Detailed Project Report

Kurukshetra Cattle Feed Cluster

Submitted to,

Department of Industries and Commerce

Government of Haryana

(for assistance under Mini Cluster Development Scheme)

December 2017

Report no: 2017 – Chandigarh - 0034

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Prepared by,
Ernst & Young LLP
Under the project: MSME Ecosystem Transformation in Haryana

31 December 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 Cattle Feed Cluster, Kurukshetra 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
- DIC, Kurukshetra
- Members of the SPV
- Cattle Feed units located in and around Kurukshetra
- Representatives of Haryana State Cattle Feed Manufacturers Association, Kurukshetra
- Industry experts
- Secondary research

Our work has been limited in scope and time and we stress that procedures that are more detailed 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. The 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

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Acknowledgement

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We would like to convey our sincere thanks to members of Haryana State Cattle Feed Manufacturing Association, Kurukshetra for their support during the on-site visits and interactions with cattle feed manufacturing units in Kurukshetra as well as facilitation in conducting stakeholder consultations. Further, we would also like to thank officials of DIC, Kurukshetra for providing support and information related to cattle feed units in Kurukshetra.

Also, we must extend our sincere thanks to cattle feed 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
BDS	Business Development Service
BEP	Break Even Point
BoD	Board of Directors
CAGR	Compound Annual Growth Rate
CDCC	Cluster Development Coordination Committee
CE	Capital Employed
CEO	Chief Executive Officer
CFC	Common Facility Center
DIC	District Industries Center
DPR	Detailed Project Report
DSCR	Debt-Service Coverage Ratio
DSR	Diagnostic Study Report
EPP	Enterprises Promotion Policy
ERP	Enterprise resource planning
GDP	Gross Domestic Product
GM	General Manager
GOH	Government of Haryana
GSDP	Gross State Domestic Product
HCCI	Haryana Chamber of Commerce and Industries
HFC	Haryana Financial Corporation
HUDA	Haryana Urban Development Authority
ICAR	The Indian Council of Agricultural Research
IDBI	Industrial Development Bank of India
INR	Indian National Rupees
IRR	Internal Rate of Return
ISO	The International Organization for Standardization
IVF	In vitro fertilization
KVK	Krishi Vigyan Kendra
MoA	Memorandum of Association
MSME	Micro, Small and Medium Enterprises
MSME DI	MSME Development Institute
MT	Metric Ton
NDRI	National Dairy Research Institute
NH	National Highway
NIR	Near Infra-Red
NPV	Net Present Value
PAT	Profit After Tax
PMC	Project Management Committee
R&D	Research & Development
RCC	Reinforced Cement Concrete
ROCE	Return on Capital Employed

SLSC	State Level Steering Committee
SPV	Special Purpose Vehicle
SWOT	Strengths, Weaknesses, Opportunities and Threats
UAM	Udyog Aadhaar Memorandum
USA	United States of America
USD	United States Dollar
WDV	Written Down Method

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Executive Summary

Executive summary

The Government of Haryana through the Department of Industries and Commerce intends to transform the MSME sector of the state and accordingly 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 cattle feed cluster at Kurukshetra District, Haryana.

About the Cattle feed Cluster, Kurukshetra

Feed is the largest and most crucial element to ensure safe, abundant and affordable animal proteins throughout the world. Cattle feed is a major ingredient of the animal feed industry. This industry has registered a high growth potential in India due to India's top position globally wrt. livestock population with the cattle population expected to grow at compounded annual growth rate (CAGR) of 4%.

The major drivers for the growing demand for cattle feed are:

- Shrinkage of open land for cattle grazing, urbanization and resultant shortage of conventionally used cattle feeds.
- Introduction of high yield cattle requiring specialized feeds.

The industry is also gradually evolving into an organized sector and the feed manufactures are increasingly using modern and sophisticated methods that seek to incorporate best global practices. More recently, farmers have revealed optimistic growth prospects of branded cattle feed industry with the increasing feed consumption pattern and relatively high share of branded feeds, pattern based on product types (like, pellet and mash). While until 2005-06, the cattle feed manufacturers produced feed without using any scientific production method it was only in 2006, that American giant feed manufactures Cargill intervened in the area and sensitized the farmers and varchars about better cattle feeding practices. This resulted in the adoption of scientific feed production methods.

Despite the promising growth prospects of this industry, a vast majority of feed production is highly fragmented, composed mostly of home and custom mixers. There are about 28 Cattle Feed units in and around Kurukshetra district. These units are predominantly located in industrial area- Ramgarh, Shahbad, Pehowa, Ladwa, Mirzapur, Pipli, Ismilabad in Kurukshetra. The annual turnover of the cluster is about INR 120 crore. 10 units have registered under UAM and formed a Special Purpose Vehicle (SPV) to set up a Common Facility Centre (CFC) in addressing the common problems of the cluster. Out of 10 members, 07 are from Kurukshetra and others from neighbouring districts Kaithal and Yamunanagar. All the SPV member units are engaged in production of cattle feed products.

Diagnostic Study and Interventions

A diagnostic study was undertaken by EY in consultation with the cluster members in September 2017 to map the existing business processes in the cluster, identify the gaps, and understand the requirements of the cluster. It was observed that most of the cluster units deploy out-dated technology and are unable to meet the requirements of the market due to lack of availability of modern machines/equipment's. Also, these cattle feed need to tested against certain parameters such as protein, fibre, fat etc. which these clusters are dependent on external labs. There is no testing lab at Kurukstetra and the sample is sent to Chandigah for testing resulting in delays. These major pain areas necessitated an urgent intervention. In this context, the units decided to establish a CFC.

The DSR was validated on 11th October 2017 and was subsequently approved on 21st November 2017. The approved DSR letter from the industries department is provided in Annexure I. The SPV was granted permission to go ahead with preparation of Detailed Project Report (DRP) for the cluster.

Proposed Common Facility Centre

The proposed CFC will facilitate raw/final material testing facility with modern equipment for testing moisture, fibre, protein, ash etc. in raw material and also modern machinery for job work.

- Raw/final material testing facility- Such a facility will address the technology gap for raw material testing that the cluster units are facing, with no similar facility available in district. The proposed common facility will be utilized by the SPV members and will be available to non-members units within and outside the cluster. The facility will provide a much-needed infrastructure push to the cluster units and will enable them to become more competitive.
- Blender and formulation software- The mixer plays a vital role in the feed production process, with efficient mixing being the key to good feed production. Brill Formulation helps to get formulas into production faster, reducing manual work to save time and money.

Special Purpose Vehicle for Project Implementation

After the diagnostic study, the cluster units formed a Special Purpose Vehicle (SPV) by the name and style of 'Quick Testing and Training Centre, Kurukshetra'. The SPV has been set-up as a society under Haryana Societies Registration Act 1961. DIC, Kurukshetra has played an important role in SPV formation. The SPV already includes about 10 members who are subscribing to the admission fees of the society. The proposed CFC will be implemented on public-private partnership basis through the SPV 'Quick Testing and Training Centre, Kurukshetra' by availing support from Government of Haryana (under EPP 2015).

Cluster members have been autonomously undertaking several soft interventions to enhance knowledge and exposure of the cluster units on new trends in cattle feed industry and enhancing productivity of their units. This includes exposure to cluster development initiatives in other clusters, exposure visits to fairs, registration under UAM, awareness

programs on new trends in cattle feed and new technologies. These programs have been conducted in collaboration with the DIC, State Government and BDS providers.

Project Parameters, Viability and Sustainability

The cattle feed cluster, Kurukshetra with support from State Government (under the Mini Cluster Development Scheme) is planning to set up a Common Facility Centre having state-of-the-art cattle feed testing facilities to undertake the testing and job work of cluster units with a total project cost of about Rs.133.84 lakhs. The assistance to the project from Govt. of Haryana under State Mini Cluster Development Scheme is envisaged to the tune of 90% of maximum project cost of 200 lakhs. The SPV will be required to contribute 10% of project cost for project cost up to Rs. 200 lakh. Hence, the SPV members have proposed to contribute 24.23 lakhs and grant-in-aid from Government of Haryana will be Rs.109.61 lakh.

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

(Rs in Lakh)

S. No.	Particulars	Total Project Cost	Amount as per Guidelines	Remarks
1	Land & Building			
	a. Land Value	0.00		Max 25% of project cost of INR 200 lakhs
	b. Land Development	0.00	22.00	
	c. Building & Other Civil Works	22.00		
	A.	22.00	22.00	
2	Plants & Machinery			
	a. Indigenous	59.23	59.23	
	b. Imports	27.74	27.74	
	c. Secondary Machines	12.81	12.81	
	B.	99.78	99.78	
3	Miscellaneous fixed assets			
	(Furniture & fixtures, fire-fighting equipment, first aid equipment, backup power supply, etc.)	2.50	0.00	
	C.	2.50	0.00	
4	Preliminary & Preoperative Expenses			
	(Legal & administrative expenses, registration, civil engineering drawings with estimates & tender forms, telephone, stationery etc. (Establishment cost, overheads during construction period including travelling, machine testing cost and other services, etc.)	2.02	0.00	Not Eligible for Grant
	D.	2.02	0.00	

(Rs in Lakh)

S. No.	Particulars	Total Project Cost	Amount as per Guidelines	Remarks
5	Contingency			
	a. Building @ 2%	0.44	0.00	
	b. Plant & Machinery @ 5%	4.99	0.00	
	E.	5.43	0.00	
6	Margin money for working capital			
	(Working capital required @ 80% C.U.)	2.11	0.00	
	F.	2.11	0.00	
	Total	133.84	121.78	

S. No.	Source of finance	Project cost upto INR 200.00 lakhs (max eligible as per scheme)		Project cost without grant		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	109.61	0	0	109.61
2	Contribution of SPV	10	12.18	100	12.05	24.23
	Total	100	121.78	100	12.05	133.84

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:

S. No.	Particulars	Estimates
1	BEP (cash BEP at operating capacity of 80%)	58.10%
2	Av. ROCE (PAT/CE) with Grant	28.96%
4	Internal Rate of Return (IRR)	23.65%
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. 90.37 lacs) at a conservative project life of 10 years
6	Payback period	4.95 years with Grant-in-aid assistance from GOH

As evident from the financials above, the project is viable and sustainable. The project is expected to generate surplus from the fifth 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 period of about 10 months upon receipt of approval of grant-in-aid assistance from the Government of Haryana under State Mini Cluster Development Scheme. The project will be implemented by the SPV in close association with DIC, Kurukshetra. 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 Development 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 GM, DIC Kurukshetra, and representatives of the SPV, State Bank of India and EY experts shall be constituted to directly oversee effective monitoring and implementation. The project will be implemented through SPV, and the PMC will report progress of implementation to the CDCC as well as State Level Steering Committee and DIC, Kurukshetra.

This cluster has the ability to increase its output and market share by manufacturing high quality cattle feed products. The proposed facility will be open to all cluster firms to enable them to get testing and job work done in order to cater to the cattle feed product requirements of the market. The facility will also provide an opportunity to micro and small units to increase their capacity utilization and profitability. The facility will provide a major infrastructural push to the units reeling under high competition. 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 28 Cattle Feed units in Kurukshetra district, Haryana with 10 units have come together to form a Special Purpose Vehicle (SPV) to set up a Common Facility Centre (CFC) to address common issues of the cluster. The annual turnover of the cluster is about INR 120 Cr. The cluster units are engaged in production of cattle feed products.

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.

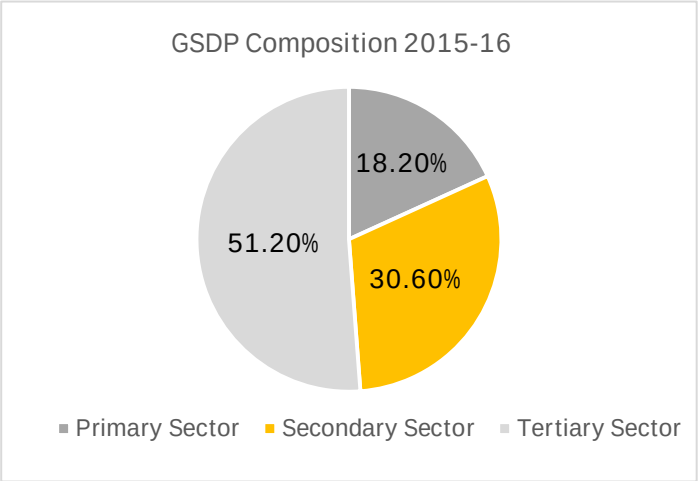


Figure 1: GSDP Composition 2015-16

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 large number of 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 2ndlargest 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.

Kurukshetra district is one of the 22 districts of Haryana state in northern India. The town of Kurukshetra is the administrative headquarters of the district. The district occupies an area of 1682.53 km² with a population of 964,231 (2011 census). Its population growth rate over the decade 2001-2011 was 16.81% compared to 825,454 (2001 census). Kurukshetra has a sex ratio of 889 females for every 1000 males, and a literacy rate of 76.7%.

Kurukshetra was carved out from the erstwhile Karnal district in 1973 and later some parts of the district were transferred to Kaithal and Yamuna Nagar at the time of their creation. Kurukshetra district comprises two sub-division; Thanesar and Pehowa. Thanesar sub-division comprises two tehsils, Thanesar and Shahabad and two sub-tehsils; Ladwa and Babain. Pehowa sub-division consists of Pehowa tehsil and Ismailabad sub-tehsil. The economically significant towns in this district are Kurukushetra, Thanesar and Pehowa.

1.3 Industrial Scenario of Kurukshetra District

Kurukshetra is primarily an agrarian district as classified in terms of nature of economic activity with its work force primarily engaged as cultivators and agriculture labourers. Farming is the main occupation of the people as a sizeable percentage (over 90%) population engaged in various agricultural pursuits. Wheat and rice are the main crops cultivated in Kurukshetra district. Among the commercial crops, sugarcane is an important crop of this district. Cultivation of vegetables especially of potato is very popular in the district. To supplement the income, dairy farming and cattle rearing is another occupation adopted by the people of the district. These sectors are strengthening economy of the district. Most of the agriculturists are engaged in dairy farming, poultry farming, and pig farming, etc. as a side business. There are several milk plants in private sector in Kurukshetra.

Kurukshetra District enjoys an ideal locational benefit, being situated adjacent to NH- 1. This district is emerging as an industrial belt with the wide spectrum of developmental activities. This has manifested into an immense potential of industrial growth and opportunities within the district.

1.4 Geographical Traits

The Kurukshetra district lies between 29º-34'15" and 30º-15'15" North latitude and 76º to 10" and 77º-17.5" East longitude. Kurukshetra lies on the main Delhi-Ambala Railway line about 160 kilometres North of Delhi, 34 kms North of Karnal and 40 kms South of Ambala. Kurukshetra is a place known all over India for its great cultural heritage. It is situated in North-East part of Haryana. Its adjoining districts are Ambala, Yamuna Nagar, Karnal, Kaithal and Patiala (Punjab).

1.5 Demographic Trends and Economic Structure

The total geographical area of the district is 168,253 hectares[1]. The cultivated area is 150,305 hectares, which is 89.3% of the total geographical area. The district's soil is fairly fertile and levelled.

Animal Husbandry is an important sector constituting the economy of this district. It plays an important role for the up-liftment of marginal farmers and landless agricultural labourers, as it provides not only direct employment opportunity but also lesser pressure on agriculture as land holdings are diminishing day by day. As the economy of Kurukshetra District is entirely based on agriculture, the industrial scenario of this district is also influenced mostly by the same sector i.e, agro based with number of small and medium rice and wheat processing units.

[1] District Profile, Govt. of Haryana

Sector Overview

2. Sector Overview

2.1 Global Scenario

The cattle feed is produced in more than 130 countries globally and is one of the most important components of the animal rearing as it adds considerable cost to the production system. The type of feed production varies across various regions and largely depends on the animal population and their economic importance in the region. Feed requirement of the animals also vary with the purpose of rearing it, including meat, egg and milk production. The industry makes a significant contribution to the economic and nutritional well-being of millions of people globally.

In the Dairy industry, feed can be categorized into two broad sectors - fodder and forage. Fodder includes hay, straw, silage, compressed and pelleted feeds, oils, mixed rations, sprouted grains, and legumes. Forage is plant material (mainly plant leaves and stems) eaten by grazing livestock. Household food residues and the by-products of food processing industries constitute the traditional sources of animal feed. Compound feed is blended from various raw materials and additives and are available in the form of pellets or crumbles. The key ingredients used in compounded feeds are the feed grains, which include corn, soybeans, sorghum, oats, barley and premixes.

Globally, feed industry serves a variety of animals including poultry, dairy (cattle, calf etc), aquatic/marine, pig, pets etc.

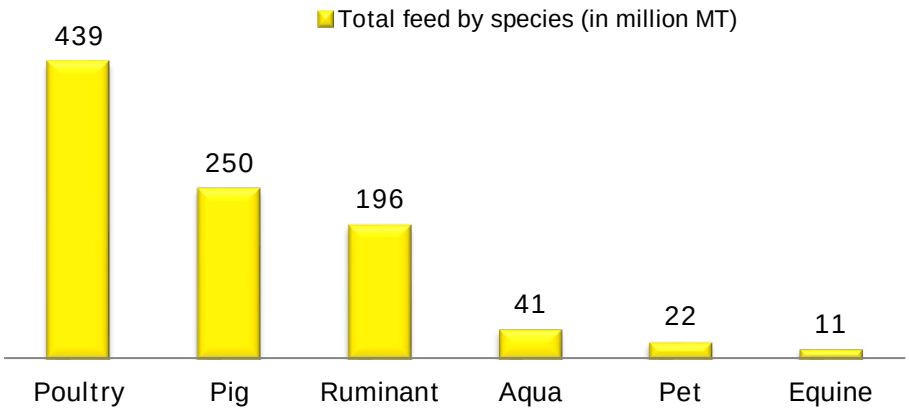
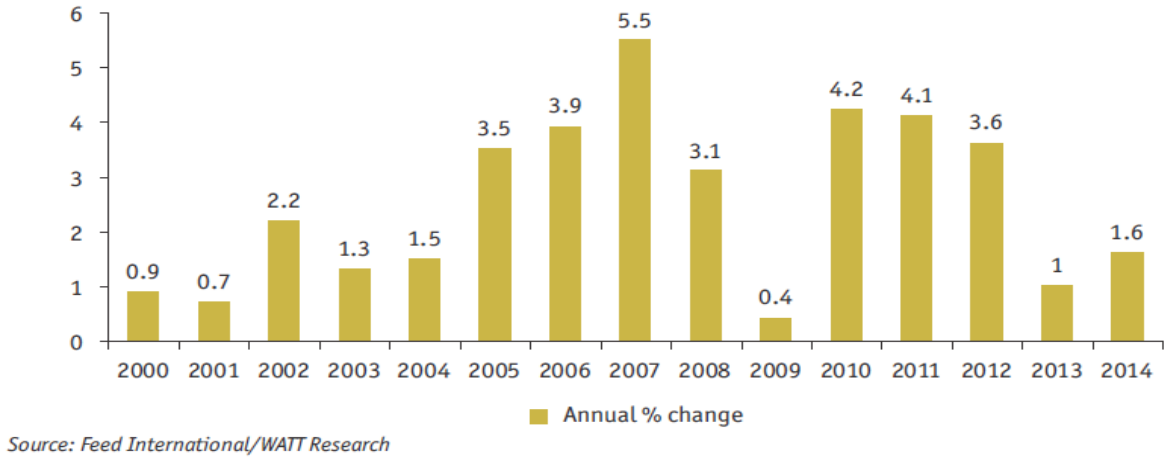


Figure 2: Total Feed by Species

Source: 2015 Alltech Global Feed Survey

Increase in consumption of animal meat, growing demand for other livestock products and increase in oilseed production factors are the driving forces for global animal feed industry with the global production of animal feed (tonnage) touching 980 million MT in 2014.
The industry continues to expand in volume and value in response to increases in world population, urbanization and growing consumer purchasing power. The world compound feed production growth from 2000-2014 has been represented in below exhibit.



