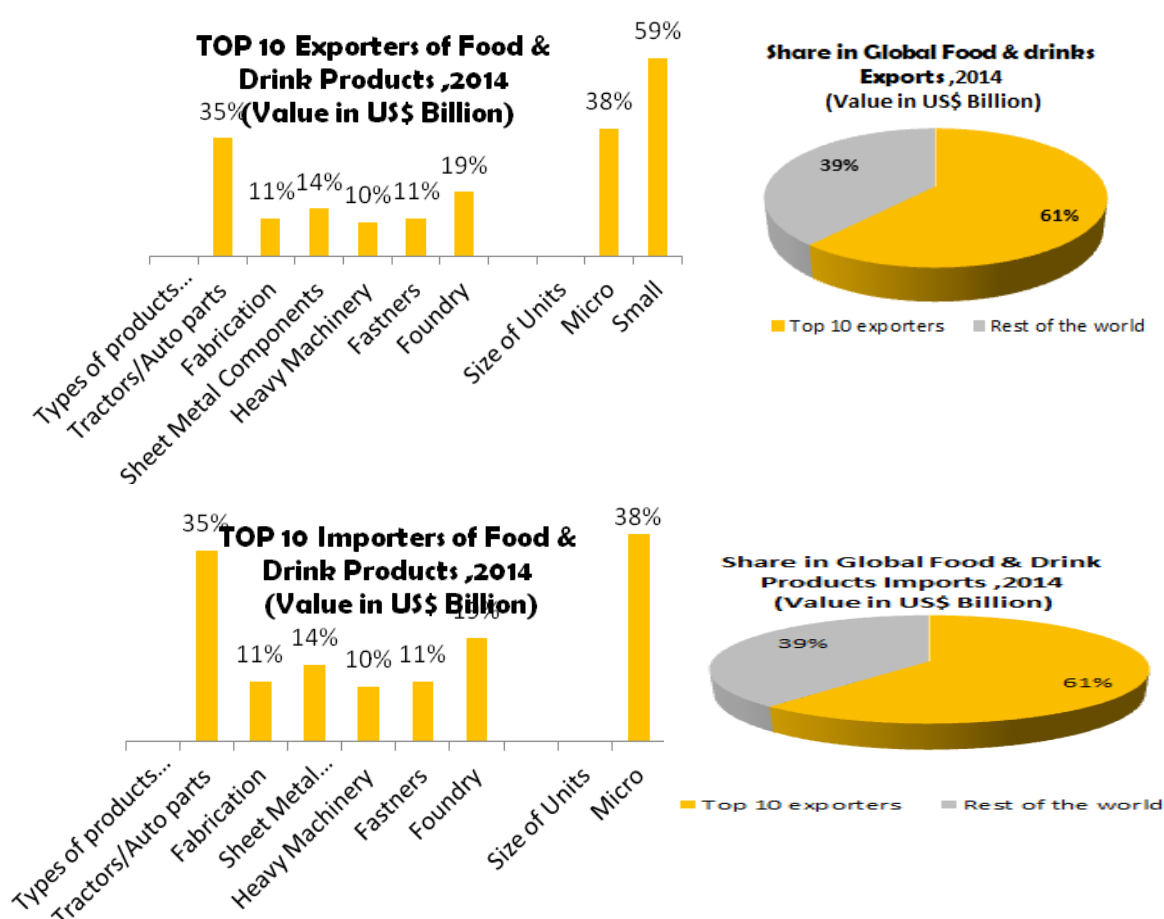


Figure 3 Top Importing & Exporting Nations

2.2 India Scenario

India is one of the largest producers of agricultural products in the world, owing to diverse agro-climatic conditions, abundant livestock & cost competitiveness. India ranks No. 1 in the world in production of milk (fresh, whole, buffalo), pulses, ginger, chick peas, bananas guavas, papayas and mangoes. Further, India ranks no. 2 in the world in production of rice, wheat, potatoes, garlic, cashew nuts, groundnuts, dry onion, green peas, pumpkins, gourds, and cauliflowers. With such a huge production base, it comes as no surprise that food processing sector has become one of the significant contributors to the country's economy. The Food processing sector is one of the largest & ranks 5th in terms of production, consumptions & exports. As per the IBEF Data, the food processing market stood at around US \$258 billion. With growth drivers namely increasing demand for processed food, growing disposable income & urbanisation, the market size for processed food is estimated to reach US\$482 billion around 2020. The food processing industry (FPI) constitutes more than 8% to India's GDP through manufacturing. The sector also adds 8.39 %to the GVA of Agriculture sector. In addition, the sector is also one of the largest employment generators. As per MoFPI data, Registered FP enterprises employ around 17.71 lakh people while unregistered enterprises provide livelihood to 47.92 lakh people. The organised sector is estimated to account for 58 per cent of India's food processing industry.

Grain mill products form the largest segment of Indian food processing sector with value of output reaching Rs. 1.75 lakh crore.

India's exports of Processed Food was Rs. 26,067.64 Crores in 2015-16, which includes the share of products like Mango Pulp (Rs. 796.17 Crores), Dried and Preserved Vegetable (Rs. 914.21 Crores), Other Processed Fruit and Vegetable (Rs. 2,900.33 Crores), Pulses (Rs. 1,603.22 Crores), Groundnuts (Rs. 4,046.05 Crores), Guar gum (Rs. 3,233.87 Crores), Jaggery & Confectionary (Rs. 1,289.26 Crores), Cocoa Products (Rs. 1,266.99 Crores), Cereal Preparations (Rs. 3,341.31 Crores), Alcoholic and Non-Alcoholic Beverages (Rs. 2,005.13 Crores) and Miscellaneous Preparations (Rs. 2,593.49 Crores) 5.

2.3 Cluster Scenario

The district of Sonapat got an industrial boost with establishment of Atlas Cycle industries (the first large scale enterprise in the region) in Sonapat during 1952. Also, for assisting the entrepreneurs who did not want to make heavy investment in factory building, the government setup the two major Industrial estates: one in Sonapat (1962) and one in Rai (1964). Owing to the measures of the government as well as the establishment of Industrial estates, a number of small-scale and large-scale industries connected with bicycle parts, assembling of complete bicycle, sewing machine parts, bolts and nuts, steel re-rolling, glass, ceramics, rubber goods, food processing and cotton textiles sprang up all over the region. In the 1960s, the onset of green revolution, progress in dairy farming, and increase in agricultural production provided an impetus to the growth of agro-based & agriculture oriented industries in the region. Subsequently, the region witnessed a

transition from agriculture to industrialization. The Haryana government also undertook several initiatives to promote industrial development in the region. The state ensured creation of massive infrastructure in terms of complete electrification, provision of road transport and expansion of administrative, educational and health facilities in small towns. Consequently, Sonipat became a major industrial hub with presence of a large number of industries across various segments such as dairy, food processing, rice milling, pharma, plastic, agriculture implements and so on. The region along the NH 1 particularly witnessed tremendous growth of the food processing industries during the late 90s. MoFPI, around the same time, came up with the scheme to establish food parks all over the country to accelerate the growth of Indian food processing sector. Under the MoFPI's food park scheme, a sprawling 116-acre food park was approved to be setup in the FY 2001-02 in Rai Industrial area. Around the same period, Food processors in Delhi were finding it very difficult to expand the operations in the city's prominent industrial regions due to paucity of space, increase in real estate prices and surge in labour costs. Rai Food Park's proximity to Delhi and lower land costs made it an attractive location for the processors to expand their operations. By the end of 2010, several major units including Yakult Danone India, Unique Fragrances started their operations at the park. Besides the above, a number of small units had also started production activities. Several other big players like Aditya Birla Retail Ltd, Reliance Retail Ltd, and Bikanerwala Foods Pvt Ltd. also followed suit and established their units in the park. Currently, Rai industrial area comprises of approx 125 MSMEs and large units engaged in food processing activities. Majority of units are engaged in processing of pulses and cereals and manufacturing of related food products.

A dense, hand-drawn illustration in white ink on a dark background, representing various aspects of entrepreneurship and business growth. The central theme is "Entrepreneur" and "GALA WORLD". Other elements include "celebrate", "creative options", "growth", "passionate", "idea", "lightbulb", "globe", "trophy", "party", "money", "chart", "map", "building", "car", "plane", "star", "heart", "arrow", "cyclical diagram", "lightbulb", "globe", "trophy", "party", "money", "chart", "map", "building", "car", "plane", "star", "heart", "arrow", "cyclical diagram".

3. Diagnostic Study Findings

The diagnostic study was undertaken in the cluster during June 2017 to map the existing business processes in the cluster, identify the gaps, and understand the requirements of the cluster. The diagnostic study report (DSR) was compiled by EY PMU with inputs from cluster SPV in close coordination with the DIC, Sonipat, with inputs from NIFTEM and Punjab National Bank. The awareness level of the cluster units (on new food technologies, cluster development initiatives, etc.) was found to be low. Additionally, it was observed that most of the cluster units deploy obsolete technologies for testing and are unable to meet the requirements of the market due to lack of availability of NABL Testing Lab.

The DSR was presented to the State Level Steering Committee (SLSC) in its first meeting on 16th August 2017 and was subsequently approved. The minutes of the SLSC highlighting the approval of DSR and permission to undertake the Detailed Project Report (DPR) are provided in Annexure 1. The SPV was granted permission to go ahead with preparation of DPR for the cluster. The DPR has been validated by the Director Industries & Commerce, Haryana on 25th October 2017 and was approved for upcoming SLSC. The major findings of the DSR are presented below:

3.1 Cluster Actors and their role

The primary stakeholders in the cluster are the food grain processors based in Food Park, Rai Industrial area. The other stakeholders include the major industry association i.e. **Dal Millers and Food Processors Manufacturers Association (DMFPA)**, government agencies (mainly DIC Sonipat), MSME-DI Karnal, regulatory bodies, raw material suppliers, and academic/training institutes. These cluster actors provide various services to the cluster units. Some of the major cluster actors located in and outside the cluster and catering to the units of the region are mentioned below:

A. Government Bodies

► District Industries Centre (DIC), Sonipat

DIC is the most important government stakeholder for the cluster. The office of DIC comes under the Dept. Of Industries and is headed by General Manager who is assisted functional managers and technical field officers. DIC promotes and routes subsidy to micro and small enterprises in the region. The Mini Cluster Scheme under which the units want to set up a CFC will also be implemented through the DIC office in Sonipat. The Sonipat DIC is actively promoting cluster development in the district and also helps the local units register under Udyog Aadhar Memorandum (UAM). It would play a key role in formulation of the Food Processing units SPV.

► **MSME-Development Institute, Karnal**

MSME - Development Institute, Karnal is a field office of the Development Commissioner (MSME), Ministry of MSME, New Delhi, which is an apex body for formulating, coordinating and monitoring the policies and programmes for promotion and development of MSMEs in the country. MSME -DI provides a wide range of extension / support services to the MSMEs in the state and the Director is a member in State Level Steering Committee.

► **Haryana State Infrastructure & Industrial Development Corporation (HSIIDC)**

HSIIDC is a major agency in the State to promote the setting up and promotion of small, medium and large scale industrial units. The Corporation also acts as a State-level financial institution and provides long term loans for industrial projects. The important activities of the Corporation are:

- Development of industrial areas/ estates
- Helps entrepreneurs on matters such as securing registrations/ licences/ clearances from the statutory/other authorities.
- Provision of term-loans

► **Haryana Urban Development Authority (HUDA)**

HUDA is the urban planning agency of the state of Haryana in India. It was established in 1937. It plays a key role in land development and execution of development works like roads, water supply, sewage, and drainage etc.

► **National Small Industries Corporation (NSIC) Chandigarh**

National Small Industries Corporation (NSIC) was established in the year 1955 with a view to promote aid and foster growth of small industries in the country. Sonipat industry is served by the NSIC office in Panipat. It provides diverse services to MSMEs in Sonipat such as:

- Helps entrepreneurs in purchasing machinery and equipment
- Equipment leasing and working capital finance
- Information on technological up gradation
- Composite loan scheme and export assistance

B. Industry Associations

► **Dal Millers and Food Processors Manufacturers Association (DMFPA)**

The major association and the key stakeholder of Rai food grain processors cluster is Dal Millers and Food Processors Association .It has members drawn from large as well as MSMEs engaged in processing of pulses like green gram, chickpeas, pigeon peas , lentils and manufacturers of agro products namely besan (gram flour) etc. The Association provides information about the emerging trends in the pulse processing industry to its members and supports studies to constantly understand the changing eating preferences of the citizens. The association has 40 members comprising of mix of MSMEs and large players.

C. Educational Institutes

► **National Institute of Food Technology and Entrepreneurship Management (NIFTEM), Sonipat**

National Institute of Food Technology Entrepreneurship and Management (NIFTEM) is a premier institute under the Ministry of Food Processing Industries. It extends support to entrepreneurs on new trends in food packaging, food processing technologies and food standards. The institute acts as a centre of excellence and an apex world class centre of global standards in the area of food technology and management. It caters to the needs of various stakeholders such as entrepreneurs, industries, exporters, policy makers, government and existing institutions. Experts from NIFTEM shall be consulted at the DPR stage for finalization of hard interventions to be proposed under the project. The experts shall also be invited as faculty to the capacity building programs that shall be organised in the Rai Cluster.

► **Industrial Training Institute (ITI)**

Industrial Training Institute is running several courses to equip candidates on skills required by local industries. It is conducting special courses in the mechanics, machine operations that comes in handy while working with equipment used in food processing sector.

D. Banks / FIs

► **Haryana Financial Corporation (HFC)**

Haryana Financial Corporation, based in Chandigarh was promoted jointly by the Government of Haryana and the Industrial Development Bank of India (IDBI). HFC has been approved by SEBI as a category-I merchant banker. The corporation's activities include merchant banking, trade finance, lease finance and term lending. The corporation has diversified its range of financial services to include no-fund-based assistance in the form of guarantees, letter of credit and forex services. The DPR for the project shall be appraised by HFC.

► **Small Industries Development Bank of India (SIDBI)**

SIDBI is the apex financial institution responsible for the growth and development of the MSME sector. Almost all the government subsidy schemes and bilateral lines of credit are implemented through SIDBI. Sonipat industry is catered through the SIDBI regional office in Chandigarh.

► **Punjab National Bank, Sonipat**

Punjab National Bank is the lead bank of the Sonipat district and many local food processing units have a banking relationship with Punjab National Bank.

E. Leading Manufacturers

Some of the leading processors in Rai include Rajdhani Flour Mills Ltd, GPA Foods Pvt. Ltd., Tirupati Food Industries Pvt. Ltd., and Tirupati Balaji Mills Pvt. Ltd and so

on.

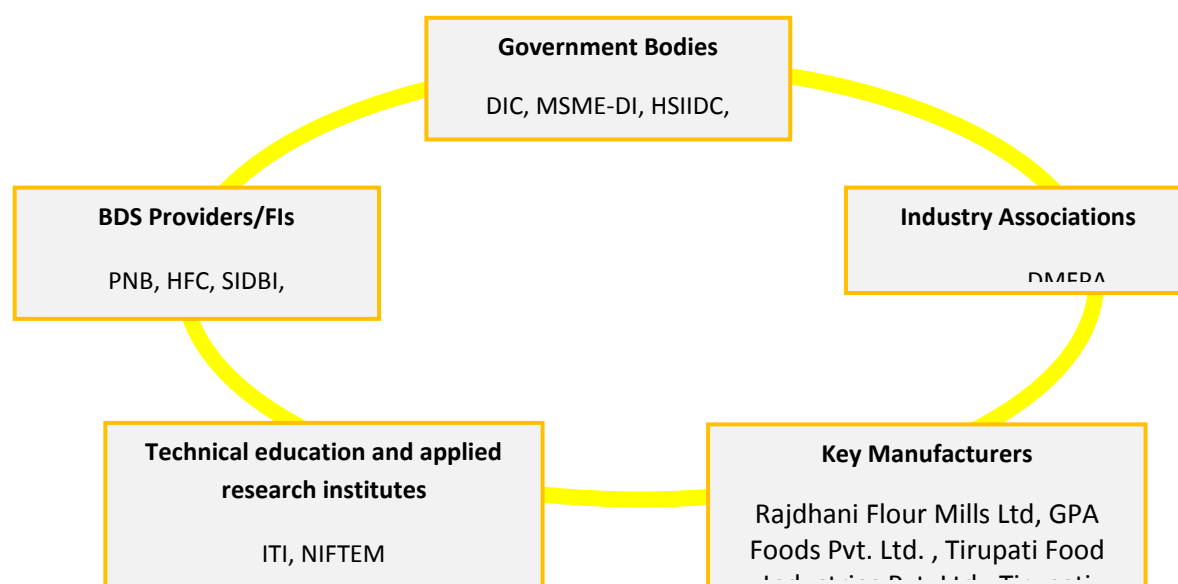


Figure 4: Key Cluster Actors

3.2 Cluster Turnover, Market and Employment

The cumulative annual turnover of the Rai food processing cluster is estimated to be around INR 4000 crores. On the average, the micro units produce 5000 Metric tonne per annum of pulses. On the other hand, small and medium pulses processing units, on average produce around 7000 Metric Tonnes and 10000-15000 Metric Tonnes. The units in the cluster cater mainly to domestic markets. Due to ongoing ban on export of several varieties of pulses by Govt. of India, the processed pulses by the units are ineligible for international trade. However, Kabuli chana (Bengal gram) is exempted from the ban and hence eligible for exports to other countries.

The small & medium units produce for large manufacturers, retailers as well as the open market. Some of the large players which the cluster caters to include Patanjali, Adani Wilmar, Haldiram's , Reliance Retail Ltd , Aditya Birla Retail, Future Retail Limited, PepsiCo India Holdings Pvt. Ltd. , Bikanervala Foods Pvt. Ltd, Tata , Vishal Mega Mart , Bharti Wal-mart Pvt. Ltd , Victoria Food Pvt. Ltd etc. Some of the units also cater to Govt. supply chains like Kendriya Bhandar, NAFED (National Agricultural Cooperative Marketing Federation of India)& Punjab State Civil Supply Corporation .

The cluster provides employment to about 1,000 persons for activities including unloading, machine operation, packaging, loading etc. On average, micro units employ approximately 10 people, small units in the cluster employ approximately 20 people and the medium units provide livelihood to approximately 45 people. Males and females are employed in equal numbers.

3.3 Production Process

The units in the cluster are engaged in various activities across the value chain of Food grain processing. The units are predominantly involved in two types of processing of Pulses:

- ▶ **Primary Processing:** Primary Processing relates to conversion of raw agricultural produce into a commodity that is fit for human edible and has commercial value, then its consumption. It involves steps such as food cleaning, grading, sorting, packaging. Packaged Pulses come under this domain
- ▶ **Secondary Processing:** It refers to the conversion of products of primary processing into other edible products. In other words, it is the process of value addition in primarily processed products. For e.g. Besan manufacturing falls under this category.

The flow chart of processing of green gram (moong, which is the most common cluster product) is shown in figure 5.

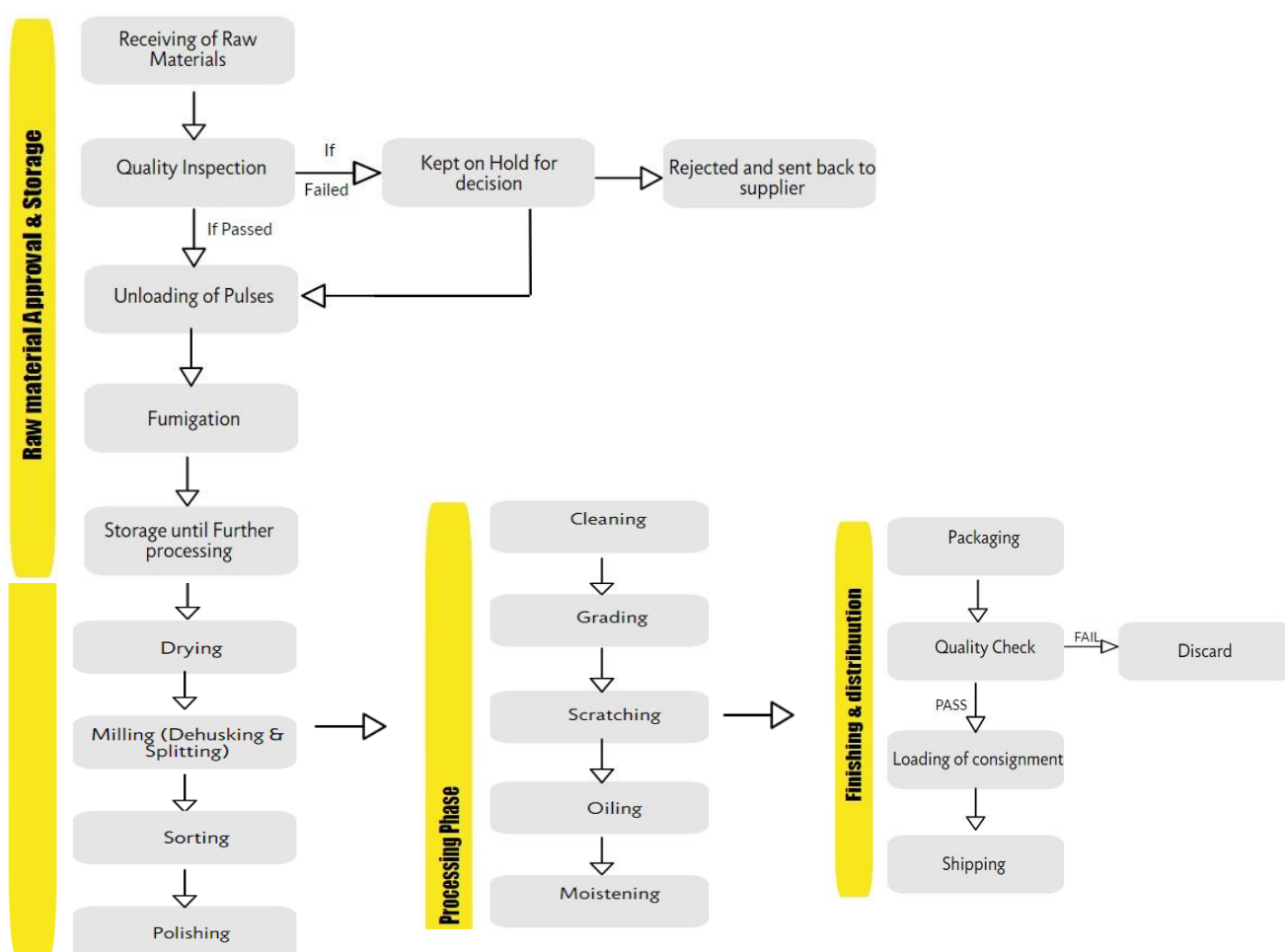


Figure 5: Modern Method of Baking

As detailed in figure 5, Processing of Pulses involves the following steps:

1. Raw Material Approval & Storage :

- i. **Receiving of Raw materials:** The Units receive the packaged raw materials i.e. pulses etc. from the suppliers (APMC Markets).The repacking units may also receive the processed material, for e.g.besan for further cleaning, grading and repacking.
- ii. **Quality Inspection:** The samples from raw materials are withdrawn and subjected to Physico-chemical examination (analysis of Physical & chemical properties) as well as Microbiological examination.
- iii. **Unloading:** If Quality Inspection is satisfactory, the raw material is unloaded and stacked in unloading bay.
- iv. **Fumigation:** Fumigation is the method of pest control through the usage of gaseous pesticides. Gases like phosphine are used for fumigation purposes. The fumigation process is done for about 7 days.
- v. **Storage:** After fumigation, the raw material is stored in silos until further processing.

2. Processing Phase :

- vi. **Cleaning :** In this process , the insect affected grains, chaff and the foreign matter as sand, seeds, pieces of iron, etc. are separated from raw pulses
- vii. **Grading:** this process takes place simultaneously with cleaning process. In this, the grains as well as impurities get classified according to size. The coarse and fine impurities are classified and removed.
- viii. **Scratching:** In this process, husk (coating of seed) is cracked and scratched. This is to facilitate the subsequent oil penetration process for loosening of husk
- ix. **Oiling:** The scratched pulses are passed through a screw conveyor and mixed with some edible oil like linseed oil. The oil penetrates into the pulse and facilitates dehusking process.
- x. **Moistening:** After having soaked in the oil, then water is added to the material. The main object of mixing water with the material is to cause the slight swelling of the individual kernel
- xi. **Drying:** Drying is done at the temperatures ranging from 50 degrees to 80 degree Celsius. Drying can be achieved through sun drying or machine dryers. The drying of the material helps to loosen the husk and the material becomes ready for milling.
- xii. **Milling (Dehusking & Splitting):** After drying, the material is passed for milling for splitting the pulse into two halves and for removal of the husk (Dehusking).The huller machine is utilised for this purpose. The whole process is repeated 2 to 3 times until the remaining pulses are dehusced and split.

- xiii. **Sorting :** In this process, pulses at varying capacity requirements are examined by sorter machine, efficiently removing spot defects, discolorations & foreign material such as sticks, stones and mud balls
- xiv. **Polishing :** The process involves removing the dust or loose small particles and irregularities from the surface of the pulse , thereby giving the shine to pulse grain

3. Distribution

- xv. **Packaging:** Processed Pulses are packaged by multi head weigher FFS (form fill seal) machine.
- xvi. **Quality Check:** Quality of final product is checked. Various examinations like Drop test , sealing , Checking of TTO Coding are done
- xvii. **Loading of consignment:** The finished packaged products are packed in secondary bags and moved to loading bay.
- xviii. **Shipping:** The products are shipped to retailers as well as grain markets.

The images of production process have been illustrated as follows.



