Draft Detailed Project Report

Agricultural Implements Manufacturing Cluster, Kurukshetra

Submitted To:
Directorate of MSME, Government of Haryana
(*for assistance under Mini Cluster Development Scheme*)

August 2020

Submitted by:
Azzad Agriculture Industries Pvt. Ltd.

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

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31st August 2020

Director General,
Directorate of MSME,
Government of Haryana,
1st Floor, 30 Bays Building, Sector 17, Chandigarh

Dear Sir,

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 a Common Facility Centre (CFC) for Agricultural Implements Manufacturing Cluster in 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. 01.2017, and subsequent scope expansion work order no. Cluster/RFP/Selection of PMU/Part-II/21468-A dated 18.11.2019 our procedures were limited to those described in that agreement.

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

- Directorate of MSME, Govt. of Haryana
- DIC Kurukshetra
- Agricultural Implements Manufacturing related units located in Kurukshetra
- Industry experts
- Secondary research

Our work has been limited in scope and time and we stress that more detailed procedures may reveal other issues not captured here. The procedures summarized in our Draft Detailed Project Report do not constitute an audit, a review or other form of assurance in accordance with any generally accepted auditing, review or other assurance standards, and accordingly we do not express any form of assurance. This Draft Detailed Project Report is intended solely for the information and use of the Office of Directorate of MSME, Government of 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 – Consulting Services

Disclaimer

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Acknowledgement

We would like to express our sincere gratitude to Directorate of MSME - Haryana and its officials for their involvement and valuable inputs during the preparation of this DPR. We are thankful to **Sh. Apoorva Kumar Singh, IAS, Principal Secretary, Industries & Commerce** and **Sh. Vikas Gupta, IAS, Director General, MSME, Government of Haryana** for sharing their insights about the 'Enterprises Promotion Policy 2015' and their vision about the Mini Cluster Scheme. Special thanks to **Sh. Jaideep Kapoor, Additional Director, MSME, Haryana** for his proactive support and guidance to the team during the entire process.

We would like to convey our sincere thanks to members of **Azzad Agriculture Industries Pvt. Ltd. (SPV)** and officials of **DIC, Kurukshetra** for their support during the on-site visits and interactions with agricultural implements manufacturing units in Kurukshetra as well as facilitation in conducting stakeholder consultations.

Also, we must extend our sincere thanks to agricultural implements manufacturing MSE 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	Articles of Associations
BIS	Bureau of Indian Standard
BEP	Break Even Point
BOD	Board of Directors
CAGR	Compound Annual Growth Rate
CFC	Common Facility Centre
CDE	Cluster Development Executive
CE	Capital Expenditure
DIC	District Industries Centre
DCOR	Debt Coverage Ratio
DSR	Diagnostic Study Report
DPR	Detailed Project Report
EM	Entrepreneur Memorandum
EY	Ernst & Young
FDI	Foreign Direct Investment
FY	Financial Year
GDP	Gross Domestic Product
GDSP	Gross Domestic State Product
GSVA	Gross State Value Added
HSIIDC	Haryana State Industrial Investment and Development Corporation
HSVP	Haryana Sahari Vikas Paradhikaran
ITI	Industrial Training Institute
IRR	Internal Rate of Return
MOSPI	Ministry of Statistics and Program Implementation
MOA	Memorandum of Articles
MSME	Micro Small and Medium Enterprises
NCR	National Capital Region
NIT	National Institute of Technology
NSDP	National State Domestic Product
NSIC	National Small Industries Corporation
NPV	Net Present Value
O&M	Operation and Maintenance
PMC	Project Monitoring Committee
PVC	Polyvinyl Chloride
PAT	Profit After Tax
R&D	Research and Development
RTC	Regional Testing Centre
ROCE	Return on Capital Employed

SIDBI	Small Industries Development Bank of India
SME	Small, Medium Enterprise
SPV	Special Purpose Vehicle
SWOT	Strength, Weakness, Opportunity, Threats
SLSC	State Level Steering Committee
WDV	Written Down Value