Source: Feed International/WATT Research

Figure 3 Growth rates of global animal feed market over a decade

Source: Alltech Global Feed Survey Summary

The top 10 major countries contributing to 62% of global production of animal feed as on 2014 is graphically presented in the exhibit below:

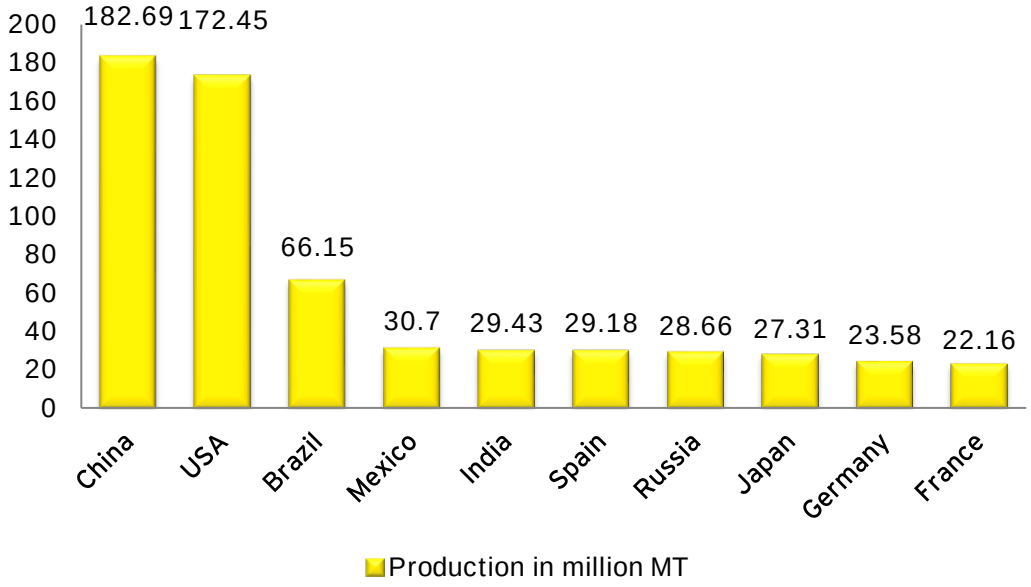


Figure 4: Top 10 animal feed producing countries

China topped the list as the leading producer of feed with 182.69 million MT followed by USA and Brazil at 172.45 million MT and 66.15 million MT respectively. India ranked 5th in the list with the contribution of 29.43 million MT accounting for 3% of global feed production2. The feed mills are predominantly located in Asia and North America with a contribution of almost 66% of feed production and average tonnage of 25,519 and 28,395 respectively. The total average tonnage at global level has been 31,571 with Middle East

[2] Alltech Global Feed Survey

boasting to have largest feed mills by average tonnage of 85,938 per year. About 60-percent of all feed produced is pelleted, and this is even more prevalent in Europe. The region wise contribution to total number of feed mills is shown in Exhibit below.

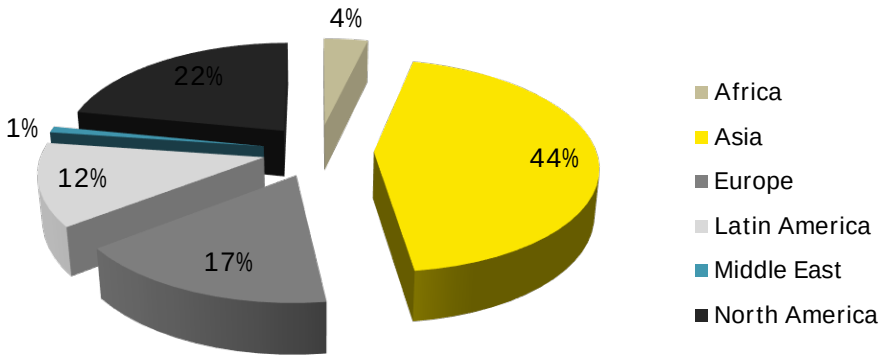


Figure 5: Region wise contribution to feed mills

One of the key challenges is that out of the total global feed production; almost 31% is being produced directly by on-farm mixing. This poses safety and quality issues since the food safety authorities do not regularly inspect the production practices and the regulatory authorities only inspect when there is a problem.

2.2 India Scenario

India is one of the largest and fastest growing cattle feed markets in the world with poultry, aqua and dairy industries occupying the major share in overall feed demand. Cattle feed manufacturing on a commercial and scientific basis started around 1965 in India with the setting up of medium-sized feed plants in northern and western India to cater to the needs of dairy cattle sector. In India, at present, cattle accounts for 7.5 million tonnes, poultry industry consumes around 13 MT of the feed with soy meal and corn being the prime consumables.

The Indian animal feed industry, which is currently at USD 15 Billion, is poised to double and touch USD 20 Billion by 2020. Indian cattle feed industry is growing at a CAGR of 8%. With this growth rate, India will soon become the largest feed market in the coming years. The feed industry requirements that are met with the compound feed are only 11% for cattle, 14% for aqua feed and 55% for poultry feed.

The table below provides a detailed breakup of animal feed industry into various segments – Poultry (broiler and layer), cattle and aqua in India.

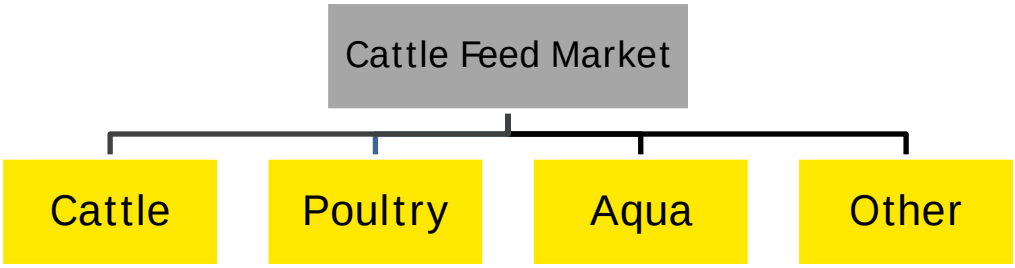


Figure 6: Type of Cattle Feed Market

The seafood sector is also witnessing a growth of 6% annually in production of aquaculture. Simultaneously, Indian dairy sector has also been growing at a rate of 4% annually. Growth in these sectors has pushed up the demand for compound feed by 50%. India's demand for compound feed is expected to raise 28 million MT by 2017-18. Cattle feed industry in India is gradually evolving into an organized sector and the feed manufactures are increasingly using modern and sophisticated methods that seek to incorporate best global practices.

The major drivers for the growing demand for cattle feed are:

- Shrinkage of open land for cattle grazing, urbanization and resultant shortage of conventionally used cattle feeds.
- Introduction of high yield cattle requiring specialized feeds.

More recently, farmers have revealed optimistic growth prospects of branded cattle feed industry with the increasing feed consumption pattern and relatively high share of branded feeds, feed consumption pattern based on product types (like, pellet and mash).

Despite the promising growth prospects of this industry, a vast majority of feed production is highly fragmented, composed mostly of home and custom mixers.

Some research studies shows that farmers have revealed the good growth prospects of the branded cattle feed industry. The feed consumption pattern and the relatively high share of branded feeds, feed consumption pattern based on product types (like, pellet and mash), composition of cattle feed market and the relatives hares of major brands, the major factors influencing the purchasing decisions etc. As a continuation of the earlier studies, this study makes a closer look into the exact nature of the growth potential of the market from a macro perspective, feedback from the field study with dealers and industry experts and relative significance of factors influencing buying decisions.

The poultry industry has grown at an annual growth rate of 8% from 2002 to around 2013. The seafood sector is also witnessing a growth of 6% annually in production of aquaculture. Simultaneously, Indian dairy sector has also been growing at a rate of 4% annually. Growth in these sectors has pushed up the demand for compound feed by 50%. India's demand for compound feed is expected to rise to 28 million MT by 2017-18.

However, majority of the feed production is highly fragmented, composed mostly of home and custom mixers. The table below provides a detailed breakup of animal feed industry into various segments – Poultry (broiler and layer), cattle and aqua in India.

2.3 Cluster Scenario

Overall with Haryana, as per the results of the livestock census 2007, there were 89.98 Lakh livestock population, showing a decrease of around 0.57 percent over 2007 census. The cattle have increased by 16.49% and buffaloes have increased by 2.22% in 2012 over 2007. Sheep has shown decrease of 39.60% and similarly goat has decreased by 31.41% during the above period. The total poultry has increased from 287.85 lakh in 2007 census to 428.21 lakh in 2012 census, which shows an increase of around 48.76%. Detail of livestock census 2007 & 2012 and its percentage increase or decrease is given as under:

Table 1: Details of livestock census 2007 & 2012

Sr. No	Item	2007	2012	% age increase or decrease over 2002 Census
1.	Cattle	15.5		16.49
2.	Buffalo	59.5		2.22
3.	Sheep	6.0	3.63	-39.60
4.	Goat	5.3	3.69	-31.41
5.	Horses & Ponies	0.2	0.37	42.31
6.	Mule	0.1	0.09	-18.18
7.	Donkeys	0.0	0.03	-25.00
8.	Camel	0.4	0.19	-59.57
9.	Pig	1.3	1.27	-5.22
10.	Dog	1.9	1.79	-6.77
	Total Livestock	90.5		-0.57

Haryana is a progressive state and continues to expanding its arm in various sectors. Haryana is a leading milk producing state in India and produces more than 7 Million Tons of milk every year. Haryana Dairy Development Cooperative Federation Limited is the state milk federation, which owns 6 milk processing plants in different parts of Haryana. These milk-processing plants are located in Kurukshetra, Jind, Ambala, Sirsa, Rohtak and Ballabgarh and have the total milk handling capacity of 6.45 lakh litres per day.

The demand for food of animal origin is increasing in Haryana due to economic growth, population growth and urbanisation, which in turn means greater use of cereals and oilseeds for cattle feed. The demand for usage of cattle feed will grow if the feed is economically viable.

The future of cattle feed market in and around Kurukshetra is particularly bright. At present, the cluster produces around 11,000 MT cattle feed per year[3].

[3] Stakeholder consultation

However, the challenge is to make a nutritionally competent feed using low-grade fibrous crop residues, which are mainly by products from other industries along with feed additives. Cattle feeding practices are very traditional. Farmers choose their own ingredients and prepare their own formulations. The productivity of cattle is very low because of poor genetic makeup and so there is a limitation of using high quality feed. About 10% of the cattle herd is of the cross bred varieties but this is slowly increasing and more and more crossbred population of either Jersey or Holstein-Friesian are coming into existence.

Diagnostic Study Findings

3. Diagnostic Study Findings

A diagnostic study was undertaken by EY in consultation with the cluster members in September 2017 to map the existing business processes in the cluster, identify the gaps, and understand the requirements of the cluster. It was observed that most of the cluster units deploy out-dated technology and are unable to meet the requirements of the market due to lack of availability of modern machines/equipment's. Also, these cattle feed need to tested against certain parameters such as protein, fibre, fat etc. which these clusters are dependent on external labs. There is no testing lab at Kurukstetra and the sample is sent to Chandigah for testing resulting in delays. These major pain areas necessitated an urgent intervention. In this context, the units decided to establish a CFC.

The DSR was validated on 11th October 2017 and subsequently accepted and approved on 21st November 2017. The SPV has been granted permission to go ahead with preparation of DPR for the cluster. The major findings of the DSR are presented below:

3.1 Cluster Actors and their role

Many support institutions and agencies such as industry associations, government agencies, academic/R&D institutes, financial institutions, BDS providers etc. situated within and outside the cluster play a key role in developing the cluster as well in complementing initiatives of the cluster SPV. The key stakeholders of Cattle feed Cluster, Kurukshetra are:

A. Government Bodies

- District Industries Centre (DIC), Kurukshetra

  DIC is the most important government stakeholder for the cluster. The office of DIC comes under the Dept. of Industries and is headed by the Deputy Director who is assisted by 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 cattle feed manufacturing units want to set up a CFC will also be implemented through the DIC office. The Kurukshetra DIC is actively promoting cluster development in the district and also helps the local units register under Unique Aadhar Memorandum (UAM). It would play a key role in formulation of the cattle feed manufacturing units SPV.

- MSME-Development Institute (MSME-DI), 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.

B. Industry Associations

- Haryana State Cattle Feed Manufacturers Association (Regd.)
  Haryana State Cattle Feed Manufacturers Association (Regd.) was formed in 1998-99 and one only of its kind of association which work for betterment and upliftment

of cattle feed manufacturers of the state. Mr. Parveen Garg is the president and Mr. Akshay Mittal is the secretary of the association. At present, about 50 members are associated with the association as a blend of MSMEs and large players.

- Haryana Chamber of Commerce and Industry (HCCI), Kurukshetra

  HCCI is the apex industry association of the MSMEs of Haryana and has presence in all major industrial districts of Haryana. HCCI raises and addresses the problems faced by industries in the state in a coordinated manner through its chapters. It also liaisons closely with the State and the Central Government to raise its concerns for development of industries in the state in a collective manner. Some of the cattle feed units are also members of HCCI Kurukshetra. Recently, HCCI has also been invited by the government to assist in the budget formulation of the state to promote industries in the state. HCCI has 53 registered members in the Kurukshetra chapter.

- Kurukshetra Industrial Association, Kurukshetra

  Kurukshetra Industrial association was set up in 2000-01. This association presently lead by Mr. Joginder Mehta as president and Mr. Deepak Bansal as secretary. This association comprises of various kind of units across the district including mix of large and MSME units.

C. Educational Institutes

- Lala Lajpat Rai University of Veterinary and Animal Sciences, Hisar

  The College of Veterinary Sciences was shifted to Hisar from Lahore in 1948. It became a part of Chaudhary Charan Singh Haryana Agricultural University in 1971. It is now established as a university and the college has become a part of the university. In 2010, this university was renamed as Lala Lajpat Rai University of Veterinary and Animal Sciences, Hisar. It is an independent University of Veterinary and Animal Sciences.

  A very important mandate of the Lala Lajpat Rai University of Veterinary and Animal Sciences is to develop technologies suited to the needs of livestock farmers of the State, and the food industry. A significant part of the budget of the university is utilized towards various research pursuits. The university undertakes research in different areas of livestock and poultry production and health management.

- National Dairy Research Institute, Karnal

  Established in 1923, National Dairy Research Institute (NDRI), Karnal is India's premier institute for dairy research. The institute was accorded the status of Deemed University in the year 1989. In 1990, with the birth of "Pratham", the first IVF buffalo calf of the world, NDRI reached a significant milestone. NDRI has excellent record in the field of dairy development. NDRI serves as the prime centre for research, extension and manpower development programmes of the country in the field of dairying.

NDRI conduct programmes both at the undergraduate and post-graduate levels in various branches of dairy science to meet manpower needs of the country. Moreover, research on livestock nutrition, growth, reproduction, physiology, genetics/ breeding and management to produce milk efficiently and economically also conducted by NDRI.

- Krishi Vigyan Kendra, Kurukshetra

  The Indian Council of Agricultural Research (ICAR), New Delhi has evolved and established a network of innovative science based institution, Krishi Vigyan Kendra, for human resource development to train the farmers, farm women and extension workers and to involve the Kendra in the process of technology generation with vocational courses in agriculture and allied fields. Krishi Vigyan Kendra (KVK) is a grass root level institution to impart need based and skill oriented short and long-term vocational training courses for agricultural clients.

- Vikas Test House, Pipli, Kurukshetra

  Vikas Test House is an ISO 9001:2008 certified food test lab situated at Pipli, Delhi-Ambala nation highway (NH- 1).The lab was established in 1989 and is engaged in providing the expert services in field of Rice Bran testing. They started their services in the field of cattle and poultry feed and their ingredients testing, all kind of water, oil, spices etc. Vikas Test House has well equipped microbiological section. They undertake the testing as per international and national standards like - BIS, AOAC, ASTM, AOCS, APHA, ISO etc.

- Central Poultry Development Organisation (Northern Region), Chandigarh

  The Punjab Government initially set up this organization in 1963 for the development of poultry in the State. On its taking over by Central Government it was designated as Central Poultry Breading Farm, Chandigarh. Central Poultry Development Organisation (Northern Region), Chandigarh is not mere farms but knowledge information basis at an apex level in the poultry sector catering to regional and national requirement. Central Poultry Development Organisation Northern Region), Chandigarh also holds seminar and brain storming session in areas of poultry interest repeatedly.

D. Banks / FIs

- Haryana Financial Corporation (HFC)

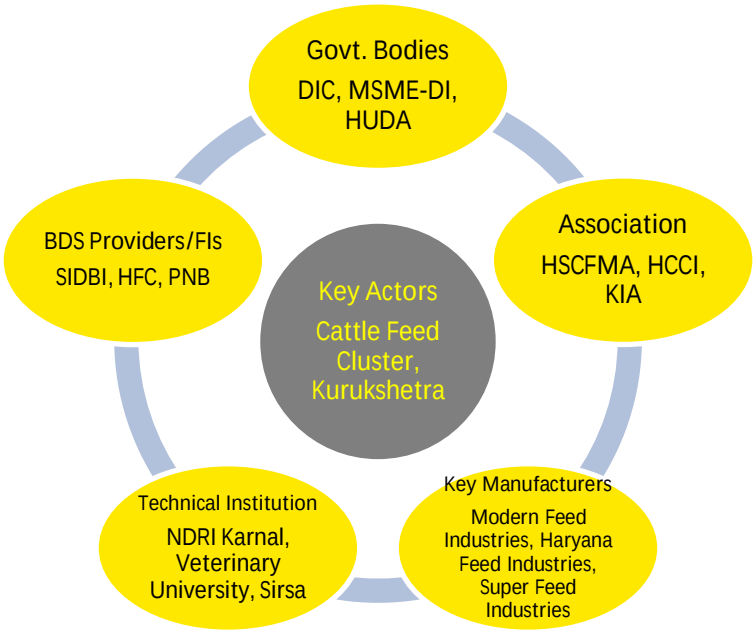
  The Government of Haryana and the Industrial Development Bank of India (IDBI) promoted Haryana Financial Corporation, based in Chandigarh jointly. HFC has been approved by SEBI as a category-I merchant banker. The corporation's activities include merchant banking, trade finance, lease finance and term 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.

- Punjab National Bank, Kurukshetra
  Punjab National Bank is the lead bank of the Kurukshetra district and many local cattle feed manufacturing units have banking relationship with Punjab National Bank.

E. Leading Manufacturers

Some of the leading cattle feed manufacturing units in the Kurukshetra include M/s Modern Feed Industries, M/s Haryana Feed Industries, M/s Super feed Industries etc.

Figure 7: Key Cluster Actors



3.2 Cluster Turnover, Market and Employment

The cluster units are mainly concentrated in Kurukshetra town. There are about 28 units in the cluster. All units fall in micro and small category. The total turnover of the cluster is estimated to be around INR 120 crores. Cluster units are providing employment to around 400 persons to facilitate various activities in the cluster. On an average, each small scale cattle feed unit in Kurukshetra employs about 10-12 persons including machinery operators, helpers etc. This includes a mix of skilled, semi-skilled and unskilled work force.

The units in the cluster cater to markets in Haryana, Punjab, Himachal Pradesh, Rajasthan, NCR and western Uttar Pradesh and around 70% of the customers are situated in Haryana state. As per our discussion with local cattle feed manufacturers, their buyers are mostly wholesale dealers who further sale to the dairies, individual customers, farmers etc.

The major product of cluster is cattle feed which is produced in mesh and pattlet form. Due to technological backwardness, lack of quality, lower production capacity and poor quality

of products, cluster units are unable to obtain and cater to bulk orders from large customers. This cluster has ability to increase its output and market share through manufacturing quality products at competitive prices.

The proposed facility will be open to all cluster firms to enable them to get testing work done in order to cater to the cattle feed product requirements of the market. The proposed CFC will provide an opportunity to micro and small units to get testing work done on modern machines and manufacture high quality products, thereby increasing their individual capacity utilization and profitability. The facility will provide a major infrastructural push to the units reeling under high competition and will enable the local cattle feed manufacturers to operate in better manner. The CFC will also lead to creation of several jobs for supervisors, machine operators and unskilled workers like helpers both within the CFC and at an individual unit level due to enhanced capacity utilization.

3.3 Production Process

Manufacturing process of cattle feed is simple and an established one. As a first step, the various ingredients are blended together and reduced in size. Then the selected ingredients are passed through a disintegrator or pulveriser to reduce the size of the particles to the required mesh size. The vitamins, minerals, mixer and molasses are added at this stage and when uniformly mixed, it is extruded to get in pallet form or to finished product. After mixing, the material is fed into mollasifying section in which the mollases are added. In some cases, where material does not require palletising, the material is directly taken to storage bin.

In palletising section, an open or jacket steam is applied for conditioning the material. Depending upon the requirement, the material is broken down into pallets of 8 mm to 12 mm diameter in a palletiser. The broken pellets are then cooled, stored, weighed and then packed in gunny bags.

The flow chart of the production process followed by Cattle Feed units is shown in figure 8.