Quality checking of raw materials



Unloading



Fumigation in process



Storage

3.4 Value Chain Analysis

Moong dal (split) is the most widely produced food product by the units of cluster. The value chain analysis of the same is provided in table 1

Note: Normally, the yield of Final moong dal (split) is around 70%.i.e. 100 kg of Green Gram will yield 70 kg of moong dal (split)

So, to produce 100 kg of Moong dal (split), green gram required= $(100/70)*100 = 143$ kg

i.e. 143 kg of green gram will yield 100 kg of (moong dal split)

Table 1: Value Chain Analysis of Moong Dal¹

Particulars	Value Added	Total Value (INR)	% of cost of production
Raw Material (143 kg Moong @ Rs.50/kg)		7150	93
Processing (cleaning , grading , milling)	62	7212	1
Labour	11	7223	0.1
Electricity	53	7276	0.6
Quality testing	215	7491	2.8
Overheads	69	7560	0.8
Packaging	35	7595	0.4
Selling/Marketing & Transportation	105	7700	1.3
Total Production Cost (Rs.)			7700
Profit Margin in Rs. (4%)			308
Selling price in Rs.			8008

The value chain analysis has been prepared based on the stakeholder consultation. It can be observed that the raw materials amount to 93% of total production cost. Also, it can be seen that quality testing amounts to approx. 2.8% of total cost. Post the implementation of the CFC, thorough quality testing of raw material would enable the units to reject the inferior quality material. Consequently, it would help the units to procure high quality raw material which will reduce the wastages and increase the yields of final product. The CFC will also help in reduction in costs related to quality control. Moreover, production delays

¹ Source: Stakeholder Consultation inputs

will be avoided thereby reduction in piling up of overhead costs. In a nutshell, the competitiveness of units can be improved by targeting these aforementioned cost centers.

3.5 Strengths, Weaknesses, Opportunities and Threats (SWOT) Analysis

A SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis of the MSME units in the cluster is carried out keeping in mind the technology, marketing, product quality, skills, inputs, innovation, business environment and energy/environment compliance of the units. The SWOT analysis provided in table 2:

Table 2: SWOT analysis of the cluster

Area	Current situation		Future	
	Strengths	Weaknesses	Opportunities	Threats
Market	<ul style="list-style-type: none"> ▶ Steady domestic demand for cluster products ▶ Cluster located within Rai Industrial Estate, which is well connected ▶ Cluster located in the proximity of Delhi which is a major supply hub ▶ Presence of a large number of buying houses in the region 	<ul style="list-style-type: none"> ▶ Presence of other large players to whom bulk orders are made ▶ Units are unable to price their product competitively due to higher costs involved in quality testing and cut-throat competition 	<ul style="list-style-type: none"> ▶ Rising population, income levels and increasing urbanisation are driving growth of the domestic market ▶ Potential to price products competitively with acquisition of technology. 	<ul style="list-style-type: none"> ▶ Intense competition from Industries located nearby in Kundli as well as Delhi
Technology/ Product Quality	<ul style="list-style-type: none"> ▶ Units are FSSAI certified ▶ A good no. Of small and medium scale units in the cluster possess automatic machinery, thus labour requirement is less ▶ Some units have ISO certifications 	<ul style="list-style-type: none"> ▶ Absence of NABL certified testing lab facilities in the cluster ▶ Lack of adoption of lean manufacturing practices ▶ No regular food safety & security audits practiced ▶ Lack of R&D at unit level 	<ul style="list-style-type: none"> ▶ Setting up of CFC with equipment for testing of raw materials and finished products, resulting in units being able to obtain these services at lower costs and price their products competitively 	<ul style="list-style-type: none"> ▶ Increase in cost of production ▶ Increase in awareness of people on quality certifications shall lead to losing out to business / requirement for more stringent testing procedures

Area	Current situation		Future	
	Strengths	Weaknesses	Opportunities	Threats
		<ul style="list-style-type: none"> ▶ Limited interaction of units and machine suppliers ▶ Poor resource efficiency / higher energy consumption due to non-implementation of energy management 	<ul style="list-style-type: none"> ▶ Adoption of lean manufacturing practices like kaizen , 5S 	
Skill/Manpower	<ul style="list-style-type: none"> ▶ Less requirement of labour as compared to other sectors ▶ Presence of premier technical institute, NIFTEM at Kundli (distt. Sonipat) 	<ul style="list-style-type: none"> ▶ Lack of interaction between SMEs and technical institutes for providing technical training ▶ No mechanism to mobilize regional youth for training in the sector 	<ul style="list-style-type: none"> ▶ Customized training programs on required skills (operations, soft skills etc.) ▶ Engage technical institutes for skill development programs ▶ Engage a local NGO to mobilize regional youth for training 	<ul style="list-style-type: none"> ▶ Youth interested to work in other lucrative sectors ▶ Big companies such as Aditya Birla retail ltd. attract the labour
Inputs	<ul style="list-style-type: none"> ▶ Availability of raw materials from APMC Markets all over the country ▶ Availability of web portal displaying prices and sources of food grains (e-NAM). ▶ Availability of processed material from a no. of food processing industries in 	<ul style="list-style-type: none"> ▶ No Direct procurement of food grains from local farmers due to APMC act provisions ▶ Fluctuations in price and quality of raw materials 	<ul style="list-style-type: none"> ▶ Amendments in APMC act have been proposed to enable units to procure materials directly from farmers 	<ul style="list-style-type: none"> ▶ Cost of power in India is, on average, higher than key competing countries like China, Bangladesh, Vietnam ▶ 4 hours or more long electricity supply cuts experienced on regular basis

Area	Current situation		Future	
	Strengths	Weaknesses	Opportunities	Threats
	Delhi for repacking units			
Innovation	<ul style="list-style-type: none"> ▶ Ability to manufacture products as per the manufacturers specifications 	<ul style="list-style-type: none"> ▶ Lack of a standardised ERP solution for food processing units ▶ Lack of process automation on micro level ▶ Less enthusiasm for production of organic pulses and food products 	<ul style="list-style-type: none"> ▶ Development of a standard IT based ERP solution ▶ Structured processes for information sharing among SMEs in the cluster ▶ Production of organic pulses ,eligible for exports, can fetch higher prices 	<ul style="list-style-type: none"> ▶ Reluctance to share information on innovation between units
Business Environment	<ul style="list-style-type: none"> ▶ Steady domestic demand ▶ Cluster located in a food park ▶ Conducive policy and regulatory initiatives ▶ Active State Govt. and schemes for development of the sector 	<ul style="list-style-type: none"> ▶ Lack of knowledge of regulatory frameworks and government schemes among micro level units ▶ High cost of industrial land in the cluster ▶ Lack of common infrastructure/CFC facilities ▶ No long term vision of industrialists ▶ Units in the Region not exempted from APMC Cess ▶ Less active associations 	<ul style="list-style-type: none"> ▶ Establish CFC with latest technologies for testing of raw materials and final products ▶ Create better awareness of government schemes and regulations ▶ CFC will also provide common infrastructure to the association, this making it more productive. 	<ul style="list-style-type: none"> ▶ Change in policies and regulatory environment ▶ Increase in land rates
Energy/Environment	<ul style="list-style-type: none"> ▶ Availability of CETP in the area 	<ul style="list-style-type: none"> ▶ Lack of knowledge of energy efficiency resulting in higher energy 	<ul style="list-style-type: none"> ▶ Regular checks on maintaining quality and safety standards 	<ul style="list-style-type: none"> ▶ Increase in power tariff ▶ Increased focus on environment standards

Area	Current situation		Future	
	Strengths	Weaknesses	Opportunities	Threats
		<p>consumption</p> <ul style="list-style-type: none"> ▶ High energy cost structure because of lack of efficient processes ▶ High usage of fossil fuels (diesels) ▶ No energy auditing 	<ul style="list-style-type: none"> ▶ Potential to reduce energy costs by energy auditing ▶ Creating awareness about energy efficiency , for instance, usage of solar energy and biomass energy 	<ul style="list-style-type: none"> ▶ High energy related costs

3.6 Major Issues / Problem Areas of the Cluster

The key problems cluster related problems identified are:

- ▶ **Absence of Microbiological testing facilities:** As per the FSSAI norms and regulations, the food products must be tested for the presence of certain micro-organisms. The raw material may contain several microbes like E.Coli, Salmonella, and Mycotoxins producing organisms that pose threat to the health of consumers. Therefore, microbiological analysis is quite important.

Through the field visits, it was observed that facilities to undertake microbiological analysis and examination are absent in cluster units. The cluster units lack the facilities and equipment required, namely clean rooms, laminar air flow, Incubators etc. So, to get the raw materials & products checked, samples have to be send to the private labs which charge high prices.

- ▶ **Lack of availability of certain modern equipment for physicochemical analysis:** It was also observed that the units lack certain state-of-the-art modern equipment to carry out physio-chemical evaluations like Pesticide content analysis, Mycotoxins analysis, uric acid analysis etc. again in this case, private labs have to be contacted for sample analysis leading to production delays.

Due to non-existence of these facilities, the units face frequent production delays, cost inefficiencies and material wastages. These facilities if provided through CFC in the cluster with government support will help the units become more competitive and move up the value chain.

3.7 Key technologies missing

The technological gaps on various fronts that the CFC proposes to target, along with scope and illustration of major facilities is provided in table 3.

Table 3: Rationale for hard interventions

Technology gaps	Proposed technology interventions
Microbiological testing Lab & Chemical Testing Lab	
<ul style="list-style-type: none"> ▶ Absence of a microbiological testing facility is a challenge since no big player buys products without certification of quality parameters. This further leads to limitations in market expansion in the absence of quality certificates. ▶ As per the law, various tests need to be conducted by the food processing units. 	<ul style="list-style-type: none"> ▶ As per the FSSAI norms and regulations, the food products must be tested for the presence of certain micro-organisms, making microbiological analysis is quite important. Therefore, presence of certified microbiological & chemical testing lab in the cluster shall ensure the required product certification, quality check and enable cluster

<p>Through the field visits, it was observed that facilities to undertake microbiological analysis and examination are absent in cluster units.</p> <ul style="list-style-type: none"> ▶ The raw material may contain several microbes like E.Coli, Salmonella, and Mycotoxins producing organisms that pose threat to the health of consumers. This makes microbiological testing crucial. ▶ In addition, cluster units lack the facilities and equipment required, namely clean rooms, laminar air flow, Incubators etc. So, in order to get the raw materials & products checked, samples have to be dispatched to the private labs that charge high prices. ▶ Often, the finished product is rejected at the customer end. The lack of a microbiological testing lab also results in production delays and material wastage. 	<p>units to expand their market share and tie up with large buyers.</p> <ul style="list-style-type: none"> ▶ Testing and certification of products shall also increase the product credibility in terms of market acceptance. ▶ The testing lab facility in the cluster shall run on a commercial basis and provide testing facilities to cluster units for a range of products. With this facility, cluster units will be able to increase their production and sell their products to big players.
Modern equipment for physicochemical analysis	
<ul style="list-style-type: none"> ▶ The units lack state-of-the-art modern equipment to carry out physio-chemical evaluations like Pesticide content analysis, Mycotoxins analysis, uric acid analysis etc. Again in this case, private labs have to be contacted for sample analysis leading to cost escalation. ▶ Since the cluster units outsource the services to private labs located far off from the cluster, this often causes significant production delays as material needs to be sent to other locations for testing. 	<ul style="list-style-type: none"> ▶ By establishing a testing lab with modern equipment for physicochemical analysis, cluster units will be well-equipped to conduct the testing in-house without delay in production. The testing lab facility in the cluster shall run on a commercial basis and provide testing facilities to cluster units for a range of products.

3.8 Cluster growth potential

In the 1960s, the onset of green revolution, progress in dairy farming, and increase in agricultural production provided an impetus to the growth of agro-based & agriculture oriented industries in the region. Subsequently, the region witnessed a transition from agriculture to industrialization. The Haryana government also undertook several initiatives to promote industrial development in the region. Consequently, Sonipat became a major industrial hub with presence of a large number of industries across various segments such as dairy, food processing, rice milling, pharma, plastic, agriculture implements and so on. The region along the NH 1 particularly witnessed tremendous growth of the food processing industries during the late 90s. MoFPI, around the same time, came up with the scheme to establish food parks all over the country to accelerate the growth of Indian food processing sector.

Under the MoFPI's food park scheme, a sprawling 116-acre food park was approved to be setup in the FY 2001-02 in Rai Industrial area. Around the same period, Food processors in Delhi were finding it very difficult to expand the operations in the city's prominent industrial regions due to paucity of space, increase in real estate prices and surge in labour costs. Rai Food Park's proximity to Delhi and lower land costs made it an attractive location for the processors to expand their operations. By the end of 2010, several major units including Yakult Danone India, Unique Fragrances started their operations at the park. Besides the above, a number of small units had also started production activities. Several other big players like Aditya Birla Retail Ltd, Reliance Retail Ltd, and Bikanerwala Foods Pvt Ltd. also followed suit and established their units in the park. Currently, Rai industrial area comprises of approx 125 MSMEs and large units engaged in food processing activities. Majority of units are engaged in processing of pulses and cereals and manufacturing of related food products. Against this backdrop, if NABL Testing facilities are provided to micro-small units of the cluster under CFC mode, their production costs will reduce and they will be able to sell their product to big players.

[illegible]

4. Diagnostic Study Recommendations

Based upon the diagnostic study report and subsequent discussions with various cluster stakeholders and members of M/s Common Research & Research Analysis Pvt. Ltd. during formulation of this Detailed Project Report (DPR), a mix of hard and soft interventions are being proposed to enhance the competitiveness of the cluster units. These have to be undertaken with government support to ensure the survival and growth of the dal mill units in Rai. The recommendations for both soft and hard interventions have been elaborated in subsequent sections.

Cluster enterprises have also been undertaking several soft interventions (before, during and after the DSR) on their own and have been active in enhancing their awareness and exposure. The units have conducted several awareness programs and trainings in collaboration with DIC, Sonipat, and BDS providers. They have also conducted exposure visits to other developed clusters, participated in national exhibitions and facilitated UAM registrations.

4.1 Soft Interventions Recommended and Action Taken

1. Capacity Building and Awareness

Generation: One of the primary recommendations for soft interventions was to build the capacities of cluster units and generate awareness among stakeholders regarding cluster development (collective approach to address their issues) and benefits available to them in the form of cluster. In this regard, the cluster units had organized a series of workshops, the details of which are provided below:



- ▶ **Member Meetings:** Cooperation and trust building among members is foremost condition for smooth functioning of the cluster and SPV. A meeting was organized by cluster members during the month of 22nd July 2017 in Rai to enhance cooperation among member units and to obtain inputs for the DPR. Members of the cluster were informed about the registration of company for the cluster and identification of land for the CFC. Members of the cluster raised their concerns during the meeting which were resolved by other members of the cluster.



- ▶ **Awareness programme on GST:** On 22nd July 2017, Dal Millers & Food Processors association organised a seminar on GST in Common Research & Analysis Pvt. Ltd attended the programme to know about GST in details and after the workshop they were understand that tax category for their products.

4.2 Hard Interventions (Machines / Technology in the proposed CFC)

The food processing units in Rai need technological support to enhance their competitiveness. The units are reeling under bitter competition and low margins, and require testing lab machines and other related equipment to get their job work done and reduce their production costs. The following facilities are being proposed for the CFC, with support from the state industry department.

4.3 NABL accredited material testing lab

The cluster has no NABL approved testing lab for microbiological and chemical testing of the raw material and finished products. An NABL accredited lab for testing of raw materials/finished products is required.

The concept of Laboratory Accreditation was developed to provide a means for third-party certification of the competence of laboratories to perform specific type(s) of testing and calibration. National Accreditation Board for Testing and Calibration Laboratories (NABL) is India's national accreditation body for test and calibration laboratories. It is an autonomous body under the Department of Science & Technology and functions under the umbrella of Quality Council of India (QCI). Accreditation to a laboratory is given on the basis of its capability to perform test(s) / calibration(s) and provide accurate and reliable results. The major benefits of NABL accreditation are:

- Potential increase in business due to enhanced customer confidence and satisfaction.
- Savings in terms of time and money due to reduction or elimination of the need for re-testing of products.
- Better control of laboratory operations and feedback to laboratories as to whether they have sound Quality Assurance System and are technically competent.
- Increase of confidence in Testing / Calibration data and personnel performing work.
- Customers can search and identify the laboratories accredited by NABL for their specific requirements from the Directory of Accredited Laboratories.
- Users of accredited laboratories will enjoy greater access for their products, in both domestic and international markets, when tested by accredited laboratories.

The instruments proposed to be deployed are mentioned in table 4:

Table 4: Testing equipment proposed

S.No.	Name of Instrument	Usage and Description
1	Automatic Protein Analyser	Automatic protein analyser system enables laboratories to perform quantitative measurements of specific proteins in serum, plasma and food products samples.
2	GC with FID & ECD	FID is based on the detection of ions formed during combustion of organic compounds in a hydrogen flame. The generation of these ions is proportional to the concentration of organic species in the sample gas stream. Hydrocarbons generally have molar response factors that are equal to number of carbon atoms in their molecule, while oxygenates and other species that contain heteroatoms tend to have a lower. ECD is used for detecting electron-absorbing components (high electronegativity) such as halogen compounds in the output stream of a gas chromatograph. Carbon monoxide and carbon dioxide are not detectable by FID.
3	Potentiometer (Auto Titrator)	Potentiometer is a voltage measuring arrangement wherein a fraction of a known voltage from a resistive slide wire is compared with an unknown voltage by means of a galvanometer. The sliding contact or wiper of the potentiometer is adjusted and the galvanometer briefly connected between the sliding contact and the unknown voltage. The deflection of the galvanometer is observed and the sliding tap adjusted until the galvanometer no longer deflects from zero. At that point the galvanometer draws no current from the unknown source, and the magnitude of voltage can be calculated from the position of the sliding contact. This null balance measuring method is still important in electrical metrology and standards work and is also used in other areas of electronics.

S.No.	Name of Instrument	Usage and Description
4	Karl Fischer with Auto Titrator	KF Titrator uses coulometric or volumetric titration to determine trace amounts of water in a sample and is applied for determination of water content, residual water and water for crystallisation. The main compartment of the titration cell contains the anode solution plus the analyte. The anode solution consists of an alcohol (ROH), a base (B), SO ₂ and I ₂ . A typical alcohol that may be used is methanol or diethylene glycol monomethyl ether, and a common base is imidazole. The titration cell also consists of a smaller compartment with a cathode immersed in the anode solution of the main compartment. The two compartments are separated by an ion-permeable membrane.
5	UV visible Spectrophotometers	Ultraviolet visible spectrophotometers (often referred to as a UV Vis spectrophotometer or just a UV spectrophotometer) quantify the optical properties of samples in the ultraviolet and visible wavelength ranges of light (typically 190 to 900/1100 nm). Specifically, UV Vis spectrophotometers determine how much light of a given wavelength passes through a sample, and how much is absorbed. Such information can be diagnostic of molecular identity, concentration, structure, or activity, whether of organic species such as porphyrins, benzenes, and naphthalene, or of biomolecules like nucleic acids and proteins.
5	Analytical Balance	An analytical balance (often called a "lab balance") is a class of balance designed to measure small mass in the sub-milligram range. The measuring pan of an analytical balance (0.1 mg or better) is inside a transparent enclosure with doors so that dust does not collect and so any air currents in the room do not affect the balance's operation. Electronic analytical scales measure the force needed to counter the mass being measured rather than using actual masses. As such they must have calibration adjustments made to compensate for gravitational differences.
6	HAVC System for Microbiology Lab	Heating, ventilation, and air conditioning (HVAC) is the technology of indoor and vehicular environmental comfort. Its goal is to provide thermal comfort and acceptable indoor air quality.
7	Fumigator	It is a device used to generate a gas for the purpose of disinfecting or eradicating pests.
8	Anaerobic Jar	It is an instrument used in the production of an anaerobic environment. This method of anaerobiosis as others is used to culture bacteria which die or fail to grow in presence of oxygen (anaerobes).

S.No.	Name of Instrument	Usage and Description
9	Homogeniser	It is a device of laboratory or industrial equipment used for the homogenization of various types of material, such as tissue, plant, food, soil, and many others.
10	Hot Plate	In laboratory settings, hot plates are generally used to heat glassware or its contents. Some hot plates also contain a magnetic stirrer, allowing the heated liquid to be stirred automatically. It is used for preparing chemicals used in scientific research.
11	Digital Turbidity Meter	It measures the turbidity in liquids. Turbidity is the cloudiness or haziness of a fluid caused by large numbers of individual particles that are generally invisible to the naked eye, similar to smoke in air. In other words, the measurement of turbidity is a key test of water quality. Turbidity (or haze) is also applied to transparent solids such as glass or plastic.
12	Disintegration Apparatus	The disintegration test is performed to find out the time it takes for a solid oral dosage form like a tablet or capsule to completely disintegrate. The time of disintegration is a measure of the quality. The apparatus are used for determination, disintegration time of oral solid dosages. These apparatus are used to perform disintegration tests as per the pharmacopoeia standards.
14	Tap Density Apparatus	Tapped Density Apparatus is employed in order to measure and monitor tapped or bulk density of powder samples and compacts. The purpose of this instrument is to analyse, which powder sample does not meet the normal QC tapped density specification might disrupt the manufacturing process.
15	Digital Butyro Refractometer	It is a laboratory or field device for the measurement of an index of refraction (refractometer). The index of refraction is calculated from Snell's law while for mixtures, the index of refraction can be calculated from the composition of the material using several mixing rules such as the Gladstone-Dale relation and Lorentz-Lorenz equation.
16	Conductivity meter	Electrical conductivity meter measures the electrical conductivity in a solution. It is commonly used in hydroponics, aquaculture and freshwater systems to monitor the amount of nutrients, salts or impurities in the water.

S.No.	Name of Instrument	Usage and Description
17	Vortex Mixture	Vortex mixture is used to mix small vials of liquid which consists of an electric motor with the drive shaft oriented vertically and attached to a cupped rubber piece mounted slightly off-centre. As the motor runs the rubber piece oscillates rapidly in a circular motion. When a test tube or other appropriate container is pressed into the rubber cup (or touched to its edge) the motion is transmitted to the liquid inside and a vortex is created. In cell culture and microbiology laboratories they may be used to suspend cells. In a biochemical or analytical laboratory they may be used to mix the reagents of an assay or to mix an experimental sample and a dilutants.
18	Heating Mantle	Heating mantle or iso-mantle is a piece of laboratory equipment used to apply heat to containers, as an alternative to other forms of heated bath. Heating mantles may have various forms. In a common arrangement, electric wires are embedded within a strip of fabric that can be wrapped around a flask. The current supplied to the device, and hence the temperature achieved, is regulated by a rheostat. This type of heating mantle is quite useful for maintaining an intended temperature within a separator funnel, for example, after the contents of a reaction have been removed from a primary heat source.
19	Autoclave	Autoclave chamber is used to carry out industrial processes requiring elevated temperature and pressure different from ambient air pressure. Autoclaves are used in medical applications to perform sterilization and in the chemical industry to cure coatings and vulcanize rubber and for hydrothermal synthesis. They are also used in industrial applications, especially for composites, Many autoclaves are used to sterilize equipment and supplies by subjecting them to high-pressure saturated steam at 121 °C (249 °F) for around 15-20 minutes depending on the size of the load and the contents.
20	Digital Colony Counter	Digital colony counter is designed for quick and accurate counting of bacterial and mould colonies in petri dishes. It is designed to provide a rapid and accurate counting of bacterial and mould colonies.
21	Water Purification System	Water purification system is used to produce high pure analytical grade water. The system uses physical processes such as filtration, sedimentation, and distillation; biological processes such as slow sand filters or biologically active carbon; chemical processes such as flocculation and chlorination and the use of electromagnetic radiation such as ultraviolet light.

S.No.	Name of Instrument	Usage and Description
22	Micro-Filtration Assembly	It is a type of physical filtration process where a contaminated fluid is passed through a special pore-sized membrane to separate microorganisms and suspended particles from process liquid. It is commonly used in conjunction with various other separation processes such as ultrafiltration and reverse osmosis to provide a product stream which is free of undesired contaminants.
23	Multimode, Incubator & plate washer	Automated positioning improves intra and inter-plate reproducibility and minimizes inaccurate data while manual positioning allows the user more operational control. This device is used for enzymatic activity, bacterial growth studies, and fast kinetic assays.
24	Nitrogen Evaporator	Nitrogen evaporators are used to prepare samples for analysis. Samples are loaded into the nitrogen evaporator and then nitrogen blow down is used, sometimes in conjunction with heat, to rid the sample of moisture.
25	Homogenir IKA	Homogenizer instrumentation produces homogenous, uniform sample preparations for a variety of applications, including: particle reduction, emulsifications, reaction enhancements in chemical, pharmaceutical, and food research, tissue homogenization for biological and medical research, alcohol production, homogenization of marine samples for bacterial separation and heavy metal analysis.
26	Howard mould count	It is used for a correlation between the percentages by weight of visible rot in a given sample of tomatoes with the mould count of that sample, determined by microscopic examination.
27	Micropipette	Micropipettes are used to measure and deliver accurate volumes of liquid.
28	De-humidifier	It is uses a laboratory appliance which reduces the level of humidity in the air, usually for health or comfort reasons, or to eliminate musty odor.
29	Electrical Blender	It is laboratory appliance used to mix, purée, or emulsify food and other substances.
30	Calibrated Thermometer	It is periodically necessary to ensure that your temperature readings are correct, and thermometer calibration services give you the peace of mind that comes from knowing your critical temperatures are on-point.