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Executive Summary

Executive summary

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

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

About the Kurukshetra Agricultural Implements Manufacturing Cluster

There are about 200 agricultural implements manufacturing units in Kurukshetra district. Most of the units in the cluster are situated in the Thanesar Tehsil of Kurukshetra. The annual turnover of the cluster (micro and small units) is about INR 100 Crore. Units in the cluster are Micro and Small in nature engaged in manufacturing of agricultural machinery such as Disc Plough, Rotavator, Plough Cultivator, Disc Harrow, Sub Soiler, Paddy Harrow, Land Leveller, Plough, MB plough, Tractor Hood and other miscellaneous agricultural machinery parts. Most of the manufacturers of the cluster are working under the "Crop Residue Management Scheme for 2018-19 and 2019-20" of Government of India".

Diagnostic Study and Interventions

A diagnostic study was undertaken by the cluster members in July 2020 to map the existing business processes in the cluster, identify the gaps, and understand the requirements of the cluster. The diagnostic study report (DSR) was compiled by the cluster stakeholders in close coordination with the District Industries Centre, Kurukshetra. It was observed that most of the cluster units deploy obsolete technologies and are unable to meet the requirements of the market due to lack of availability of modern machines/equipment. The finishing of products is ordinary and non-uniform due to dependence on manual techniques and conventional machines. Due to non-availability of hi-tech cutting facility, units are dependent on private services providers for cutting which results in high cost and production delay. These were the major pain areas that necessitated an urgent intervention. In this context, the units decided to establish a CFC.

The DSR was validated by Deputy Director, DIC, Kuruhstera along with the officer from the head-office, on 11th Auguest 2020 and was subsequently approved by the Director General - MSME on 14.08.2020. 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:

- Advanced cutting facitity for cutting of metals
- Advanced machining facility for various activities related to agricultural implements manufacturing processes
- Powder coating facility for painting of agricultural implements

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

Special Purpose Vehicle for Project Implementation

After the diagnosis study, the cluster units came together to form a Special Purpose Vehicle (SPV) by the name and style of **'Azzad Agriculture Industries Private Limited'.** The SPV has been set up as a Private Limited Company under section 7 of the Companies Act, 2013. DIC, Kurukshetra has played an important role in SPV formation by cluster stakeholders. The SPV already includes about 16 members who are subscribing to the necessary equity base of the company. The proposed CFC will be implemented on public-private partnership basis through the SPV **'Azzad Agriculture Industries Private Limited'**by availing support from Government of Haryana (under EPP 2015).

Project Parameters, Viability and Sustainability

The cluster with support from State Government is planning to set up Common Facility Centre having state-of-the-art modern machining facilities to undertake job work of cluster units and the total project cost is about **INR 218.81 lakh.** The SPV members have proposed to contribute 19.22% of the project cost. The total contribution of SPV members will amount to **INR 38.81 lakh** as per the guidelines of Mini Cluster Development Scheme. Support from State Government is envisaged for **INR 180.00 lakh** which is 80.78% towards the eligible project cost.

				(Rs in Lakh)	
PROJECT COST					
S. No.	**Particulars**	**Total Project Cost**	**Eligible Amount as per Guidelines**	**State Govt. grant-in-aid as per guidelines**	**Remarks**
1	**Land & Building**				
	a. Land Value	0.00	0.00	0.00	**Eligible (Max 25% of total of L&B, P&M, and Misc. F.A.)**
	b. Land Development	0.00			
	c. Building & Other Civil Works	0.00			
	d. Building Value	0.00			
	Sub Total (A)	**0.00**	**0.00**	**0.00**	
2	**Plant & Machinery**			180.00	**Eligible**
	a. Indigenous	189.87	189.87		
	b. Imports	0.00	0.00		
	c. Secondary Machines	11.78	11.78		