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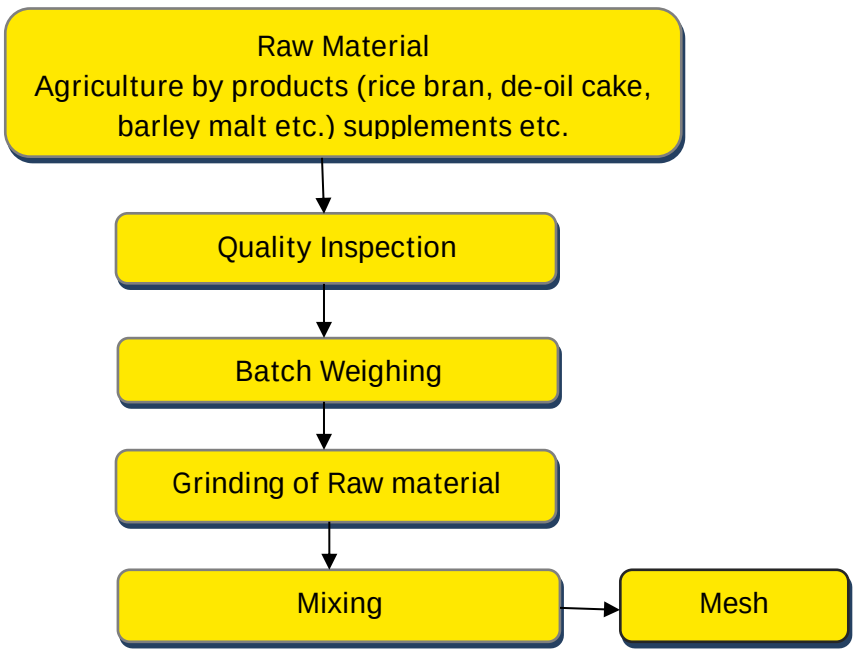


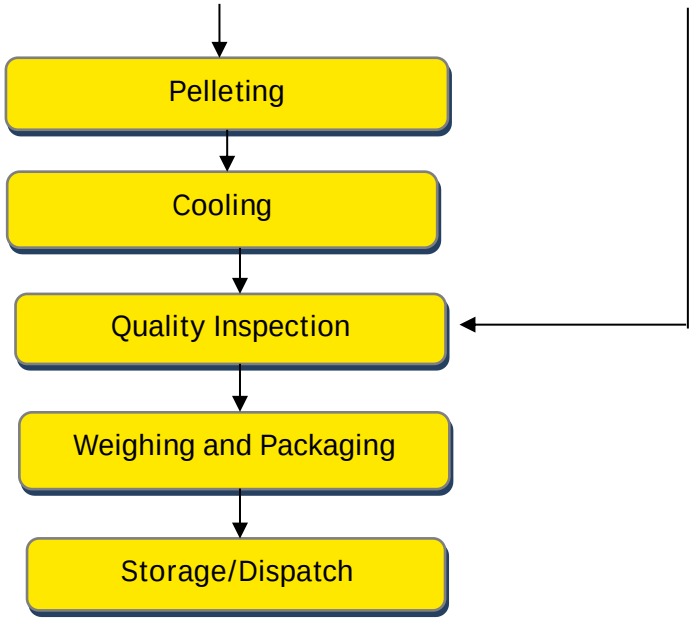


Figure 8: Flow Chart of Production Process

Cattle Feed Production Process

i. Inspection of Raw Material: Under this process, raw material is checked for fat, fibre, protein, ash and moisturizer content. This is the basic test of raw material to know the quantity of supplements to be mixed further to meet the quality standards.

ii. Batch Weighing: Under this process, batches of different raw materials are made by weighing them as per requirement and mixing them further.

iii. Grinding: Under this process, raw materials are grinded in grinding machine one by one to obtain appropriate size of grains. The end product is in form of pallet or mesh. So grinding is done accordingly. Grinded materials are further separated by means of a sieve, and then stored in the assorting tanks according to the kind of raw materials.

iv. Mixing: Under this process, raw materials are mixed by means of a feed mixer. In this process, fatty ingredients are added to the materials in order to raise the nutritional value of the feed. The feed obtained from the mixer is blended with molasses when pallets are required. This is a critical operation since some of the components are mixed in tiny quantities and it is critical to mix them well so that composition of product reaches up to uniform level.

v. Palleting: In this process, blend of raw material put into a Pelleting machine. With the use of temperature, moisture and high pressure, pallets are made.
Almost all livestock feeders agree that animals make better gains on pelleted feed than a meal ration because of the following reasons:
(a) The heat generated in conditioning and pelleting makes the feedstuffs more digestible by breaking down the starches,
(b) The pellet simply puts the feed in a concentrated form.
(c) Pelleting minimizes waste during the eating process.
When pelleted feed is fed, each animal receives a well-balanced diet by preventing the animal from picking and choosing between ingredients. Tests have shown that most animals, if given the choice between the same feed in pellet or mash form will prefer the pellets.

vi. Cooling: From the pellet machine chamber, the pellets normally flow by gravity into a device for cooling and drying the pellets. Pellets will leave the pellet mill at temperatures as high as 90°C and moisture contents are high as 17-18%. For proper storage and handling of the pellets, their moisture content must be reduced to 10-12% and their temperature to about 10°C above atmospheric temperature. This is to be accomplished by passing a stream of air through a bed of pellets. This evaporates the excess moisture, causing cooling both by the evaporation of water and by contact with the air.

vii. Quality Inspection: Quality inspection is a critical step in food production. There are five basic parameters used to be analyzed in the test and those are protein, fibre, fat, ash and moisturiser. In general practice, protein content 22% minimum, fibre maximum 10%, fat 5% minimum, maximum 2% ash and moisture content should be maximum 10% in the pallet. Units do not have testing facilities hence they have to depend on external labs for testing purpose.

viii. Weighing and Packing: Cattle feed is weighed with the help of electronic balance and packed in 20/30/50 Kg poly bag. The packed bagsare then sealed to avoid leakage and external moisturizer and other impurities.

ix. Storage: Packed cattle feed stored in cool and dry place and deliver as per demand.

Value Chain Analysis

As per the name suggested, cattle feed is the major product of the cluster. Value chain analysis of cattle feed has been conducted to ascertain the major cost areas and identify suitable interventions. The value chain analysis of cattle feed is provided in table:

Table 2: Value Chain Analysis of Cattle Feed

Particulars	Value Added	Total Value (INR)	% of cost of production
Raw Material		1150	79.31
Grinding	20	1170	1.38
Mixing	20	1190	1.38
Pelleting	40	1230	2.76
Inspection/Testing	10	1240	0.69
Weighing and Packaging	50	1290	3.45
Electricity	50	1340	3.45
Labour	50	1390	3.45
Transportation	40	1430	2.76
Overheads	20	1450	1.38
Total Production Cost			1450
Profit Margin (3.3%)			50
Selling price			1500

The value chain analysis has been prepared based on the stakeholder consultation. It can be observed that the raw materials amount to 79% of total cost of production. Grinding, mixing and pelleting accounts for 5.5% of the cost. The labour costs account for approximately 3.5% of total production cost of a trolley. The competitiveness of the cluster units can be increased by targeting the major cost area of machinery and providing common facilities to the units in order to undertake cattle feed at a lower cost.

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

A SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis of the Cattle Feed units in the cluster has been 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 is provided in table 3:

Table 3: SWOT analysis of the cluster

Area	Current situation		Future	
	Strengths	Weaknesses	Opportunities	Threats
Market	► Steady local demand for cluster products. ► Cluster located nearby NH 1, which is well connected. ► Cluster located just 170 KM from Delhi which is a major supply hub. ► Presence of a large number of buying houses in the region.	► Limited market area ► Lack of Exposure ► Units are unable to price their Cattle Feeds competitively due to high cost of automatic latest machine. ► Units are unable to price their product competitively due to high costs involved in quality testing and cut-throat competition. ► Presence of other large players to whom bulk orders are made.	► Rising income levels and increasing urbanisation are driving growth of the domestic market. ► Potential to price products competitively with acquisition of technology.	► Intense competition from other markets like Punjab.

Area	Current situation		Future	
	Strengths	Weaknesses	Opportunities	Threats
Technology/ Product Quality	▸ Practical know how and conventional tricks. ▸ Sufficient number of micro and small-scale units in the cluster possess automatic machinery, thus labour requirement is less.	▸ Lack of modern technology. ▸ Lack of awareness. ▸ Using outdated machineries. ▸ Lack of technical know-how. ▸ No testing facility. ▸ Using of conventional operational methods.	▸ Setting up of CFC with modern equipment. ▸ Testing facilities. ▸ Exposure to better cattle Feed manufacturing practices due to the expanding footprint of players like Cargill and Godrej.	▸ Increase in cost of production and raw materials. ▸ Increase in awareness on quality certifications leading to loss of business given stringent requirement for stricter testing procedures. ▸ Competition from vendors manufacturing products at lower costs. ▸ Faster technology obsolescence.
Skill/Manpower	▸ Less requirement of labour. ▸ Presence of research institutes such as NDRI in Karnal.	▸ High labour costs. ▸ Lack of interaction between SMEs and technical institutes for providing technical training. ▸ No mechanism to mobilize regional youth for trainings. ▸	▸ Customized training programs on required skills (operations, soft skills etc.). ▸ Engage technical institutes for skill development programs. ▸ Increasing cost of labour in China providing an opportunity for Indian industry,	▸ Youth more inclined towards working in other sectors with lucrative prospects. ▸ Large private players such as Cargill attract the labour.

Area	Current situation		Future	
	Strengths	Weaknesses	Opportunities	Threats
Inputs	► Availability of raw materials from local dealers ► Buyers sometimes specify dealers from whom they want materials	► No web portal displaying prices and sources of raw materials ► Challenge in getting quality in raw material.	► Potential to develop a portal displaying information (price, suppliers) of raw materials	► Cost of power is on higher side which leads to higher cost of production.
Innovation	► Ability to manufacture products as per the customers' specifications.	► Lack of a standardised ERP solution for cattle feed industry. ► Lack of process automation.	► Development of a standard IT based ERP solution. ► Structured processes for information sharing among MSMEs in the cluster.	► Could lose business to other more price competitive manufacturers from neighbouring states.
Business Environment	► Steady growth in domestic demand. ► Cluster well known in local area. Multiple Govt. schemes with large financial incentives base being proposed for this sector.	► Lack of knowledge of regulatory frameworks and government schemes among micro level Cattle Feed Units. ► Substantial localization. ► High cost of industrial land in the cluster. ► Lack of common infrastructure/CFC facilities	► Create awareness of government schemes and regulations	► Change in policies and regulatory environment. ► Increase in rate of raw material.

Area	Current situation		Future	
	Strengths	Weaknesses	Opportunities	Threats
		► No long term vision of industrialists		
Energy/Environment	► No such operation which highly harm the environment except dust.	► Lack of knowledge of energy efficiency resulting in higher energy consumption. ► High energy cost structure because of lack of efficient processes.	► Regular checks on maintaining quality and safety standards. ► Potential to reduce energy costs by energy auditing.	► Increase in power tariff. ► Increased focus on environment standards. ► Change in govt. policies.

3.5 Major Issues / Problem Areas of the Cluster

The problems faced by cluster units at present are primarily related to quality and testing. Some of the major problems have been discussed below:

- Absence of testing facilities: In cattle feed manufacturing process, some of the parameters like protein, fibre, fat, ash, moisturizer etc. need to be checked (as primary raw material constituents in feed) and in the final product so as to maintain the quality of the product. At present, small cattle feed manufacturers in Kurukshetra do not have testing facility. They are totally dependent upon external testing labs. Those labs take 3-4 days to test material. For that period, that particular process has to be put on hold which affects production process. So there is a need of in-house testing facility.
- Lack of availability of certain modern equipment: Accurate composition and uniform blending are the key aspects of cattle feed manufacturing. For accurate composition of ingredients, brill formulation software can be used. Brill formulation software helps to get formulas into production faster, reducing manual work to save time and money.. Uniform blending is very important to get standard composition and for the same, ribbon type blender can be used to mix them uniformly in the whole lot. Conventional blender, due to their limitations, cannot mix them at that level.

  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.

3.6 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 4.

Table 4: Rationale for hard interventions

Rationale for proposed hard interventions under CFC mode	
Critical technology gaps in the cluster	Proposed technology interventions to enhance cluster's competitiveness through CFC mode
NIR Analyser	
Cattle feed customers have quality specifications based on the nutritional requirements for their livestock. Accurate determination of feed quality is critical for producers to meet customer requirements. Traditionally, quality tests for feed and ingredients outsourced by external service providers, who use	Consistent feed quality begins with having full knowledge of incoming ingredients. NIR technology helps alleviate the concern of raw material variation by identifying out-of-specification ingredients prior to them being introduced into the production process.

lengthy chemical methods, which are labour intensive, time consuming and require experienced technicians. Cattle feed producers are constantly under pressure to meet stringent quality specifications while maintaining profitability and production targets.	
Formulation	
Formulation is one of the critical component of cattle feed manufacturing. The balance nutritious values depend upon correct formulation (obtain the ratio of different ingredients in balanced manner). At present, many of cattle feed manufacturers make formulation based on their experience. There is no such facility, which provides them to make standard formulation. Due to that, wastage of raw material is common.	By adopting Brill formulation software under the banner of CFC cluster units can get the standard ratio of ingredients of cattle feed as per specification of customer. Further, by use of this software, wastage can also be controlled.
Blending Facility	
Blending is one of the important operation in cattle feed manufacturing. In this operation, various micro ingredients and premixes are mixed uniformly. If feed is not mixed properly, ingredients and nutrients will not be properly distributed (to extrude and pelletize the feed, or if the feed is to be used as mash). At present, the blender used by cattle feed manufacturers, is of low grade and limited capacity and many times fails to give uniform mixture.	Ribbon type blenders are used in feed mills for the mixing of feed ingredients and premixes. The mixer plays a vital role in the feed production process, with efficient mixing being the key to good feed production. In CFC, it is proposed that blending and other services will be done on paid basis. SPV members would be benefitted under discounted rate.
Training Centre	
There is no facility available in cluster to make entrepreneurs, farmers and stockmen aware about the better cattle feed manufacturing practices and the benefits of quality feed for animals.	A training centre is proposed for imparting awareness and training to cattle feed manufacturers, farmers and stockmen about the importance of testing and blending in cattle feed manufacturing.The focus will be on promotion of testing activities and its benefits, so that CFC can generate revenue simultaneously.

3.7 Cluster growth potential

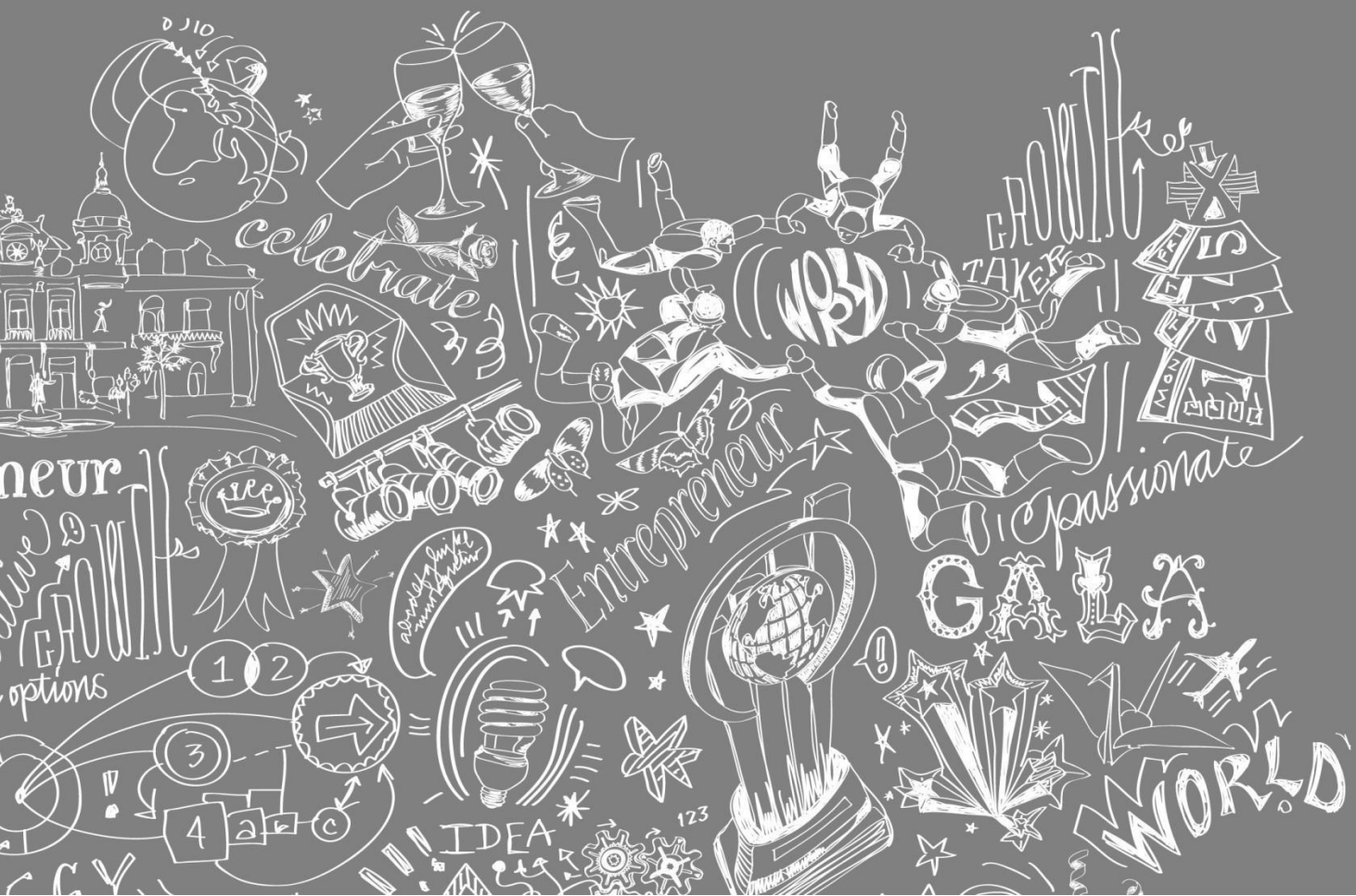
The growth potential for the Kurukshetra cattle feed cluster is steady. The domestic need for cattle feed is increasing with the rising demand of cattle feed products by increasing population.

Haryana also enjoys a resource advantage in terms of sizeable livestock population and also as the leading milk producing state in India, producing more than 7 million tons of milk every year. Haryana Dairy Development Cooperative Federation Limited is the state milk federation, which owns 6 milk processing plants in different parts of Haryana. These milk-processing plants are located in Kurukshetra, Jind, Ambala, Sirsa, Rohtak and Ballabgarh and have the total milk handling capacity of 6.45 lakh litres per day.

The challenge is to make a nutritionally competent feed using low-grade fibrous crop residues, which are mainly by products from other industries along with feed additives. Cattle feeding practices are very traditional. Farmers choose their own ingredients and prepare their own formulations. The productivity of cattle is very low because of poor genetic makeup and so there is a limitation of using high quality feed.

There is significant need of cattle feed in the state to provide nutritious feed and fodder for cattle to get maximum output from them. The demand for food of animal origin is increasing in Haryana due to economic growth, population growth and urbanization, which in turn means greater use of cereals and oilseeds for cattle feed.

Diagnostic Study Recommendations



4. Diagnostic Study Recommendations

There is a trend in the cluster of undertaking developmental and knowledge sharing activities continuously. Some of the activities are presented below.

- Manufacturers' meet at Karnal: Addressed by NDRI principal scientist Dr J P Sehgal. He emphasized on scientific formulation of cattle feed. Mr. Vivek Thakur marketing executive, Eli Lily, an MNC highlighted the wide gap in demand and supply of cattle feed. Dr. P.K.Sharma an ex Godrej consultant made a point in focussing quality of feed as of prime importance.

- Farmers- manufacturer meet held at Gharounda, Karnal : Dr. Sehgal from NDRI Karnal not only told to increase productivity but also gave practical tips to keep their cattle free of disease. He also heard their queries and solved their problems. Manufacturer also gained from the experience by making changes in their products and policies accordingly.

- Manufacturers and farmers meet at Kurukshetra: Dr. Sahib (Ex Consultant, Godrej Agrovet) informed about the fundamental of nutrition and warned them not to try manufacturing of cattle feed on their own. He further made clear that by making feed on their own they would end up paying more instead of less. Dr.Arvind advised them to give importance to minerals and other supplements.

- Other Interventions-

1. An event was organized by Nurture Organics on discussing the various applications of innovative material in feed nutrition was discussed.

2. Brihans organized an event at Ludhiana imparting awareness on the importance of heated minerals to high yielding cattle was stressed upon.

The diagnostic study report and subsequent discussions with various cluster stakeholders and members of Kurukshetra cattle feed cluster during formulation of this Detailed Project Report (DPR) have resulted in the identification of hard interventions that are being proposed to enhance the competitiveness of the cluster units.

These hard interventions have to be undertaken with government support to ensure the survival and growth of the cattle feed units in Kurukshetra. The hard interventions have been elaborated below.

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

The cattle feed units in the Kurukshetra need technology and infrastructure push for raw/final material testing to enhance their competitiveness and ensure their survival. Those units are reeling under bitter competition and low margins. They require modern high capacity automatic machines and other related equipment to get their job work done and reduce their production costs.

The following common infrastructure facilities are being proposed for the CFC, with support from the State Government.

- NIR Testing Machine: NIR stands for Near Infrared Reflectance. NIR spectroscopy is the study of the interaction between a sample (e.g. cereals, seeds, oils, finished products) and infrared light that has been dispersed into individual wavelengths, usually by a prism. Near-infrared spectroscopy is widely applied in agriculture for determining the quality of forages, grains, and grain products, oilseeds, coffee, tea, spices, fruits, vegetables, sugarcane, beverages, fats, and oils, dairy products, eggs, meat, and other agricultural products.
  NIR testing machine will be used to quantify the composition of agricultural products because it meets the criteria of being accurate, reliable, rapid, non-destructive, and inexpensive.