S.No.	Name of Instrument	Usage and Description
31	Hygrometer	It is an instrument used for measuring the water vapour in the atmosphere. Humidity measurement instruments usually rely on measurements of some other quantity such as temperature, pressure, mass or a mechanical or electrical change in a substance as moisture is absorbed.
32	Flash point Apparatus	It is used for the purpose of determining the flammable point of a number of petroleum products.
33	Pulveriser Mill	A pulveriser or grinder is a mechanical device for grinding of different types of materials. For eg. a pulveriser mill is used to pulverize coal for combustion in the steam-generating furnaces of fossil fuel power plants.
34	Sieves shaker with stand	A sieve analysis (or gradation test) is a practice or procedure used (commonly used in civil engineering) to assess the particle size distribution (also called gradation) of a granular material. The size distribution is often of critical importance to the way the material performs in use.
35	Barcoding Instrument	This instrument is used to help laboratories automate the identification of slides, micro-well plates, tubes and other containers.
36	Biometric Attendance System	This machine used captures unique biological/physical feature such as hand or finger print, iris pattern and sometimes even voice as a record for identity verification and allows performing something that authorized to do.
37	Burner	It is a common piece of laboratory equipment that produces a single open gas flame, which is used for heating, sterilization, and combustion.
38	Magnifying Lenses	It is a convex lens that is used to produce a magnified image of an object. The lens is usually mounted in a frame with a handle.
39	Magnets	This magnetic field is invisible but is responsible for the most notable property of a magnet: a force that pulls on other ferromagnetic materials, such as iron, and attracts or repels other magnets. A laboratory tripod is a piece of three-legged equipment commonly used to conduct experiments in laboratories.
40	Sample Divider	A faultless and comparable analysis is closely linked to accurate sample handling. Only a sample representative of the initial material can provide meaningful analysis results. Rotating dividers ensure the representativeness of a sample and thus the reproducibility of the analysis.

4.4 Expected Outcome after Intervention

The project will be beneficial both for food processing units and the cluster as a whole. The setting up of the CFC is expected to generate the following benefits for the cluster units:

- ▶ Enhanced value addition for cluster products
- ▶ Significant reduction in cost of production and higher capacity utilization by each unit
- ▶ Higher degree of competitiveness of cluster enterprises
- ▶ Scope for the cluster to target new market segments by developing new and improved products
- ▶ The requirements of SPV members are adequate to utilize the capacity of the CFC. Nevertheless all cluster firms shall be encouraged to use the facility. Many micro unit entrepreneurs who could not afford to significantly contribute by way of necessary investment to the equity base of the project have also been accommodated even with low equity contribution
- ▶ The CFC will generate more job opportunities both at the cluster and individual unit level due to enhanced capacity utilization
- ▶ The CFC is also expected to enhance the levels of cooperation and joint-action amongst cluster stakeholders and SPV members to cooperate in other areas such as joint marketing initiatives, common raw material procurement and so on.
- ▶ It will also complement the efforts of state government in promoting clusters in the state and serve as a model for upgrading micro enterprise clusters.

Table 5: Expected Outcome of CFC

Area	Current Scenario	Expected Out Comes
Production Units	About 40 units	About 45 Units
Markets	Domestic open market as well as few large retailers.	The micro units can also sell products under their own brand name. clientele Base can also be broadened
Employment	About 1000	About 1100
Technology	<ul style="list-style-type: none"> • No NABL accredited testing lab in the cluster • Lack of modern equipment for microbiological & physico-chemical evaluation of products 	<ul style="list-style-type: none"> • Hi-tech accredited testing lab • Availability of high quality equipment for quality control

Production	<ul style="list-style-type: none"> • Material wastage • Delays • High costs 	<ul style="list-style-type: none"> • Less material wastage • Quick production • Competitive prices
Turn Over	About 4000 crores	Will increase to about 4300 crores in the first year, expected to subsequently increase by 10% each year

5. SPV for Project Implementation

The micro & small units at Cluster came together to form a Special Purpose Vehicle (SPV) as a private limited company under section 7 of the Companies Act, 2013 (18 of 2013) and rule 18 of the Companies (Incorporation) Rules, 2014. The SPV is named as '**Common Research & Analysis Private Limited**' with CIN U73100HR2017PTC071154. The SPV was registered on 16th October 2017. The certificate of registration along with Memorandum of Association (MoA) and Articles of Association (AoA) and PAN (Permanent Account Number) Card of the SPV are provided in **Annexure - 3(a) & (b)**. The company has an authorized paid up capital of Rs. 1.00 Lakh which shall be enhanced in the near future. The members are micro & small sized firms (registered units) involved in food related activities, predominately based in Rai food park area of Sonipat.

DIC, Sonipat and state government both played an important role in SPV formation by cluster stakeholders. The SPV includes about 12 members who are subscribing to the necessary equity base of the company. The SPV shall be open for new members to join and for the existing members to leave while maintaining a minimum member base of at least 10 at all times. The proposed CFC will be implemented on public-private partnership basis through SPV 'Common Research & Analysis Private Limited' by availing support from Government of Haryana (under EPP 2015) state mini cluster scheme.

The SPV members have a strong track record of cooperative initiatives. SPV members are also members of prominent cluster associations. Cluster members have been autonomously undertaking several soft interventions to enhance knowledge and exposure of the cluster units on new trends in food industry and enhancing productivity of their units as mentioned in the previous sections. These include exposure to cluster development initiatives in other clusters, registration under UAM and awareness programs on new trends in food industry, and new technologies in food industry. These programs were conducted in collaboration with DIC and BDS providers such as NIFTEM so on.

The SPV has conducted a series of stakeholder consultations (with various members, DIC, Sonipat and EY experts) during finalization of project components, selection of technologies and development of Detailed Project Report. The SPV has been instrumental in spreading awareness about cluster development under state mini-cluster scheme in Sonipat and has also helped in validation of findings and recommendations. It has kept the state government and the DIC Sonipat engaged during the entire period of development of DSR and DPR.

5.1 Shareholder profile and Shareholding mix

List of Directors: The SPV has three directors. The details of the directors are furnished in the table 6. Other than these directors, the SPV will have provision of having one director nominated by the state government. The SPV comprises members from small scale food units of Rai. It is homogeneous in nature due to similar products and activities performed by the cluster units.

Table 6: List of SPV Directors

S. No.	Director Name	Name of the unit	Unit address
1	Sanjay Gupta	Tirupati Industries Pvt. Ltd	586-587, HSIIDC Industrial Area, Rai
2	Anoop Goyal	Ram Swarup Dass Foods Pvt. Ltd.	503, HSIIDC Industrial Area, Rai

The lead promoters/ shareholders have several years of successful experience in production of food products and are also well versed with the benefits of cluster development initiatives. These units are financially viable in nature.

Members of the SPV have been engaged in production of food products (Dal, Besan) in Rai for several years. SPV directors/ members of the SPV also have considerable experience in marketing and processing of food products. Directors/members have been in close interactions with technical experts, government institutions and machinery suppliers. The DIC Sonipat also acknowledged the genuineness and enthusiasm of the SPV members to undertake project initiatives under state mini cluster scheme as well as verified the existence of the SPV members. The verified list is provided in **Annexure 4**.

The SPV was formed with the objective of taking up cluster level activity in a joint and coordinated manner, wherein all units have equal say. The shareholding pattern of members of the registered SPV includes the contribution from every member of SPV and no individual shareholder holds more than 10% equity stake in the capital of the company. Details of SPV members along with their contact persons, unit details, UAM numbers and products manufactured are provided in table 7.

Table 7: Details of SPV Members of Rai Food Processing Cluster

S.N.	Contact Person	Company Name	Address	UAM No	Products
1	Sanjay Gupta	Tirupati Foods Industries Pvt. Ltd.	586-587, HSIIDC FOOD PARK RAI INDUSTIRAL AREA SONEPAT (HR)	HR18B0000178	Dal & Besan
2	Akhil Goyal	GPA Foods Pvt. Ltd.	2262-2265, HSIIDC FOOD PARK RAI INDUSTIRAL AREA SONEPAT (HR)	HR18B0000099	Dal & Besan
3	Apoorav Singhal	Shri Niwas Pulses Pvt. Ltd.	442H&I, HSIIDC FOOD PARK RAI INDUSTIRAL AREA SONEPAT (HR)	HR18B0001177	Dal & Besan
4	Ajay Jindal	Tirupati Balaji Mills Pvt. Ltd	409, HSIIDC FOOD PARK RAI INDUSTIRAL AREA SONEPAT (HR)	HR18C0000097	Dal & Besan
5	Anoop Goyal	Ram Swarup Dass Foods Pvt. Ltd.	503, HSIIDC FOOD PARK RAI INDUSTIRAL AREA SONEPAT (HR)	HR18C0000097	Dal & Besan
6	Sunil Kumar Goyal	Rajat Pulses Pvt. Ltd.	495, HSIIDC FOOD PARK RAI INDUSTIRAL AREA SONEPAT (HR)	HR18B0002021	Dal & Besan
7	SK Jain	Rajdhani Flour Mills Ltd.	2248-2250, HSIIDC FOOD PARK RAI INDUSTIRAL AREA SONEPAT (HR)	HR18C0002314	Dal & Besan
8	Ajay Goenka	SS Food Industries	PLOT NO. 96, PHASE 4, HSIIDC KUNDLI (SONEPAT)	HR18B0000084	Dal & Besan
9	Mahender Mital	Manish Kumar Mohit Kumar	479, HSIIDC FOOD PARK RAI INDUSTIRAL AREA SONEPAT (HR)	HR18B002491	Dal & Besan
10	Kapil Mittal	Ankur Roller Flour Mills Pvt. Ltd.	573, HSIIDC FOOD PARK RAI INDUSTIRAL AREA SONEPAT (HR)	HR18B005112	Dal & Besan
11	Udit Jain	Victoria Foods Pvt. Ltd.	2251-2252, HSIIDC FOOD PARK RAI INDUSTIRAL AREA SONEPAT (HR)	HR18B002593	Dal & Besan

5.2 Initiatives undertaken by the SPV

As mentioned in detail in section 4.1 (Soft interventions recommended and action taken), the SPV members have proactively undertaken a lot of capacity building initiatives to promote the cooperation among cluster units and enhance knowledge and exposure of the units. These initiatives have been undertaken in collaboration with DIC, EY, DMFPWA, NIFTEM, etc. The major initiatives are:

- ▶ Pursuing initiatives in close coordination with DIC and other government agencies to facilitate understanding of cluster development, common procurement, marketing, available government support, latest technology for common facility etc.
- ▶ Exposure visits to trade fairs and machinery fairs for food processing in NCR and large factories in other locations to understand the technology, market requirement and available opportunities.
- ▶ Conducting various programs for capacity building, awareness generation and technological advancement in the cluster as well as participation in similar programs organized by stakeholders.
- ▶ Identification of land for construction of CFC and collective acquisition of land in the name of SPV.

5.3 SPV Roles and Responsibilities

The SPV will play an important guiding role in the overall management and operations of the CFC. It will provide direction to the management of the CFC and will monitor usage and performance of the CFC. The SPV will constantly report to the state government about the performance of the CFC. The major roles and responsibilities that are envisaged to be performed by the SPV post the submission of this DPR are mentioned below:

- ▶ Coordinating with the state industry department for DPR approvals in the SLSC
- ▶ Accompanying EY experts to various meetings at the state government departments
- ▶ Execution of land registration in SPV name
- ▶ Garnering the SPV project contribution from the members
- ▶ Formation of purchase committees for procurement of goods and services
- ▶ Establishing, operating and maintaining all common facilities as mentioned in the DPR
- ▶ Obtain any statutory approvals/clearances from various government departments
- ▶ Recruit appropriate professionals (mainly Cluster Development Executive CDE) to ensure smooth execution of the CFC
- ▶ Collection of user charges from members and other users of the facilities as per the decided rates so as to meet the recurring expenses and future expansions of the CFC. While various estimates on user charges / service fee are presented in this DPR, all decisions including usage priority of facilities by members will be made on the basis of decision by members of SPV.
- ▶ Preparation and submission of progress reports to state industry department

The Memorandum and by-laws of the Cluster SPV indicates the democratic process in terms of decision making on the basis of votes. All members of SPV will meet once every fortnight/month to discuss/resolve operational issues. The management of the CFC will be a two tier structure for smooth and uninterrupted functioning. The executive body i.e. Board of Directors (BoD) will include office bearers elected/nominated from time to time, including one nominee of State Government (DIC). They will also remain present during meetings.

While various estimates on user charges/ service fees are presented in this DPR, all decisions including usage priority of facilities by members will be made by unanimous decision of the members. The CFC will seek direction and guidance from the SPV BoD, and the day-to-day administration will be taken care of by the management that shall be appointed by the SPV BoD. Their role is detailed below:

1. Board of Directors: The BoD will be the main governing body and will oversee the operations of the CFC. They will have the decision making power in terms of fixing user fees (for members and non-members) and usage of reserves etc. for future expansion. The Chairman and Managing Director will oversee the entire operations; each Director will be entrusted with specific responsibility like marketing, technical, finance, public relations etc. based on their interests and experience.

2. Managerial, Technical and Administrative staff: A competent and well qualified professional with a background in the food industry will be appointed as the Chief Executive Officer (CEO), who will look after day-to-day operations of the CFC and shall be directly reporting to the Board of Directors. Additionally, a CDE having knowledge of cluster development aspects shall be hired to ensure smooth coordination between various cluster members and the state government. Each facility including Physical Chemical Testing & Microbiology Testing will have its own expert staff (supervisors, operations and helpers) as per the requirement. After from this SPV will hire one CDE (Cluster Development Executive) for the purpose of promoting & developing cluster. The details of manpower and other requirements are already mentioned in the DPR in the Project Economics section. There shall be provisions for administrative staff such as accounts personnel, marketing professional, store-keepers etc. to ensure effective functioning of the CFC. The proposed organizational structure of the CFC is given in figure 6:

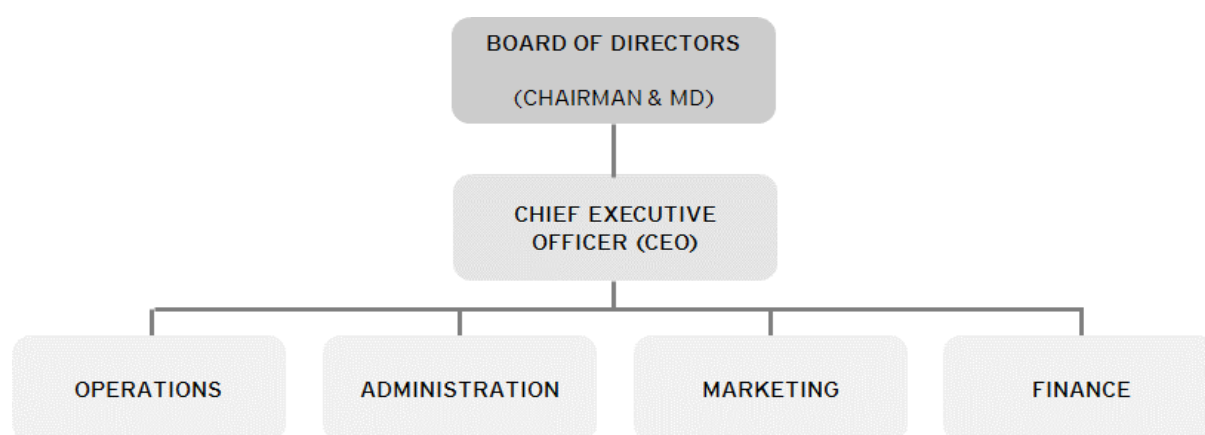


Figure 6: Organisational Structure of Proposed CFC

[illegible]

6. Project Economics

6.1 Project Cost

The actual total cost of setting up a CFC Food Processing Cluster, Rai is estimated **at Rs. 445.16 Lakhs.**

The total cost estimation includes the following project components:

1. Land
2. Building and civil works
3. Machinery and equipment
4. Miscellaneous fixed assets
5. Preliminary & Pre-operative expenses
6. Contingency
7. Margin money for working capital

The detail of each project component is provided below:

6.1.1 Land and Building

Land

The proposed CFC would require space for construction of building, installation of machinery and provision for stocking material. A sizable amount of open space is also required considering the industry FAR norms in the state. In line with the space requirements of the proposed facilities in the CFC and the FAR norms, it is estimated that a plot of about 312 square mtr would be required.

The cluster SPV has identified a plot of land at HSIIDC Industrial Estate phase-1 Rai (Sonipat). The land is in an industrial township being developed by HSIIDC and provision for power is available. Many food units are also coming up in that industrial estate.

The SPV has identified a plot of 312 square mtr that shall be purchased by the SPV completely at their own expense. As per the Haryana Urban Development Authority (HUDA) Erection of Buildings Regulations, 1979, the maximum permissible coverage on ground (built up area) is 70% of area of an industrial site. This shall allow an area of 218.4 square yards for CFC construction.

The SPV is under the process of registration of land. The document highlighting this and establishing the proof for availability of land is provided in **Annexure-5**. The value for the land is estimated to be Rs. 74.88 Lakhs. **The amount required to purchase land shall entirely be provided by the SPV members as their contribution towards the project cost.**

Building

The built up area of the facility will comprise of a three storied building (mainly RCC considering the nature of products), resulting in total covered area of 584.12 square mtr. Indicative building layout plan is provided in **Annexure-5**. The total cost of construction of the building including partitioning and ceiling is estimated to be Rs. 81.87 Lakhs including electrification & plumbing. The duly certified building estimate is provided in **Annexure 6**.

Total cost of land and building for the proposed CFC is estimated at 156.75 Lakh. However, guidelines for mini cluster scheme specify that cost of land and building cannot exceed 25% of project cost of max 200 lakhs. Hence, as per the guidelines the total project cost is estimated at Rs 200.00 lakh with value of land and building cap at Rs 50 lakhs and cost of machine at Rs. 150.00 lakh. Table 8 highlights the actual estimated amount and capped as per scheme amount for land & building.

Table 8: Requirement in terms of land and building

Particulars	Actual Amount (INR in Lakhs)	Amount considered as per Scheme guidelines (In Lakh)
Land (312 sq ft)	74.88	50.00
Building (three storied building) (shop-floor area of 584.12 sq. ft.)	81.87	
Total	156.75	50.00

6.1.2 Plant and Machinery

As detailed in section 4.2 (Hard interventions) a number of modern automatic and high capacity machines for chemical & microbiology testing have been recommended to enable cluster units enhance their competitiveness. The machines have been categorized as primary and secondary. The machines that shall be used primarily for job work have been categorized as primary, whereas, the supporting machines have been categorized as secondary machines. The major facilities proposed at the CFC are for chemical testing & microbiology for food products. The total cost of plant and machinery including secondary machine has been estimated at Rs. 257.93 lakhs and contingency works out to Rs. 14.53 Lakhs.

The details of the proposed machinery items are presented in the table 9. The detailed specifications and quotations of the machines are provided in **Annexure-9**. The SPV has considered quotations for machinery from suppliers based on the manufacturer's reputation, service support, price and quality. However, an open online tendering system shall be followed for procurement of these machines during project execution, and selected vendors will be further invited to negotiate.

Table 9: List of Proposed Plant & Machinery

S. No.	Machine Name	Quantity	Basic Price (Rs. in lakhs)	*GST as Applicable	Total Price (Rs. in lacs)	Supplier Options
A	Primary Machinery					
1	Automatic Protein Analyser	1	17.42	3.14	20.56	Pelican, Model -KEL-PLUS Nitrozen/Protein estimation with 2 years warranty
2	GC with FID and ECD	1	28.75	5.18	33.93	AGILENT, Model 7890 B with FID & ECD Detector with 2 Years Warranty
3	UPLC- FLD (with Kobra cell or PHRED)	1	53.58	9.64	63.22	AGILENT, Model 1260 Infinity II with FLD Detector with 2 Years Warranty
4	Automatic Potentiometer Titrator	2	13.31	2.40	15.71	METROHM, Model No. 888 TITRANDO with 2 Years Warranty
5	Vertical Autoclave	1	1.71	0.31	2.02	Tanco ,PLT-101(A) with 2 years warranty
6	Anaerobic Jar	2	0.22	0.04	0.26	Hi-Media ,LE003 with 2 years warranty
7	Homogeniser	1	4.08	0.73	4.81	HM294,60062 217 -FOSS with 2 years warranty
8	Karl Fischer with Auto-Titrator	1	7.34	1.32	8.67	Metrohm Model 905,Titrando with 2 years warranty
9	ELISA Multimode Reader, Incubator and Plate Washer	1	13.80	2.48	16.28	Molecular Devices, Spectramax M2e Multidetector with 2 years warranty
10	Water Purification System	1	6.12	1.10	7.22	Milipore ,MiliQ direct -16 IN with 2 years warranty

11	Nitrogen Evaporator	2	2.30	0.41	2.71	HORIZON TECHNOLOGY INC., XcelVAP 5400 with 2 years warranty
12	UV Visible Spectrophotometer	2	6.00	1.08	7.08	AGILENT, Model Cary 100 with 2 Years Warranty
13	Analytical Balance	1	1.19	0.21	1.40	Radwag ,AS 220.R2 (Key-Pad Model) with 3 years warranty
14	Digital Butyro Refractometer	1	6.94	1.25	8.19	Anton Paar, ABBEMAT 200 with 3 years warranty
15	HVAC System for Microbiology Lab	1	29.58	5.32	34.91	Multitech
16	Walk-in cold storage (20 to 80C)	4	2.01	0.36	2.37	BLUESTAR
17	Auto-titrators	2	6.21	1.12	7.33	Labindia Auto Titrator- 10 200 003
18	Anaerobic Jar	1	0.22	0.04	0.26	Hi-Media ,LE003
19	Fumigator or Fogger	1	0.47	0.08	0.56	ACE Chemical,ULV-Fogger
20	Homogenizer	1	3.16	0.57	3.73	IKA-T-25 package
21	Howard Mould Count	1	0.76	0.14	0.90	SPI SUPPLIES USA,S60
22	Calibrated thermometer	1	0.03	0.01	0.04	Multitech
23	Colony counter	2	0.08	0.01	0.09	Multitech
24	Micro-Filtration Assembly	30	0.76	0.14	0.90	Merck
25	Micropipette 4 sets (0-2µl, 2-20 µl 5-50 µl, 10-100 µl, 20-200 µl, 100-1000 µl, 5000 µl) 2 * sets & 2 multichannel	1	0.17	0.03	0.20	Brand
26	De-humidifier (portable)	1	0.18	0.03	0.22	Advanceinternational-AMDF100
27	Electric blender with a stable steel jar (2 numbers)	2	0.10	0.02	0.12	BAJAJ
28	Flash point apparatus	2	0.38	0.07	0.45	Multitech
29	Hygrometer	2	0.02	0.00	0.02	TECHLAB
30	Hot plates	10	0.09	0.02	0.10	Multitech

31	Heating Mantle (suitable number)	4	0.04	0.01	0.04	Multitech
32	Pulverizer mill	6	0.38	0.07	0.45	SONAR,Grinder Model Mini Whizzy
33	Sieves shaker with stand	1	0.76	0.14	0.90	Multitech
34	Digital turbidity meter	2	0.25	0.05	0.30	Elico-CL52D
35	Vortex shaker	1	0.13	0.02	0.15	REMI
36	Barcoding instrument with printer & readers	1	0.51	0.09	0.60	INFINITE SOLUTIONS
37	Magnifying Lenses	2	0.01	0.00	0.01	
38	Magnet	4	0.01	0.00	0.01	
39	Sample divider	2	0.01	0.00	0.01	
	Total	109	209.09	37.64	246.72	
B.	Secondary Machinery					
1	Diesel /Gen set 100 KVA	1	9.50	1.71	11.21	Sudhir,100KV A, Kriloskar
	Total B	1	9.50	1.71	11.21	
	Total (A+B)	110	218.59	39.35	257.93	

6.1.3 Miscellaneous Fixed Assets

The CFC would also require fixed assets such as furniture, fixtures, firefighting equipment, first-aid equipment etc. for smooth running of operations. The total estimated capital expenditure for purchase of miscellaneous fixed assets is estimated to be Rs. 5.00 Lakhs. Details are provided in the table 10.

Table 10: Miscellaneous Fixed Assets

Miscellaneous fixed assets Particulars	Amount (INR in Lakhs)
Office items and allied items, furniture, fixtures, firefighting equipment, computers and back-up power supply etc.	5.00
Total	5.00

6.1.4 Preliminary and Pre-operative Expenses

Another major component of the project cost is the preliminary and pre-operative expenses. The preliminary expenses are envisaged as expenses incurred for registration of SPV, legal and administrative expenses, detailed civil engineering drawings with estimates, tendering forms, and tendering cost, NABL cost & electricity connection cost etc.

Pre-operative expenses include expenses for electricity connection charges, administrative establishment, travelling, bank charges, stationery, telephone, overhead expenses during construction and machinery testing, traveling, etc. It also includes professional project management charges such as consultancy fees will be paid by the Government of Haryana. The total expenditure for preliminary and pre-operative expenses is estimated at Rs. 5.18 Lakhs (details provided in the table 11).

Table 11: Preliminary and Pre-Operative Expenses

S. No.	Particulars	Amount
1	Company Registration	0.50
2	Architect Fee	0.50
3	Tender forms & tendering cost	1.00
4	Project Report Preparation (DSR & DPR)	Nil
5	Project Management Charges	Nil
6	Travelling Cost	1.00
7	Machine testing cost	0.25
8	NABL Cost	0.30
9	One time electricity connection charges for 60 kW connection @ Rs. 3300 (security + service charge etc.) per kWh	1.63
	Total	5.18

6.1.5 Provision for Contingencies

Provision for contingencies has to be made on plant/machinery and buildings. Contingencies estimated @2% on building and civil works amount to Rs. 1.64 lakhs. Contingencies on plant and machinery have been estimated at 5% that amounts to Rs. 12.90 lakh.

6.1.6 Margin Money for Working Capital

The total working capital requirement during the first year of operation at 80% capacity utilization is estimated at Rs. 23.03 lakh with margin money requirement of Rs. 5.75 Lakh (25% of working capital requirement as margin). The working capital requirement has been calculated based on requirement of one month of operational expenses and the calculation has been provided in the subsequent section.

6.1.7 Summary Project Cost

A summary of total estimated project cost as per actuals and as per mini cluster scheme is presented in the table 12.