	Sub Total (B)	201.65	201.65	180.00	
3	**Miscellaneous fixed assets (C)**	1.64	0.00	0.00	**Not eligible for grant**
4	**Preliminary & Preoperative Expenses (D)**	2.47	0.00	0.00	
5	**Contingency**				**Eligible**
	a. Building @ 2%	0.00	0.00	0.00	
	b. Plant & Machinery @ 5%	10.08	0.00	0.00	
	Sub Total (E)	10.08	0.00	0.00	
6	**Margin money for working capital @ 75% CU (F)**	2.98	0.00	0.00	
	Grand Total (A+B+C+D+E+F)	218.82	201.65	180.00	

Project Implementation

Project implementation is envisaged to involve a time-frame of about 6 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.

In addition, for implementing this CFC project, a Project Management Committee (PMC) comprising of the Deputy Director, DIC, Kurukshetra, and representatives of the SPV and EY experts shall be constituted to directly oversee effective monitoring and implementation. The project will be implemented through the SPV, and the PMC will report progress of implementation to State Level Steering Committee and DIC, Kurukshetra.

The potential for the Agricultural Implements Manufacturing Cluster, Kurukshetra to grow is enormous, with an increasing demand of agriculture products in the region. Increased GDP leads to higher purchasing power of subjects. Once a food deficient state, today Haryana has become a food surplus State. Haryana has accorded high priority to Agriculture Sector, with majority of population directly or indirectly dependent on agriculture and its allied activities. The state has been involved in providing a stimulus to growth through strong infrastructure facilities such as metalled roads, rural electrification, extensive network of canals, development of market yards etc, coupled with research support and vibrant extension network to circulate information in relation to improved farm practices for farmers, much needed for agriculture progress.

Though Agriculture & Allied Sector has always been a significant contributor to the GSDP, however, the contribution at constant (2011-12) prices went down to only 16.6 percent of the GSVA during the year 2019-20. The state has become more dependent on Industry & Tertiary Sectors during the past years; however, advancement of Agri & Allied Sectors continues to be a crucial factor in the overall performance of the state economy.

The estimates indicate that the growth rate increased from 3.8 percent in 2015-16 to 7.9 percent in 2016-17 but it fell to 6.1 percent and 5.3 percent in 2017-18 and 2018-19 respectively. However, the cluster units are unable to effectively cater to these market segments due to lack of technological capacities, low production scales and outdated processes.

This cluster has the ability to increase its output and market share by manufacturing high quality products. The proposed facility will be open to all cluster firms to enable them to get job work done in order to cater to the agri implements product requirements of the market. The facility will also provide an opportunity to micro 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 200 agricultural implements manufacturing units in Kurukshetra district, with 16 units registered under Employment Memorandum or UAM (Udyog Aadhaar Memorandum) which have come together to form an SPV in the name and style of ***"Azzad Agriculture Industries Pvt. Ltd."*** The cluster comprises of mainly micro and small units. Most of the units in the cluster are situated in the Thanesar Tehsil of Kurukshetra. The annual turnover of the cluster (micro and small units) is about INR 100 Crore. The cluster units are engaged in manufacturing of agricultural machinery such as Disc Plough, Rotavator, Plough Cultivator, Disc Harrow, Sub Soiler, Paddy Harrow, Land Leveller, Plough, MB plough, Tractor Hood and other miscellaneous agricultural machinery parts.

1.2 About the State & District

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

The industry sector contributes about 18% of the total GSDP of the state. Haryana is fast emerging as one of the most favoured investment destinations in India. The globalization of markets and a resilient economy have given an incredible drive to the industrial sector in Haryana, which already has a competitive advantage in terms of strategic location, basic infrastructure, and a large skilled, educated and young workforce.