- Ribbon Type Blender: Those blenders are used in feed mills for the mixing of feed ingredients and premixes. The mixer plays a vital role in the feed production process, with efficient mixing being the key to good feed production. If feed is not mixed properly, ingredients and nutrients will not be properly distributed. This will result in additional time to extrude and pelletize the feed, or to use the feed as mash. This means that not only would the feed not have nutritional benefit, it would be bad for the animals.

- Brill Formulation Software: For accurate composition of ingredients, Brill formulation software can be use. Brill Formulation helps to get formulas into production faster, reducing manual work to save time and money. This would avoid wastage of raw materials, save time of formulation; provide results in form of better quality and quantity. Manufacturers can also diversify their product range according to market demand and customers specification at least cost.

4.2 Expected Outcome after Intervention

The project will be beneficial for cattle feed units in 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 and small unit entrepreneurs who could not afford to significantly contribute by way of necessary capital contribution have also been accommodated.
- The CFC will generate more job opportunities at both 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 28MSEs	About 32MSEs
Competitiveness	Most of the units are unable to price their products competitively, and are priced out by other countries	Units will be able to competitively price their products and compete with international players in the market
Employment	About 400	About 450
Technology	• No testing lab in the cluster • Outdated machineries	• Testing facility available • Quality will increase
Production	• Material wastage • Delays • High costs	• Quick Production • Lowered production costs • Competitive prices
Turn Over	About 120 crores	Will increase by 10-15%

Special Purpose Vehicle (SPV) for Project Implementation

5. SPV for Project Implementation

The micro units at cattle feed cluster, Kurukshetra came together to form a Special Purpose Vehicle (SPV) as a society in the name and style of 'Quick Testing and Training Centre, Kurukshetra' with Registration number 01557. The SPV has been registered on 23rd Nov. 2017. The certificate of registration along with Memorandum, byelaws and PAN Card of the SPV are provided in Annexure – 2. The total contribution to the society will be Rs. 24.23 lakhs. The members are micro and small sized firms (registered units) involved in cattle feed related activities, predominately based in industrial area of Kurukshetra and some of them are from neighbouring districts i.e. Kaithal, Karnal and Yamunanagar.

DIC, Kurukshetra and state government both played an important role in SPV formation by cluster stakeholders. The SPV includes 10 members who are contributing towards the admission fee of the society. 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 SPV members have a strong record of accomplishment 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 cattle feed industry and enhancing productivity of their units as mentioned in the previous sections. These include exposure to cluster development initiatives in other clusters, exposure visits to fairs, registration under UAM and awareness programs on new trends in cattle feed industry, lean manufacturing, design interventions and new technologies. These programs were conducted in collaboration with BDS providers as well as on their own.

The SPV has conducted a series of stakeholder consultations (with various members, DIC, Kurukshetra 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 development scheme in Kurukshetra and has also helped in validation of findings and recommendations. It has kept the state government and the DIC Kurukshetra engaged during the entire period of development of DSR and DPR.

5.1 Membership and Admission Fee

List of Members: The SPV has 10 members. The details of the members are furnished in the table 6. Other than these members, the SPV will have provision of having one member each from the state government. The SPV comprises members from cattle feed manufacturing units. It is homogeneous in nature due to similar products and activities performed by the cluster units.

Table 6: List of Members of Governing Body

S. No.	Member Name	Name of the unit	Unit address
1	Akshay Mittal	Modern Feed Industry	#86, Sec 2, Industrial Area, Kurukshetra
2	Parveen Garg	Super Feed Industries	Vill. Ramgarh, Kurukshetra
3	Parveen Agarwal	Haryana Feed Industries	#56, Sec 2, Industrial Area, Kurukshetra

The members have several years of successful experience in production of cattle feed and related products and are also well versed with the benefits of cluster development initiatives. These units are financially viable in nature.

Members have been in close interactions with technical experts, government institutions and machinery suppliers. The DIC Kurukshetra also acknowledged the genuineness and enthusiasm of the SPV members to undertake project initiatives under State Mini Cluster Development Scheme as well as verified the existence of the SPV members. The verified list is provided in Annexure 3.

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 contribution of members of the registered SPV includes the contribution from every member of SPV and no individual member holds more than 10% contribution in the society. Details of SPV members along with their contact persons, unit details, UAM numbers and products manufactured are provided in table7.

Table 7: Details of SPV Members of Cattle feed Cluster, Kurukshetra

S.N.	Contact Person	Company Name	Contact No.	Address of Unit	UAM No	Products
1	Parveen Garg	Super Feed Industries	9896007765	Ramgarh, Kurukshetra	HR11A0000778	Cattle Feed
2	Parveen Agarwal	Haryana Feed Industries	9416036515	#56, Sec 2, Industrial Area, Kurukshetra	HR11A0000857	Cattle Feed
3	Akshay Mittal	Modern Feed Industries	9896421406	#86, Sec 2 Industrial Area, Kurukshetra	HR11A0000013	Cattle Feed
4	Arun Gupta	Krishna Feed	9812154907	Sec 2, industrial area, Kurukshetra	HR11A0000983	Cattle Feed
5	Jaimal Singh	Shree Ambey Khal & Cattle Feed	9813561243	Mirzapur, Kurukshetra	HR11A0000976	Cattle Feed
6	Anil Mehla	Swami Feeds	9991885333	Pipli, Kurukshetra	HR11A0000980	Cattle Feed
7	Manmohan Sharma	Satyug Feed Industries	9416220498	Vill Dayalpur, Kurukshetra	HR11A0000981	Cattle Feed
8	Rakesh Jindal	Shankar Feed Products	9671525695	Cheeka, Kaithal	HR09A0003605	Cattle Feed
9	Rajinder Kumar	Ajay Oil Mills	9812020725	Ambala Road, Yamunanagar	HR19A0002317	Cattle Feed
10	Inderjit Gaba	Paras Feed Mills	9896652941	HSIIDC, Karnal	HR10A0002463	Cattle Feed

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 multiple 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 Kurukshetra, EY etc. The major initiatives are:

- Pursuing initiatives in close coordination with DIC Kurukshetra to facilitate understanding of cluster development, common procurement, marketing, available government support, latest technology for common facility etc.
- Exposure visit to understand the latest available technology and machinery related to cattle feed. This would help them to adopt latest methods and machinery for cattle feed and made them more competitive in market.
- Exposure visits to trade fairs 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 setting up of CFC.

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 lease 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 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 process of decision-making based by the governing council. 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. Governing Council 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 governing council, and the day-to-day administration will be taken care of by the management that shall be appointed by the governing council. Their role is detailed below:

1. Governing Council: The council 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 office bearers will oversee the entire operations; and each member 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 qualified professional with a background in the cattle feed industry will be appointed as the Cluster Development Officer (CDE), who will look after day-to-day operations of the CFC and shall be directly reporting to the Governing Body. Each facility will have its own expert staff (supervisors, operations and helpers) as per the requirement. The details of manpower and other requirements are mentioned in the DPR in the Project Economics section.

Project Economics

6. Project Economics

6.1 Project Cost

The actual total cost of setting up CFC Cattle feed Cluster, Kurukshetra is estimated at Rs. 133.84 lakhs.

The total cost estimate 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 as below:

6.1.1 Land and Building

Land

The proposed CFC would require space for installation of machinery and provision for stocking material.

The cluster SPV has identified a building measuring 2000 sq. ft. at sector 2, Industrial Area, Kurukshetra city that will be taken on lease. The land is in an industrial area and provision for power is available. The land is strategically located in the major existing industrial estate in Kurukshetra. Further, the SPV has planned to construct one more floor on the mentioned building.

The document establishing the proof for availability of building is provided in Annexure 4. The construction of one more floor on stated building is proposed which would be used as training centre and the estimated cost of the proposed floor will be around Rs. 22.00 Lakh. The SPV members shall bear the expenses required to acquire the building on lease, which will be included as their contribution towards the project cost.

Building

The built up area of the facility will comprise of a two storied building (mainly RCC considering the nature of products, one floor is to be constructed, resulting in total covered area of 2000sq ft). Indicative building layout plan is provided in Annexure 5 . The total cost of construction of the building is estimated at Rs. 22.00 Lakhs including electrification & plumbing. The duly certified building estimate is provided in Annexure 6.

The guidelines of State Mini Cluster Development Scheme specify that the cost of land and building cannot exceed 25% of the project cost of maximum 200 lakhs. Hence, as per the guidelines, the total project cost is estimated at Rs 133.84 lakh with value of building capped at Rs 22 lakhs, and the cost of machine at Rs. 99.78 lakhs. Table 8 highlights the actual estimated cost of the project as per the scheme.

Table 8: Requirement in terms of land and building

BUILDING - LEASE BASIS		
S.No.	Particulars	Actual Cost
1	Building area (sq. ft.)	2000.00
2	Monthly Rent (INR lakh)	0.10
3	Rent for first year (INR lakh)	1.20
4	Year on year increase in rent	10.00%
5	Cost of Construction of 1 floor (INR lakh)	22.00

6.1.2 Plant and Machinery

As detailed in section 4.2 (Hard interventions) NIR Analyser, Brill Formulation Software, Accuscan Gold Reader with Reveal Q+ for Aflatoxin, Batch Mixer, Projector and Screen, Sound System are required with essential props. The particulars of the machineries 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 auxiliary/supporting machines have been categorized as secondary machines. The major facilities proposed at the CFC are testing, formulation and blending. The total cost of plant, machinery including secondary machine have been estimated at Rs. 99.78 lakhs and contingency works out to Rs. 5.43 lakhs.

The details of the proposed machinery items are presented in Table 9. The detailed specifications and quotations of the machines are provided in Annexure 7. 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	Supplier Options	Amount (Rs. in lakh) with Tax
Primary Machinery				
1	NIR Analyser	1	Foss India Pvt. Ltd.	51.68
2	Brill Formulation Software	1	Cargill Ltd.	3.84
3	Accuscan Gold Reader	1	Maxima Nutrition	2.66
4	Reveal Q+ for Aflatoxin	1	Maxima Nutrition	0.16
5	Batch Mixer	1	Buhler (Changzhou)	27.74

S. No.	Machine Name	Quantity	Supplier Options	Amount (Rs. in lakh) with Tax
Primary Machinery				
			Machinery Co. Ltd.	
6	Projector & Screen	1 set	Savi Vision	0.50
7	Sound System	1 set	Karnal Gramophone House	0.40
	Sub Total (A)			86.97
Secondary Machinery				
1	DG Set	1	Sudhir	10.03
2	Air Conditioner	3	Kalra Engineering Works	2.36
3	CCTV	1 set	Kulwinder Electronics Security System	0.42
	Sub Total (B)			12.81
	TOTAL (A+B)			99.78

6.1.3 Miscellaneous Fixed Assets

The CFC would also require fixed assets such as furniture, fixtures, fire fighting equipment, and 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. 2.50 Lakhs. Details provided in Table 10.

Table 10: Miscellaneous Fixed Assets

Miscellaneous fixed assets Particulars	Amount (INR in Lakhs)
Office items and allied items, furniture, fixtures, fire fighting equipment and back-up power supply etc.	2.50
Total	2.50

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 envisage expenses incurred for registration of SPV, legal and administrative expenses, detailed civil engineering drawings with estimates, tendering forms, and tendering 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 period such as machine testing cost, bank charges, travelling etc. The total expenditure for preliminary and pre-operative expenses is estimated at Rs. 2.02 Lakhs (details provided in the Table 11).

Table 11: Preliminary and Pre-Operative Expenses

S. No.	Particulars	Amount Rs. in lakhs
1	Society Registration	0.15
2	Architect Fee	0.10
3	Tender forms & tendering cost	0.50
4	Project Report Preparation (DSR & DPR)	Nil
5	Project Management Charges	Nil
6	Travelling Cost	0.25
7	Machine testing cost	0.10
8	One time electricity connection charges for 1 kW connection @Rs. 3075 (security + service charge etc.) per kWh	0.92
	Total	2.02

6.1.5 Provision for Contingencies

Provision for contingencies has been provided for plant & machinery and building. Contingencies estimated @ 2% on building and civil works amount to Rs. 0.44 lakh. Contingencies on plant and machinery have been estimated at 5%, amounting to Rs. 4.99 lakh.

6.1.6 Margin Money for Working Capital

The total estimated working capital requirement during the first year of operation at 80% capacity utilization is Rs.8.44 lakh with margin money requirement of Rs. 2.11 lakh (25% of working capital requirement as margin). The working capital requirement calculations are 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 actual and as per State Mini Cluster Development Scheme is presented in the table 12.

Table 12: Total Project Cost

(Rs in Lakh)

S. No.	Particulars	Total Project Cost	Amount as per Guidelines	Remarks
1	Land & Building			
	a. Land Value	0.00	22.00	Max 25% of project cost of INR 200 lakhs
	b. Land Development	0.00		
	c. Building & Other Civil Works	22.00		
	A.	22.00	22.00	
2	Plants & Machinery			
	a. Indigenous	59.23	59.23	
	b. Imports	27.74	27.74	
	c. Secondary Machines	12.81	12.81	
	B.	99.78	99.78	
3	Miscellaneous fixed assets			Not Eligible for Grant
	(Furniture & fixtures, fire-fighting equipment, first aid equipment, backup power supply, etc.)	2.50	0.00	
	C.	2.50	0.00	
4	Preliminary & Preoperative Expenses			
	(Legal & administrative expenses, registration, civil engineering drawings with estimates & tender forms, telephone, stationery etc. (Establishment cost, overheads during construction period including travelling, machine testing cost and other services, etc.)	2.02	0.00	
	D.	2.02	0.00	
5	Contingency			
	a. Building @ 2%	0.44	0.00	
	b. Plant & Machinery @ 5%	4.99	0.00	
	E.	5.43	0.00	
6	Margin money for working capital			
	(Working capital required @ 80% C.U.)	2.11	0.00	
	F.	2.11	0.00	
	Total	133.84	121.78	

6.2 Means of Finance

The project will be financed from two sources: contribution from SPV and grant-in-aid from Govt. of Haryana (under State Mini Cluster Development 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 Development Scheme is envisaged to the tune of 90% of maximum 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 lakh. Hence, the SPV members have proposed to contribute 24.23 lakhs and grant-in-aid from Government of Haryana will be Rs.109.61 lakh.

Table 13: Means of Finance

S. No.	Source of finance	Project cost upto INR 200.00 lakhs (max eligible as per scheme)		Project cost without grant		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	109.61	0	0	109.61
2	Contribution of SPV	10	12.18	100	12.05	24.23
	Total	100	121.78	100	12.05	133.84

6.2.1 Capital Contribution

The contribution of the SPV members will be by way of admission fee in the SPV registered as a Society. The extent of total contribution would be Rs. 24.23 lakh contributed by the cluster SPV.

The extent of contribution by each member will be restricted to a maximum of 10% of total contribution.

6.2.2 Grant-in-Aid

Grant-in-aid of Rs. 109.61 lakh is expected from the Government of Haryana. The amount received by way of grant under State Mini Cluster Development 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 hours 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 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 in terms of diesel, oil, grease, strip, lamp and lubricants, etc.

Table 14: Consumables

S. No.	Machine Name	Hours available daily	Particulars	Amount (@ 80% C.U. in Rs. Lakh)	Amount (@ 85% C.U. in Rs. Lakh)	Amount (@ 100% C.U. in Rs. Lakh)
	Testing Facility			1	2	4
1	NIR Analyser	8	Lamp	0.77	0.82	0.96
2	Accuscan Gold Reader	8	Reveal strip	10.56	11.22	13.20
	Blending Facility					
3	Batch Mixer	8	Lubricants	0.19	0.20	0.24
	Other Use					
4	Computers & Printers	NA	Software Stationery & tonner @ Rs. 1000 per month	0.10	0.10	0.12
5	DG Set	NA	Diesel, grease & oil @ Rs. 1800 per month	0.17	0.18	0.22
	Total			11.79	12.53	14.74
	Consumables per month			0.98	1.04	1.23

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 around 15 persons. The manpower required in the 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.6.72 lakhs and for indirect at 7.02 lakhs. The total expense on manpower is projected at Rs. 1.15 lakh per month or Rs. 13.74 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 Salary Per Month (INR)	Total salary & wages per Year (INR lakh)
Manpower (Direct)					
Testing	1	Operator	15000	15000	1.80
Formulation	1	Operator	12000	12000	1.44
Blending	1	Operator	12000	12000	1.44
Helper	2	Helper	8500	17000	2.04
A	5		47500	56000	6.72

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

Category	No. Of Manpower Required	Salary per month per person (INR)	Total Salary Per Month (INR)	Total salary & wages per Year (INR lakh)
Administration & accounting (Indirect)				
Cluster Development Executive	1	20000	20000	2.40
Accountant	1	12000	12000	1.44
Office assistant	1	8500	8500	1.02
Security Guard	2	9000	18000	2.16
Total	5	49500	58500	7.02

6.3.3 Utilities

The most important utilities required in the project are power supply. 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 29.77 kW. The table below depicts the machine and equipment wise power requirement in the CFC. The drawn power is conservatively assumed at 60% of the connected load.

Table 17: Machine & Equipment (facility) wise power requirement

S. No.	Machine & Equipment	Power Requirement (kW)/ Connected Load	Total power requirement (60% of drawn power) kWh
1	NIR Analyser	2.00	1.20
2	Brill Formulation Software	0.06	0.04
3	Ribbon Type Blender	15.00	9.00
4	Administrative Facilities	10.00	6.00
	Total	27.06	16.24
	Buffer Connected Load (10% of Total Connected Load)	2.71	
	Total Connected load for CFC	29.77	

The power requirement for operation of core machinery and equipment, testing lab and administrative facilities is 29.77 kWh. Electricity required for shop floor activities in terms of operation of core machinery and equipment is 3247.2 units per month. The facility is dependent on electricity for operations and will require an additional 10% connected load as a buffer to get the electricity connection. The total connected load for the CFC is estimated to be 29.77 kW.

Fixed charges for connection of 29.77 kW @ Rs. 135 per kW is Rs. 4018.41 and monthly units consumption is 3247.2 units. The monthly energy expense @ Rs. 7.17 per unit is Rs. 23,282.42. 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 18: 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.4018.41per month)	0.48	0.48	0.48
2	Variable charges (as per consumption of units)	Shop-floor, support facilities & administrative (Rs. 23282.42 per month)	2.79	2.24	2.37
Total			3.28	2.72	2.86

6.3.4 Annual Repairs and Maintenance Expenses

The annual repair and maintenance expenses have been estimated to be Rs. 3.71 lakh. The details are presented in the table below:

Table 19: 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%	0.72	0.58	0.62
2		Plant & machinery: repair & maintenance @ 3%	2.99	2.39	2.54
Total			3.71	2.97	3.16

6.3.5 Insurance and Miscellaneous Administrative Expenses

Insurance is a critical component of asset protection at the CFC. Computation of insurance is at 0.5 % of the fixed assets. Cost of insurance shall remain as a fixed cost. Miscellaneous administrative expenses are estimated at a lump sum of Rs. 0.75 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 20: Insurance and Miscellaneous Administrative Expenses

No.	Expenditure component	Particulars	Amount per annum (Rs. Lakh)
1	Insurance	Estimate @ 0.5% on fixed assets (such as buildings, civil works, and Plant & machinery, including related contingency expenses	0.64
2	Miscellaneous administrative expenditure	Stationery, communication, travelling, and other misc. overheads	0.75
Total			1.39

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, rent and one month's sale as debtors. The details are presented in the table 21 below.

Table 21: Calculation of Working capital requirement

(Rs. In Lakh)

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	0.98	1.04	1.04	1.23	1.23	1.23	1.23	1.23	1.23	1.23
2	Utilities (Power)	1	0.23	0.24	0.24	0.27	0.27	0.27	0.27	0.27	0.27	0.27
3	Working Expenses (Manpower)	1	1.03	1.06	1.06	1.15	1.15	1.15	1.15	1.15	1.15	1.15
4	Rent	1	0.10	0.11	0.12	0.13	0.15	0.16	0.18	0.19	0.21	0.24
5	Sundry Debtors (Sales Value)	1	6.10	6.48	6.48	7.63	7.63	7.63	7.63	7.63	7.63	7.63
6	Working capital (Total expenses)		8.44	8.93	8.95	10.40	10.42	10.43	10.45	10.47	10.49	10.51
7	Working Capital Margin		2.11	2.23	2.24	2.60	2.60	2.61	2.61	2.62	2.62	2.63
8	Working Capital Loan		6.33	6.70	6.71	7.80	7.81	7.82	7.84	7.85	7.86	7.88
9	Interest on Working capital loan @11% p.a.		0.70	0.74	0.74	0.86	0.86	0.86	0.86	0.86	0.87	0.87

The working capital requirements of the project for one month of operation have been considered for consumables and expenses. The SPV will contribute 25% of the Working capital requirement as margin money, and the rest will be borrowed from local bank. The total working capital required during first year of operation (80% C.U.) is estimated at Rs. 8.44 lakh. Further, total working capital required at an operating capacity of 85% comes out to Rs. 8.93 lakh. The corresponding margin money for working capital requirement at 80% & 85% capacity utilisation amounts to Rs. 2.11 lakh and Rs. 2.23 lakh respectively, and the corresponding loan amounts at Rs. 6.33 lakh and Rs. 6.70 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) method. Accounting for depreciation would facilitate sustainability of operations in terms of developing a fund for replacement of assets. The relevant fund accumulated could facilitate the replacement of such assets toward the end of the envisaged asset life of 10 years. Depreciation of building is at the rate of 10% per year, depreciation of plant and machinery at 15% per year (envisaged project life of 10 years prior to replacement of assets), furniture 10%, computer 60% and depreciation of other miscellaneous fixed assets at the rate of 15% per year as per the WDV method. WDV method is provided in the table below.