Table 12: Total Project Cost

S. No.	Particulars	Total Project Cost	Amount as per Guidelines	Remarks
1				
	Land & Building			
	a. Land Value	74.88	50	Max 25% of project cost of INR 200 lakhs
	b. Land Development	0.00		
	c. Building & Other Civil Works	81.87		
	A.	156.75	50	50

2	Plants & Machinery			Not Eligible for Grant
	a. Indigenous	246.72	150.00	
	b. Imports	0.00	0.00	
	c. Secondary Machines	11.21	0.00	
	B.	257.93	150.00	
3	Miscellaneous fixed assets			
	(Fixture, furniture, fire-fighting equipment, first aid equipment, back-up power supply, etc.)	5.00		
	C.	5.00		
4	Preliminary & Preoperative Expenses			
	(Legal & administrative expenses, registration, civil engineering drawings with estimates & tender forms, telephone, stationery, (Establishment cost, travel, overheads during construction period including salaries, machine testing cost and other services, PMC etc.)	5.18		
	D.	5.18		
5	Contingency			
	a. Building @ 2%	1.64		
	b. Plant & Machinery @ 5%	12.90		
	E.	14.53		
6	Margin money for working capital			
	(Working capital required @ 80% C.U.)	5.76		
	F.	5.76		
	Total	445.16	200.00	

6.2 Means of Finance

The project will be financed from two sources: equity from SPV, and grant-in-aid from Govt. of Haryana (under state mini cluster scheme, EPP 2015). Working capital loan will be secured from Punjab National Bank. The assistance to the project from Govt. of Haryana under state mini cluster scheme is envisaged to the tune of 90% of max project cost of 200 lakhs. The SPV will be required to contribute 10% of project cost for project cost up to Rs. 200 lakh and any amount in excess of 200 lakhs will be borne by the SPV. Hence, the SPV members have proposed to contribute entire amount beyond Rs. 180 lakhs. The total contribution of SPV members will amount to Rs. 265.16 lakhs. Support from State Government is envisaged for Rs. 180.00 Lakhs.

Table 13: Means of Finance

S. No.	Source of finance	Project cost upto INR 200.00 lakhs (max eligible as per scheme)		Project cost over INR 200.00 lakhs		Total Amount (INR in lakhs)
		Percentage Contribution	Amount (INR in lakhs)	Percentage Contribution	Amount (INR in lakhs)	
1	Grant-in-aid under Mini Cluster Scheme (Govt. of Haryana)	90	180	0	0	180.00
2	Contribution of SPV	10	20	100	245.16	265.16
	Total	100	200	100	245.16	445.16

6.2.1 Share Capital

The contribution of the SPV members will be by way of subscription to shares in the SPV registered as a Private Limited Company. The extent of paid-up share capital/equity contribution would be Rs. 265.16 lakh contributed by the cluster SPV.

The authorized share capital of the company is Rs. 10 lakh at present which shall be increased in due course. The extent of share capital/equity contribution by each member will be restricted to a maximum of 10% of total contribution to the share capital of the company.

6.2.2 Grant-in-Aid

Grant-in-aid of Rs. 180 lakh is expected from the Government of Haryana. The amount received by the way of grant under state mini cluster scheme will be utilized towards construction of building and to procure plant and machinery for the project.

6.3 Expenditure Estimates

In this section, a detailed estimate of expenditure of the CFC has been given on eight hour single shift operation basis. This has been estimated based upon extensive inputs by the cluster members and the prevalent rates of consumables, utilities and manpower in the cluster. This section considers annual cost of undertaking job work and expenditure estimates. The critical components related to expenditure comprise consumables, manpower, electricity and also expenditure on repair and maintenance of assets, insurance and administrative overheads.

Other elements comprise expenditures by the way of interest toward working capital loans, miscellaneous expenses and non-cash depreciation expenditure.

6.3.1 Consumables

Machines installed in the CFC shall require consumables during operations and completion of the job work. Consumables are critical components of project facilities and may be understood in terms of diesel, chemicals, reagents, glassware, filter papers, cotton, glass wool and others etc.

Table 14: Consumables

S. No.	Machine Name	Hours available daily	Particulars	Rate per hour	Rate per day	Amount (@ 80% C.U. in Rs. Lakh)	Amount (@ 85% C.U. in Rs. Lakh)	Amount (@ 85% C.U. in Rs. Lakh)
Chemical Testing Facility						1	2	3
1	Automatic Protein Analyser	8	Chemicals, reagents, glassware, filter papers, cotton, glass wool	250	2000.00	4.80	5.10	5.10
2	GC with FID and ECD							
3	UPLC- FLD (with Kobra cell or PHRED)							
4	Automatic Potentiometer Titrator							
5	Karl Fischer with Auto-Titrator							
6	Water Purification System							
7	Nitrogen Evaporator							
8	Digital Butyro Refractometer							
9	Auto-titrator							
10	Homogenizer							

11	Calibrated thermometer							
12	Sieves shaker with stand							
13	Sample divider							
Micro Biology Testing Facility								
14	Vertical Autoclave	8	Reagents , glassware, filter papers, cotton, glass wool, water	200	1600.00	3.84	4.08	4.08
15	Homogeniser							
16	ELISA Multimode Reader, Incubator and Plate Washer							
17	UV Visible Spectrophotometer							
18	Analytical Balance							
19	HVAC System for Microbiology Lab							
20	Walk-in cold storage (20 to 80C)							
21	Anaerobic Jar							
22	Fumigator							
23	Howard Mould Count							
24	Colony counter							
25	Micro-Filtration Assembly							
27	De-humidifier							

	(portable)							
	Both Chemical & Micro Biology Testing Facilities							
28	Electric blender with a stable steel jar (2 numbers)	8	Gas, Burner, filter papers, cotton, glass wool, water	50	400.00	0.96	1.02	1.02
29	Flash point apparatus							
30	Hygrometer							
31	Hot plates							
32	Heating Mantle (suitable number)							
33	Pulverizer mill							
34	Vortex shaker							
35	Burner							
36	Magnifying Lenses							
37	Magnet							
38	Sample divider							
39	Diesel		Diesel		400.00	0.96	1.02	1.02
	Total					10.56	11.22	11.22
	Consumables per month				333	0.88	0.94	0.94

6.3.2 Manpower Requirement

Another major expenditure head is the manpower. Therefore the facilities installed in the CFC will require manpower to function effectively as mentioned in section 5.3 of the report. The total manpower requirement for the project would be about 16 persons. The manpower required under project has been divided under two categories: Direct & Indirect. Direct manpower is required for operation of machines while indirect manpower is required for administrative purposes. The annual expenditure on salary component for direct manpower is estimated at Rs. 18.24 lakh and for indirect at 7.75 lakhs. The total expense on manpower is projected at Rs. 1.86 lakh per month or Rs. 22.34 lakh per annum. The details of monthly and yearly expenses for manpower required for running the project is provided in table 15:

Table 15: Expenditure Related to Salary (direct manpower - machine operators and helpers)

Category	No. of Manpower Required	Details of Manpower Required	Salary per month per person (INR)	Total Monthly Salary (INR)	Total salary & wages per Year (INR lakh)
Manpower (Direct)					
Chemical & Microbiology Testing Machines	1	Sr. Chemist	40000	40000	4.80
	4	Jr. Chemist	20000	80000	9.60
	4	Helper	8000	32000	3.84
	9	Total	68000.00	152000.00	18.24

Table 16: Expenditure Related to Salary (indirect manpower - administrative and support staff)

Category	No. of Manpower Required	Details of Manpower Required	Salary per month per person (INR)	Total Monthly Salary (INR)	Total salary & wages per Year (INR lakh)
Manpower (Indirect)					
	1	CDE	25000	25000	3.00
	1	Accountant	15000	15000	1.80
	1	Office Boy	8000	8000	0.96
	1	Sweeper	7500	7500	0.90
	1	Pantry Boy	8000	8000	0.96
	2	Security Guard	12000	24000	2.88
	7	Total	75500.00	87500.00	7.75

6.3.3 Utilities

The most important utilities required in the project are power supply and water. Proposed CFC requires power for operation of machinery as well as other supporting equipment for smooth operations. The total connected load requirement has been estimated at 50 kW. The drawn power is conservatively assumed at 45% of the connected load in the case of operating facilities and shop floor.

The power requirement for operation of core machinery and equipment, testing lab and administrative facilities is 45 kWh. Electricity required for shop floor activities in terms of operation of core machinery and equipment is 5400 units per month. The facility is heavily based on electricity for operations and will also require additional 10% connected load as a

buffer to get the electricity connection. The total connected load for the CFC is estimated to be 49.50 kW.

Fixed charges for connection of 49.50 kW @ Rs. 173 per kW = Rs. 7920 and monthly consumption charge @ 49.50 kWh yields a consumption of 5400 units (per unit rate is 9.5) which amounts to Rs. 51300 lakh. This has been calculated based on the prevalent rates of the power provider.

Table 18 presents the estimated annual expenditure in terms of power related charges.

Table 17: Annual Expenditure Statement vis-à-vis Power Charges

S. No.	Expenditure component	Particulars	Amount per annum (@ 100% C.U. in Rs. Lakh)	Amount per annum (@ 80% C.U. in Rs. Lakh)	Amount per annum (@ 85% C.U. in Rs. Lakh)
1	Fixed monthly connection charge (total connected load)	Shop-floor, support facilities & administrative (Rs. 7920 per month)	0.95	0.95	0.95
2	Variable charges (as per consumption of units)	Shop-floor, support facilities & administrative (Rs. 51300 per month)	6.16	4.92	5.23
Total			7.11	5.87	6.18

6.3.4 Annual Repairs and Maintenance Expenses

The annual repair and maintenance expenses have been estimated to be Rs. 8.06 lakh. The details are presented in the table below:

Table 18: Annual Repairs and Maintenance Expenditure

S. No.	Expenditure component	Particulars	Amount per annum (@ 100% C.U. in Rs. Lakh)	Amount per annum (@ 80% C.U. in Rs. Lakh)	Amount per annum (@ 85% C.U. in Rs. Lakh)
1	Repair & maintenance	Building: repair & maintenance @ 2%	0.16	0.13	0.14
2		Plant & machinery: repair & maintenance @ 3%	7.90	6.32	6.72
Total			8.06	6.45	4.04

6.3.5 Insurance and miscellaneous Administrative Expenses

Insurance is a critical component of asset protection at the CFC. Insurance is computed on the basis of 0.5 % on the fixed assets. Cost of insurance shall remain as a fixed cost. Miscellaneous administrative expenses are estimated at a lump-sum of Rs. 1.89 lakh per year. The cost of miscellaneous expenses is also considered to be fixed irrespective of scale of operation. The details are presented in the table below:

Table 19: Insurance and Miscellaneous Administrative Expenses

No.	Expenditure component	Particulars	Amount per annum (@ 100% C.U. in Rs. Lakh)
1	Insurance	Estimate @ 0.5% on fixed assets (such as buildings, civil works, and Plant & machinery, including related contingency expenses	1.39
2	Miscellaneous administrative expenditure	Stationery, communication, travelling, and other misc. overheads	0.50
Total			1.89

6.4 Working Capital Requirements

Working capital has been calculated in terms of one month's operating expenses required for the CFC. The operating expenses include consumables, salaries, utilities, repair & maintenance, insurance and miscellaneous administrative expenses. The details are presented in the table below.

Table 20: Calculation of Working capital requirement

Sr. No.	Particulars	No. of Month/day	As per Capacity Utilization									
			1st Yr	2nd Yr	3rd Yr	4th Yr	5th Yr	6th Yr	7th Yr	8th Yr	9th Yr	10th Yr
1	Consumables	1	0.88	0.94	0.94	1.10	1.10	1.10	1.10	1.10	1.10	1.10
2	Utilities (Power)	1	0.49	0.52	0.52	0.59	0.59	0.59	0.59	0.59	0.59	0.59
3	Working Expenses (Manpower)	1	1.86	1.94	1.94	2.17	2.17	2.17	2.17	2.17	2.17	2.17
4	Sundry Debtors (Sales Value)	1	19.80	21.04	21.04	24.75	24.75	24.75	24.75	24.75	24.75	24.75
5	Working capital (Total expenses)		23.03	24.43	24.43	28.61	28.61	28.61	28.61	28.61	28.61	28.61
6	Working Capital Margin		5.76	6.11	6.11	7.15	7.15	7.15	7.15	7.15	7.15	7.15
7	Working Capital Loan		17.27	18.32	18.32	21.46	21.46	21.46	21.46	21.46	21.46	21.46
8	Interest on Working capital loan @11% p.a.		1.90	2.02	2.02	2.36	2.36	2.36	2.36	2.36	2.36	2.36

The working capital requirement of the project for the one month of operation has been considered for consumables and expenses. The SPV will contribute the margin money for working capital and rest of working capital will be borrowed from local bank. While calculating the

project cost 25% of working capital is shown as margin for working capital and the remaining will be borne by SPV as borrowings. The margin money required for working capital is estimated to Rs. 23.03 lakh during the first year of operation (80% C.U.). Further, total working capital required at an operating capacity of 85% comes out to Rs. 24.43 lakh. The corresponding margin money for working capital requirement at 80% & 85% capacity utilisation amounts to Rs. 5.76 lakh and Rs. 6.11 lakh respectively, and the corresponding loan amounts at Rs. 17.32 lakh and Rs. 18.32 lakh respectively.

6.5 Depreciation Estimates

Estimates of depreciation are non-cash expenditure and presented in this section on the basis of Written down Value (WDV) methods. Accounting for depreciation would facilitate sustainability of operations in terms of developing a fund for replacement of assets. The relevant fund that is accumulated could facilitate the replacement of such assets toward the end of the envisaged asset life of 10 years. Depreciation of building is considered at the rate of 5% per year, depreciation of plant and machinery at 10% a year (envisaged project life of 10 years prior to replacement of assets) and depreciation of miscellaneous fixed assets at the rate of 10% a year as per the Written down method (WDV) method. Depreciation based on Written down Value method (WDV) has been used for computation of income tax. The computation as per WDV method is provided in the tables below.

Table 21: Depreciation based on WDV

Particulars	1st Year	2nd Year	3rd Year	4th Year	5th Year	6th Year	7th Year	8th Year	9th Year	10th Year
Land										
Opening Balance	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
Less : Depreciation	-	-	-	-	-	-	-	-	-	-
Closing Balance	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
Building and Civil work:										
Opening Balance	81.87	73.68	66.31	59.68	53.71	48.34	43.51	39.16	35.24	31.72
Less: Depreciation @ 10%	8.19	7.37	6.63	5.97	5.37	4.83	4.35	3.92	3.52	3.17
Closing Balance	73.68	66.31	59.68	53.71	48.34	43.51	39.16	35.24	31.72	28.55
Plant & Machinery										
Opening Balance	270.96	230.31	195.77	166.40	141.44	120.23	102.19	86.86	73.83	62.76
Less: Depreciation @ 15%	40.64	34.55	29.37	24.96	21.22	18.03	15.33	13.03	11.08	9.41
Closing Balance	230.31	195.77	166.40	141.44	120.23	102.19	86.86	73.83	62.76	53.34
Computers										
Opening Balance	1.51	0.60	0.24	0.10	0.04	0.02	0.01	0.00	0.00	0.00
Less: Depreciation @ 60%	0.90	0.36	0.14	0.06	0.02	0.01	0.00	0.00	0.00	0.00
Closing Balance	0.60	0.24	0.10	0.04	0.02	0.01	0.00	0.00	0.00	0.00
Furniture										
Opening Balance	1.50	1.35	1.22	1.09	0.98	0.89	0.80	0.72	0.65	0.58
Less: Depreciation @ 10%	0.15	0.14	0.12	0.11	0.10	0.09	0.08	0.07	0.06	0.06
Closing Balance	1.35	1.22	1.09	0.98	0.89	0.80	0.72	0.65	0.58	0.52
Other Misc. Fixed Assets										
Opening Balance	2.5	2.13	1.91	1.72	1.55	1.39	1.25	1.13	1.02	0.91
Less: Depreciation @	0.38	0.21	0.19	0.17	0.15	0.14	0.13	0.11	0.10	0.09

15%										
Closing Balance	2.13	1.91	1.72	1.55	1.39	1.25	1.13	1.02	0.91	0.82
Total Depreciation	50.26	42.62	36.45	31.27	26.86	23.11	19.89	17.13	14.77	12.74
Depreciated value	398.07	355.45	319.00	287.73	260.86	237.76	217.87	200.74	185.97	173.24

Under the WDV method depreciation is considered at the rate of 10% per year on building, 15% on plant and 10% on miscellaneous fixed assets.

6.6 Income/Revenue estimates

The CFC is expected to generate revenue by way of user charges that shall be levied based upon the hours a machine is operated for a particular job. The user charges shall vary based upon the user i.e- the SPV members and non SPV members. The user charges will be less for the SPV members as compared to non SPV members. Firms based outside Sonipat shall be charged a premium for availing the CFC services. The major income sources for the CFC are envisaged by the way of providing testing facilities for food products like Chemical & Microbiology tests.

The user charges have been estimated based upon the operational expenses of the CFC and the prevalent market rates in Sonipat. User charges for service machineries have not been considered as a part of revenue. Estimation of user charges for availing services at CFC has been done on a conservative basis.

The relevance and appropriateness of user charges is also evident from the fact that the rates fixed help meet operating expenditures and provide sustainable replacement of assets. It is also envisaged that the CFC will generate enough income to sustain and grow, making it an absolutely viable project.

The estimated user charges for various machineries are presented in table below:

Table 22: User Charges for Machinery

S. No.	Machine Name	User Charge Per Test (In Rs.)	No. of test Per day (Rs.)	No. of days	Annual Revenue generation potential (In lakhs) @300 days	Amount (@ 80% C.U. in Rs. Lakh)	Amount (@ 85% C.U. in Rs. Lakh)	Amount (@ 100% C.U. in Rs. Lakh)
	Primary Machine							
	Chemical Testing Facility							
1	Chemical test (Including o Basic Test)	1000	30	300	90.0	72.0	76.5	90
2	Single test like Fat, Protein	500	40	300	60.0	48.0	51.00	60
	Micro Biology Testing Facility							
1	Micro Biological Test	600	15	300	27	21.6	22.95	27
	Both Chemical & Microbiology Testing Facility							
1	Complete Test (Chemical & Micro)	4000	10	300	120.00	96.00	102.00	120.00
	Total				297.00	237.60	252.45	297.00

Total gross revenue in-flow is estimated to Rs. 297.00 lakhs per annum on an operating capacity of 80%. For projection purposes, operating capacity of 80% is considered during first year, 85% during next two years and 100% capacity from 4th year onwards.

Table 23: Income and Expenditure Statement

Particulars	1st Year	2nd Year	3rd Year	4th Year	5th Year	6th Year	7th Year	8th Year	9th Year	10th Year
Number of working days	300	300	300	300	300	300	300	300	300	300
Number of shift	1	1	1	1	1	1	1	1	1	1
Capacity Utilisation in %	80%	85%	85%	100%	100%	100%	100%	100%	100%	100%
A. Income										
(User/ Service Charge)	237.60	252.45	252.45	297.00	297.00	297.00	297.00	297.00	297.00	297.00
B. Cost of Production :										
1. Utilities Power (Fixed + Variable)	5.88	6.18	6.18	7.11	7.11	7.11	7.11	7.11	7.11	7.11
2. Direct labour and wages	14.59	15.50	15.50	18.24	18.24	18.24	18.24	18.24	18.24	18.24
3. Consumable	10.56	11.22	11.22	13.20	13.20	13.20	13.20	13.20	13.20	13.20
4. Repair and Maintenance	6.32	6.72	6.72	7.90	7.90	7.90	7.90	7.90	7.90	7.90
5. Depreciation	50.26	42.62	36.45	31.27	26.86	23.11	19.89	17.13	14.77	12.74
Total Cost of production	87.61	82.25	76.08	77.72	73.31	69.55	66.34	63.58	61.21	59.18
C. Administrative expenses :										
6. Manpower (Indirect)	7.75	7.75	7.75	7.75	7.75	7.75	7.75	7.75	7.75	7.75
7. Insurance	1.39	1.17	1.00	0.85	0.72	0.61	0.52	0.44	0.38	0.32
8. Misc Expense	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
Total Administrative Expenses	9.64	9.42	9.25	9.10	8.97	8.86	8.77	8.69	8.63	8.57
D. Financial expenses :										
9. Interest on Working capital loan @ 11% per annum	1.90	2.02	2.02	2.36	2.36	2.36	2.36	2.36	2.36	2.36

Total Financial Expenses	1.90	2.02	2.02	2.36	2.36	2.36	2.36	2.36	2.36	2.36
E. Total Expenses B+C+D	99.15	93.69	87.34	89.17	84.64	80.78	77.47	74.63	72.20	70.11
F. Profit A - E	138.45	158.76	165.11	207.83	212.36	216.22	219.53	222.37	224.80	226.89
G. P&P Expenses written off	1.04	1.04	1.04	1.04	1.04	0.00	0.00	0.00	0.00	0.00
H. Income before Tax (F-G)	137.42	157.73	164.08	206.79	211.32	216.22	219.53	222.37	224.80	226.89
I. Adjustment of Loss	-	-	-	-	-	-	-	-	-	-
J. Income Tax (Provision @ 25.75%)	35.38	40.61	42.25	53.25	54.42	55.68	56.53	57.26	57.89	58.42
k. Net Profit /Loss for the year	102.03	117.11	121.83	153.54	156.91	160.55	163.00	165.11	166.91	168.46
L. Cumulative Surplus	102.03	219.15	340.97	494.51	651.42	811.97	974.97	1140.07	1306.99	1475.45

As evident from the table above, the project is financially viable. A cumulative surplus of about Rs. 1475.45 Lakh shall be earned by the SPV even after accounting for taxation and depreciation at the end of ten years. This surplus generated shall be used for further addition in the machinery or improvement and up-gradation of facilities. Additionally, the SPV intends to conduct a lot of other development activities in the cluster that shall be funded through the surplus earned at the CFC. The income tax rates have been considered depending upon the announcements made in the Budget 2017 and the tax applicable on a company. Income tax has been considered at 25.75 per cent on taxable profit inclusive of all the tax components. As mentioned, the income tax implication is computed at the rate of 25.75 per cent that is, 25 per cent plus education cess @ 3 percent. The incidence of tax ranges from Rs. 35.38 Lakh per annum for year 1 to Rs. 58.42 lakh per annum in year 10.

6.7 Cash flow statement

Cash flow statement indicates the cash balance and the liquidity position of the project over the years. The table below presents the sources and disposal/uses of funds statement of the project.

Table 24: Cash Flow Statement

Particulars	Construction	1st Year	2nd Year	3rd Year	4th Year	5th Year	6th Year	7th Year	8th Year	9th Year	10th Year
	Period										
A. Source Funds :											
1. Cash Accruals		140.35	160.78	167.13	210.19	214.72	218.58	221.89	224.73	227.16	229.25
(Net Profit + Interest paid)											
2. Increase in capital	265.16	-	-	-	-	-	-	-	-	-	-
3. Depreciation		50.26	42.62	36.45	31.27	26.86	23.11	19.89	17.13	14.77	12.74
4. Increase in WC Loan		17.27	1.05	0.00	3.14	0.00	0.00	0.00	0.00	0.00	0.00
5. Increase in Grant-in-aid from GoH	180.00		-	-	-	-	-	-	-	-	-
Total Sources	445.16	207.89	204.45	203.58	244.59	241.58	241.69	241.78	241.86	241.92	241.98
B. Use of Funds :											
1. P&P Expenses	5.18	-	-	-	-	-	-	-	-	-	-
2. Increase in fixed assets	434.21	-	-	-	-	-	-	-	-	-	-

3. Increase in other Assets	5.76	2.99	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00
4. Increase in Sundry Debtors		19.80	1.24	0.00	3.71	0.00	0.00	0.00	0.00	0.00	0.00
5. Interest		1.90	2.02	2.02	2.36	2.36	2.36	2.36	2.36	2.36	2.36
6. Taxation		35.38	40.61	42.25	53.25	54.42	55.68	56.53	57.26	57.89	58.42
Total Use of Funds	445.16	60.08	45.87	44.26	61.32	56.78	58.04	58.89	59.62	60.25	60.78
C. Net Surplus (A -B)		147.81	158.58	159.32	183.27	184.81	183.65	182.89	182.24	181.68	181.20
D. Cumulative Surplus		147.81	306.39	465.71	648.98	833.79	1017.44	1200.33	1382.57	1564.25	1745.44

The cash flow statement showcases the available net surplus for 10 years of the CFC operations. Depreciation is also considered on a higher side on the straight line method for cash flow calculations along with adjusted preliminary expenses. As most of the capital expenditure is being supported as grant under the Mini Cluster scheme, EPP 2015, therefore it does not have any negative effect on the Cash flow, in terms of interest, etc.