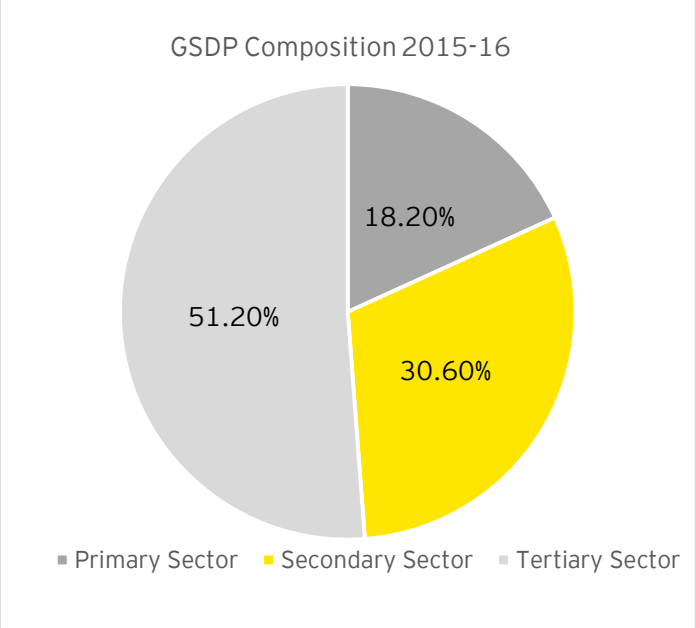


Figure 1: GSDP Composition 2015-16

Besides, the State has an investor-friendly policy and regulatory environment. It is one of the leading states in terms of industrial production, especially passenger cars, mobile cranes, two-wheelers & tractors. It is the 2nd largest contributor of food grains to India's central pool, accounts for more than 60% of the export of basmati rice in the country and is 3rd largest exporter of software.

The state is gradually transforming from an agrarian economy to an industrial economy. To boost the growth rate further and make Haryana a favourable investment destination, the State has developed the Enterprise Promotion Policy in 2015. With the Enterprise Promotion Policy-2015, the state has envisaged a sustainable industrial spectrum in the state with a special focus on MSMEs in its endeavour for effecting a balanced regional and

sustainable development. In order to accelerate the industrial growth in the state, the focus of the government is on holistic development, i.e., by encompassing initiatives for resource efficiency improvement, smarter technology, and environment friendly methods which reduce resource consumption.

The district Kurukshetra came into existence on 23 January 1973. Popularly known as the battlefield of Mahabharata, where the battle was fought between two diametrically conflicting forces of good and evil. Eventually, in this battle the forces of piety were rewarded, and the evils got vanquished in the land of righteousness.