Table 22: Depreciation based on WDV

(Rs. In lakh)

Particulars	Ist Year	2nd Year	3rd Year	4th Year	5th Year	6th Year	7th Year	8th Year	9th Year	10th Year
Land										
Opening Balance	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Less : Depreciation	-	-	-	-	-	-	-	-	-	-
Closing Balance	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building and Civil Work:										
Opening Balance	22.44	20.20	18.18	16.36	14.72	13.25	11.93	10.73	9.66	8.69
Less: Depreciation @ 10%	2.24	2.02	1.82	1.64	1.47	1.33	1.19	1.07	0.97	0.87
Closing Balance	20.20	18.18	16.36	14.72	13.25	11.93	10.73	9.66	8.69	7.82
Plant & Machinery										
Opening Balance	104.00	88.40	75.14	63.87	54.29	46.14	39.22	33.34	28.34	24.09
Less: Depreciation @ 15%	15.60	13.26	11.27	9.58	8.14	6.92	5.88	5.00	4.25	3.61
Closing Balance	88.40	75.14	63.87	54.29	46.14	39.22	33.34	28.34	24.09	20.47
Computers										
Opening Balance	0.78	0.31	0.12	0.05	0.02	0.01	0.00	0.00	0.00	0.00
Less: Depreciation @ 60%	0.47	0.19	0.07	0.03	0.01	0.00	0.00	0.00	0.00	0.00
Closing Balance	0.31	0.12	0.05	0.02	0.01	0.00	0.00	0.00	0.00	0.00
Furniture										
Opening Balance	1.00	0.90	0.81	0.73	0.66	0.59	0.53	0.48	0.43	0.39
Less: Depreciation @ 10%	0.10	0.09	0.08	0.07	0.07	0.06	0.05	0.05	0.04	0.04
Closing Balance	0.90	0.81	0.73	0.66	0.59	0.53	0.48	0.43	0.39	0.35

Other Misc. Fixed Assets										
Opening Balance	1.5	1.28	1.15	1.03	0.93	0.84	0.75	0.68	0.61	0.55
Less: Depreciation @ 15%	0.23	0.13	0.11	0.10	0.09	0.08	0.08	0.07	0.06	0.05
Closing Balance	1.28	1.15	1.03	0.93	0.84	0.75	0.68	0.61	0.55	0.49
Total Depreciation	18.64	15.68	13.36	11.42	9.79	8.39	7.21	6.19	5.32	4.58
Depreciated value	111.08	95.39	82.04	70.61	60.83	52.43	45.23	39.04	33.72	29.14

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 Kurukshetra 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 facility of raw material, formulation facility and blending facility.

The user charges have been estimated based upon the operational expenses of the CFC and the prevalent market rates in Kurukshetra. User charges for secondary equipment 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 a viable project.

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

Table 23: User Charges for Machinery

S. No.	Machine Name	User Charge Per Test (In Rs.)	No of test per day	No. of days	Amount (@ 80% C.U. in Rs. Lakh)	Amount (@ 85% C.U. in Rs. Lakh)	Amount (@ 100% C.U. in Rs. Lakh)
Testing Facility							
1	NIR Analyser	400	35	300	33.60	35.70	42.00
2	Brill Formulation Software	1300	1	300	3.12	3.32	3.90
3	Accuscan Gold Reader	800	10	300	19.20	20.40	24.00
Blending Facility							
3	Batch Mixer	900	8	300	17.28	18.36	21.60
Total					73.20	77.78	91.50

Total gross revenue inflow is estimated to Rs.73.20 lakhs per annum on an operating capacity of 80%. For projection purposes, operating capacity of 80% is considered during the first year, 85% during next two years and 100% capacity from 4th year onwards.

Table 24: Income and Expenditure Statement

(Rs. In Lacs)

PROFIT & LOSS ACCOUNT										
Particulars	Ist 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)	73.20	77.78	77.78	91.50	91.50	91.50	91.50	91.50	91.50	91.50
B. Cost of Production :										
1. Utilities Power (Fixed + Variable)	2.72	2.86	2.86	3.28	3.28	3.28	3.28	3.28	3.28	3.28
2. Direct labour and wages	5.38	5.71	5.71	6.72	6.72	6.72	6.72	6.72	6.72	6.72
3. Consumable	11.79	12.53	12.53	14.74	14.74	14.74	14.74	14.74	14.74	14.74
4. Repair and Maintenance	2.97	3.16	3.16	3.71	3.71	3.71	3.71	3.71	3.71	3.71
5. Depreciation	18.64	15.68	13.36	11.42	9.79	8.39	7.21	6.19	5.32	4.58
Total Cost of production	41.49	39.93	37.61	39.87	38.23	36.84	35.65	34.64	33.77	33.02
C. Administrative expenses :										
6. Manpower (Indirect)	7.02	7.02	7.02	7.02	7.02	7.02	7.02	7.02	7.02	7.02
7. Insurance	0.64	0.56	0.48	0.41	0.35	0.30	0.26	0.23	0.20	0.17
8. Misc Expense	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
9.Rent	1.20	1.32	1.45	1.60	1.76	1.93	2.13	2.34	2.57	2.83
Total Administrative Expenses	9.61	9.65	9.70	9.78	9.88	10.01	10.16	10.33	10.54	10.77
D. Financial expenses :										

(Rs. In Lacs)

PROFIT & LOSS ACCOUNT										
Particulars	Ist Year	2nd Year	3rd Year	4th Year	5th Year	6th Year	7th Year	8th Year	9th Year	10th Year
10. Interest on Working capital loan @ 11% per annum	0.70	0.74	0.74	0.86	0.86	0.86	0.86	0.86	0.87	0.87
Total Financial Expenses	0.70	0.74	0.74	0.86	0.86	0.86	0.86	0.86	0.87	0.87
E. Total Expenses B+C+D	51.79	50.32	48.05	50.50	48.97	47.71	46.67	45.83	45.17	44.66
F. Profit A - E	21.41	27.46	29.73	41.00	42.53	43.79	44.83	45.67	46.33	46.84
G. P&P Expenses written off	0.40	0.40	0.40	0.40	0.40	0.00	0.00	0.00	0.00	0.00
H. Income before Tax (F-G)	21.01	27.05	29.33	40.59	42.13	43.79	44.83	45.67	46.33	46.84
I. Adjustment of Loss	-	-	-	-	-	-	-	-	-	-
J. Income Tax (as per tax rates for society)	6.46	8.33	9.03	12.51	12.99	13.50	13.82	14.08	14.29	14.44
k. Net Profit /Loss for the year	14.55	18.73	20.29	28.08	29.14	30.29	31.01	31.59	32.05	32.40
L. Cumulative Surplus	14.55	33.27	53.57	81.65	110.79	141.08	172.09	203.67	235.72	268.12

As evident from the table above, the project is financially viable. A cumulative surplus of about Rs.268.12 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 many other development activities in the cluster that shall be funded through the surplus earned at the CFC.

6.7 Computation of Income tax

As per table no 25, the income tax implication is computed at the rates applicable to a society. The incidence of tax ranges from Rs. 6.46 Lakh per annum for year 1 to Rs. 14.44 lakh per annum in year 10.

6.8 Cash flow statement

Cash flow statement indicates the cash balance and the liquidity position of the project over the years. The cash flow statement highlights the available net surplus for 10 years of the CFC operations.

The table below presents the sources and disposal/uses of funds statement of the project.

Table 25: Cash Flow Statement

(Rs in Lacs)

CASH FLOW STATEMENT											
Particulars	Construction Period	1st Year	2nd Year	3rd Year	4th Year	5th Year	6th Year	7th Year	8th Year	9th Year	10th Year
A. Source Funds :											
1. Cash Accruals (Net Profit + Interest paid)		22.11	28.20	30.47	41.86	43.39	44.65	45.69	46.53	47.20	47.71
2. Increase in capital	24.23	-	-	-	-	-	-	-	-	-	-
3. Depreciation		18.64	15.68	13.36	11.42	9.79	8.39	7.21	6.19	5.32	4.58
4. Increase in WC Loan		6.33	0.37	0.01	1.09	0.01	0.01	0.01	0.01	0.01	0.02
5. Increase in Grant-in-aid from GoH	109.61		-	-	-	-	-	-	-	-	-
6. Increase in Grant-in-aid under Mini Cluster Scheme	-	-	-	-	-	-	-	-	-	-	-
Total Sources	133.84	47.07	44.25	43.83	54.37	53.18	53.06	52.91	52.73	52.53	52.30
B. Use of Funds :											
1. P&P Expenses	2.02	-	-	-	-	-	-	-	-	-	-
2. Increase in fixed assets		-	-	-	-	-	-	-	-	-	-
3. Increase in other Assets	2.11	20.00	2.12	2.20	2.78	2.67	2.93	3.23	3.55	3.90	4.29
4. Increase in Sundry Debtors		6.10	0.38	0.00	1.14	0.00	0.00	0.00	0.00	0.00	0.00
5. Interest		0.70	0.74	0.74	0.86	0.86	0.86	0.86	0.86	0.87	0.87
6. Taxation		6.46	8.33	9.03	12.51	12.99	13.50	13.82	14.08	14.29	14.44
Total Use of Funds	4.13	33.26	11.57	11.97	17.30	16.51	17.29	17.91	18.49	19.05	19.60
C. Net Surplus (A -B)		13.82	32.68	31.86	37.07	36.67	35.76	35.00	34.24	33.48	32.70
D. Cumulative Surplus		13.82	46.49	78.36	115.43	152.10	187.87	222.87	257.11	290.59	323.29

6.9 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, as well as current and fixed assets. As evident from the projections, a considerable amount of reserves and surplus will be 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 26: Balance Sheet

(Rs in lacs)

Projected Balance Sheet											
Particulars	At the end of impl. Period	Ist Year	2nd Year	3rd Year	4th Year	5th Year	6th Year	7th Year	8th Year	9th Year	10th Year
A. Fixed Assets :											
Gross Block	129.71	129.71	111.08	95.39	82.04	70.61	60.83	52.43	45.23	39.04	33.72
Less : Depreciation (WDV)		18.64	15.68	13.36	11.42	9.79	8.39	7.21	6.19	5.32	4.58
Net Block	129.71	111.08	95.39	82.04	70.61	60.83	52.43	45.23	39.04	33.72	29.14
Total Fixed Assets (A)	129.71	111.08	95.39	82.04	70.61	60.83	52.43	45.23	39.04	33.72	29.14
B Current Assets :											
Cash & bank Surplus (B.F)		13.82	46.49	78.36	115.43	152.10	187.87	222.87	257.11	290.59	323.29
Sundry Debtors		6.10	6.48	6.48	7.63	7.63	7.63	7.63	7.63	7.63	7.63
Margin Money for WC Loan	2.11	2.11	2.23	2.24	2.60	2.60	2.61	2.61	2.62	2.62	2.63
Other Current Assets		20.00	22.00	24.20	26.62	29.28	32.21	35.43	38.97	42.87	47.16
C. P&P Exp	2.02	1.61	1.21	0.81	0.40						
Total current Assets (B)		43.64	78.42	112.08	152.68	191.61	230.31	268.53	306.32	343.70	380.70
Total Assets (A+B)	133.84	154.72	173.81	194.12	223.29	252.44	282.74	313.76	345.36	377.42	409.84
D. Current Liabilities :											
Working Capital Loan		6.33	6.70	6.71	7.80	7.81	7.82	7.84	7.85	7.86	7.88
Total Current Liabilities (C)											
E. Fixed Liabilities											
Shareholders' Contribution	24.23	24.23	24.23	24.23	24.23	24.23	24.23	24.23	24.23	24.23	24.23

(Rs in lacs)

Projected Balance Sheet											
Particulars	At the end of impl. Period	Ist Year	2nd Year	3rd Year	4th Year	5th Year	6th Year	7th Year	8th Year	9th Year	10th Year
Grant from GoH	109.61	109.61	109.61	109.61	109.61	109.61	109.61	109.61	109.61	109.61	109.61
Reserves and Surplus		14.55	33.27	53.57	81.65	110.79	141.08	172.09	203.67	235.72	268.12
Total Fixed Liabilities (D)	133.84	148.39	167.11	187.41	215.49	244.63	274.92	305.93	337.51	369.56	401.96
Total Liabilities (C+D)		154.72	173.81	194.12	223.29	252.44	282.74	313.76	345.36	377.42	409.84

6.10 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 27: Break Even Estimates

(Rs in Lakh)

Breakeven point			
Particulars	Amount at operating capacity (80%)	Amount at operating capacity (85%)	Amount at operating capacity (100%)
A. Total Earning by way of user charges	73.20	77.78	91.50
B. Variable costs			
Consumables	11.79	12.53	14.74
Utilities (power- variable charge)	2.24	2.37	2.79
Interest on WC Loan	0.70	0.74	0.87
Repair & Maintenance	2.97	3.16	3.71
Rent			
Manpower (Direct)	5.38	5.71	6.72
Total Variable Cost (B)	23.07	24.51	28.83
C. Contribution (A-B)	50.13	53.27	62.67
D. Fixed Overheads (Cash)			
Manpower (Indirect)	7.02	7.02	7.02
Utilities (Power - fixed charges)	0.48	0.48	0.48
Insurance	0.64	0.56	0.17
Rent	1.20	1.32	2.83
Misc. Expenditure	0.75	0.75	0.75
Sub-total (D)	10.09	10.13	11.25
E. Fixed Overheads (Non-cash)			
Depreciation	18.64	15.68	4.58

Breakeven point			
Particulars	Amount at operating capacity (80%)	Amount at operating capacity (85%)	Amount at operating capacity (100%)
Preliminary & Pre-operative expenses written off	0.40	0.40	0.00
Sub-total (E)	19.04	16.09	4.58
F. Total Fixed Overheads (D+E)	29.13	26.21	15.83
Break-even point (F/C)	58.10%	49.21%	25.25%

Break-even is at 58.10% during first year (operational capacity at 80 per cent) and at 49.21% during second year (operational capacity at 85 percent). The operations of the CFC are expected to break-even and realize 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.

6.11 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 28: Financial Analysis

S. No.	Particulars	Estimates
1	BEP (cash BEP at operating capacity of 80%)	58.10%
2	Av. ROCE (PAT/CE) with Grant	28.96%
4	Internal Rate of Return (IRR)	23.65%
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. 90.37 lacs) at a conservative project life of 10 years
6	Payback period	4.95 years with Grant-in-aid assistance from GOH

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

Table 29: Calculation of Return on Capital Employed

Particulars	1Yr	2Yr	3Yr	4Yr	5Yr	6Yr	7Yr	8Yr	9Yr	10Yr	AVERAGE
ROCE (With Grant)	15.69 %	20.21 %	21.91 %	30.33%	31.48%	32.72%	33.49%	34.12%	34.62 %	35.00 %	28.96%

The average value of ROCE (with grant-in-aid) is 28.96%. This indicates the high techno-economic viability of the project. The capital employed considered includes the SPV contribution as well as the grant component to the project.

The Net Present Value (NPV) is estimated at a discount rate of 10%.However, as reflected from the high values of NPV, it is positive at even 10%, the rate at which bank offers debt capital facility and even at higher discount rates. Project IRR is high at over 23.65% (at a conservative project life of 10 years). This substantiates the viability of the project.

6.12 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 intend 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.

6.13 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 cattle feed 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 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 contribution; all reflect the strength of the SPV.

High economic viability indicators upon considering the benefits of grant-in-aid under the State Mini Cluster Development 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 30: Sensitivity Analysis

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%)	58.10%	62.64%	67.95%	74.25%
2	Internal Rate of Return (IRR)	23.65%	21.17%	18.61%	15.93%
3	Av. ROCE (PAT/CE)	28.96%	25.75%	22.53%	19.32%
4	Net Present Value (at a discount rate of 10 per cent) - incorporating viability gap funding (grant) by GoI and GoH	90.37	72.47	54.57	36.67

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.

6.14 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. 133.84 lakh based on estimates and quotations.

2. To finance the project, a total of Rs. 133.84 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 2018 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 State Mini Cluster Development Scheme. The financial projections thereafter are prepared for 10 years of operation starting from the year 2019.

4. The Registered SPV will manage CFC, and these services are to be provided 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 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. 3075/- as security deposit and 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. 135 and variable charges @ Rs. 7.17 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.

14. Provision for income tax has been made as per the tax rates applicable to a society under the Income Tax Act, 1961.

15. Profitability estimates in terms of ROCE, NPV & IRR are computed considering operating results for first 10 years of operation.

Project Implementation and Monitoring

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 7 months involves several activities. The schedule is elaborated in the table below:

Table 31: Project Implementation Schedule

Activity/Month	1	2	3	4	5	6	7	8	9	10
Collecting Contribution from SPV members										
Signing of lease agreement										
Preparation of detailed drawings										
Formation of purchase committee										
Inviting E tenders for building construction and purchase of machines Construction of facilities										
Obtaining statutory clearances and approvals										
Construction of first floor										
Purchase of machinery and equipment										

Activity/Month	1	2	3	4	5	6	7	8	9	10
Installation and trial run of machinery and equipment										
Arrangement of working capital										
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 10 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 Society: Memorandum 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 Society. 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: Building is being taken on lease by the SPV for the proposed CFC at industrial area sector 2 in Kurukshetra district. A plot of land of area 2000 sq. ft has already been identified by the SPV and shall be taken on lease by SPV after approval.

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, labour 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 Project Steering Committee (SLPSC). 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. GM, DIC Kurukshetra
iv. Commercial bank general Manager
v. President of related industry association
vi. Directors of related SPV
vii. 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 Cattle feed Cluster, Kurukshetra CFC project, a Project Management Committee (PMC) comprising the GM, DIC, Kurukshetra, and representatives of SPV, Commerical bank, 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 Kurukshetra.

Conclusion

8. Conclusion

The micro and small cattle feed units of Kurukshetra deploy out-dated technology and are unable to meet the requirements of the market due to lack of availability of modern machines/equipment's. Also, these cattle feed need to tested against certain parameters such as protein, fibre, fat etc. which these clusters are dependent on external labs. There is no testing lab at Kurukstetra and the sample is sent to Chandigah for testing resulting in delays. To add to their woes, the micro and small units are unable to provide quality products for the biggest market segment in the region.

Against this backdrop, it is inevitable to support the cattle feed units in Kurukshetra to adopt modern testing equipments and machines. This will reduce their processing costs significantly while increasing the quality of their produce.

The future of cattle feed industry is bright. Cattle feed segment is poised to grow at a steady rate with major applications being in agriculture and dairy product. Several factors are enhancing the demand and supply of cattle feed products in India such as reducing grazing land, poor quality of fodder, rising demand of dairy products etc. Particularly in the Kurukshetra region, the market possibility for high quality cattle feed products is promising. The only constraint is the lack of testing facility 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 and production capacity. The equipment required for testing and job work are expensive and the same cannot be adopted by any individual units in the cluster. Hence, the following facilities have been proposed in the CFC:

- Value added testing facilities
- Value added formulation facilities
- Value added blending facilities

The total project cost (including plant/machinery and buildings) is estimated to be Rs. 133.84 lakhs. The project shall be implemented by the SPV 'Quick Training and Testing Centre', 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 DIC and the state government (Department of Industries) under PPP mode. The building for the project has already been identified by the SPV and shall be taken on lease immediately upon the final approval by State Government. The state industry department is envisaged to provide grant for setting up of the modern machines under the mini-cluster scheme, Haryana EPP 2015. The SPV members have confirmed to contribute Rs.24.23 lakhs of the project cost. Support from Mini Cluster Scheme of the State Government of Haryana is envisaged for Rs. 109.61 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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TAKER
Entrepreneur
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GALA
WORLD
IDEA
options

9. Annexures

Annexure 1: Minutes of DSR Validation Meeting

Minutes of Meeting: Validation meeting of Diagnostic Study Report (DSR) of Cattle Feed Cluster, Kurukshetra under Mini Cluster Development scheme

Date: 11st October 2017	**Time: 12:30 PM-1:00 PM**	**Venue: DI & C Office, Chandigarh**
Agenda: ➢ Discussion on the Draft DSR of Cattle Feed Cluster, Kurukshetra by EY for validation ➢ Discussion on proposed hard intervention with stakeholders ➢ Clarification on issues/concerns of cluster members ➢ Discussion on formation of SPV and other issues		
Attendees: • Mr. Ashok Sangwan IAS, Director, DI& C, Chandigarh (Govt. Of Haryana) • Mr R. C. Dahra, Consultant (Clusters) Department of Industries & Commerce, Govt. of Haryana • Mr. Manmohan Sharma- Satya Feed Industries (SPV member) • Mr. Akshay Mittal- Modern Feed Industries (SPV member) • Mr. Jaimal Singh- Shree Ambey Khal and Cattle Feed (SPV member) • Mr. Anil Kumar- Swami Feed (SPV member) • Mr. Parveen Garg- Super Industries (SPV member) • Mr. Arun Gupta- Krishna Feed Industries (SPV member) • Mr. Chandan Nagasuri, PMU • Mr. Vishal Srivastava, PMU		

Mr. R. C. Dahra, Consultant (Clusters) welcomed SPV members in presence of Mr. Ashok Sangwan, Director of Industries, Govt. of Haryana. Mr. Akshay Mittal (member of SPV) extended gratitude to Department of Industries, Govt. of Haryana and EY team for putting their efforts to prepare DSR for cattle feed cluster in time.