6.8 Projected Balance Sheets

The annual balance sheets for the CFC have been projected based upon estimates in the earlier sub-sections with regard to various current and fixed liabilities and also current and fixed assets. As evident from the projections, a considerable amount of reserves and surplus gets accumulated. These shall also be utilized for expansion of the CFC and undertaking other cluster development activities. Decision on deployment of reserves and surplus accumulated will be based on the performance of the project and requirements of cluster firms and members of the SPV. The projected balance sheets are provided in the table below:

Table 25: Balance Sheet

Particulars	At the end of impl. Period	1st Year	2nd Year	3rd Year	4th Year	5th Year	6th Year	7th Year	8th Year	9th Year	10th Year
A. Fixed Assets :											
Gross Block	434.21	434.21	383.95	341.33	304.88	273.61	246.74	223.64	203.75	186.62	171.85
Less : Depreciation (WDV)		50.26	42.62	36.45	31.27	26.86	23.11	19.89	17.13	14.77	12.74
Net Block	434.21	383.95	341.33	304.88	273.61	246.74	223.64	203.75	186.62	171.85	159.12
Total Fixed Assets (A)	434.21	383.95	341.33	304.88	273.61	246.74	223.64	203.75	186.62	171.85	159.12
B Current Assets :											
Cash & bank Surplus (B.F)		147.81	306.39	465.71	648.98	833.79	1017.44	1200.33	1382.57	1564.25	1745.44
sundry Debtors		19.80	21.04	21.04	24.75	24.75	24.75	24.75	24.75	24.75	24.75
Other Assets	5.76	8.75	10.75	10.75	12.75	12.75	12.75	12.75	12.75	12.75	12.75
C. P&P Exp	5.18	4.15	3.11	2.07	1.04						
Total current Assets (B)		180.51	341.29	499.57	687.52	871.29	1054.94	1237.83	1420.07	1601.75	1782.94

Total Assets (A+B)	445.16	564.46	682.62	804.45	961.13	1118.03	1278.58	1441.58	1606.69	1773.60	1942.06
D. Current Liabilities :											
Working Capital Loan		17.27	18.32	18.32	21.46	21.46	21.46	21.46	21.46	21.46	21.46
Total Current Liabilities (C)		17.27	18.32	18.32	21.46	21.46	21.46	21.46	21.46	21.46	21.46
E. Fixed Liabilities											
Shareholders' Contribution	265.16	265.16	265.16	265.16	265.16	265.16	265.16	265.16	265.16	265.16	265.16
Grant from GoH	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00
Reserves and Surplus		102.03	219.15	340.97	494.51	651.42	811.97	974.97	1140.07	1306.99	1475.45
Total Fixed Liabilities (D)	445.16	547.19	664.30	786.13	939.67	1096.58	1257.12	1420.12	1585.23	1752.14	1920.61
Total Liabilities (C+D)		564.46	682.62	804.45	961.13	1118.03	1278.58	1441.58	1606.69	1773.60	1942.06

6.9 Break-even analysis

The break-even (BE) estimates of the project indicate the level of activity at which the total revenues of the project equal the total costs. From this point, a project is expected to start generating profits. As per the calculations, the CFC achieves break even in the first year itself as no major interest costs are being incurred. Hence, BE estimates at level of activity relevant to the first year and subsequent years of activity are provided in the table below:

Table 26: Break Even Estimates

Particulars	Amount at operating capacity (80%)	Amount at operating capacity (85%)	Amount at operating capacity (100%)
A. Total Earning by way of user charges	237.60	252.45	297.00
B. Variable costs			
Consumables	10.56	11.22	13.20
Utilities (power- variable charge)	4.92	5.23	6.16
Interest on WC Loan	1.90	2.02	2.36
Repair & Maintenance	6.32	6.72	7.90
Manpower (Direct)	14.59	15.50	18.24
Total Variable Cost	38.30	40.69	47.86
C. Contribution (A-B)	199.30	211.76	249.14
D. Fixed Overheads (Cash)			
Manpower (Indirect)	7.75	7.75	7.75
Utilities (Power - fixed charges)	0.95	0.95	0.95
Insurance	1.39	1.17	0.85
Misc. Expenditure	0.50	0.50	0.50
Sub-total	10.59	10.37	10.05
F. Fixed Overheads (Non-cash)			
Depreciation	50.26	42.62	31.27
Preliminary & Pre-operative expenses written off	1.04	1.04	1.04
G. Total Fixed Overheads	61.88	54.03	42.35
Break-even point (G/C)	31.05%	25.52%	17.00%

Book break-even is achieved at 31.05% (of operational capacity at 80 per cent) and at 25.52% (of operational capacity at 85 percent). The operation of the CFC is expected to break-even and realise profit from 1st year of operations. Therefore, very low risk is involved in the project.

Moreover, the SPV members have the potential to run the facility for longer than one shift resulting in enhanced capacity utilization and generation of more revenues. In that case, project will break even earlier than estimated. Additionally, the approach has been to develop projections based upon conservative estimates (costs on a higher side and user charge/ revenues on a lower side) whereas, in real the revenues may be far higher.

6.10 Feasibility analysis summary and sustainability indicators

A summary of the financial analysis in terms of key financial indicators such as Return on Capital Employed (ROCE), Net Present Value (NPV), Break Even Point (BEP) and the Internal Rate of Return (IRR) is presented in the table below. The indicators validate the financial viability and sustainability potential of the proposed project.

Table 27: Financial Analysis

S. No.	Particulars	Estimates
1	BEP (cash BEP at operating capacity of 80%)	31.05%
2	Av. ROCE (PAT/CE) sans Grant	43.17%
3	Av. ROCE (PAT/CE) with Grant	70.90%
4	Internal Rate of Return (IRR)	34.29%
5	Net Present Value (at a discount rate of 10 per cent) - incorporating viability gap funding (grant) by GoH	NPV is positive and high (Rs. 604.51 lacs) at a conservative project life of 10 years
6	Payback period	3.56 years with Grant-in-aid assistance from GOH
7	DSCR	Not Applicable (non-avallment of term loan in this project)

The annual estimates in the context of ROCE are presented in the table below:

Table 28: Calculation of Return on Capital Employed

Particulars	1Yr	2Yr	3Yr	4Yr	5Yr	6Yr	7Yr	8Yr	9Yr	10Yr	AV.
ROCE (With Grant)	49%	56%	59%	74%	75%	77%	78%	79%	80%	81%	70.90%
ROCE (Sans Grant)	30%	34%	36%	45%	46%	47%	48%	48%	49%	49%	43.17%

The average value of ROCE (with grant-in-aid) is 70.90%. This indicates the high techno-economic viability of the project should the government contribute a significant portion of the project cost as grant. Capital employed considered are those elements excluding the grant component to the project. Ignoring the possibility of grant assistance from the GoH, the ROCE works out to an unviable 43.17%.

The Net Present Value is estimated at a discount rate of 10%. However, as reflected from the high values of NPV, it is positive at even 10.0%, the rate at which bank offers debt capital facility and even at higher discount rates. Project IRR is high at over 34.29% (at a conservative project life of 10 years). This substantiates the viability of the project.

6.11 Additional revenue sources

Additional sources of revenue shall also be explored by the SPV by offering procurement and marketing services in future to more enterprises. The SPV members are strong believers of the cluster concept and would like to explore the potential of undertaking cluster initiatives to improve the backward and forward linkages of the cluster units.

However, in order to ensure conservativeness in income estimates, in the initial years, the income earning possibilities of such revenues are not captured in this DPR.

6.12 Risk Analysis & Sensitivities

Risk in the project is relatively low in the context of the following:

- ▶ **Promoters are experienced:** Risk in the project is quite low given the strength and profile of the SPV members. They have considerable experience not only in the food industry but also in undertaking cluster developmental initiatives.
- ▶ **Facility is pre-marketed:** Evidently, complete capacity of the core facility to be established in terms of various facilities may be easily availed by members of the SPV themselves, thus the facility would already have a captive market.
- ▶ **Sustainability indicators in terms of the strength of the SPV and the economics of the project:** Evidence of cooperative initiatives of SPV members as articulated in previous chapters; for instance, in terms of pursuing several joint efforts, registering the SPV, proceeding towards procurement of land, and securing commitment from members, vis-à-vis progressively mobilizing necessary paid up capital, all reflect the strength of the SPV.

High economic viability indicators upon considering the benefits of grant-in-aid under the state mini cluster scheme and EPP 2015 also serve as evidence of techno-economic viability and sustainability of the project. A sensitivity analysis has been carried out to ascertain the impact on the project, should there be any loss of revenue. This has been calculated assuming drop in user charges. Major financial parameters are still attractive. The important parameters related to the sensitivity analysis are presented in the table below:

Table 29: Sensitivity Analysis

S. No.	Particulars	Base case	With 5% decline in user charge	With 10% decline in user charge	With 15% decline in user charge
1	BEP (cash BEP at operating capacity of 80%)	31.05%	32.19%	33.41%	34.73%
2	Internal Rate of Return (IRR)	34.29%	31.29%	30.04%	28.77%
3	Av. ROCE (PAT/CE)	70.90%	65.93%	63.09%	60.24%
4	Net Present Value (at a discount rate of 10 per cent) - incorporating viability gap funding (grant) by GoH	598.88	528.40	492.93	457.56

Even assuming a fall in user charge, ROCE is favourable. From the above it is evident that the project is very viable even under (unlikely) risky environment circumstances.

6.13 Assumptions for financial calculations:

The financial statements and project profitability estimates in this DPR are based on the following assumptions:

1. The total project cost is pegged @ Rs.445.16 Lakh on the basis of estimates and quotations.
2. To finance the project, a total of Rs. 445.16 Lakhs is required. The financing will consist of grant from government to Haryana and contribution by SPV.
3. In the financial projections and analysis, year 2017 is the envisaged period of project implementation also involving construction of buildings and installation of plant, machinery and other equipment. This period will commence from the date of final approval by the State Level Steering Committee under Mint-Cluster Scheme. The financial projections thereafter are prepared for 10 years of operation starting 2018.

4. The Registered SPV will manage CFC, and these services are to be used by the SPV to member as well as non-member units. The common facility will benefit registered SPV as well as non-member firms who (in some cases) may not afford to contribute to necessary equity capital.
5. The CFC will operate for 25 days a month, that is, for 300 days a year on an eight hour single shift basis. Operation on single shift basis is assumed for purposes of projecting income estimates.
6. Capacity utilization is assumed at 80% in the first year; 85% for second & third year and 100% thereafter. This is a conservative estimate for first 3 years as SPV members alone could avail of over 100 per cent of the installed capacity on single-shift basis.
7. The workings with regard to expenses related to the project have been tabulated and categorized in terms of those related to consumables, manpower, electricity, and miscellaneous administrative expenditures.
8. Repairs and maintenance is provided @ 2% of building cost and @ 3% of plant and machinery cost at varying capacity utilization.
9. Insurance is provided @ 0.5% on fixed assets including building & civil works, machinery, contingency as fixed cost at all capacity utilization.
10. Electricity connection required for the CFC shall cost at Rs. 1100 as security deposit and Rs. 2000 as service charge per kW connected load as per the regulatory norms in Haryana.
11. Fixed charges per kW of electric connection shall be charged @ Rs. 173 and variable charges @ Rs. 9.5 per unit consumed.
12. Income estimates have been projected most conservatively. The prescribed user charges are competitive vis-à-vis charges for similar services in other regions.
13. Depreciation on fixed assets is calculated on written down value (WDV) method for calculating profitability.
14. Provision for income tax has been made @ 25.75% including surcharge. This is the rate prescribed for Private Limited Companies as per the recent Budget 2017.
15. Profitability estimates in terms of ROCE, NPV, IRR are computed considering operating results for first 10 years of operation.

[illegible]

7. Project Implementation and Monitoring

7.1 Envisaged Implementation Framework

1. **Time frame:** Project implementation is envisaged to involve a time-frame of about 12 months upon receipt of final approval of grant-in-aid assistance from the Government of Haryana under mini cluster scheme.
2. **User Base:** The facilities may be used by SPV members and non-members. However, the charges will vary. The SPV will also be open for new entrants subject to them subscribing to the shareholding of the SPV, and them being genuinely pro-active and interested in cluster initiatives. The BoD of the SPV can decide on same or differential user charges for both members and non-members or based upon the volume of the output.
3. **Project implementation schedule:** The project implementation schedule envisaged over a period of 10 months involves several activities. The schedule is elaborated in table 30:

Table 30: Project Implementation Schedule

Activity/Month	1	2	3	4	5	6	7	8	9	10
Collecting Contribution from SPV members										
Transfer of land in the name of SPV										
Receipt of final sanction from GoH										
Preparation of detailed drawings										
Formation of purchase committee										
Inviting E tenders for building construction and purchase of machines										
Construction of facilities										
Construction Facilities										
Obtaining statutory clearances and approvals										

Purchase of machinery and equipment										
Installation and trial run of machinery and equipment										
Arrangement of working capital										
Monitoring of the project by BoD										
Monitoring of the project by PMC										
Commencement of operations of the facility										

4. **Contractual agreements/ MoU with member units:** Agreements have been indicatively finalized in terms of utilization of assets in respect of shareholders.

A total of 11 units are participating in the SPV and all these units have agreed to contribute towards the SPV share of the project cost. The utilization of the common facility will be in line with the proposed shareholding pattern. The consent letter wherein the member units agree for payments of 10% share of cost of CFC will be submitted in due course of time and as per final approval from Government of Haryana.

5. **Memorandum and By-Law of Registered Company:** MOA, AOA and bye laws are indicative of the management and decision making structure of the SPV. All the members of SPV have paid an advance and are members of the Registered Private Entity. Few other units are also willing to be members of the SPV and once the CFC is approved and sanctioned from government of Haryana, many more members will be interested to subscribe to the shares of the SPV.
6. **Availability of Land & Status of Acquisitions:** Land is being procured by the SPV for the proposed CFC at Industrial Food Park, Rai in Sonapat district. A plot of land of area 312 square mtrs has already been identified by the SPV and shall be purchased by SPV soon.
7. **Availability of Requisite Clearances:** Necessary land with all required clearances will be procured by the SPV. Electricity is already available in the area and the proposed CFC can easily be connected to the grid. The other required clearances (environment, labor etc.) shall be obtained in due course.
8. **O & M Plan:** The revenue stream for O&M is dependent on realization of user charges from the SPV members and other users/MSMEs in the case of various

facilities. As detailed in the financial section, the cash incomes are sufficient to meet operating expenditures, overheads as well as depreciation for sustainable replacement of assets. The SPV will also have to keep a track of maintenance of assets through collection of user charges from the members/ users.

7.2 Monitoring Mechanism

As mentioned in the implementation schedule, the following key activities shall be conducted during establishment of the CFC:

- ▶ Civil Alterations
- ▶ Electrical works
- ▶ Purchase of machinery & commissioning
- ▶ Trial production
- ▶ Commercial production

The successful implementation of above activities will depend on the following aspects:

- ▶ Implementation of above within the time frame
- ▶ Supervising and overseeing the implementation of the proposals and fine tuning and advocating more measures if needed, depending on the site conditions
- ▶ Project level monitoring indicators to evaluate the implementation of the CFC proposal at recommended intervals
- ▶ Suitable purchase mechanisms for proposed plant & machinery
- ▶ Periodical reporting of the status of implementation and monitoring of the results of key performance indicators, and
- ▶ Constant evaluation of the measures implemented based on the data available from project level monitoring and status reports and providing directions accordingly.

It is proposed to constitute a governance mechanism in the form of a **Cluster Development Co-ordination Committee (CDCC) under the chairmanship of Director of Industries, Government of Haryana** to oversee all cluster development projects in Haryana. The CDCC will look after the project under Mini Cluster Scheme to be implemented under the state's Enterprise Promotion Policy 2015.

The committee may operate under the overall monitoring of the State Level Steering Committee (SLSC). Other key stakeholders such as representatives of cluster SPV, related government departments, support institutions, cluster level industry associations and consultants may be inducted as members under the committee.

The members may comprise the following:

- i. Director, Industries and Commerce, Government of Haryana (Chairman)
- ii. Concerned Joint Director, Department of Industries and Commerce
- iii. JD, DIC Sonipat
- iv. HSIIDC state officer
- v. Commercial bank general Manager
- vi. President of related industry association

- vii. Directors of related SPV
- viii. EY Cluster Development Expert under MSME project

The meeting of CDCC may be held on a quarterly basis to review performance of the clusters. The CDCC will guide monitoring and implementation of the project.

In addition, for implementing the Rai Food Processing Cluster CFC project, a Project Management Committee (PMC) comprising the JD, DIC, Sonipat, and representatives of SPV, Corporation Bank, NIFTEM and EY experts shall be constituted to directly oversee effective monitoring and implementation.

The project will be implemented through SPV and PMC will report progress of implementation to the CDCC as well as State Level Steering Committee and DIC Sonipat.

8. Conclusion

The food processing units of Rai lack a comprehensive food testing lab due to which they are not able to evaluate the raw materials as per specified physicochemical & microbiological parameters on their own. The units have to send the samples for evaluation to private labs located far off from the cluster location. This results in delays in production and surge in overhead costs, thereby reducing their competitiveness. This challenge can be overcome by setting up a CFC with these facilities, which can be availed at lower costs.

Against this backdrop, it is inevitable to support the micro & small food processing units in Rai to adopt NABL testing lab for food product testing. This will reduce their processing costs significantly while increasing the quality of their produce.

The future of food processing industry is bright. Dal & Besan segment is poised to grow at a steady rate with major applications being in food, beverage and consumer goods. Particularly in the Rai region, the market possibility for high quality food products is promising. The only constraint is the lack of latest testing lab and related infrastructure which can be removed by setting up a CFC. The cluster firms have not been able to obtain bulk orders from large customers due to lack of quality, production capacity and poor quality of produce. The technologies required for upgradation are extremely expensive and the same cannot be adopted by any individual units in the cluster. Hence, the following facilities have been proposed in the CFC:

- ▶ NABL Accredited Lab
- ▶ Equipment for Chemical & Biological Lab

The total project cost (including plant/machinery and buildings) is estimated to be Rs. 445.16 Lakhs. The project shall be implemented by the SPV 'M/s CFC Foods Research Private Limited' which has been constituted by the cluster firms. The SPV has proactively undertaken a number of initiatives and have acted upon the proposed soft interventions in the DSR. A number of capacity building programs and exposure visits have been organised by the SPV for the benefit for its members.

The CFC will be set up with support from the state government (Department of Industries) under PPP mode. The land for the project has already been identified by the SPV and shall be acquired immediately upon in final approval by State Government. The state industry department is envisaged to provide grant for setting up of the NABL accredited Lab under the Mini-Cluster scheme, Haryana EPP 2015. The SPV members have proposed to contribute RS. 265.16 lakhs of the project cost. Support from Mini Cluster Scheme of the State Government of Haryana is envisaged for Rs. 180 lakh. Working capital requirement for the project will be provided by Punjab National Bank. The project is financially viable and is expected to generate enough revenue to ensure its sustainability.

Annexures



9. Annexures

Annexure 1: Minutes of State Level Steering Committee

From The Director of Industries & Commerce, Haryana,
Chandigarh.

To

1. Special Secretary, Finance Department, Haryana,
asse-hry@nic.in
2. Director, MSME-Development Institute, Karnal,
MSME, Development Institute, 11-A,
Industrial Development Colony, Near ITI, Kunjpura Road,
Karnal-132001, Haryana. dcdi-karnal@dcmsme.gov.in
3. Sh. Bagmal Takshak,
Joint Director, DIC, Karnal. gmdickarnal@yahoo.com
4. Sh. Anil Choudhary,
Joint Director,
District Industries Centre,
Faridabad. jdcticfaridabad@gmail.com
5. The General Manager,
Haryana Financial Corporation,
30 Bays Building, Sector 17, Chandigarh,
contact@hfcindia.org
6. Joint Director, District Industries Centre,
Sonapat. dicsonepat@gmail.com
7. The General Manager,
P.N.B. House, Sector - 17-B,
Chandigarh. sibcharyana@pnb.co.in
8. Sh. Lokesh Bhatia, Manager,
Ernst & Young LLP,
SCO-166-167, 1st Floor,
Sector-9-C, Madhya Marg, Chandigarh. lokesh.bhatia@in.ey.com

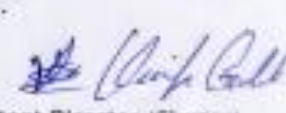
Memo No. Cluster/SLSC/Meeting/ 13056 - A
Dated:- 31.8.2017

Subject:- Minutes of the meeting of 2nd State Level Steering Committee (SLSC)
Meeting held on 16.08.2017 at 03:15 PM under the Chairmanship of
Sh. Sudhir Rajpal, IAS, Principal Secretary, Industries & Commerce
Department.

Please refer to the subject cited above.

In this connection, please find enclosed herewith a copy of Minutes of the
2nd State Level Steering Committee meeting held under the Chairmanship of Sh. Sudhir
Rajpal, IAS, Principal Secretary, Industries & Commerce Department on 16.08.2017 at
03.15 P.M. for information & taking further necessary action.

Encl. as above.


Assistant Director (Cluster)
for Director of Industries & Commerce, Haryana

Endst. No. Cluster/SLSC/Meeting/ **13057-A** Dated:- **31.8.2017**

A copy of the above is forwarded to following for information:-

1. Sh. Ahuja, Bakery & Confectionery Cluster, Near Lagan Palace, Ram Nagar, Karnal.
Email:- karnalbakerycfc@gmail.com, skilltechconsultancy@gmail.com.
2. The President, Faridabad Garments Cluster Centre of Embroidery Private Limited, Plot No 25, Sector 27C, Faridabad. Email:- ramandutta@yahoo.com
3. Sh. Anoop Goyal, C/o Ram Swarup Dass Foods Pvt. Ltd., 503, HSIDC Food Park Rai, Industrial Area Sonapat (HR). Email:- anoop.goyal@agropure.net


Assistant Director (Cluster)
for Director of Industries & Commerce, Haryana

Endst. No. Cluster/SLSC/Meeting/ **13058-A** Dated:- **31.8.2017**

A copy of the above is forwarded to the following for information:-

1. PS to PSI for kind information of PSI.
2. PS to Di&C, Haryana for kind information of Di&C.


31/8/17


Assistant Director (Cluster)
for Director of Industries & Commerce, Haryana

Minutes of the meeting of 2nd State Level Steering Committee Meeting held on 16.08.2017 at 03:15 PM under the Chairmanship of Sh. Sudhir Rajpal, IAS, Principal Secretary, Industries & Commerce Department, at Knowledge Centre, 9th Floor, Haryana Civil Secretariat, Haryana to approve cases under Mini Cluster Scheme, EPP 2015.

S.No.	Name of the Officers	Designation
1	Sh. Sudhir Rajpal, IAS	Principal Secretary, Industries & Commerce
2	Sh. Major Singh	Director, MSME, Karnal
3	Sh. R.C Dahra	Consultant, O/o Director of Industries & Commerce
4	Sh. Rakesh Vaid	Assistant Director, MSME
5	Sh. R K Rana	Joint Director, DIC, Sonapat
6	Sh. S N Singh	Joint Director, DIC, Karnal
7	Sh. Anil Kumar Choudhary	Joint Director, DIC, Faridabad
8	Sh. Narinder Arya	Deputy Secretary, Finance Department
9	Sh. Lokesh Bhatia	Manager, EY LLP
10	Sh. Upinder Singh Dhillon	Senior Consultant, EY LLP

The detail of representatives of the various clusters who attended the meeting is annexed as Appendix 'A'

Sh. R.C Dahra, Consultant O/o Director of Industries & Commerce welcomed all the members of the 2nd State Level Steering Committee (SLSC). After the introduction of the members and other representatives, the agenda of the meeting was taken up as under:

Agenda Item No. 2.3: DSR of Food Processing Cluster, Rai

Mr. Upinder Singh Dhingra from EY, delivered the brief presentation on the DSR of Food Processing Cluster, Rai. The DSR was validated in the stakeholder consultation meeting conducted on 19th July 2017 at Rai in the presence of Sh. R K Rana, Joint Director, DIC, Sonapat. The stakeholders including key food processing units validated the findings of the DSR. They expressed their willingness to establish a comprehensive testing lab as CFC under the Mini Cluster Scheme. Subsequently, the final DSR was submitted on 20th July 2017. The consultant highlighted the following facts about the cluster:

Attendance of the representatives of Rai, Food Processing Cluster, Sonapat (Rai)

S.No.	Name of the representatives	Name of the Organisation
1.	Sh. Sanjay Gutpa	Tirupati Foods Industries Pvt. Ltd., Rai
2.	Sh. Anoop Goyal	Ram Swarup Dass Foods Pvt. Ltd., Rai
3.	Sh. Mahender Kumar	Rai

Annexure 2: Minutes of DPR Validation Meeting

Minutes of Meeting: Stakeholder Validation meeting of Draft Detailed Project Report (DPR) of Rai Food Processing Cluster under State Mini Cluster Scheme (EPP 2015) held under the chairmanship of Sh. Ashok Sangwan, IAS, Director Industries & Commerce, Haryana, Govt. of Haryana

Date: 25th October 2017	Time: 3:00-3:30 PM	Venue: Haryana State Guest House, New Delhi
Agenda: <ul style="list-style-type: none"> ➤ Presentation on the Draft DPR of Rai Food Processing Cluster ➤ Discussion on proposed facilities in the CFC particularly plant and machineries ➤ Validation of recommendations by key stakeholders 		
Attendees <ul style="list-style-type: none"> • Sh. Ashok Sangwan, IAS, Director, Industries & Commerce, Haryana (Chairperson) • Members of Rai Food Processing Cluster SPV • Representatives of Dal Millers & Food Processors Associations (DMFPA) • Sh. Upinder Singh Dhingra, EY PMU • Sh. Vinod Kumar, EY PMU 		

Members of Common Research & Analysis Pvt. Ltd (SPV created for project execution) were welcomed by Sh. Ashok Sangwan, Director, Industries & Commerce Department, Govt. of Haryana. Sh. Sanjay Gupta, Director, SPV extended gratitude to Department of Industries, Govt. of Haryana, & EY team for putting their efforts to prepare DPR for Rai Food Processing cluster in time.

EY team shared the key aspects of the draft DPR of the cluster. The participants were presented the summary details of DPR. Sh. Ashok Sangwan, IAS, DI&C highlighted state government's proactive role in ensuring growth of the state's MSMEs and various incentives available to MSMEs under EPP 2015.

Mr Upinder Singh Dhingra provided an overview of the cluster and elaborated on various aspects of the proposed project. The major project component as highlighted are mentioned below:

1. **Land:** The requirement has been estimated as 312 sq. yards and the SPV has identified a plot of land in HSIIDC Food Park in Rai, Sonipat. SPV is in the process of registration of land in the name of Common Research & Analysis Pvt. Ltd.
2. **Building:** An RCC structure is required to install the proposed testing equipment at CFC. Total built up area of 581 sq. yard is required for the CFC, building layout and

estimate has been prepared and included in the DPR.

3. **Plant and Machinery:** A NABL accredited food testing lab has been proposed to set up at the CFC. The lab will offer a range of physiochemical and microbiological testing facilities. These facilities will enable the cluster units to obtain quality certifications on their products and conform to FSSAI norms.
4. **Total Cost of the Project:** The total cost of the project is about 445 Lakhs. The contribution of the State Government is Rs. 180.00 Lakhs & the contribution of the SPV is the remaining Rs. 265 Lakhs.