The participants provided their introduction and outlined the brief about the cluster requirements. Mr. Chandan Nagasuri from EY PMU provided an overview of the cluster and elaborate on various aspects of the proposed project.

Discussion and Action Points

- The participants were satisfied with the recommendations given in the DSR of set up a common facility which can be enable cattle feed manufacturing units become competitive.
- The participants informed their intention to setting up of CFC and mentioned that a building has already been identified.
- The cluster members mentioned that SPV is in process of registration with the name of “Quick Testing & Training Centre”.
- Cluster members mentioned that they are engaged in cattle feed manufacturing business and their main products is cattle feed which is in form of mesh and pallets.
- Currently, the members do not have testing, formulation and blending facilities in the cluster.

They have to depend upon private service providers and it take high time for testing and costlier also. With the help of CFC, they can get these job work done at a cheaper price and can produce more quality products

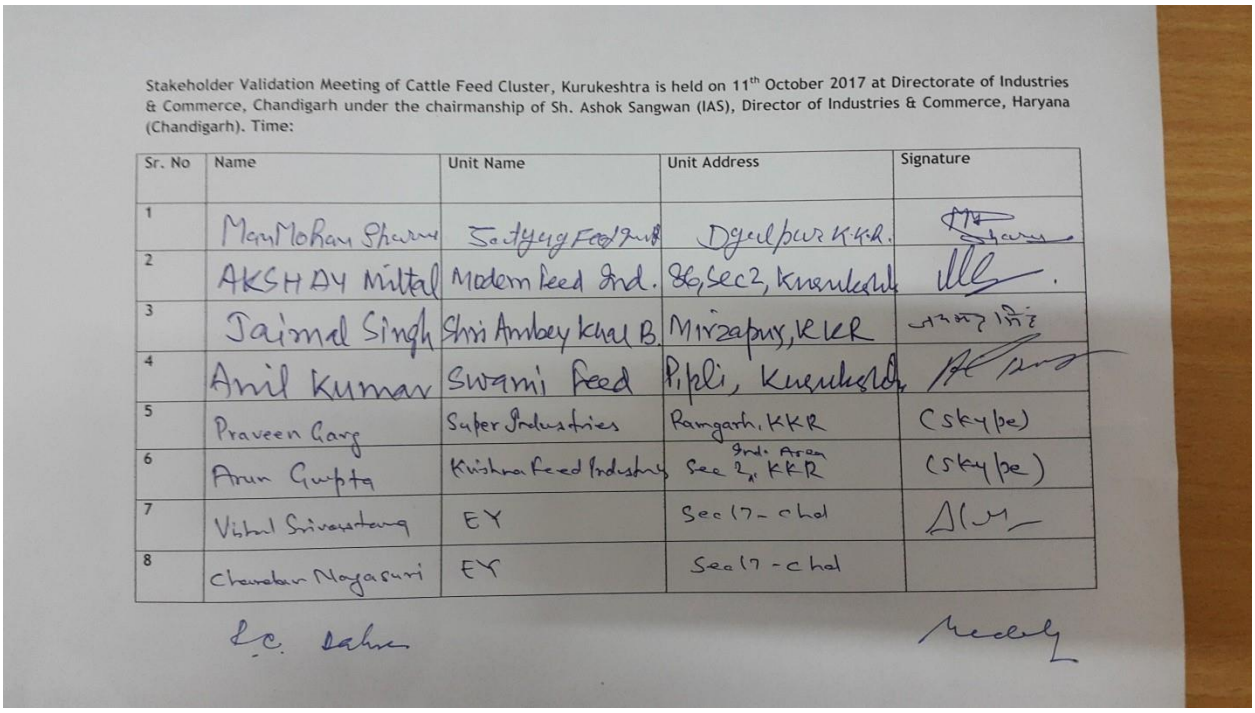
- SPV members mentioned that they already have UAM numbers.
- SPV members informed that a building has been identified for CFC and will be taken on lease.
- Mr. Parveen Garg from Super Industries (SPV member) and Mr. Arun Gupta from Krishna Feed Industries (SPV member) joined the meeting via “skype” as they were unable to come physically in that meeting.

After discussion with the cluster members, Director Industries gave his consent and informed cluster members that the DSR will taken up for approval in the state level steering committee (SLSC) at an early date. Since the approval of this CFC will be at state level, he would like to the facility to be established and become operational within this financial year.

The meeting concluded with the vote of thanks by the chair.

Annexure 1

List of participants:

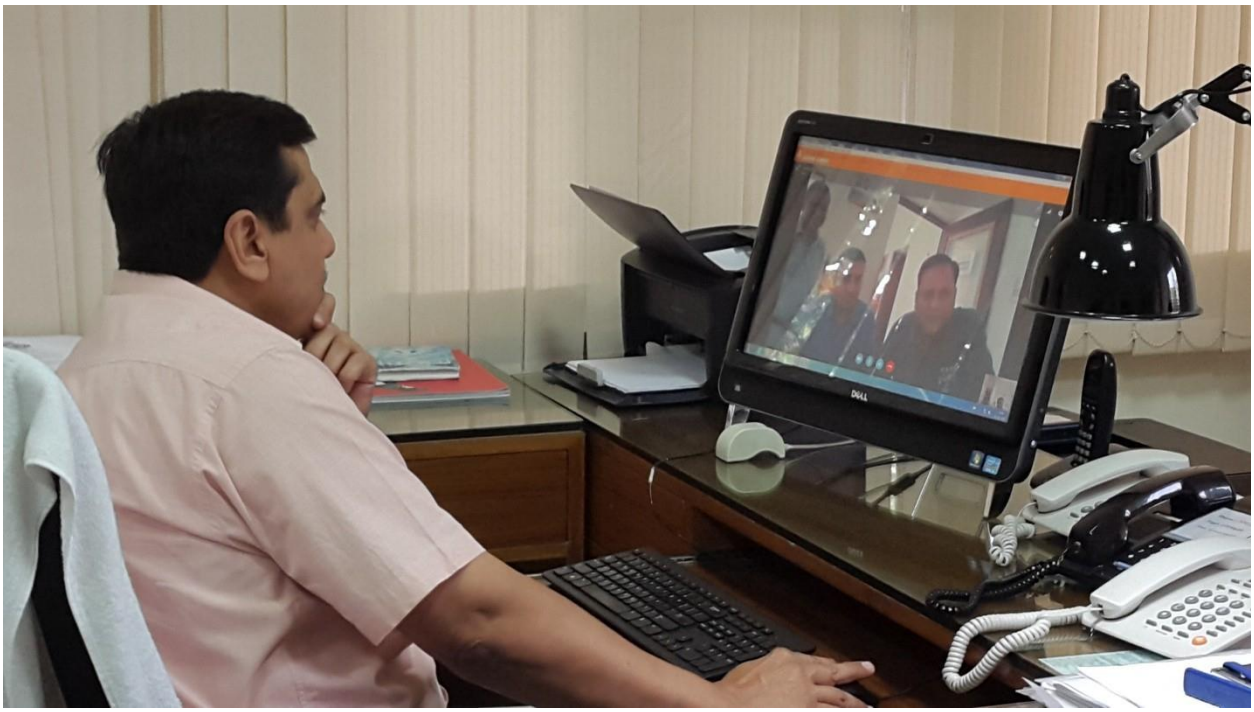


Stakeholder Validation Meeting of Cattle Feed Cluster, Kurukeshtra is held on 11th October 2017 at Directorate of Industries & Commerce, Chandigarh under the chairmanship of Sh. Ashok Sangwan (IAS), Director of Industries & Commerce, Haryana (Chandigarh). Time:

Sr. No	Name	Unit Name	Unit Address	Signature
1	Man Mohan Sharma	Satyug Feed	Dyalpur KKR.	
2	AKSHAY Mittal	Modern Feed Ind.	86, Sec 2, Kurukshetra	
3	Jaimal Singh	Shri Ambey Khal B.	Mirzapur, KKR	
4	Anil Kumar	Swami Feed	Pipli, Kurukshetra	
5	Praveen Garg	Super Industries	Ramgarh, KKR	(Skype)
6	Arun Gupta	Krishna Feed Industry	Sec 2, Ind. Area KKR	(Skype)
7	Vishal Srivastava	EY	Sec 17 - Chd	
8	Chandan Nagarani	EY	Sec 17 - Chd	

Annexure 2

Some snaps of meeting



Annexure 2 (a): Certificate of Incorporation

Department of Industries & Commerce, Haryana

Form-III

"Certificate of Registration to be issued under Section 8(1) of the Haryana Registration and Regulation of Societies Act, 2012"

(See rule 5 and rule 6)

Certificate of Registration of Society

I hereby certify that a Society bearing the Registration Number and name as undermentioned has been registered this [23] day [Nov] month [2017] year under the Haryana Registration and Regulation of Societies Act, 2012 (Haryana Act No. 1 of 2012).

State Code	District Code	Year Of Registration	Registration Number
H R	4	2 0 1 7	0 1 S S 7

Name Of the Society	Registered Office Address
Quick Testing & Training Center	55, sector 2, industrial area

Issued under my hand at [Kurukshetra] this [23] day of (month)[Nov] (Year)[2017] having Unique Identification Number - 2000123412

Issuing Authority,
District Registrar, , Haryana.

SOME IMPORTANT PROVISIONS OF THE HRRS ACT 2012 TO BE FOLLOWED :

- One Flat one vote.
- Collegium Scheme to be approved from District Registrar if members strength is more than 1000.
- Administrator if appointed will not enroll new members, incur capital expenditure and give employement in the society.
- Terms of Governing Body not to be more than 3 years.
- Member to be not less than 21 year age.
- Office bearers of society (Three to twenty one).
- General Body and other meeting should be conducted with quorum i.e 1st meeting - 40%, 2nd meeting - 25% and 3rd meeting - 15% (see entire Provisions)
- Submission of mandatory Annual Returns i.e. list of members, list of members of collegium, list of office bearers, Annual Report on working, Balance Sheet & Auditors Report, Copy of special resolution otherwise shall attract penalities & fines as per provisions of Act.
- In case of Joint Apartment owners, 1st owner will be eligible to contest the elections.
- Proxy voting not allowed.
- Condominium/ Association covered under Apartment Ownership Act 1983 is to be formed by owners only.
- Election observer may be appointed by District Registrar or on request of Society

Verification Link: https://haryanaindustries.gov.in/msme/verifysocietyregistration/id/123412/reg/05-004-2017-01567

Annexure 2(b): Copy of Memorandum & Byelaws

Registered Office with respect to all sums of money received and expended by the Society and the assets and liabilities of the Society.

(ii) **The books of accounts of the Society shall be open to inspection during the business hours by the Registrar General, Registrar, District Registrar or any officer authorised by them and by any member of the Society**

(iii) **The annual accounts of the society will be signed by any two authorised office-bearers of the Society.**

(iv) **The Governing Body will appoint a chartered accountant, who shall not be a member of the Governing body or family member of any member of the Governing Body, for auditing the accounts and filing of income tax return of the society for each financial year, at such remuneration as may be determined by the Governing Body.**

(12) Common Seal:-

The Society will have a common seal which shall be kept in safe custody of the General Secretary/Secretary and shall be affixed wherever it is required in accordance with the authorisation by the Governing Body

(13) Amalgamation of the Society :-

The Society may amalgamate itself with any other Society established with the identical aims and objects or allow any other society to amalgamate with itself by a Special Resolution passed in this behalf in accordance with the provisions contained in Section 51 of the Act and rule 25 made there under.

(14) Dissolution of the Society:

(i) The Society may resolve to dissolve itself in accordance with the provisions contained in the Act and the rules there under in case it becomes difficult to carry on with the operations of the society or it becomes insolvent or for any other pressing and unavoidable reasons.

(ii) In the event of dissolution of the Society, no assets of the society shall devolve on or distributed amongst the members of the Society.

(iii) Its assets and properties shall be first used to liquidate any liabilities and the left over properties/ assets, if any, shall be considered for transfer to any other Society established with identical aims and objects or to the District Collector for use thereof in the general public interest.

Parveen Garg Akshay Mittal Inderjit Gaba Anil Kumar

intimation of any such amendment or change, along with attested copy of the requisite documents, shall be filed in the office the District Registrar by the General Secretary/ Secretary within such time as may be prescribed under the Haryana Registration and Regulation of Societies Act, 2012 and the rules made thereunder.

(10) Management of Assets and Funds of the Society

(i) The sources of income of the society will include receipts on account of membership fee, annual subscription, rent from property/ assets, interest, consultation fees, donations, gifts, grants, etc. The society can also raise funds through interest free short term loans from its members or from scheduled banks on interest. Loan from the scheduled banks on interest will be taken only for purchase of creation of capital assets and not for meeting any recurring revenue expenditure under any circumstances.

(ii) The Governing Body will prepare and approve an annual budget of the Society on the basis of its estimated income and the capital & revenue expenditure during the first quarter of the financial year and shall also place a copy thereof before the General Body in its Annual General Meeting for information

(iii) The Bank accounts of the Society will be jointly operated by such members/ office bearers as may be decided by the Governing body from time to time.

(iv) All assets and funds will belong to the Society and vest in the society

(v) All receipts and payments of the Society shall be made through Bank instruments (i.e DD/ Pay Order/ Cheques/ Bank Transfers/ RTGS) including all receipts towards the Membership Fees and the annual subscriptions from the members. However, the Governing Body may determine the limits of financial transactions which may be conducted in cash in certain other cases.

(11) Accounts of the Society.

(i) The Treasurer of the Society will be responsible for maintaining proper books of accounts i.e cash book, ledger etc. as required under the Income Tax laws and/or any other authority including the Institute of Chartered Accountants of India, at its

Parveen Garg Harshi Gupta Vishay Mittal Rakesh Jindal Rajender Bansal Inderjit Lishra Anil Kumar

a) **To keep accounts of all financial transactions of the Society and of all the sums of money received and spent by the Society and maintain records of receipts and expenses relating to such matters, and of assets, credits and liabilities.**

b) **To get the accounts of the Society audited by the chartered accountant appointed by the Governing Body at the close of the financial year, every year.**

c) **To submit to the Governing Body through General Secretary/Secretary, the audited annual accounts of the Society, at least one month prior to the date of annual general meeting.**

d) To act as the overall custodian of all the books of accounts of the society, financial statements, receipt books, expense vouchers, bank pass books & cheque books, cash etc.

(7) **Cessation of members of the Governing Body**- An office-bearer/ executive member of the Governing Body shall cease to be an office-bearer or executive member:

a) upon submission & acceptance of his resignation;

b) if he ceases to be a member in accordance with sub-clause (B) of Clause 4 of these byelaws,

c) if he is removed by a resolution passed in the meeting of the General Body.

(8) **Exclusions from the Employment of a Society:**

a) No member of the Society shall be in full time or part time employment of the Society;

b) No dependant or family member or close relative of the office bearers and members of the Governing Body shall be engaged as an employee of the society during its term;

c) Every office bearer and member of the Governing Body shall make a declaration in case any person in the employment of the Society is his close relative.

(9) **Amendments in the Memorandum of Association, Byelaws, Name of the Society, etc.** Any amendment in the Memorandum of Association and Byelaws, or Change of Name, amalgamation or division of the Society will be done only with the approval of the General Body by way of a special resolution. The

Parveen Garg Akshay Mittal Inderjit Gaba

g) To help and assist the President in looking after the complete affairs of the Society and in attaining aims & objects of the Society.

h) To ensure timely filing of all statutory returns/ documents in the office of the District Registrar and such other authorities as may be prescribed under the Haryana Registration and Regulation of Societies Act, 2012 and the rules made thereunder.

i) To be the custodian for safe custody of common seal of the society and affix the same, wherever required, as per the authorisation of the Governing Body.

j) To conduct correspondence on behalf of the Society/ Governing Body and to sign letters and papers on its behalf and to ensure that all statutory registers and records are properly kept and maintained.

k) To prepare before announcing of the date of election and the Annual General Meeting, the list of all the members eligible to vote, duly updated and to place it before the Governing Body.

l) Act as the overall in-charge of the administration and execution of all the programmes of the Society/ including financial affairs on behalf of the Governing Body including creation of posts, fixation of salaries/ remuneration/ allowances etc., make appointments/ engagement of staff, make purchases and do all other such things as may be necessary in the furtherance of the aims & objects of the Society in accordance with the delegations by the Governing Body from time to time and where no such delegation is specifically made, in consultation with the President of the Society.

(iv) **Joint Secretary:**

a) To assist the General Secretary/ Secretary of the Society in carrying out his functions and duties;

b) To discharge the functions and duties of the General Secretary/ Secretary of the Society in his absence to the extent authorised by the Governing Body;

c) To look after such functions and duties and exercise such powers as may be assigned and delegated by the Governing Body of the Society from time to time.

(v) **Treasurer:**

Parveen Garg Ruchi Gupta Akshay Mittal Rakesh Jindal Rajinder Goyal Inderjit Gaba Anil Kumar

d) To ensure proper & transparent functioning of the Society/ Governing Body.

e) To ensure strict compliance of the provisions of the Haryana Registration and Regulation of Societies Act, 2012 and the rules made there under.

f) To supervise and guide the overall activities/ achievement of aims & objectives of the Society.

(II) **Vice-president:**

a) To assist the president in carrying out his duties.

b) In absence of the President, to act on his behalf and perform all duties and exercise all the powers of the President.

c) To do all such acts, deeds and things, as may be authorized by the Governing Body.

(III) **General Secretary/Secretary:**

a) To conduct, organize, supervise and manage all the affairs of the Society and do all such acts and perform all such duties for the working of the Society as may be assigned by the President/Governing Body;

b) To receive, scrutinize and place applications for membership of the Society before the Governing Body and to enter the name of the members, if approved, in the register of members under his initials and to intimate the members about the same and issue identity cards to the members so admitted;

c) To convene meetings of the General Body/Governing Body with the consent of the President and serve proper notices as prescribed under these byelaws.

d) To attend all the meetings of the General Body and the Governing Body and assist the President in conducting the meetings and record proceedings of all the meetings.

e) To prepare annual report of the Society and place it before the Governing Body along with audited annual accounts of the Society, for approval to place the same before the General Body in the Annual General Meeting.

f) To keep and preserve the records of the Society/ Governing Body.

Parveen Garg Kuchi Gupta Akshay Mittal Rakesh Mittal Rajinder Parnad Inderjit Lamba Anil Kumar

(v) The minutes of every meeting of the Governing Body will be placed for confirmation in the succeeding meeting of the Governing body.

(5) Powers, Functions & Duties of the Governing Body-

(i) The Governing Body will be responsible for achieving the aims & objectives of the Society and shall work in the best interest of the Society, for which it shall be empowered to deploy the funds & assets of the society for the stated objectives;

(ii) The Governing Body will be competent to raise funds and purchase property, movable and immovable, on free-hold or lease basis in its name, as decided by it.

(iii) The Governing Body shall have full charge of all immovable properties and moveable assets belonging to or vested in the Society and these will be managed in such a manner as it considers appropriate subject to the overall control and directions of the General Body of the Society.

(iv) The Governing Body shall be competent to invest the funds in the manner it considers appropriate in the best interests of the Society and it shall be competent to borrow or mortgage or hypothecate the properties on behalf of the Society in the manner decided.

(v) To constitute various standing or adhoc Committees for looking after such functions as may be assigned from time to time

(vi) To create provision for engagement of regular or part-time employees of the Society to look after the secretarial, accounting and other functions in a seamless manner.

(vii) To outsource certain functions e.g. cleaning, security and similar other maintenance activities of the premises of the society

(6) Powers, Functions & Duties of Individual members of Governing

(i) **President:**

a) To preside over all the meetings of the General Body and of the Governing Body and regulate the proceedings of such meetings

b) To do all such acts, deeds and things as may be authorized by the General Body and/or the Governing Body from time to time.

c) To allow or disallow discussion on any matter which is not included in the agenda

Parveen Garg Ankit Gupta Akshay Mittal Rakesh Jindal Rajinder Pr... Indrajit Saha Anil Kumar

(vi) The office-bearers of the Society shall not be entitled to any remuneration for rendering services to the society.

(3) **Filling of any Casual Vacancy on the Governing Body -**

Any vacancy arising on account of resignation or death of any member of the Governing Body or for any other reason, may be filled up by the Governing Body, if required, from amongst the members of the General Body on adhoc basis till the holding of next Annual General Meeting of the Society. Such adhoc member of the Governing Body shall cease to be a member of the Governing Body on the date of the next Annual General Meeting, if his appointment is not approved in the Annual General Meeting by a majority vote for the balance term of the Governing Body.