Further, the role of SPV in executing the project was highlighted. Participants were informed that cluster units have registered a SPV by the name and style of 'Common Research & Analysis Pvt Ltd' to implement Mini cluster scheme of Govt. of Haryana. SPV has proved its ability to undertake hard intervention under the project and is geared up to take the project to its logical conclusion.

Discussion and Action Points



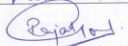




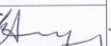
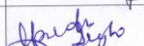

- ▶ **Machinery:** The cluster elaborated on the need for various testing equipment to certify the product quality and conform to FSSAI norms. The following points were further discussed:
 - DI inquired about the usage of the proposed testing facilities by the cluster units. The SPV members mentioned that the FSSAI norms have become very stringent and the testing lab is the need of the hour for them. Unit are at present spending lakhs of rupees every year to get tests done from labs located in Delhi and Bangalore.
 - Sh. Sanjay Kumar informed the participants the issues faced by food processing units due to lack of testing facilities and explained the need of testing facility as one of the key requirement to food processing units to meet health and safety requirement as per prescribed norms. He also added that the testing lab will be NABL certified.
 - Working model of CFC was also explained to the members. Participants were also informed that the cluster units will bring their sample for testing at the CFC by paying user fee as decided by SPV. CFC will also be open to non-members. SPV shall fix charges for members and non-members separately.

Finally, SPV members validated the recommendations as mentioned in the DPR and gave consent for submission of DPR to state government for further actions. The DI also appreciated the project and ensured

In concluding remark, Sh. Ashok Sangwan, appreciated the efforts of member of Food Processing cluster for coming together to form SPV and extending support for completion of DPR. He appreciated the project and acknowledged that proposed CFC will enable the cluster units to become more competitive. He assured the support of Government of Haryana in realizing the CFC. He also informed the participants that the DPR will be taken up for approval in the State Level Steering Committee on 31st Oct. 2017.

The list of the participants & photograph of the validation meeting as given below:

Stakeholder Validation Meeting for Rai Food Processing Cluster(DPR) held at Haryana State Bhawan, New Delhi under the chairmanship of Sh. Ashok Sangwan (IAS) Director Industries & Commerce, Haryana on dated 25th October 2017

Sr. No	Name	Unit Name	Contact No.	Email ID	Signature
1	Manish Mittal	manish kumar Mittal kumar	9818583666	manish.mittal2002@gmail.com	
2	UDIT JAIN	VICTORIA FOODS (P) LTD	931119258	udit.jain@rajdhani.coop.co.in	
3	Rajat Goyal	Rajat Pulses Pvt. Ltd.	9899914447	rajatgoyal94@yahoo.co.in	
4	Anoop Goyal	GFA Foods Pvt. Ltd.	9810891734	anoop.goyal@agfoods.net	
5	Vibul Mittal	Hitech Geni Process	9811110208	vm@hitechpulses.com	
6	Suril Jindal	M.M. Agro Food Pvt. Ltd.	9899580904	mdp02@yahoo.in	
7	Mahendra Singh	Shree Niwas Pulses Pvt. Ltd.	9810089797	smnivasniwas@gmail.com	
8	Sanjay Gupta	Tirupati Food.	981616763	Sanjay.Gupta@tirupatifood.com	
9	Upinder Singh	EY	99530-89309	Upinder.Singh@ey.com	
10	Vinod Kumar	EY	9814482400		



Annexure 3(a): SPV Certificate of Incorporation



GOVERNMENT OF INDIA
MINISTRY OF CORPORATE AFFAIRS
Central Registration Centre

Certificate of Incorporation

[Pursuant to sub-section (2) of section 7 of the Companies Act, 2013 (18 of 2013) and rule 18 of the Companies (Incorporation) Rules, 2014]

I hereby certify that COMMON RESEARCH AND ANALYSIS PRIVATE LIMITED is incorporated on this Sixteenth day of October Two thousand seventeen under the Companies Act, 2013 (18 of 2013) and that the company is limited by shares.

The Corporate Identity Number of the company is U73100HR2017PTC071154.

The Permanent Account Number (PAN) of the company is AAHCC2424Q *

Given under my hand at Manesar this Sixteenth day of October Two thousand seventeen .

Digital Signature Certificate
Mrs. ANJALI POKHRIYAL

For and on behalf of the Jurisdictional Registrar of Companies
Registrar of Companies
Central Registration Centre

Disclaimer: This certificate only evidences incorporation of the company on the basis of documents and declarations of the applicant(s). This certificate is neither a license nor permission to conduct business or solicit deposits or funds from public. Permission of sector regulator is necessary wherever required. Registration status and other details of the company can be verified on www.mca.gov.in

Mailing Address as per record available in Registrar of Companies office:

COMMON RESEARCH AND ANALYSIS PRIVATE LIMITED
587,, FOOD PARK,RAI, SONEPAT, Sonapat, Haryana, India, 131029



* as issued by the Income Tax Department

Annexure 3(b): Copy of Memorandum of Association (MoA) & Article of Association (AoA)

[Pursuant to Schedule I (see Sections 4 and 5) to the Companies Act, 2013] FORM NO. INC-33	SPICE MOA (e-Memorandum of Association)
--	---

MOA language: ☒ English ☐ Hindi

SRN of form INC-1

G54453832

Pre-fill

* Table applicable to company as notified under schedule I of the companies Act, 2013

A

Table A- MEMORANDUM OF ASSOCIATION OF A COMPANY LIMITED BY SHARES

1. The Name of the Company is

COMMON RESEARCH AND ANALYSIS PRIVATE LIMITED

2. The Registered office of the company will be situated in the state of

Haryana-HR

3.(a) The objects to be pursued by the company on its incorporation are

1. To function as Special Purpose Vehicle (SPV) and set up Common Facilities Centre (CFC) and other infrastructure activities for food industries and for the benefits of its members and industries/concerned stake holders following the guidelines and notifications for MSE-CDP under DC(MSME), New Delhi.
2. To undertake works/scheme/programs of Government relating to growth and development of food industries and carry out conduct soft and hard intervention activities under MSE-CDP.
3. To act as a resource centre for development and strengthening network as business development services related to technology, market, capacity building and hand holding support for the purpose of growth and development of the food industries under MSE-CDP.
4. To make available raw and packing material to all members of food industries at competitive rates by opening of raw and packing material bank.
5. To arrange latest technology for upgrading all manufacturing units to provide quality certificate to its members.
6. To render assistance and encouragement as may be necessary to persons engaged in food processing and/or manufacturing industries.
7. To undertake and to do trading, manufacturing, import, export of all type of food products and research work in connection with development of food industries.
8. To conduct training centre programs/seminars.

3.(b) Matters which are necessary for furtherance of the objects specified in clause 3(a) are

1. To purchase and otherwise acquire, own, import all materials, substances, appliances, machines, containers and such other articles and apparatus and things capable of being used in any of the main business and to own, otherwise acquire and use facilities of whatever kind as may be convenient or useful or conducive to the effective working of the main business of the Company.
2. To acquire, build, alter, maintain, enlarge, remove or replace and to work, manage and control any buildings, offices, factories, mills, shop machinery, conveniences which may seem necessary to achieve the main objects of the Company.
3. To carry on and transact every kind of guarantee and corporate guarantee and counter guarantee business and to guarantee the payment/repayment of loans, borrowings of any nature whatsoever granted by any institutions and/or any person to any individual, firm(s), HUF, company(s), association of person and money secured by or payable under or in receipt of stocks, bonds, debenture, debentures stocks, contracts, mortgages, charges, obligations and securities of any company whomsoever whether incorporated or not.
4. To purchase or in exchange, hire, take, options over or otherwise acquire any estate or interests whatsoever and to hold, develop work, concessions, grants, decrees, licenses, privileges, claims, options, property real or personal or rights or powers of any kinds which may appear to be necessary for the main business of the Company.
5. To pay preliminary and incorporation expenses of the Company.
6. To exchange, mortgage, royalty or tribute, grant licenses, easements, options and such other rights over dispose of the whole or any part of undertaking, property assets, rights and effects of the company for such consideration as may be thought fit and in particular stocks, shares, debentures whether fully or partially paid up or securities of any other such company having objects whole or in part similar to those of the Company.
7. To pay for any rights or property acquired by the Company and to remunerate any person, firm or body corporate rendering services to the company either by cash payment or by allotment to him or them of shares or securities of the Company as paid up in full.
8. To open account or accounts with any individual, firm or company or with any bank or banks or bankers or shroffs and to pay into and to withdraw money from such account or accounts.

- 9.To undertake financial and commercial obligations, transactions and operations of all kinds.
- 10.To guarantee the performance of any contract or obligations and the payment of any money or dividends and interest on any stock, shares or securities of any company, corporation, firm or person in any case in which such guarantee may be considered directly or indirectly to further the main objects of the Company.
- 11.To guarantee the payment of money unsecured or secured or payable under or in respect of promissory notes, bonds, debenture stocks, contracts, mortgages, charges, obligations, instruments and securities of any company or of any authority, supreme, municipal, local or of any persons whether incorporated or not incorporated and to guarantee or become sureties for the performance of any contracts or obligations as may be necessary for the main business of the Company.
- 12.To subscribe for, acquire shares, share-stock, debentures, bonds, debenture stock, mortgages, obligations, securities of any kind issued or guaranteed by any company (body corporate undertaking) of whatever nature and whatsoever constituted or carrying on the main business and to subscribe for, acquire shares, debentures and debenture stocks and debenture bonds, mortgages, obligation and such other securities issued or guaranteed by any government, trust, municipal, local or such other authority or body of whatever nature whether in India or elsewhere as may be conducive to the main business of the Company.
- 13.To negotiate and/or enter into agreements and contracts with individuals companies, corporation and such other organizations, foreign or Indian for obtaining or providing technical or any other assistance for carrying out all or any of the main objects of the Company and also for the purpose of activating financial participation and for technical collaboration and to acquire or provide necessary formula and patent rights for furthering the main objects of the Company.
- 14.Subject to the provisions of Companies Act, 2013 to borrow or raise money in such manner as the Company shall think fit and in particular by the issue of debentures or debenture stock (perpetual or otherwise) and to secure the payment of any money borrowed, raised or owing on the mortgage, charge or lien upon all or any of the property or assets of the company including its uncalled capital and also by similar mortgage, charge or lien to secure and guarantee the performance by the Company or any other such person or company, of any obligation undertaken by the company.
15. To draw, make, accept, endorse, discount, negotiate, execute and issue bills of exchange, promissory notes, bills of lading, debentures and other negotiable or transferable instruments or securities.
16. To apply for purchase or otherwise acquire and protect prolong and renew in any part of the world any patents, patent rights, brevets d' inventions, trademarks, designs, licenses, protection and concessions conferring any exclusive or non exclusive or limited right to their use of information as to any invention, process or privileges which may seem capable of being used for the main objects designs, licenses, protections, and concessions conferring any exclusive or non-exclusive or limited of the Company or the acquisition of which may seem calculated directly or indirectly, to benefit the Company and to use, exercise, develop or grant licenses or privileges in respect of the property, rights and information so acquired.
- 17.To spend money in experimenting upon and testing and improving or seeking to improve any patents, rights, inventories, discoveries, processes or information of the Company or which the Company may acquire or propose to acquire.
- 18.To do all or any of the main objects either as principals, agents, trustees, contractors or otherwise and either alone or in conjunction with others and either by or through agents, sub contractors, trustees or otherwise.
- 19.To acquire and takeover the whole or any part of the business, goodwill, trademarks properties and liabilities of any person or persons, firms, companies or undertakings either existing or new engaged in or carrying on or proposing to carry on business which this company is authorized to carry on, possession of any property or rights suitable for the purpose of the Company and to pay for the same either in cash or in shares or partly in cash and partly in shares or otherwise.
- 20.To procure the registration or recognition of the Company in or under the laws of any place outside India.
- 21.To form, incorporate or promote any company or companies whether in India or elsewhere having amongst its or their objects the acquisition of all or any of the assets or controls management or development of the Company or any other such objects which in the opinion of the Company could or might directly or indirectly assist the Company in the management if it's main business or the development of its properties or otherwise prove advantageous to the Company and to pay all or any of the cost and expenses incurred in connection with any such promotion or incorporation and to remunerate any person or company in any matter it shall think fit for services rendered or to be rendered in or about the formation or promotion of the company or the conduct of its main business or in about the promotion of any other such company in which the Company may have any interest.
- 22.Subject to the provisions of Companies Act, 2013, to amalgamate or to enter into partnership or into any arrangement for sharing profits, union of interests, co-operation, joint venture or reciprocal with any person or persons of the company or companies carrying on or engaged in the main business of the Company.
- 23.To enter into any arrangement and take all necessary or proper steps with governments or with such other authorities, supreme, national, local, municipal or otherwise of any place in which the Company may have interests and to carry on any negotiations or operations for the purpose directly or indirectly carrying out the objects of the company or effecting any modification in the constitution of the company or for furthering the interests of the members and to oppose any such steps taken by any other such company, firm or person which may be considered likely, directly or indirectly, to prejudice the interest of the Company or its members and to assist in the promotion whether directly or indirectly of any legislation which may seem advantageous to the Company and to obtain from any such government authority and company any charters, contracts, decrees, rights, grants, loans, privileges, or concessions which the company may think it desirable to obtain and carry out, exercise and comply with any such arrangements, charters, decrees, rights, privileges or concessions.
- 24.To adopt such means of making known the main business of the Company as may seem expedient and in particular by advertising in the press by circulars, by purchase and exhibition of works of art or interest, by publication of books and periodicals and by granting prizes and rewards.
- 25.(a)To undertake and execute any trust, the undertaking of which may seem to the Company desirable and either gratuitously or otherwise and vest any real or personal property, rights or interests acquired by or belonging to the Company in any person or company on behalf of or for the benefit of the company with or without any declared trust in the favor of the Company.
(b)To accept gifts including by way of awards/prizes from govt. and semi-govt. bodies and to give gifts to create trust for the benefit of the employees, members, directors and/or their dependents, heirs and children and for deserving object for and other persons.
- 26.To apply the assets of the Company in any way or towards the establishment, maintenance or extension of any association, institution or fund for the interests of the masters, owners and employers against loss by bad debt, strike, combustion, fire accident or otherwise or for the benefit of the employee, workman or others at any time employed by the Company or any of its predecessors in business or their families or dependents and whether or not in common with such other persons or classes of persons and in particular of friendly, co-operative and such other societies, reading rooms, libraries, educational and charitable institutions, dining and recreation rooms, churches, chapels, schools and hospitals and to grant gratuities, pension, allowances and to contribute to any funds raised by public or local subscription for any purpose.
- 27.To distribute as dividend or bonus among the member or to place to reserve or otherwise to apply as the Company may from time to

time determine any money received by way of premium on debentures issued at a premium by the Company and any money received in respect of forfeited shares, money arising from the sale by the company of forfeited shares, money arising from the sale by the Company of forfeited shares, Subject to the provisions of the Companies Act, 2013

28. To aid pecuniarily or otherwise any association, body or movement having for an object the solution, settlement of industrial or labor problems or troubles or the promotion of industry or trade.

29. To subscribe or guarantee money for any national, charitable, benevolent, public, general or useful object of and for exhibition subject to the provisions of Companies Act, 2013

30. To establish and maintain or procure the establishment and maintenance of any contributory or non contributory pension or superannuation funds for the benefit of and give or procure the giving of donation, gratuities, pensions, allowances or emoluments to any person who are or were at any time in the employment or service of the Company or is allied to or associated with the Company or with any such subsidiary company or who are or were at any time directors or officers of the company as aforesaid and the wives, widows, families and dependents of any such persons and also establish and subscribe to any institutions, associations, clubs or funds calculated to be for the benefit of or to advance the interest and well being of the company or of any such other company as aforesaid and make payments to or towards the protection of any such person as aforesaid and do any of the matters aforesaid, either, alone or in conjunction with any such other company as aforesaid.

31. To agree to refer to arbitration any dispute present or future between the Company and any other company, firm, individual or any other body and to submit the same to arbitration in India or abroad either in accordance with Indian or any foreign system of law.

32. To appoint agents, sub-agents, dealers, managers, canvassers, sales representative or salesmen for transacting all or any kind of the main business of which this company is authorized to carry on and to constitute agencies of the Company in India or in any other country and establish depots and agencies in different parts of the world.

33. To guarantee the payment or performance of any contracts or obligations or become surety for any firm, person or company for any purpose and to act as agents for the collection, receipt or payment of money and to act as agents for the collection, receipt or payment of money and to act as agents for and render services to customers and others and to give guarantees and indemnities. To give surety/ mortgage / pledge of the property for raising fund/loan for and on behalf of the Company/associates concern/person/any other company.

34. To establish and run units, sister concerns operate for any of the main at places in or outside India as the Company may deem expedient.

35. To do all such other things as may be deemed incidental or conducive to the attainment of main objects.

36. To collaborate, merge, acquisition, joint venture with Indian and foreign experts, companies, firms to start industry and business in or outside India on such terms and conditions as the company may deem fit.

4. The liability of the member(s) is limited and this liability is limited to the amount unpaid, if any, on the shares held by them.

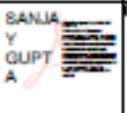
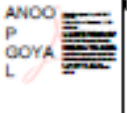

5. The share capital of the company is

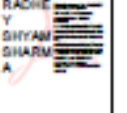
20,000,000.00

rupees, divided into,

2,000,000.00	Equity	shares of	10.00	rupees each	
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- 6 ☒ We, the several persons, whose names and addresses are subscribed, are desirous of being formed into a company in pursuance of this memorandum of association, and we respectively agree to take the number of shares in the capital of the company set against our respective names:

S.No.	Subscriber Details				
	Name, Address, Description and Occupation	DIN/PAN/Passport Number	No. of shares taken	DSC	Dated
1	Sanjay Gupta, s/o Late Sh. Hukam Chand Gupta r/o : A-13, Bhagwan Dass Nagar, East Punjabi Bagh, Delhi-110026 Delhi, India Occupation : Business	00128020	100000 Equity		09/10/17
2	Anoop Goyal, s/o Sh. Ghanshyam Dass r/o : C-8/20, Sector-7, Rohini, New Delhi-110085 Delhi, India Occupation : Business	01302554	100000 Equity		09/10/17
					
Total Shares taken			200,000 Equity		

Signed before Me				
Name	Address, Description and Occupation	DIN/PAN/Passport Number/ Membership Number	DSC	Dated
FCA	RADHESHYAM SHARMA 351, Aggarwal Modern Bazar, C-33, Lawrence Road, Ind. Area, Delhi-110035 Delhi, India Occupation : Chartered Accountant	097127		

[Modify](#)
[Check Form](#)

[Pursuant to Schedule I (see Sections 4 and 5) to
the Companies Act, 2013]] FORM NO. INC-34

SPICE AOA

(a-Articles of Association)

AOA language ☒ English ☐ Hindi

SRN of form INC-1

G54453832

Prefill

Table as notified under schedule I of the companies Act, 2013 is applicable to the company

COMMON RESEARCH AND ANALYSIS PRIVATE LIMITED

A COMPANY LIMITED BY SHARES

Check if not applicable	Check if altered	Article No	Description
			<i>Interpretation</i>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	I	<p>(1) In these regulations – (a) "the Act" means the Companies Act, 2013, (b) "the seal" means the common seal of the company.</p> <p>(2) Unless the context otherwise requires, words or expressions contained in these regulations shall bear the same meaning as in the Act or any statutory modification thereof in force at the date at which these regulations become binding on the company.</p> <p>(3) The Company is a Private Company within the meaning of Section 2(68) of the Companies Act, 2013 and accordingly:- (I) restricts the right to transfer its shares; (II) limits the number of its members to two hundred: Provide that where two or more persons hold one or more shares in a company jointly, they shall, for the purposes of this clause, be treated as a single member. Provided further that- (a) persons who are in the employment of the company; and (b) persons who, having been formerly in the employment of the company, were members of the company while in the employment and have continued to be members after the employment ceased, shall not be included in the number of members; and (III) Prohibits any invitation to the public to subscribe for any securities of the company;</p>
			<i>Share capital and variation of rights</i>
<input type="checkbox"/>	<input type="checkbox"/>	II 1	Subject to the provisions of the Act and these Articles, the shares in the capital of the company shall be under the control of the Directors who may issue, allot or otherwise dispose of the same or any of them to such persons, in such proportion and on such terms and conditions and either at a premium or at par and at such time as they may from time to time think fit.
<input type="checkbox"/>	<input type="checkbox"/>	2	<p>(I) Every person whose name is entered as a member in the register of members shall be entitled to receive within two months after incorporation, in case of subscribers to the memorandum or after allotment or within one month after the application for the registration of transfer or transmission or within such other period as the conditions of issue shall be provided, – (a) one certificate for all his shares without payment of any charges; or (b) several certificates, each for one or more of his shares, upon payment of twenty rupees for each certificate after the first.</p> <p>(II) Every certificate shall be under the seal and shall specify the shares to which it relates and the amount paid-up thereon.</p> <p>(III) In respect of any share or shares held jointly by several persons, the company shall not be bound to issue more than one certificate, and delivery of a certificate for a share to one of several joint holders shall be sufficient delivery to all such holders</p>
<input type="checkbox"/>	<input type="checkbox"/>	3	(I) If any share certificate be worn out, defaced, mutilated or torn or if there be no further space on the back for endorsement of transfer, then upon production and surrender thereof to the company, a new certificate may be issued in lieu thereof, and if any certificate is lost or destroyed then upon proof thereof to the satisfaction of the company and on execution of such indemnity as the company deem adequate, a new certificate in lieu thereof shall be given. Every certificate under this Article shall be issued on payment of twenty rupees for each

Page 1 of 11

			certificate.
			(II) The provisions of Articles (2) and (3) shall mutatis mutandis apply to debentures of the company.
<input type="checkbox"/>	<input type="checkbox"/>	4	Except as required by law, no person shall be recognised by the company as holding any share upon any trust, and the company shall not be bound by, or be compelled in any way to recognise (even when having notice thereof) any equitable, contingent, future or partial interest in any share, or any interest in any fractional part of a share, or (except only as by these regulations or by law otherwise provided) any other rights in respect of any share except an absolute right to the entirety thereof in the registered holder.
<input type="checkbox"/>	<input type="checkbox"/>	5	(I) The company may exercise the powers of paying commissions conferred by sub-section (5) of section 40, provided that the rate per cent or the amount of the commission paid or agreed to be paid shall be disclosed in the manner required by that section and rules made thereunder. (II) The rate or amount of the commission shall not exceed the rate or amount prescribed in rules made under sub-section (5) of section 40. (III) The commission may be satisfied by the payment of cash or the allotment of fully or partly paid shares or partly in the one way and partly in the other.
<input type="checkbox"/>	<input type="checkbox"/>	6	(I) If at any time the share capital is divided into different classes of shares, the rights attached to any class (unless otherwise provided by the terms of issue of the shares of that class) may, subject to the provisions of section 48, and whether or not the company is being wound up, be varied with the consent in writing of the holders of three-fourths of the issued shares of that class, or with the sanction of a special resolution passed at a separate meeting of the holders of the shares of that class. (II) To every such separate meeting, the provisions of these regulations relating to general meetings shall mutatis mutandis apply, but so that the necessary quorum shall be at least two persons holding at least one-third of the issued shares of the class in question.
<input type="checkbox"/>	<input type="checkbox"/>	7	The rights conferred upon the holders of the shares of any class issued with preferred or other rights shall not, unless otherwise expressly provided by the terms of issue of the shares of that class, be deemed to be varied by the creation or issue of further shares ranking <i>pari passu</i> therewith.
<input type="checkbox"/>	<input type="checkbox"/>	8	Subject to the provisions of section 55, any preference shares may, with the sanction of an ordinary resolution, be issued on the terms that they are to be redeemed on such terms and in such manner as the company before the issue of the shares may, by special resolution, determine.
			Lien
<input type="checkbox"/>	<input type="checkbox"/>	9	(I) The company shall have a first and paramount lien – (a) on every share (not being a fully paid share), for all monies (whether presently payable or not) called, or payable at a fixed time, in respect of that share; and (b) on all shares (not being fully paid shares) standing registered in the name of a single person, for all monies presently payable by him or his estate to the company; Provided that the Board of directors may at any time declare any share to be wholly or in part exempt from the provisions of this clause. (II) The company's lien, if any, on a share shall extend to all dividends payable and bonuses declared from time to time in respect of such shares.
<input type="checkbox"/>	<input type="checkbox"/>	10	The company may sell, in such manner as the Board thinks fit, any shares on which the company has a lien: Provided that no sale shall be made – (a) unless a sum in respect of which the lien exists is presently payable; or (b) until the expiration of fourteen days after a notice in writing stating and demanding payment of such part of the amount in respect of which the lien exists as is presently payable, has been given to the registered holder for the time being of the share or the person entitled thereto by reason of his death or insolvency.
<input type="checkbox"/>	<input type="checkbox"/>	11	(I) To give effect to any such sale, the Board may authorise some person to transfer the shares sold to the purchaser thereof (II) The purchaser shall be registered as the holder of the shares comprised in any such transfer. (III) The purchaser shall not be bound to see to the application of the purchase money, nor shall his title to the shares be affected by any irregularity or invalidity in the proceedings in reference to the sale.
<input type="checkbox"/>	<input type="checkbox"/>	12	(I) The proceeds of the sale shall be received by the company and applied in payment of such part of the amount in respect of which the lien exists as is presently payable. (II) The residue, if any, shall, subject to a like lien for sums not presently payable as existed upon the shares before the sale, be paid to the person entitled to the shares at the date of the sale.
			Calls on shares