(4) **Meetings of the Governing Body -**

(i) The meetings of the Governing Body will be held as and when required. However, the Governing Body shall meet at-least once in every quarter and there will be minimum four meetings of the Governing Body in a financial year.

(ii) A clear notice of three days of every such meeting will be given by the Secretary of the Governing Body to the office bearers and members before the date appointed for the meeting. However, the Governing Body may meet at shorter notice, wherever so required, with the consent of at least fifty percent of its members.

(iii) The quorum of the meetings of the Governing Body shall be at least 40% of the total members of the Governing Body, subject to a minimum of 5 members. In case quorum is not present, the meeting shall be adjourned to another date for which a proper notice shall be issued. The members present in the adjourned meeting, subject to minimum of three members, shall form the quorum for the adjourned meeting.

(iv) The proceedings of every meeting of the Governing Body will be recorded in the proceedings book separately maintained for this purpose. Such minutes shall be signed by the Chairman of the meeting and the Secretary of the Society. In case the Chairman or the Secretary are not available to sign the minutes, these will be signed by any two members present in the meeting as may be authorised by the Governing Body.

Parveen Garg Shashi Gupta Akshay Mittal Rakesh Jindal Rajinder Prasad Inderjit Gaba Anil Kumar

d) J... Sec...

e) T... urer

f) T... Exec... ...bers, including co-option of any Honorary Member by the Gov... ...ody

(2) Election ... the G... ... Body:

(i) The Term ... Governing Body shall be three years from the date of approval o... ...tion by the District Registrar;

(ii) The Gover... ...body will declare the Schedule of Elections and appoint ... Retur... ... for conduct of elections and also notify/display a list ... of the General Body entitled to vote at least 45 days p... to t... ...of the General Meeting for conduct of the elections. The Gover... ...y shall also send notices for holding elections of the Governing ... all the members, conveying the date, time & the ...ner. ... ...ation w.r.t. holding of election for the Governing Bo... shal... ...sent to District Registrar to appoint an observer, if he s... ...sires.

(iii) Any objec... ...the list of members of the Society entitled to vote s... be ... by the Returning Officer in consultation with the ...ce-bea... ...e society. However, the decision of the Returning O... ...er s... ...inal in the event of any difference of opinion. The R...rning ... ...l, thereafter, invite nominations to be filed within t... perio... ...d in the Schedule of elections, scrutiny and w...drawa... ...tions, if any, for election of the office-bearers and t... execu... ...ers of the Governing Body.

(iv) T... Retu... ...er will display a list of the contesting members on t... notic... ...e society. The returning officer will conduct the e...ction o... ...fied date. The members eligible to vote will be a...owed t... ... their vote in person, and wherever d...ted, on p...ductio... ...entity card issued by the society.

(v) A... cl... ...n the date of the poll, the returning officer will d...are t... ...d constitute the Governing Body of the society. A ... of the ... ...ice bearers and the executive members of the Governing ... ...signed by the Returning Officer, will be filed with D...rict R... ...ithin 30 days, who shall accord his approval of the ... ...tion.

Parveen Garg ... Gupta ... Abhay ... ... Jindal Rajinder ... Inderjeet ...

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(iv) A meeting of the General Body may also be convened at a shorter notice, if agreed to, by a majority (at least above 50% of the total members) of the members of the General Body.

(v) Quorum for the meeting of the General Body will be 40% of the total members entitled to vote and present in person, subject a minimum of four members. In case of a meeting adjourned for want of quorum, the quorum for the adjourned meeting shall not be less than 10% of the total members, subject to a minimum of three. The General Body shall be competent to transact all business in such adjourned meeting except the consideration of any Special Resolution. Any Special Resolution can be passed in such adjourned meeting only if at least 25% of the total members of the Society are present.

(vi) The proceedings of all meetings of the General Body will be recorded in the minutes book (bound or in loose leaves) maintained separately for the purpose by the Secretary and such minutes will be signed by the Chairman of the meeting and the Secretary of the Society.

7 **Powers, Functions & Duties of the General Body -**

(i) To guide the Society in determining and fulfilling its aims and objects.

(ii) To decide policy matters such as change of name of the society, amendment in the Memorandum of Association and the Byelaws of the society, approval of annual accounts of the society, approval for disposal of immoveable assets of the society etc and all such other acts as may be required under the Haryana Registration and Regulation of Societies Act & Rules, 2012

(iii) To elect the members of the Governing Body

(iv) To remove any member from the Governing Body [illegible] granting approval to the continuation of a person appointed as a member of the Governing Body against a casual vacancy.

8 **Governing Body:**

(1) **Composition**: The Governing Body of the society shall consist of a total of 7 Office-bearers and Members as under

a) President

b) Vice President

c) General Secretary /Secretary

Parveen Garg [illegible] Ashok Kumar

(ii) Upon his [illegible] acting contrary to the aims and objectives of the Society.

(iii) Upon [illegible] being found guilty of a financial misappropriation of the [illegible] Society;

(iv) Upon [illegible] and directions for removal by the District Registrar/ Registrar [illegible] General of Societies;

(v) An Honor[illegible] shall cease to be a member of the Society, if the Govern[illegible] decides so by passing a resolution in this behalf.

5 General Bo[illegible]

(1) Every person ad[illegible] a member shall be a member of the General Body of the Soci[illegible] entitled to cast his vote for the election of the Governing B[illegible] unless he is in arrears of payment of any dues of the Society, [illegible] the annual subscription

(2) Every member [illegible] cast his vote in person and no proxy voting shall be allowed

6. Meeting [illegible] Body:

(i) A me[illegible] General Body of the society will be held as and when [illegible], at least one meeting of the General Body of the soci[illegible] the Annual General Meeting (AGM) will be held in a year, [illegible] months of the close of the financial year for [illegible] adoption of the duly audited annual accounts of the soci[illegible] to transaction of any other business of the Society as [illegible]

(ii) The [illegible] of the society may convene an extra-ordinary [illegible] Body of the society at any time after giving due [illegible] hereunder, either of its own [illegible] within 45 days of [illegible] requisition along with reasons for [illegible] such [illegible] least 1/10th of the members or [illegible] three [illegible] Body.

(iii) For [illegible] the General Body, a clear notice of at least 14 days [illegible] or soft copy of the agenda of the business to be [illegible] time & venue of the meeting will be given to the [illegible] General Body. A copy of such notice will also be [illegible] Registrar

Parveen Garg Radha Gupta [illegible] Rajinder [illegible] Inderjit Gaba Anil Kumar

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the Secretary duly filled in and signed and recommended by a regular member of the society.

(iii) The Secretary shall examine the application and place the same before the Governing Body for a decision.

(iv) The Governing Body may accept or reject the application and the decision of the Governing Body in this regard shall be final. It shall not be bound to assign any reason for its decision.

(v) The approval of the Governing Body shall be intimated to the member, his name shall be entered in the register of members, to be maintained in such manner & form as prescribed under the Haryana Societies Registration and Regulation Rules, 2012 and he/she will be issued an Identity Card of the Society.

(6) **Identity Card for every member**: Every person admitted as a member will be issued an identity card containing his/ her photograph, brief particulars and membership category, duly signed by the individual Member and the General Secretary of the Society.

(7) **Rights & Obligations of Members.**

(i) All the members of the Society shall be bound by the rules and regulations of the Society as contained in its byelaws and amended from time to time;

(ii) Every member, except an Honorary member, shall have a right to cast his vote at the elections of the Society provided such member is not a defaulter in payment of any dues of the Society and the annual subscription for a period of three months beyond the due date;

(iii) Every member of the Society shall have the right to inspect the books of accounts, books containing the minutes of proceedings of the general meetings, meetings of the Governing Body and register of members of the society on any working day by giving a notice of seven days.

(iv) Every member shall inform the Society about any change in address which shall be duly recorded in the register of members of the Society and upon which the Society shall issue a fresh Identity Card to such member.

(8) **Cessation of Membership**: Any person admitted as a member shall cease to be a member of the Society in the following events:

(i) Attracts the provisions contained in Section 22 of the Act;

Anupam Garg Ruchi Gupta Akshay Mittal Rakesh Jindal Rajinder Inderjit Gaba Anil Kumar

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beneficial to the Society or who has rendered services of outstanding merit to the Society or who is a distinguished citizen of India or any other country as Honorary Member of the Society, after obtaining consent of the individual, without payment of any membership or subscription fees. The number of such honorary members shall not exceed one. The Honorary members shall be entitled to attend the meetings and contribute to the deliberations but shall have no right to vote.

(4) Membership Fee & Annual Subscription:

(i) The rates for membership of the Society and the annual subscription shall be as under.

As may be decided by the Society in its Byelaws:			
Sr No	Type of Member	Admission Fee	Annual Subscription
	Founder Members	Rs. 1,50,000/-	Nil
(ii)	[illegible] Member	Rs 1,50,000/-	Nil
(iii)	Honorary Member	Nil	Nil

(ii) The [illegible] ment of annual subscription/admission fee of a member shall become [illegible] on the 1st of April of every year, which may be paid [illegible] the 30 [illegible] of June of such year. The membership of a defaulting [illegible] deemed to be under suspension after the due date (30 [illegible]) and such member shall not be entitled to cast his vote [illegible] of the Society held after 1st July of the said year.

(iii) The [illegible] nsion of membership on account of default in payment of the annu[illegible] admission fee may be revoked after he has cleared [illegible] along with 18% interest on the am[illegible] payable [illegible] he [illegible] not be eligible to cast his vote in an[illegible] held [illegible] der of the financial year.

(5) Admissi[illegible] ure (for members other than the subscribers):

(i) The [illegible] person as a member of the Society shall be decided by [illegible] ody from time to time.

(ii) [illegible] to be a member of the Society has to submit an [illegible] in prescribed form, and along with supporting documents to

Parveen Garg [illegible] Jasbir Gupta [illegible] Amil Kumar

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Byelaws

1. Name of the Society: Quick Testing and Training Center

2. The Registered Office of the Society shall be at (complete postal address)

   Plot No 55, Sector 2, Industrial Area, Kurukshetra

3. The Society shall carry out its major activities in the Kurukshetra District within the territory of State of Haryana.

4. **Membership**:

(1) The Society shall have a maximum of 11 members including the founder members.

(2) **Eligibility**: In order to be admitted as a member of the Society, a person:

(i) must be 21 years of age on the date of admission;

(ii) should subscribe to the aims and objects of the Society;

(iii) must have deposited the admission fee and annual subscription fee and must not be in arrears of payment of such fee as on the date of annual general meeting for continuing as a member;

(iv) must not be an insolvent and of unsound mind; and

(v) must not have been convicted of an offence involving moral turpitude involving imprisonment of one year or more.

(3) **Categories of Members**: The Society shall consist of three different categories of members as under:

(i) **Founder Members** - A member who has been admitted as a founder member at the time of registration of the Society and has paid the requisite membership fee to the society. The number of founder members shall not exceed seven. The founder members shall also be deemed to have become Life Members of the society.

(ii) **Life Members** - A person may be admitted as a life member on payment of the prescribed fees and such person shall continue to be the member of the society for his life. The total number of life members shall not exceed ten.

(iii) **Honorary Member** - The Governing Body may admit individuals of distinguished talent and merit or whose association is deemed to be

Parveen Garg Pardip Gupta Akshay Mittal Rakesh Jindal Rajinder Parsad Indegil Gaba Anil Kumar

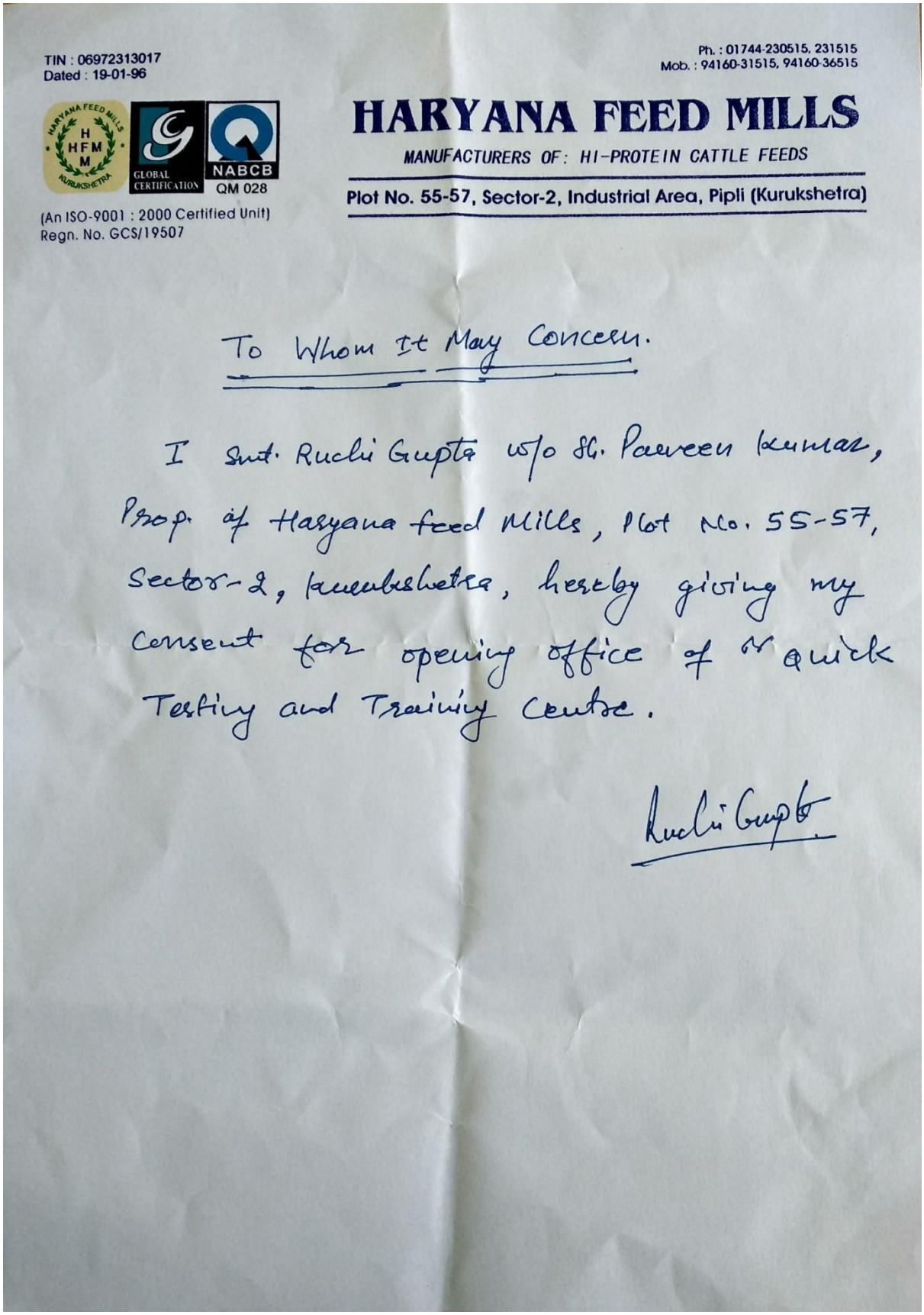
Annexure 3: Verification of units by DIC, Kurukshetra

LIST OF SPV Members for setting up Testing Lab for Cattle Feed, at Kurukshetra

Sr. No.	Company /Unit Name	Contact Person	Contact Number	Address of Unit	Product of Manufacturing	Investment (In lacs)	Employment	UAM Number
1	Super Industries	Parveen Garg	9896007765	Ramgarh, GT Road, Kurukshetra	Cattle Feed	20.00	08	HR11A0000778
2	Haryana Feed Mills	Parveen Aggarwal	9416036515	55-58, Sector-2, Industrial Area, Kurukshetra	Cattle Feed	20.00	10	HR11A0000857
3	Modern Feed Industries	Akshay Mittal	9896421406	86-89, Sector-2, Industrial Area, Kurukshetra	Cattle Feed	20.00	10	HR11A0000013
4	Krishna Feed Industries	Arun Gupta	9812154907	76, Sector-2, Kurukshetra	Cattle Feed	19.00	09	HR11A0000983
5	Luxmi Feed	Rajinder Taneja	9034879269	Pehowa, Kurukshetra	Cattle Feed	10.00	04	Advised to file UAM
6	Mahalaxmi Feed Mills	Sachin	9416020028	Ladwa, Kurukshetra	Cattle Feed	10.00	04	HR11A0000446
7	Shri Ambay Khal & Cattle Feed	Jaimal Singh	9813561243	Mirzapur, Kurukshetra	Cattle Feed	05.00	04	HR11A0000976
8	Shiv shanker Feed	Ajay Kumar	9729424817	Shahabad, Kurukshetra	Cattle Feed	08.00	05	Advised to file UAM
9	Swami Feeds	Anil Mehla	9991885333	Pipli, Kurukshetra	Cattle Feed	07.00	07	HR11A0000980
10	Satyug Feed Industries	Manmohan Sharma	9416220498	Village Dayalpur, Kurukshetra	Cattle Feed	02.00	03	HR11A0000981
11	Singhal Cattle Feed	Rohit Singla	9255245600	Ismailabad, Kurukshetra	Cattle Feed	2.00	02	Advised to file UAM
12	Modern Agro Industries	Amit Aggarwal	9416783379	Pundri	Cattle Feed			HR09B0003996

Deputy Director
Distt. Industries Centre
KURUKSHETRA

Annexure 4: Land Availability Proof



TIN : 06972313017
Dated : 19-01-96

Ph. : 01744-230515, 231515
Mob. : 94160-31515, 94160-36515

HARYANA FEED MILLS

MANUFACTURERS OF : HI-PROTEIN CATTLE FEEDS

Plot No. 55-57, Sector-2, Industrial Area, Pipli (Kurukshetra)

(An ISO-9001 : 2000 Certified Unit)
Regn. No. GCS/19507

NABCB QM 028

To Whom It May Concern.

I Smt. Ruchi Gupta w/o Sh. Parveen Kumar, Prop. of Haryana Feed Mills, Plot No. 55-57, Sector-2, Kurukshetra, hereby giving my consent for opening office of Quick Testing and Training Centre.

Ruchi Gupta

Annexure 6: Building Estimate

MATRIX
ARCHITECTS ENGINEERS VALUERS
840/8, Geeta Colony, Kurukshetra - 136118
AR. VARUN KUMAR GARG
B.ARCH
Mob.: 82952-53311, 94175-32053
E-mail : matrix.vkg@gmail.com

ESTIMATE OF COST OF CONSTRUCTION FOR THE PROPOSED CONSTRUCTION FOR M/s HARYANA FEED MILL PROP. RUCHI GUPTA SITUATED AT PLOT NO. 58 , SECTOR-02, INDUSTRIAL AREA, KURUKSHETRA. PROP. C.A : 2,050 Sft. (APPROX.)