<input type="checkbox"/>	<input type="checkbox"/>	13	<p>(I) The Board may, from time to time, make calls upon the members in respect of any monies unpaid on their shares (whether on account of the nominal value of the shares or by way of premium) and not by the conditions of allotment thereof made payable at fixed times: Provided that no call shall exceed one-fourth of the nominal value of the share or be payable at less than one month from the date fixed for the payment of the last preceding call.</p> <p>(II) Each member shall, subject to receiving at least fourteen days' notice specifying the time or times and place of payment, pay to the company, at the time or times and place so specified, the amount called on his shares.</p> <p>(III) A call may be revoked or postponed at the discretion of the Board.</p>
<input type="checkbox"/>	<input type="checkbox"/>	14	A call shall be deemed to have been made at the time when the resolution of the Board authorizing the call was passed and may be required to be paid by instalments.
<input type="checkbox"/>	<input type="checkbox"/>	15	The joint holders of a share shall be jointly and severally liable to pay all calls in respect thereof.
<input type="checkbox"/>	<input type="checkbox"/>	16	<p>(I) If a sum called in respect of a share is not paid before or on the day appointed for payment thereof, the person from whom the sum is due shall pay interest thereon from the day appointed for payment thereof to the time of actual payment at ten per cent per annum or at such lower rate, if any, as the Board may determine.</p> <p>(II) The Board shall be at liberty to waive payment of any such interest wholly or in part.</p>
<input type="checkbox"/>	<input type="checkbox"/>	17	<p>(I) Any sum which by the terms of issue of a share becomes payable on allotment or at any fixed date, whether on account of the nominal value of the share or by way of premium, shall, for the purposes of these regulations, be deemed to be a call duly made and payable on the date on which by the terms of issue such sum becomes payable.</p> <p>(II) In case of non-payment of such sum, all the relevant provisions of these regulations as to payment of interest and expenses, forfeiture or otherwise shall apply as if such sum had become payable by virtue of a call duly made and notified.</p>
<input type="checkbox"/>	<input type="checkbox"/>	18	<p>The Board –</p> <p>(a) may, if it thinks fit, receive from any member willing to advance the same, all or any part of the monies uncalled and unpaid upon any shares held by him; and</p> <p>(b) upon all or any of the monies so advanced, may (until the same would, but for such advance, become presently payable) pay interest at such rate not exceeding, unless the company in general meeting shall otherwise direct, twelve per cent per annum, as may be agreed upon between the Board and the member paying the sum in advance.</p>
			<i>Transfer of shares</i>
<input type="checkbox"/>	<input type="checkbox"/>	19	<p>(I) The instrument of transfer of any share in the company shall be executed by or on behalf of both the transferor and transferee.</p> <p>(II) The transferor shall be deemed to remain a holder of the share until the name of the transferee is entered in the register of members in respect thereof.</p>
<input type="checkbox"/>	<input type="checkbox"/>	20	<p>The Board may, subject to the right of appeal conferred by section 58 decline to register –</p> <p>(a) the transfer of a share, not being a fully paid share, to a person of whom they do not approve; or</p> <p>(b) any transfer of shares on which the company has a lien.</p>
<input type="checkbox"/>	<input type="checkbox"/>	21	<p>The Board may decline to recognise any instrument of transfer unless –</p> <p>(a) the instrument of transfer is in the form as prescribed in rules made under sub-section (1) of section 56;</p> <p>(b) the instrument of transfer is accompanied by the certificate of the shares to which it relates, and such other evidence as the Board may reasonably require to show the right of the transferor to make the transfer; and</p> <p>(c) the instrument of transfer is in respect of only one class of shares.</p>
<input type="checkbox"/>	<input type="checkbox"/>	22	<p>On giving not less than seven days' previous notice in accordance with section 91 and rules made thereunder, the registration of transfers may be suspended at such times and for such periods as the Board may from time to time determine:</p> <p>Provided that such registration shall not be suspended for more than thirty days at any one time or for more than forty-five days in the aggregate in any year.</p>
			<i>Transmission of shares</i>
<input type="checkbox"/>	<input type="checkbox"/>	23	<p>(I) On the death of a member, the survivor or survivors where the member was a joint holder, and his nominee or nominees or legal representatives where he was a sole holder, shall be the only persons recognised by the company as having any title to his interest in the shares.</p> <p>(II) Nothing in clause (I) shall release the estate of a deceased joint holder from any liability in respect of any share which had been jointly held by him with other persons.</p>

<input type="checkbox"/>	<input type="checkbox"/>	24	<p>(i) Any person becoming entitled to a share in consequence of the death or insolvency of a member may, upon such evidence being produced as may from time to time properly be required by the Board and subject as hereinafter provided, elect, either –</p> <p>(a) to be registered himself as holder of the share; or</p> <p>(b) to make such transfer of the share as the deceased or insolvent member could have made.</p> <p>(ii) The Board shall, in either case, have the same right to decline or suspend registration as it would have had, if the deceased or insolvent member had transferred the share before his death or insolvency.</p>
<input type="checkbox"/>	<input type="checkbox"/>	25	<p>(i) If the person so becoming entitled shall elect to be registered as holder of the share himself, he shall deliver or send to the company a notice in writing signed by him stating that he so elects.</p> <p>(ii) If the person aforesaid shall elect to transfer the share, he shall testify his election by executing a transfer of the share.</p> <p>(iii) All the limitations, restrictions and provisions of these regulations relating to the right to transfer and the registration of transfers of shares shall be applicable to any such notice or transfer as aforesaid as if the death or insolvency of the member had not occurred and the notice or transfer were a transfer signed by that member.</p>
<input type="checkbox"/>	<input type="checkbox"/>	26	<p>A person becoming entitled to a share by reason of the death or insolvency of the holder shall be entitled to the same dividends and other advantages to which he would be entitled if he were the registered holder of the share, except that he shall not, before being registered as a member in respect of the share, be entitled in respect of it to exercise any right conferred by membership in relation to meetings of the company:</p> <p>Provided that the Board may, at any time, give notice requiring any such person to elect either to be registered himself or to transfer the share, and if the notice is not complied with within ninety days, the Board may thereafter withhold payment of all dividends, bonuses or other monies payable in respect of the share, until the requirements of the notice have been complied with.</p>
			<i>Forfeiture of shares</i>
<input type="checkbox"/>	<input type="checkbox"/>	27	If a member fails to pay any call, or instalment of a call, on the day appointed for payment thereof, the Board may, at any time thereafter during such time as any part of the call or instalment remains unpaid, serve a notice on him requiring payment of so much of the call or instalment as is unpaid, together with any interest which may have accrued.
<input type="checkbox"/>	<input type="checkbox"/>	28	<p>The notice aforesaid shall –</p> <p>(a) name a further day (not being earlier than the expiry of fourteen days from the date of service of the notice) on or before which the payment required by the notice is to be made; and</p> <p>(b) state that, in the event of non-payment on or before the day so named, the shares in respect of which the call was made shall be liable to be forfeited.</p>
<input type="checkbox"/>	<input type="checkbox"/>	29	If the requirements of any such notice as aforesaid are not complied with, any share in respect of which the notice has been given may, at any time thereafter, before the payment required by the notice has been made, be forfeited by a resolution of the Board to that effect.
<input type="checkbox"/>	<input type="checkbox"/>	30	<p>(i) A forfeited share may be sold or otherwise disposed of on such terms and in such manner as the Board thinks fit.</p> <p>(ii) At any time before a sale or disposal as aforesaid, the Board may cancel the forfeiture on such terms as it thinks fit.</p>
<input type="checkbox"/>	<input type="checkbox"/>	31	<p>(i) A person whose shares have been forfeited shall cease to be a member in respect of the forfeited shares, but shall, notwithstanding the forfeiture, remain liable to pay to the company all monies which, at the date of forfeiture, were presently payable by him to the company in respect of the shares.</p> <p>(ii) The liability of such person shall cease if and when the company shall have received payment in full of all such monies in respect of the shares.</p>
<input type="checkbox"/>	<input type="checkbox"/>	32	<p>(i) A duly verified declaration in writing that the declarant is a director, the manager or the secretary, of the company, and that a share in the company has been duly forfeited on a date stated in the declaration, shall be conclusive evidence of the facts therein stated as against all persons claiming to be entitled to the share;</p> <p>(ii) The company may receive the consideration, if any, given for the share on any sale or disposal thereof and may execute a transfer of the share in favour of the person to whom the share is sold or disposed of;</p> <p>(iii) The transferee shall thereupon be registered as the holder of the share; and</p> <p>(iv) The transferee shall not be bound to see to the application of the purchase money, if any, nor shall his title</p>

			to the share be affected by any irregularity or invalidity in the proceedings in reference to the forfeiture, sale or disposal of the share.
<input type="checkbox"/>	<input type="checkbox"/>	33	The provisions of these regulations as to forfeiture shall apply in the case of nonpayment of any sum which, by the terms of issue of a share, becomes payable at a fixed time, whether on account of the nominal value of the share or by way of premium, as if the same had been payable by virtue of a call duly made and notified.
			<i>Alteration of capital</i>
<input type="checkbox"/>	<input type="checkbox"/>	34	The company may, from time to time, by ordinary resolution increase the share capital by such sum, to be divided into shares of such amount, as may be specified in the resolution.
<input type="checkbox"/>	<input type="checkbox"/>	35	Subject to the provisions of section 61, the company may, by ordinary resolution, -- (a) consolidate and divide all or any of its share capital into shares of larger amount than its existing shares; (b) convert all or any of its fully paid-up shares into stock, and reconvert that stock into fully paid-up shares of any denomination; (c) sub-divide its existing shares or any of them into shares of smaller amount than is fixed by the memorandum; (d) cancel any shares which, at the date of the passing of the resolution, have not been taken or agreed to be taken by any person.
<input type="checkbox"/>	<input type="checkbox"/>	36	Where shares are converted into stock, -- (a) the holders of stock may transfer the same or any part thereof in the same manner as, and subject to the same regulations under which, the shares from which the stock arose might before the conversion have been transferred, or as near thereto as circumstances admit: Provided that the Board may, from time to time, fix the minimum amount of stock transferable, so, however, that such minimum shall not exceed the nominal amount of the shares from which the stock arose. (b) the holders of stock shall, according to the amount of stock held by them, have the same rights, privileges and advantages as regards dividends, voting at meetings of the company, and other matters, as if they held the shares from which the stock arose; but no such privilege or advantage (except participation in the dividends and profits of the company and in the assets on winding up) shall be conferred by an amount of stock which would not, if existing in shares, have conferred that privilege or advantage. (c) such of the regulations of the company as are applicable to paid-up shares shall apply to stock and the words "share" and "shareholder" in those regulations shall include "stock" and "stock-holder" respectively.
<input type="checkbox"/>	<input type="checkbox"/>	37	The company may, by special resolution, reduce in any manner and with, and subject to, any incident authorised and consent required by law, -- (a) its share capital; (b) any capital redemption reserve account; or (c) any share premium account.
			<i>Capitalisation of profits</i>
<input type="checkbox"/>	<input type="checkbox"/>	38	(I) The company in general meeting may, upon the recommendation of the Board, resolve -- (a) that it is desirable to capitalise any part of the amount for the time being standing to the credit of any of the company's reserve accounts, or to the credit of the profit and loss account, or otherwise available for distribution; and (b) that such sum be accordingly set free for distribution in the manner specified in clause (II) amongst the members who would have been entitled thereto, if distributed by way of dividend and in the same proportions. (II) The sum aforesaid shall not be paid in cash but shall be applied, subject to the provision contained in clause (III), either in or towards -- (A) paying up any amounts for the time being unpaid on any shares held by such members respectively; (B) paying up in full, unissued shares of the company to be allotted and distributed, credited as fully paid-up, to and amongst such members in the proportions aforesaid; (C) partly in the way specified in sub-clause (A) and partly in that specified in sub-clause (B); (D) A securities premium account and a capital redemption reserve account may, for the purposes of this regulation, be applied in the paying up of unissued shares to be issued to members of the company as fully paid bonus shares; (E) The Board shall give effect to the resolution passed by the company in pursuance of this regulation.

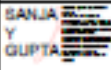
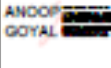

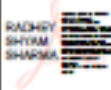
<input type="checkbox"/>	<input type="checkbox"/>	39	<p>(I) Whenever such a resolution as aforesaid shall have been passed, the Board shall –</p> <p>(a) make all appropriations and applications of the undivided profits resolved to be capitalised thereby, and all allotments and issues of fully paid shares if any; and</p> <p>(b) generally do all acts and things required to give effect thereto.</p> <p>(II) The Board shall have power –</p> <p>(a) to make such provisions, by the issue of fractional certificates or by payment in cash or otherwise as it thinks fit, for the case of shares becoming distributable in fractions; and</p> <p>(b) to authorise any person to enter, on behalf of all the members entitled thereto, into an agreement with the company providing for the allotment to them respectively, credited as fully paid-up, of any further shares to which they may be entitled upon such capitalisation, or as the case may require, for the payment by the company on their behalf, by the application thereto of their respective proportions of profits resolved to be capitalised, of the amount or any part of the amounts remaining unpaid on their existing shares;</p> <p>(III) Any agreement made under such authority shall be effective and binding on such members.</p>
			<i>Buy-back of shares</i>
<input type="checkbox"/>	<input type="checkbox"/>	40	Notwithstanding anything contained in these articles but subject to the provisions of sections 68 to 70 and any other applicable provision of the Act or any other law for the time being in force, the company may purchase its own shares or other specified securities.
			<i>General meetings</i>
<input type="checkbox"/>	<input type="checkbox"/>	41	All general meetings other than annual general meeting shall be called extraordinary general meeting.
<input type="checkbox"/>	<input type="checkbox"/>	42	<p>(I) The Board may, whenever it thinks fit, call an extraordinary general meeting.</p> <p>(II) If at any time directors capable of acting who are sufficient in number to form a quorum are not within India, any director or any two members of the company may call an extraordinary general meeting in the same manner, as nearly as possible, as that in which such a meeting may be called by the Board.</p>
			<i>Proceedings at general meetings</i>
<input type="checkbox"/>	<input type="checkbox"/>	43	<p>(I) No business shall be transacted at any general meeting unless a quorum of members is present at the time when the meeting proceeds to business.</p> <p>(II) Save as otherwise provided herein, the quorum for the general meetings shall be as provided in section 103.</p>
<input type="checkbox"/>	<input type="checkbox"/>	44	The chairperson, if any, of the Board shall preside as Chairperson at every general meeting of the company.
<input type="checkbox"/>	<input type="checkbox"/>	45	If there is no such Chairperson, or if he is not present within fifteen minutes after the time appointed for holding the meeting, or is unwilling to act as chairperson of the meeting, the directors present shall elect one of their members to be Chairperson of the meeting.
<input type="checkbox"/>	<input type="checkbox"/>	46	If at any meeting no director is willing to act as Chairperson or if no director is present within fifteen minutes after the time appointed for holding the meeting, the members present shall choose one of their members to be Chairperson of the meeting.
			<i>Adjournment of meeting</i>
<input type="checkbox"/>	<input type="checkbox"/>	47	<p>(I) The Chairperson may, with the consent of any meeting at which a quorum is present, and shall, if so directed by the meeting, adjourn the meeting from time to time and from place to place.</p> <p>(II) No business shall be transacted at any adjourned meeting other than the business left unfinished at the meeting from which the adjournment took place.</p> <p>(III) When a meeting is adjourned for thirty days or more, notice of the adjourned meeting shall be given as in the case of an original meeting.</p> <p>(IV) Save as aforesaid, and as provided in section 103 of the Act, it shall not be necessary to give any notice of an adjournment or of the business to be transacted at an adjourned meeting.</p>
			<i>Voting rights</i>

<input type="checkbox"/>	<input type="checkbox"/>	48	Subject to any rights or restrictions for the time being attached to any class or classes of shares, -- (a) on a show of hands, every member present in person shall have one vote; and (b) on a poll, the voting rights of members shall be in proportion to his share in the paid-up equity share capital of the company.
<input type="checkbox"/>	<input type="checkbox"/>	49	A member may exercise his vote at a meeting by electronic means in accordance with section 108 and shall vote only once.
<input type="checkbox"/>	<input type="checkbox"/>	50	(I) In the case of joint holders, the vote of the senior who tenders a vote, whether in person or by proxy, shall be accepted to the exclusion of the votes of the other joint holders. (II) For this purpose, seniority shall be determined by the order in which the names stand in the register of members.
<input type="checkbox"/>	<input type="checkbox"/>	51	A member of unsound mind, or in respect of whom an order has been made by any court having jurisdiction in lunacy, may vote, whether on a show of hands or on a poll, by his committee or other legal guardian, and any such committee or guardian may, on a poll, vote by proxy.
<input type="checkbox"/>	<input type="checkbox"/>	52	Any business other than that upon which a poll has been demanded may be proceeded with, pending the taking of the poll.
<input type="checkbox"/>	<input type="checkbox"/>	53	No member shall be entitled to vote at any general meeting unless all calls or other sums presently payable by him in respect of shares in the company have been paid.
<input type="checkbox"/>	<input type="checkbox"/>	54	(I) No objection shall be raised to the qualification of any voter except at the meeting or adjourned meeting at which the vote objected to is given or tendered, and every vote not disallowed at such meeting shall be valid for all purposes. (II) Any such objection made in due time shall be referred to the Chairperson of the meeting, whose decision shall be final and conclusive.
			<i>Proxy</i>
<input type="checkbox"/>	<input type="checkbox"/>	55	The instrument appointing a proxy and the power-of-attorney or other authority, if any, under which it is signed or a notarised copy of that power or authority, shall be deposited at the registered office of the company not less than 48 hours before the time for holding the meeting or adjourned meeting at which the person named in the instrument proposes to vote, or, in the case of a poll, not less than 24 hours before the time appointed for the taking of the poll; and in default the instrument of proxy shall not be treated as valid.
<input type="checkbox"/>	<input type="checkbox"/>	56	An instrument appointing a proxy shall be in the form as prescribed in the rules made under section 105.
<input type="checkbox"/>	<input type="checkbox"/>	57	A vote given in accordance with the terms of an instrument of proxy shall be valid, notwithstanding the previous death or insanity of the principal or the revocation of the proxy or of the authority under which the proxy was executed, or the transfer of the shares in respect of which the proxy is given: Provided that no intimation in writing of such death, insanity, revocation or transfer shall have been received by the company at its office before the commencement of the meeting or adjourned meeting at which the proxy is used.
			<i>Board of Directors</i>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	58	The number of the directors and the names of the first directors shall be determined in writing by the subscribers of the memorandum or a majority of them. 1. SANJAY GUPTA 2. ANOOP GOYAL
<input type="checkbox"/>	<input type="checkbox"/>	59	(I) The remuneration of the directors shall, in so far as it consists of a monthly payment, be deemed to accrue from day-to-day. (II) In addition to the remuneration payable to them in pursuance of the Act, the directors may be paid all travelling, hotel and other expenses properly incurred by them -- (a) in attending and returning from meetings of the Board of Directors or any committee thereof or general meetings of the company; or (b) in connection with the business of the company.
<input type="checkbox"/>	<input type="checkbox"/>	60	The Board may pay all expenses incurred in getting up and registering the company.
<input type="checkbox"/>	<input type="checkbox"/>	61	The company may exercise the powers conferred on it by section 88 with regard to the keeping of a foreign register; and the Board may (subject to the provisions of that section) make and vary such regulations as it may think fit respecting the keeping of any such register.
<input type="checkbox"/>	<input type="checkbox"/>	62	All cheques, promissory notes, drafts, hundis, bills of exchange and other negotiable instruments, and all receipts for monies paid to the company, shall be signed, drawn, accepted, endorsed, or otherwise executed, as the case may be, by such person and in such manner as the Board shall from time to time by resolution determine.

<input type="checkbox"/>	<input type="checkbox"/>	63	Every director present at any meeting of the Board or of a committee thereof shall sign his name in a book to be kept for that purpose.
<input type="checkbox"/>	<input type="checkbox"/>	64	(i) Subject to the provisions of section 149, the Board shall have power at any time, and from time to time, to appoint a person as an additional director, provided the number of the directors and additional directors together shall not at any time exceed the maximum strength fixed for the Board by the articles. (ii) Such person shall hold office only up to the date of the next annual general meeting of the company but shall be eligible for appointment by the company as a director at that meeting subject to the provisions of the Act.
			<i>Proceedings of the Board</i>
<input type="checkbox"/>	<input type="checkbox"/>	65	(i) The Board of Directors may meet for the conduct of business, adjourn and otherwise regulate its meetings, as it thinks fit. (ii) A director may, and the manager or secretary on the requisition of a director shall, at any time, summon a meeting of the Board.
<input type="checkbox"/>	<input type="checkbox"/>	66	(i) Save as otherwise expressly provided in the Act, questions arising at any meeting of the Board shall be decided by a majority of votes. (ii) In case of an equality of votes, the Chairperson of the Board, if any, shall have a second or casting vote.
<input type="checkbox"/>	<input type="checkbox"/>	67	The continuing directors may act notwithstanding any vacancy in the Board; but, if and so long as their number is reduced below the quorum fixed by the Act for a meeting of the Board, the continuing directors or director may act for the purpose of increasing the number of directors to that fixed for the quorum, or of summoning a general meeting of the company, but for no other purpose.
<input type="checkbox"/>	<input type="checkbox"/>	68	(i) The Board may elect a Chairperson of its meetings and determine the period for which he is to hold office. (ii) If no such Chairperson is elected, or if at any meeting the Chairperson is not present within five minutes after the time appointed for holding the meeting, the directors present may choose one of their number to be Chairperson of the meeting.
<input type="checkbox"/>	<input type="checkbox"/>	69	(i) The Board may, subject to the provisions of the Act, delegate any of its powers to committees consisting of such member or members of its body as it thinks fit. (ii) Any committee so formed shall, in the exercise of the powers so delegated, conform to any regulations that may be imposed on it by the Board.
<input type="checkbox"/>	<input type="checkbox"/>	70	(i) A committee may elect a Chairperson of its meetings. (ii) If no such Chairperson is elected, or if at any meeting the Chairperson is not present within five minutes after the time appointed for holding the meeting, the members present may choose one of their members to be Chairperson of the meeting.
<input type="checkbox"/>	<input type="checkbox"/>	71	(i) A committee may meet and adjourn as it thinks fit. (ii) Questions arising at any meeting of a committee shall be determined by a majority of votes of the members present, and in case of an equality of votes, the Chairperson shall have a second or casting vote.
<input type="checkbox"/>	<input type="checkbox"/>	72	All acts done in any meeting of the Board or of a committee thereof or by any person acting as a director, shall, notwithstanding that it may be afterwards discovered that there was some defect in the appointment of any one or more of such directors or of any person acting as aforesaid, or that they or any of them were disqualified, be as valid as if every such director or such person had been duly appointed and was qualified to be a director.
<input type="checkbox"/>	<input type="checkbox"/>	73	Save as otherwise expressly provided in the Act, a resolution in writing, signed by all the members of the Board or of a committee thereof, for the time being entitled to receive notice of a meeting of the Board or committee, shall be valid and effective as if it had been passed at a meeting of the Board or committee, duly convened and held.
			<i>Chief Executive Officer, Manager, Company Secretary or Chief Financial Officer</i>
<input type="checkbox"/>	<input type="checkbox"/>	74	Subject to the provisions of the Act, – (i) A chief executive officer, manager, company secretary or chief financial officer may be appointed by the Board for such term, at such remuneration and upon such conditions as it may think fit; and any chief executive officer, manager, company secretary or chief financial officer so appointed may be removed by means of a resolution of the Board; (ii) A director may be appointed as chief executive officer, manager, company secretary or chief financial officer

<input type="checkbox"/>	<input type="checkbox"/>	75	A provision of the Act or these regulations requiring or authorising a thing to be done by or to a director and chief executive officer, manager, company secretary or chief financial officer shall not be satisfied by its being done by or to the same person acting both as director and as, or in place of, chief executive officer, manager, company secretary or chief financial officer.
			<i>The Seal</i>
<input type="checkbox"/>	<input type="checkbox"/>	76	(i) The Board shall provide for the safe custody of the seal. (ii) The seal of the company shall not be affixed to any instrument except by the authority of a resolution of the Board or of a committee of the Board authorised by it in that behalf, and except in the presence of at least two directors and of the secretary or such other person as the Board may appoint for the purpose; and those two directors and the secretary or other person aforesaid shall sign every instrument to which the seal of the company is so affixed in their presence.
			<i>Dividends and Reserve</i>
<input type="checkbox"/>	<input type="checkbox"/>	77	The company in general meeting may declare dividends, but no dividend shall exceed the amount recommended by the Board.
<input type="checkbox"/>	<input type="checkbox"/>	78	Subject to the provisions of section 123, the Board may from time to time pay to the members such interim dividends as appear to it to be justified by the profits of the company.
<input type="checkbox"/>	<input type="checkbox"/>	79	(i) The Board may, before recommending any dividend, set aside out of the profits of the company such sums as it thinks fit as a reserve or reserves which shall, at the discretion of the Board, be applicable for any purpose to which the profits of the company may be properly applied, including provision for meeting contingencies or for equalizing dividends; and pending such application, may, at the like discretion, either be employed in the business of the company or be invested in such investments (other than shares of the company) as the Board may, from time to time, think fit. (ii) The Board may also carry forward any profits which it may consider necessary not to divide, without setting them aside as a reserve
<input type="checkbox"/>	<input type="checkbox"/>	80	(i) Subject to the rights of persons, if any, entitled to shares with special rights as to dividends, all dividends shall be declared and paid according to the amounts paid or credited as paid on the shares in respect whereof the dividend is paid, but if and so long as nothing is paid upon any of the shares in the company, dividends may be declared and paid according to the amounts of the shares. (ii) No amount paid or credited as paid on a share in advance of calls shall be treated for the purposes of this regulation as paid on the share. (iii) All dividends shall be apportioned and paid proportionately to the amounts paid or credited as paid on the shares during any portion or portions of the period in respect of which the dividend is paid; but if any share is issued on terms providing that it shall rank for dividend as from a particular date such share shall rank for dividend accordingly.
<input type="checkbox"/>	<input type="checkbox"/>	81	The Board may deduct from any dividend payable to any member all sums of money, if any, presently payable by him to the company on account of calls or otherwise in relation to the shares of the company.
<input type="checkbox"/>	<input type="checkbox"/>	82	(i) Any dividend, interest or other monies payable in cash in respect of shares may be paid by cheque or warrant sent through the post directed to the registered address of the holder or, in the case of joint holders, to the registered address of that one of the joint holders who is first named on the register of members, or to such person and to such address as the holder or joint holders may in writing direct. (ii) Every such cheque or warrant shall be made payable to the order of the person to whom it is sent.
<input type="checkbox"/>	<input type="checkbox"/>	83	Any one of two or more joint holders of a share may give effective receipts for any dividends, bonuses or other monies payable in respect of such share.
<input type="checkbox"/>	<input type="checkbox"/>	84	Notice of any dividend that may have been declared shall be given to the persons entitled to share therein in the manner mentioned in the Act.
<input type="checkbox"/>	<input type="checkbox"/>	85	No dividend shall bear interest against the company.
			<i>Accounts</i>
<input type="checkbox"/>	<input type="checkbox"/>	86	(i) The Board shall from time to time determine whether and to what extent and at what times and places and under what conditions or regulations, the accounts and books of the company, or any of them, shall be open to the inspection of members not being directors.