Sr. No	Description of Item	H.S.R. No	Qty	Rate	Unit	Premium Above (%)	Amount
1	**SUB HEAD: EARTH WORK :** i) Earth work in excavation in foundation including dressing of bottom & side of trenches, stacking the excavated clear from the edge of on and subsiquent filling around masonary in 15mm layers with compaction.	6.6	170.00	1108.10	100 Cum	425	9889.79
2	**SUB HEAD: CONCRETE :** i) Plain cement concrete 1:8:16 with brick ballast 40 mm in foundation & plinth.	10.23	11.36	318.65	Cum	450	19909.25
	ii) Cement conc. 1:2:4 with stone agg 20mm for R.C.C. on slab / Walls excluding steel reinforcement I/C centring, shuttering etc.	10.82	46.31	997.90	Cum	450	254170.12
	iii) Cement conc. For reinforced conc. Work for lintels beam etc. excluding steel reinforcement but including centering & shutteering complete in all respects.	10.86	9.47	1101.85	Cum	450	57389.86
3	**SUB HEAD : BRICK WORK:** i) First class brick work laid in cement sand mortar 1:5 in foundation & plinth.	11.3	3.5	407.60	Cum	600	9986.20
	ii) First class brick work laid in cement sand mortar 1:5 in super structure.	11.8	34.68	428.60	Cum	600	104046.94
4	**SUB HEAD : FLOORING** i) Base course of floors consisting of 100 mm thick cement conc. 1:8:16 and 100mm sand.	14.1	185.87	36.95	Sq.mt.	400	34339.48
	ii) Marble stone flooring 20 mm to 25 mm thick slab including matching grains of marble laid in any pattern as specified over base of 12mm thick cement coarse sand mortar 1:3 and jointed with white cement slurry mixed with pigment to match the shade of marble including rubbing and polishing (using marble stone slab of size more than 0.38 sq.m each) (a) White Morwar (1st quality)	14.49 (a) (iii)	185.87	396.25	Sq.mt.	400	368254.94

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MATRIX
ARCHITECTS ENGINEERS VALUERS
840/8, Geeta Colony, Kurukshetra - 136118
AR. VARUN KUMAR GARG
B.ARCH
Mob.: 82952-53311, 94175-32053
E-mail : matrix.vkg@gmail.com

5	**SUB HEAD: PLASTERING:** i) Cement plaster 15mm thick 1:5 on walls.. ii) Cement plaster 10mm 1:4 on ceiling.	15.11 15.22	902.23 185.87	14.25 12.65	Sq.mt. Sq.mt.	500 500	77140.67 14107.53
6	**SUB HEAD : WOOD WORK:** i) Deodar wood chowkats of doors and windows I/C iron hold fasts, corner straps screws, bolts, hold fasts	17.10	1.5	15970.00	Cum	300	95820.00
	ii) 35 th. (12mm th. deodar wood panel) deodar wood doors and window shutters I/C iron hinges, screws, cleats stops and cords etc.	17.18 (b)	56.58	374.15	Sq.mt.	300	84677.63
7	**SUB HEAD : PAINTING & VARNISHING :** i) Applying pink priming coat on wood work incl. Preparation of surface knotting and stopping etc. ii) Painting two coats excluding priming coat with synthetic enamel paint onwood work.	16.2 16.3	700.00 700.00	3.60 9.40	Sq.mt. Sq.mt.	230 230	8316.00 21714.00
8	**SUB HEAD : STEEL WORK :** Cold twisted deformed (ribbed/torque steel) bars for R.C.C works where not included in the complete rate of R.C.C incl. bending, binding and placing position complete.	18.22	22.00	917.05	Qtl	500	121050.60
9	**SUB HEAD : MISC :**						
	a) Provision for Iron Gate		425	45.00	Kg		19125.00
	b) Provision for parapet wall I.e. Shell Work		55	430.00	Sq.mt.		23650.00
	c) Provision for tile terracing		1850	40.00	Sq.ft.		74000.00
	d) Provision for Toilet & Pantry Tiles		575	85.00	Sq.ft.		48875.00
	e) Provision for apex on Exterior Walls		3240	12.00	Sq.ft.		38880.00
	f) Provision for Oil Bound Distemper		2750	9.00	Sq.ft.		24750.00
	g) Provision for Stairs Granite		300	325.00	Sq.ft.		97500.00
	h) Provision for Glass work.		180	75.00	Sq.ft.		13500.00
	i) Provision for Grill work.		350	55.00	Kg		19250.00
	j) Provision for Main Gate		425	65.00	Kg.		27625.00

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MATRIX
ARCHITECTS ENGINEERS VALUERS

AR. VARUN KUMAR GARG
B.ARCH

840/8, Geeta Colony, Kurukshetra - 136118

Mob.: 82952-53311, 94175-32053
E-mail : matrix.vkg@gmail.com

	k) Provision for False Ceiling		1865	90.00	Sq.ft.		167850.00
	l) Provision for Railing, Stairs etc.				L.S		35000.00
	Total						**1870818.00**
	Add 6% for Electric Installation charges on Bld. Cost.						112249.08
	Add 8% for Public Health Service charges on Bld. Cost						149665.44
	Total						**2132732.52**
	Add 2% Quality Control charges						**42654.65**
	Grand Total						**2175387.17**

Say Rs. 21,75,000/-
(Rs. Twenty One Lakh Seventy Five Thousand only.)

Dated : 08.12.2017.
Place : Kurukshetra

NOTE:- (The estimate is framed as per Haryana Schedule of rates - 1988 plus sanctioned premium 2011.)

Architects Engineers Valuers MATRIX KURUKSHETRA

(Seal & Signature)

Annexure 7: Machinery Quotations

A. NIR Analyser

OFFER/PROFORMA INVOICE

FOSS

Proforma Date: 25.09.2017 Proforma No.: Sales/Offer/6qHaryana/17

Consignee

Buyer
Quick Testing & Training Center,
Kurukshetra, Haryana.

Description	HSN Code	Qty.	Basic price	IGST		Total Price
				Tax %	Rupees	
P/n. 76003000 FOSS NIRS DS 2500F Included in above: NIRS DS2500F Analyzer ISIscan NOVA software (incl. Mosaic Soto) Owners Guide (GB only) Spare Part Manual (GB only) Accessory Kit, incl. - 1Sample Cup Large with Lid - 1Sample Cup Small with Holder & Lid - 1FOSS Check Sample Cell - 1Spare Lamp - 1ERC tool for Intensity correction - Ethernet cables, brush, power supply etc.	90273020	1 no.	43,71,284.00	18	7,86,831.00	51,58,115.00
	TOTAL					51,58,115.00
(Rupees Fifty One Lakh Fifty Eight Thousand One Hundred and Fifteen Only)						

OPTIONAL ACCESSORIES:

1. S800414 Qty. 1 Slurry Cup HSNC: 39269099 Rs. 60,113.00 GST @ 28% extra
2. S800420 Qty. 1 Gold reflector 0.2mm HSNC: 90279090 Rs. 92,492.00 GST @ 18% extra
3. 60024851 Qty 1 WinISI 4.10.0 Cal.Development SW-Full Rs. 8,10,000.00 GST @ 28% extra

ANALYTICS BEYOND MEASURE

FOSS India Private Limited
IV Floor, Unit No. 807,
1st Sector, 27th Main, HSR Layout,
Bangalore -560 102 India
CIN :U01403MH2008PTC178002

GSTIN: 29AABCF1735D1ZY

Tel +91 80 4200 8683
Fax +91 80 4202 7039
Email india@foss.dk
Web www.foss-analytical.co.in
www.foss.dk

B. Brill Formulation Software

From: akshay mittal <modern.feed.in@gmail.com>
Sent: Monday, September 25, 2017 4:50:20 PM
To: thevishal_alld@hotmail.com
Subject: Fwd: RE: About Brill software

---------- Forwarded message ----------
From: "Akshay Mittal" <hscfma.ppk@gmail.com>
Date: Sep 25, 2017 4:49 PM
Subject: Fwd: RE: About Brill software
To: <modernfeed.in@gmail.com>
Cc:

---------- Forwarded message ----------
From: "Akshay Mittal" <hscfma.ppk@gmail.com>
Date: Sep 25, 2017 4:34 PM
Subject: Fwd: RE: About Brill software
To: <thevishal_alld@hotmail.com>
Cc:

---------- Forwarded message ----------
From: "Jayesh Shah" <Jayesh_Shah@cargill.com>
Date: Sep 25, 2017 12:06 PM
Subject: RE: About Brill software
To: "HSCFMA.ppk@gmail.com" <HSCFMA.ppk@gmail.com>
Cc:

Dear Sir,

Greetings from Jayesh Shah and thanks for your communication today.

Moving one step forward as discussed please find below Brill single blend standard package permanent copy quotation:

Product	Price in USD
Brill Single Blend Standard Package including one year SEP/ AMC	USD 5500 $
Discount	USD 800 $
Total	**USD 4700 $**

Price include following things:

1. Online software training to your staff
2. Assist in your basic database creation / formula creation.
3. Also Provide you demo databases which are available with us for reference purpose .
4. Software support through E-mail , phone.
5. Payment in US dollar.
6. Once order is confirm we will send you download instructions of Brill software. You can download Brill from our website.
7. Also to run Brill software Pervasive third party software is require and you need to purchase online from their website (Current cost is $ 100 USD). We will guide you this process. Please visit Pervasive.com for more details.
8. When payment will be credited we will remotely install Brill in your machine and give online training to users.

Also find attached file Hardware and Software requirements of Brill software.

Kindly send your consent along with required number of copies so that we are able to generate invoice and activate license for you.

We appreciate doing business with you and we are looking forward to serving you in the future.

Thanks and Regards,
Jayesh Shah
Regional Account Manager and Product Specialist
Format Solutions
Cargill
Phone : +91 20 2430 5030 |Mobile : +91 9923 245 006 | Jayesh_Shah@cargill.com
www.FormatSolutions.com

C. Accuscan Gold Reader and Reveal Q+ for Aflatoxin

QUOTATION

DATE: October 27, 2017
SR. NO. MN/QP/17-18/005

SHIPPER	RECEIVER
Maxima Nutrition Fateh Towers Plot No. 1442 V.P.O-Shamgarh, Distt. Karnal M. No. 8607105444, 9996230444 email:- sukhjeet.singh.kahlon@gmail.com	**Quick Testing & Training Centre** Kurukshetra

MODE OF TRANSPORT	NUMBER OF PACKAGES	TOTAL GROSS WEIGHT
By Hand	1	10kg

Sr. No.	DESCRIPTION	QUANTITY	UNIT PRICE, Rs.	GST%	TOTAL
1	Accuscan Gold Reader	1	225000.00	18%	225,000.00
2	Reveal Q+ for Aflatoxin	1	13500.00	12%	13,500.00

Payment Terms:- Advance	**SUBTOTAL**	238,500.00
	GST%	0.00%
THANK YOU FOR YOUR BUSINESS!	**GST AMT.**	42,120.00
	SHIPPING AND HANDLING	-
	ROUND OFF	-
Place: Karnal	**TOTAL**	280,620.00

Date: 27.10.2017

This is computer generated invoice and does not require signature

D. Batch Mixer

BÜHLER

QUOTATION RE-BBAN-OCT'17
Date 10th October 2017
Page 2 / 6

Scope of Supply

Item	Qty.	Description
1	1	**BATCH MIXER AHML 1000**

SPEEDMIX
Application:

For Mineral stuff pre-mix without liquid additions

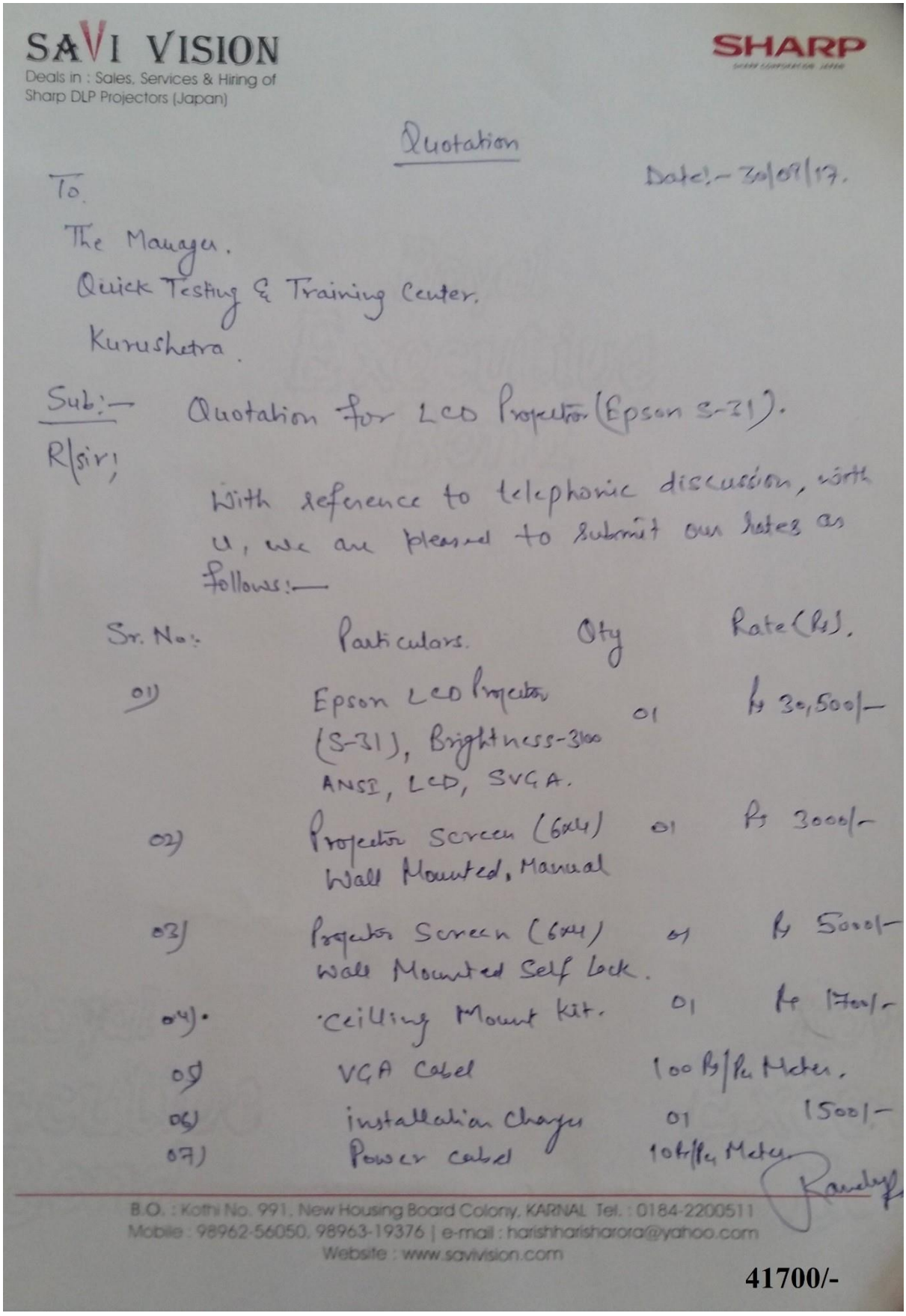
Mixing volume: max. 1000 dm³
Mix-product weight: max. 700 kg
Mixer body, rotor and lower section including the outlet gate in stainless steel.
Modular design for shaft mounted drive unit, consisting of:
Mixer body:
Having large access door with safety interlocking system to CE standard. Easy to maintain rotor shaft labyrinth seals (two pieces). All electrical elements wired to a central terminal box. The air supply for all pneumatically operated elements is accomplished by one single connection.

Rotor:
With 4 mixing arms clamped on the main shaft. The mixing paddles are adjustable and exchangeable. The rotor is mounted in heavy duty pillow block bearings.

Lower section:
Having a pneumatically operated double outlet gate with locking mechanism to prevent unintentional opening. The outlet gates are fitted with inflatable rubber seals. The gate opening elements are arranged for ease of access and protected for personnel safety.
With geared motor, manufactured by NORD
1 hollow shaft gear motor(s), 15 kW, 64 rpm, energy efficiency class IE2.
Air-rinsed, double lipped stainless steel shaft seals. Seal-ring is easy to be replaced.
The use of a soft starter is recommended.

TOTAL PRICE **USD** **32,136.00**
For delivery of item(s) 1
CIF Mumbai Port
according to Incoterms 2010

E. Projector & Screen



SAVI VISION
Deals in : Sales, Services & Hiring of
Sharp DLP Projectors (Japan)

SHARP

Quotation

Date:- 30/09/17.

To.

The Manager.
Quick Testing & Training Center.
Kurushetra.

Sub:- Quotation for LCD Projector (Epson S-31).

R/sir;

With reference to telephonic discussion, with u, we are pleased to submit our rates as follows:—

Sr. No:-	Particulars.	Qty	Rate (Rs).
01)	Epson LCD Projector (S-31), Brightness-3100 ANSI, LCD, SVGA.	01	Rs 30,500/-
02)	Projector Screen (6x4) Wall Mounted, Manual	01	Rs 3000/-
03)	Projector Screen (6x4) Wall Mounted Self Lock.	01	Rs 5000/-
04)	Ceiling Mount kit.	01	Rs 1700/-
05)	VGA Cabel	100 Rs/Rs Meter.	
06)	installation Charges	01	1500/-
07)	Power cabel	10 Rs/Rs Meter	

B.O. : Kothi No. 991, New Housing Board Colony, KARNAL Tel. : 0184-2200511
Mobile : 98962-56050, 98963-19376 | e-mail : harishharisharora@yahoo.com
Website : www.savivision.com

41700/-

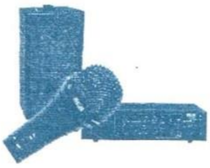
F. Sound System

TIN No. 06572205470-IA   ESTD. 1933 GSTIN-06ASHPK3086B1ZZ   M.: 98121-12556, 98965-81236, 90346-73738

Karnal Gramophone House

AHUJA
UNISOUND
PUBLIC ADDRESS SYSTEMS
CASSETTE RECORDERS

Authorised Ahuja Sale & Service Centre
Authorised Dealers : WHIRLPOOL REFRIGERATORS
Deals in : DESERT COOLER, ROOM COOLER, WASHING MACHINE, MADHANI, MIXI, JUICER, TUBES & BULBS
Approved Govt. Suppliers
G.T. ROAD, KARNAL-132001 (Haryana)



Ref No......................   Quotation   Dated 03/10/17

Quick Testing & Training Centre Kurukshetra

1. Control Amplifier for Conference System with USB Port Ahuja make Model No CMA 5400 @ 14399-00 each
2. Chairman Unit Model CMC 5100 Ahuja make @ 5056-00 each
3. Delegate unit Model CMD 5200 make Ahuja @ 4528-00 each
4. Wall Speaker Ahuja Model PS-4007 @ 2119-00 each

Installation Charge Rs 7500-00 only
F.O.R. Kurukshetra
G.S.T Extra @ 18%.
Payment Ag. Delivery.
Delivery within 5 Day.

GSTIN-06ASHPK3086B1ZZ

(33588/-)

G. DG Set

sudhir
Powering the Nation

Date: 05.10. 2017

M/S. QUICK TESTING AND TRAINING CENTRE,

Sub: OFFER FOR 1x 30,35 & 40 DG SET FITTED WITH ACOUSTIC ENCLOSURE.

30, 35 & 40 GENERATING SET

Supply of following **Silent DG sets** comprising of Cummins Engine coupled to 415 V Stamford make alternator both mounted on common Base frame with other standard accessories i.e. Fuel tank, Batteries with leads.
The set will be complete with MANUAL PANEL and AVMS (Pads – inbuilt). The set will be enclosed in ACOUSTIC ENCLOSURE.

KVA	EN. MODEL	PHASE	QTY	UNIT PRICE	TOTAL
30	X2.7TAA-G2	THREE	1	298000.00	2,98,000.00
35	X3.6TAA-G1	THREE	1	355000.00	3,55,000.00
40	X3.6TAA-G1	THREE	1	374000.00	3,74,000.00

TERMS & CONDITIONS

GST : Prices are Exclusive of GST AS APPLICABLE which is proposed @ 18% on Generating Sets. Any statutory variation in duty & taxes at the time of actual despatch shall be to customer's account. Octroi / Entry tax if applicable shall be to customer's account.

Delivery : Within 2 weeks after receipt of order.

FREIGHT : Exclusive

Payment : 30% payment along with the Purchase order and balance 70% against Performa Invoice but before dispatch.

Insurance : Inclusive, if required by you.

E. Air Conditioner

GST No

TIN : ~~06822302672~~ 06AAQPP5937J2ZX

Ph. : 01744-220448
98120-40448

Kalra Engineering Works

Distributors : O General Air Conditioner, Microtek Inverter & UPS, Exide Battery

OGENERAL AIR CONDITIONERS

Deals In :

Agriculture Implements, Generator Sets & Room Air Conditioner

EXIDE INDUSTRIES LIMITED

RAILWAY ROAD, KURUKSHETRA-136 118 (HARYANA)

QUOTATION

No. : K.E.W./.................................   Dated 29/08/2017

To "Quick" Testing & Training Centre, Sec. 2. KKR

Dear Sir/Madam,

Please find below our best possible Rates for the requirements informed by you verbaly/Telephonicaly/

Letter No...Dated.................................

Sr. No.	Description of Goods	Price per unit
1.	2 Ton AC O. General 5 Star **(2 pc)**	66000/- each
2.	1.5 Ton AC O. General 5 Star	56500/- each
3.	Stablizer Microtek **(3 pc)**	3000/- each
4.	Insulation (GST. extra)	1500/- Per Site
5	Copper Pipe (G.ST. extra) with wire	200/- Per Fit
6.	AMC (GST. extra)	4000/- Per year
	A.C. warranty One year & Compressor warranty five year	

For : KALRA ENGINEERING WORKS

Authorised Signatory

203200/-

F. CCTV

Mob.: 94161-94434 Support.: 7206009700

Date: 2/10/17

KULWINDER ELECTRONIC'S SECURITY SYSTEM

Authorised Dealer : Securico Electronics

NOTE : We Deal In All Type's of Security And Automation Products.

Shop No.37,Sector -7 Kurukshetra

Quotation For CCTV Camera's. Company – Hikvision.

Name – M/s Quick Trainning & Testing Center Sec-2,Kurukshetra .

S NO.	Description's	Quantity	Amount
1.	DVR 8 Ch 1080P 2 MP	1.	8000.
2.	Camera 2 MP Bullet/Dome	8*2400.	19200.
3.	SMPS 8 Channel	1.	2000.
4.	BNC/DC Connector	All.	300.
5.	Harddisk 2 TB	1.	6500.
6.	Wire 3+1 Copper	2Bundle*1300.	2600.
7.	HDMI Cable	1.	300.
8.	Installation Charge's	8*300.	2400.
9.			
10.			
11.			
12.			
13.		Grand Total	41300.

Note: 1. 50% Advance Rest Of The Payment Will Be completion Of The Work.

2. This Bill Included With **GST (Goods Service Tax).**

3. No Warranty For Burn & Damage.

4. All Material Warrantty 1 Year.

24 Years For Exellent Services

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

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Ernst & Young Pvt. Ltd.
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Chandigarh, Punjab 160009
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Fax: +91 172 6717888

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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

Ernst & Young LLP

Assurance | Tax | Transactions | Advisory

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Artwork by: JG