			(ii) No member (not being a director) shall have any right of inspecting any account or book or document of the company except as conferred by law or authorised by the Board or by the company in general meeting.
			<i>Winding up</i>
<input type="checkbox"/>	<input type="checkbox"/>	87	<p>Subject to the provisions of Chapter XX of the Act and rules made thereunder –</p> <p>(i) If the company shall be wound up, the liquidator may, with the sanction of a special resolution of the company and any other sanction required by the Act, divide amongst the members, in specie or kind, the whole or any part of the assets of the company, whether they shall consist of property of the same kind or not.</p> <p>(ii) For the purpose aforesaid, the liquidator may set such value as he deems fair upon any property to be divided as aforesaid and may determine how such division shall be carried out as between the members or different classes of members.</p> <p>(iii) The liquidator may, with the like sanction, vest the whole or any part of such assets in trustees upon such trusts for the benefit of the contributories if he considers necessary, but so that no member shall be compelled to accept any shares or other securities whereon there is any liability.</p>
			<i>Indemnity</i>
<input type="checkbox"/>	<input type="checkbox"/>	88	Every officer of the company shall be indemnified out of the assets of the company against any liability incurred by him in defending any proceedings, whether civil or criminal, in which judgment is given in his favour or in which he is acquitted or in which relief is granted to him by the court or the Tribunal.
<input type="checkbox"/>			

Subscriber Details					
S. NO	Name, Address, Description and Occupation	DIN/PAN/Passport Number	Place	DSC	Dated
1	Sanjay Gupta, s/o Late Sh. Hukam Chand Gupta r/o : A-13, Bhagwan Dass Nagar, East Punjabi Bagh, Delhi-110026 Delhi, India Occupation: Business	00128020	New Delhi		09/10/2017
2	Anoop Goyal, s/o Sh. Ghanshyam Dass r/o : C-8/20, Sector-7, Rohini, New Delhi-110085 Delhi, India Occupation: Business	01302554	New Delhi		09/10/2017
					
Signed Before Me					
Name	Address, Description and Occupation	DIN/PAN/Passport Number/ Membership Number	Place	DSC	Dated
FCA + RADHESHYAM SHARMA	351, Aggarwal Modern Bazar, C-33, Lawrence Road, Ind. Area, Delhi-110035 Delhi, India Occupation: Chartered Accountant	097127	New Delhi		

Annexure 4: Verification of units by DIC, Sonapat

12/09/17
Amr (u)

From: The Joint Director,
Distt. Industries Centre,
Sonapat.

To: The Director of Industries & Commerce, Haryana
Chandigarh

Memo No. DIC/SNP/Cluster/ 1029
Dated 04/07/2017

Subject: Application for mini cluster for NABL Accredited Lab for the Food Processing
Units.

Kindly refer to the subject noted above.

An application for the mini cluster scheme is received from Mr Sanjay Gupta,
President, of Dal Millers & Food Processors Welfare Association, Rai, Distt. Sonapat. The
association wants to setup for Common Facility Center/NABL Accredited Lab for Food. The
detailed application is enclosed herewith for information and necessary action please. It
is requested that the proposal of Mini Cluster may be marked to E & Y for prepared DSR & Dis.

D-1 Original Application.

Joint Director
District Industries Centre
Sonapat

Proposed CFC members are genuine and all are engaged in manufacture
of pulses, Beans & other processing of other food grains. The application of
proposed Mini cluster is hereby recommended for DSR.

SD DIC
Sonapat

Annexure 5: Land Availability Proof



DAL MILLERS & FOOD PROCESSORS WELFARE ASSOCIATION

2262, Food Park, HSIIDC Industrial Area, RAI, Distt. Sonapat (Haryana)

Chief Patron
Ghanshyam Das Goyal
09810030613

President
Sanjay Gupta
09810016763

General Secretary
Anoop Goyal
09810891734

e-mail : dmfpwa@gmail.com

Ref. No.

Dated 26th August, 2017

To,

The Director of Industries,
Haryana Govt
CHANDIGARH

SUBJECT : STATE LEVEL STEERING COMMITTEE MEETING

Respected Sir,

This is to inform you that meeting of State Level Steering Committee was held on 16th August, 2017 at Chandigarh, which was presided by Shri Sudhir Rajpal IAS, Principal Secretary to Government of Haryana.

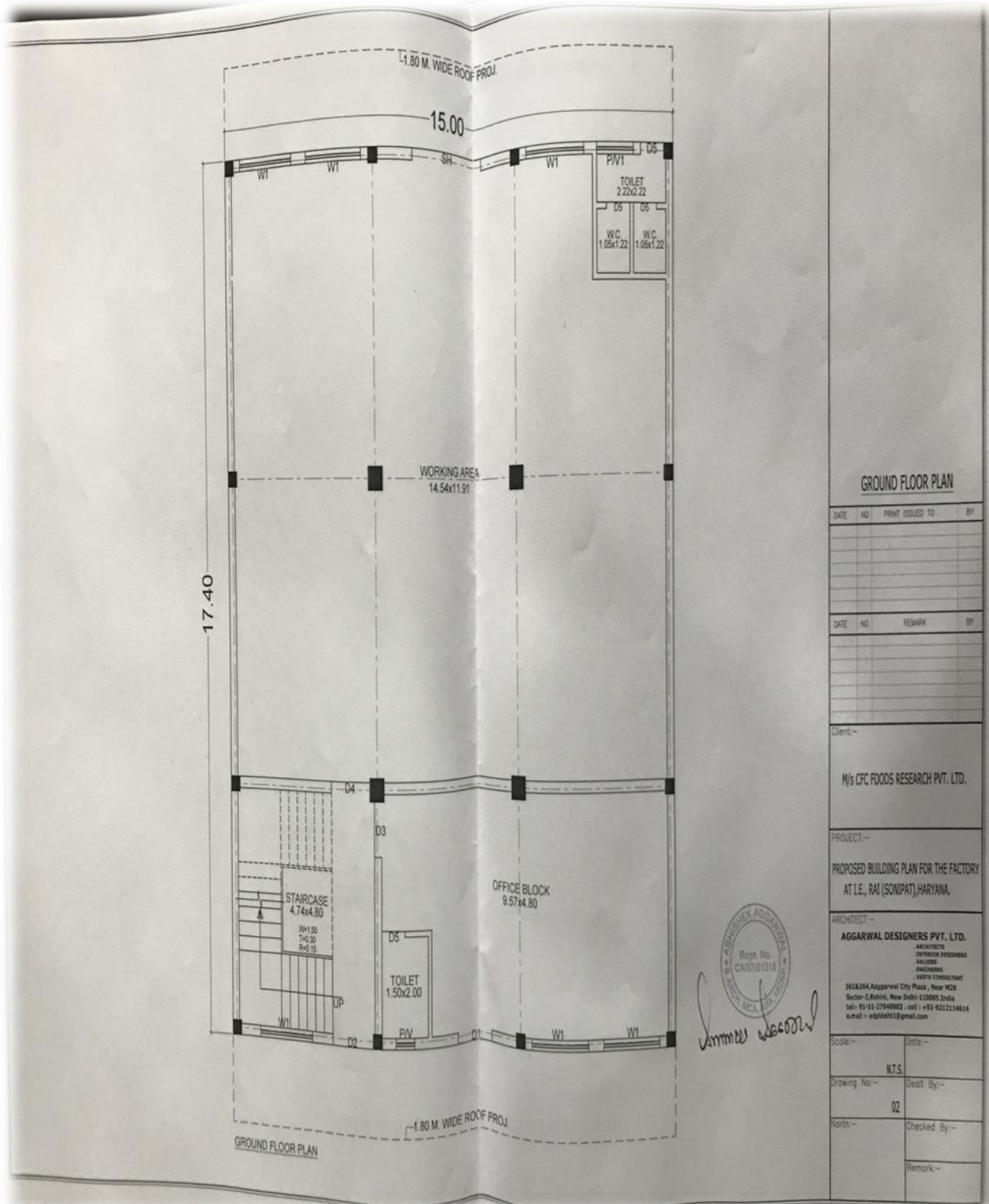
In this meeting DSR for Common Facility Centre at Rai Food Processing Cluster have been approved. The management have received a company name approval from Ministry of Corporate Affairs which is "CFC FOODS RESEARCH PRIVATE LIMITED".

We, therefore request you to allot a plot in the company name of "CFC FOODS RESEARCH PRIVATE LIMITED" of atleast 450 Sq. Mtrs in the HSIIDC Industrial Area, Phase-I, Rai for developing the centre and allotment cost will be bear by our company.

Thanking you,

Sincerely,

SANJAY GUPTA
President
09810016763



GROUND FLOOR PLAN

DATE	NO	PRINT ISSUED TO	BY

DATE	NO	REMARK	BY

Client:-

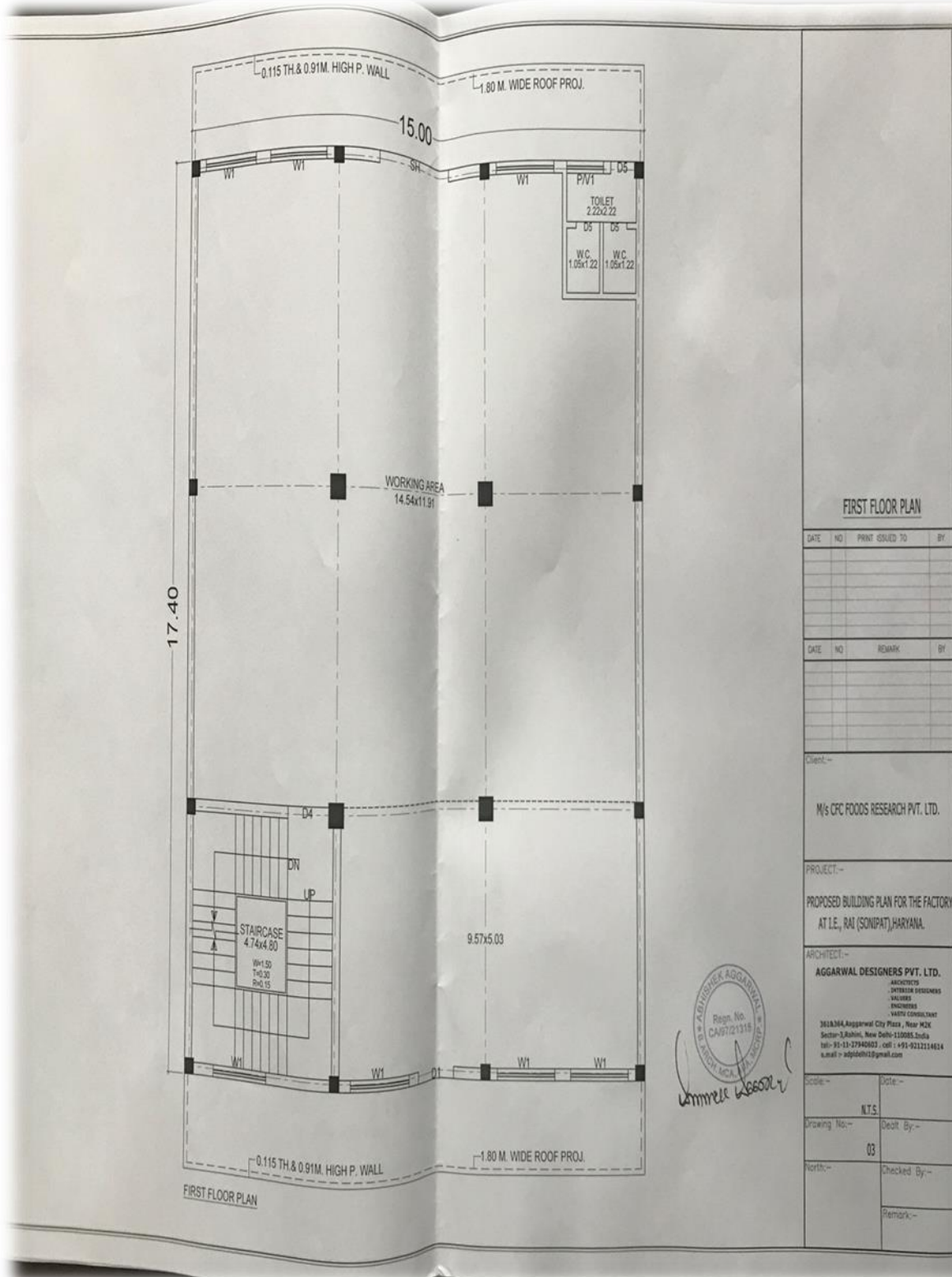
M/s CFC FOODS RESEARCH PVT. LTD.

PROJECT:-

PROPOSED BUILDING PLAN FOR THE FACTORY
AT I.E., RAI (SONIPAT), HARYANA.

ARCHITECT:-
AGGARWAL DESIGNERS PVT. LTD.
ARCHITECTS
INTERIOR DESIGNERS
VALUERS
ENGINEERS
WATER CONSULTANTS
36/8/364, Aggarwal City Plaza, Near MCB
Sector-1, Rohini, New Delhi-110005, India
tel:- 91-11-27940603, cell:- 91-9212114614
e-mail:- adpdelhi@gmail.com

Scale:-	Date:-
N.T.S.	
Drawing No:-	Dealt By:-
02	
North:-	Checked By:-
	Remark:-



Annexure 7: Building Estimate

ARCHITECTS | INTERIOR DESIGNERS | ENGINEERS | VALUERS | PROJECT MANAGERS | VASTU CONSULTANTS

AGGARWAL DESIGNERS (P) LTD.

361 & 364, Aggarwal City Plaza, Near M2K, Sector-3, Rohini, New Delhi - 110 085, INDIA
 Tel : +91-11-27940603 • Cell : +91-92121 14614
 E.mail : adpldelhi1@gmail.com, abhishek_aggar@rediffmail.com • Web : www.adpl.net.in

ESTIMATE OF THE INDUSTRIAL BUILDING AT I.E., RAI, SONIPAT, HARYANA.						
BELONGING TO M/s CFC FOODS RESEARCH PVT.LTD						
		PLOT AREA = 15.00 X 30.00	= 450.00 SQ.MTS.			
		PROP. COVD. AREA ON G FLOOR = (15.00 X 17.40) + 3.00 X 3.00 = 261.00 + 9.00 = 270.00 SQ.MT.				
		PROP. COVD. AREA ON F FLOOR = 15.00 X 17.40	= 261.00 SQ.MT.			
		PROP. COVD. AREA ON S.FLOOR = 4.97 X 5.26	= 26.14 SQ.MT.			
		PROP. COVD. AREA OF MUMTY = 5.13 X 5.26	= 26.98 SQ.MT.			
		PROP. TOTAL COVD. AREA = 270.00 + 261.00 + 26.14 + 26.98	= 584.12 SQ.MT.			
S.No.	Floor	Description/ Specifications	Area/ Quantity	Rates	Amount	Remarks
1	Ground Floor	Earth work in excavation, PCC below foundation bases, R.C.C. Raft Foundation and under the floors in 1:5:10, DPC (1:1.5:3) with two coats of approved water proofing layer, R.C.C. Wall all around the Basement Periphery, R.C.C. 1:1.5:3 including shuttering, Reinforcement of R.C.C. work, B.W. in 1:6 Cement sand mortar, Half brick masonry in 1:4 in Super-structure, F-4/F-7 steel section door/ windows, 4-5mm thick plain float glass, 12mm cement plaster in 1:6 on walls & 1:4 on ceiling, IPS floor, general electrical complete, inside white wash, outside snowcem	270.00	12900	3483000	Rate per Square Meter Quantity in Square Meter
2	First Floor	R.C.C. 1:1.5:3 including shuttering, Reinforcement of R.C.C. work, B.W. in 1:6 Cement sand mortar, Half brick masonry in 1:4 in Super-structure, F-4/F-7 steel section door/ windows, 4-5mm thick plain float glass, 12mm cement plaster in 1:6 on walls & 1:4 on ceiling, Stone flooring, glazed tiles till 7'0" ht. in toilets, 4"/6" dia RW pipes including all sanitary fittings and fixtures, general electrical complete, inside white wash, outside snowcem	261.00	11850	3092850	Rate per Square Meter Quantity in Square Meter
3	Second Floor	R.C.C. 1:1.5:3 including shuttering, Reinforcement of R.C.C. work, B.W. in 1:6 Cement sand mortar, Half brick masonry in 1:4 in Super-structure, F-4/F-7 steel section door/ windows, 4-5mm thick plain float glass, 12mm cement plaster in 1:6 on walls & 1:4 on ceiling, Stone flooring, glazed tiles till 7'0" ht. in toilets, 4"/6" dia RW pipes including all sanitary fittings and fixtures, general electrical complete, inside white wash, outside snowcem.	26.14	11850	309759	Rate per Square Meter Quantity in Square Meter
4	Mumty	R.C.C. 1:1.5:3 including shuttering, Reinforcement of R.C.C. work, B.W. in 1:6 Cement sand mortar, Half brick masonry in 1:4 in Super-structure, F-4/F-7 steel section door/ windows, 4-5mm thick plain float glass, 12mm cement plaster in 1:6 on walls & 1:4 on ceiling, Stone flooring, glazed tiles till 7'0" ht. in toilets, 4"/6" dia RW pipes including all sanitary fittings and fixtures, general electrical complete, inside white wash, outside snowcem.	26.98	11850	319713	Rate per Square Meter Quantity in Square Meter
5	Boundary Wall	.23m Th. Boundary wall with single side cement plaster. (av. ht. 2.0m)	49	6800	333200	Rate per Running Meter Quantity in Running Meter
6	U.G. Tank	R.C.C. U.G. Tank	15000	12	180000	Rate per litre. Quantity in Litres
7	O.H. Tank	R.C.C. O.H. Tank	5000	10	50000	Rate per litre. Quantity in Litres
8	Open Area Flooring	Earth filling, WBM 6" Tk., P.C.C. 3" Tk., Trimix 3" Tk	180	2050	369000	Rate per Square Meter Quantity in Square Meter
9	M.S. Gate		1	50000	50000	Lumpsum
					8187522	


Rs. 81,87,522/-

Eighty One Lacs and Eighty Seven Thousand Only

For Aggarwal Designers (P) Ltd.
 ADPL DELHI

Annexure 8: Machinery Quotations

Ph : 23556355, 2355782



LABHUB INTERNATIONAL

Deals in : Scientific & Surgical Goods

5498, SOUTH BASTI HARPHOOL SINGH, SADAR THANA ROAD, DELHI-110006

E-Mail:- labhubintl@gmail.com, labhubinternational@yahoo.com

Quotation of Lab Instruments

Ref. No. 01AFCG01798R15

M/s CFC Foods Research Pvt. Ltd. Rai Sonapat Haryana

Date

LABHUB INTERNATIONAL

5498, South Basti Harphool Singh, Sadar Thana Road, Delhi-110006
23556355, 2355782

Bank HDFC BANK
Bank A/c 185576100001933
BIC Code HDFC0001688

VAT
Book No
Date
Order LHPV/17-18
G R No
Validity 1 month

Payment Mode Advance

S.No	Description	Quantity	Unit	Price
1	Automatic Protein Analyser Perkin	1	pc	1742000
2	GC with FID and ECD Agilent	1	pc	2575000
3	UPLC- FLD (with Kuba cell or FHRP) Agilent	1	pc	5558250
4	Automatic Rotameter Titrator Metrohm	1	pc	1338542
5	Vertical Autoclave	2	pc	171650
6	Autoclave Jar Hatched	3	pc	21500
7	Homogeniser	2	pc	407715
8	Kalt Facher with Auto Titrator Metrohm	1	pc	758437
9	USA Multichannel Reader, Incubator and plate washer	1	pc	1562200
10	Water Purification System	1	pc	611800
11	Nitrogen Evaporator	1	pc	235000
12	UV visible Spectrophotometer	2	pc	600000
13	Analytical Balance Shimadzu	2	pc	100000
14	Digital Baby's Microbalance	1	pc	694154
15	Micro System for Microbiology Lab	1	pc	2658289
16	Walk-in cold storage (20 to 80C) reze Bralfat	1	pc	201250
17	Auto titrators	4	pc	601000
18	Paragator or Fogger	1	pc	47075
19	Homogenizer IKA	1	pc	316275
20	Homogenizer IKA	1	pc	15000
21	Howard Model Count	1	pc	3150
22	Calibrated Thermometer	1	pc	7500
23	Colony counter	1	pc	70000
24	Micro Filtration Assembly	50	pc	17225
25	Microscope 4 sets (5-20, 2-20, 5-50, 10-100, 20-200, 100-1000, 5000x)	1	pc	15000
26	De Humidifier (portable)	1	pc	10125
27	Electric blender with a stainless steel jar (2 numbers)	1	pc	37000
28	Flash point apparatus	2	pc	1675
29	Hygrometer	1	pc	9000
30	Hot plates	2	pc	3800
31	Heating Mantle (variable number)	18	pc	20000
32	Pulveriser mill	4	pc	20000
33	Severe shaker with stand	5	pc	25000
34	Digital Turbidity meter	1	pc	25000
35	Vertex shaker	2	pc	12000
36	Barcoding instrument with printer & readers	1	pc	50000
37	Biometric Attendance system	1	pc	31750
38	Burner	5	pc	250
39	Magnifying Lenses	2	pc	1240
40	Magnet	4	pc	600
41	Sample divider	2	pc	1275
42	Camera	1	pc	12700
43	Computer systems with UPS system along with licensed software & operating system	12	pc	66000
44	Booster Point Germet 200 KVA	1	pc	1500000
45	UPS 80 KVA with 60 minutes backup	1	pc	1400000

GST of 12%, 18% and 28% extra will be applicable as per actuals on Delivery

LABHUB INTERNATIONAL

5498, South Basti Harphool Singh,
Sadar Thana Road, Delhi-110006.
Ph : 23556355, 2355782

Our offices

Ahmedabad

2nd Floor, Shivalik Ishaan
Near CN Vidhyalaya,
Ambawadi,
Ahmedabad - 380 015
Tel: + 91 79 6608 3800
Fax: + 91 79 6608 3900

Bengaluru

"UB City", Canberra Block
12th & 13th floor
No.24, Vittal Mallya Road
Bengaluru - 560 001
Tel: + 91 80 4027 5000,
+ 91 80 6727 5000
Fax: + 91 80 2210 6000
Fax: + 91 80 2224 0695

Chandigarh

1st Floor, SCO: 166-167
Ernst & Young Pvt. Ltd.
Sector 9-C, Madhya Marg,
Chandigarh, Punjab 160009
Tel: +91 172 6717800
Fax: +91 172 6717888

Chennai

TPL House, 2nd floor
No 3, Cenotaph Road
Teynampet
Chennai - 600 018
Tel: + 91 44 4219 4400
+ 91 44 6632 8400
Fax: + 91 44 2431 1450

Hyderabad

205, 2nd floor
Ashoka Bhoopal Chambers
Sardar Patel Road
Secunderabad - 500 003
Tel: + 91 40 6627 4000
Fax: + 91 40 2789 8851

Oval Office, 18, iLabs Centre,
Hitech City, Madhapur,
Hyderabad - 500081
Tel: +91 40 6736 2000
Fax: +91 40 6736 2200

Kochi

9th Floor, Abad Nucleus
NH-49, Maradu PO
Kochi, Kerala 682304, India
Tel: + 91 484-3044000
Fax: + 91 484 2705393

Kolkata

22, Camac Street
Block 'C', 3rd floor
Kolkata - 700 016
Tel: + 91 33 6615 3400
Fax: + 91 33 2281 7750

Mumbai

6th floor & 18th floor
Express Towers
Nariman Point
Mumbai - 400 021
Tel: + 91 22 6657 9200 (6th floor)
+ 91 22 6665 5000 (18th floor)
Fax: + 91 22 22876401 (6th floor)
+ 91 22 2282 6000 (18th floor)

Block B-2, 5th Floor,
Nirlon Knowledge Park,
Off Western Express Highway,
Goregaon (E), Mumbai - 400 063
Tel: +91 22 6749 8000
Fax: +91 22 6749 8200

15th Floor, The Ruby, 29,
Senapati Bapat Marg, Dadar (W), Mumbai
- 400 028, India
Tel: +91 22 6192 000

NCR

Golf View Corporate Tower - B
Near DLF Golf Course
Sector 42
Gurgaon - 122002
Tel: + 91 124 464 4000
Fax: + 91 124 464 4050

6th floor, HT House
18-20 Kasturba Gandhi Marg
New Delhi - 110 001
Tel: + 91 11 4363 3000
Fax: + 91 11 4363 3200

4th and 5th Floor, Plot No. 2B, Tower 2,
Sector 126, NOIDA - 201 304
Gautam Budh Nagar, UP, India
Tel: +91 120 671 7000
Fax: +91 120 671 7171

Pune

C-401, 4th floor
Panchshil Tech Park
Yerwada (Near Don Bosco School)
Pune - 411 006
Tel: + 91 20 6603 6000
Fax: + 91 20 6601 5900

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