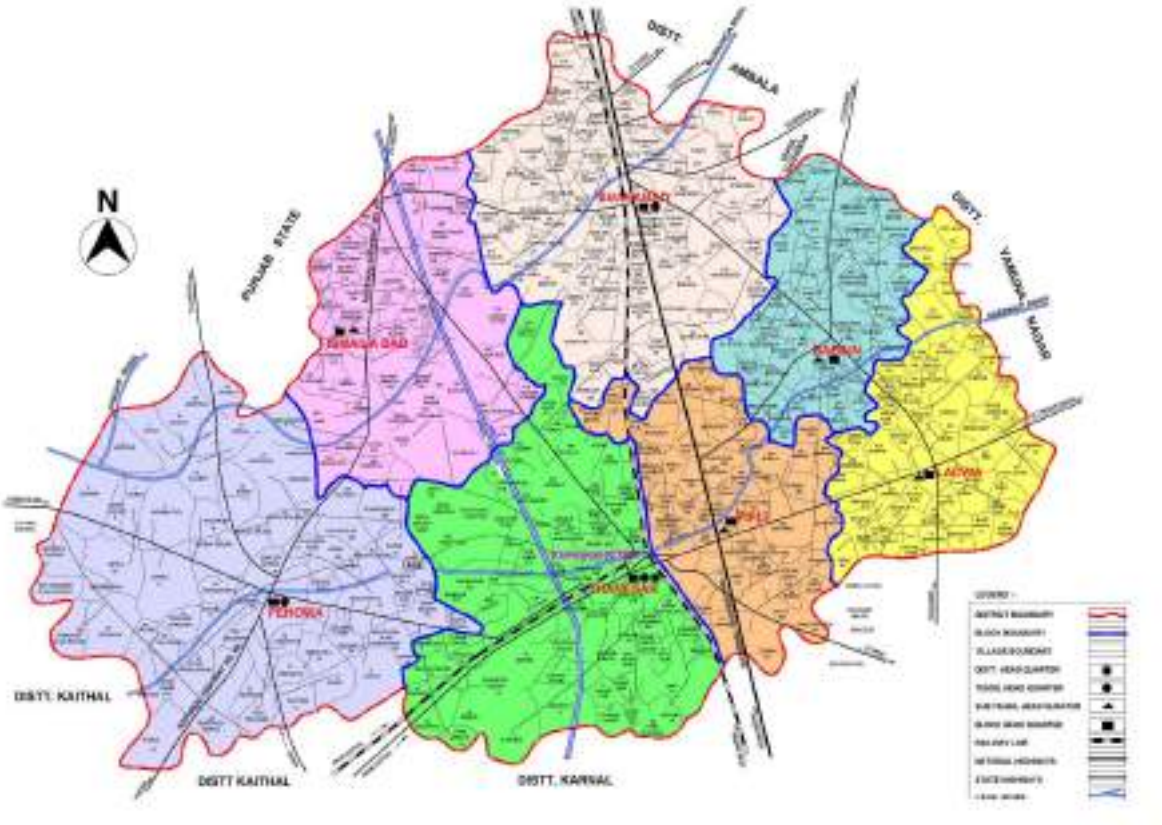


Figure 2: District map of Kurukshetra

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. Its adjoining districts are Ambala, Yamuna Nagar, Karnal, Kaithal and Patiala (Punjab).

The Kurukshetra district comprises of two subdivisions namely Thanesar and Pehowa, three tehsils namely Thanesar, Shahbad and Pehowa, three sub-tehsils namely Ladwa, Babain and Ismailabad. The total 419 villages have been divided into six community development blocks i.e. Thanesar, Shahbad, Pehowa, Ladwa, Babain and Ismailabad. Total Number of towns are four.

1.3 Industrial Scenario of Kurukshetra District

As the economy of district Kurukshetra is purely based on agriculture, the industrial scenario of this district is also influenced mostly by the same sector. There are number of small and big rice shellers and Wheat Processing units. The district has 1995 registered

small scale units having a fixed investment of approximately Rs. 814.90 Crores and providing employment to approximately 15844 persons. A glimpse of major kind of agro based units in the district are given as under:

Table 1: Industry at a Glance[1]

S. No	Type of Unit	No. of Units	Fixed Investment (in INR Crore)	Employment
1.	Rice Sheller	182	497.56	5263
2.	Straw Board/ Mix Board	10	0.16	250
3.	Cattle Feed	10	0.04	90
4.	Handmade Paper	06	0.74	156
5.	Flour Mills (Mfg.)	11	0.05	150
6.	Solvent Plants	06	0.15	270
7.	Agriculture Implements	42	12.28	344
8.	Plywood/ Plyboard	03	0.03	100
9.	Misc. Units	1725	303.89	9221
	Total	**1995**	**814.90**	**15844**

These units are mainly engaged in the manufacturing of Straw Board/ Mill Board/ Mix Board, Handmade Paper, Corrugated Board & Boxes, Rice Shelling, Extraction of Solvent Oil & de-oiled cake, Cattle Feed, Poultry Feed, Wheat Flour, Vegetable oil, Ply Wood/ Board, Wooden/ Steel Furniture, Rigid PVC Pipes, Glass Ampules, Wire Screen, Mono-block Motors, Submersible pumps, Rotary Rigs, PVC Water Tanks, Batteries & Invertors, Allopathic & Ayurvedic medicines, Egg & Apple Trays, Agriculture Implements, Generator Set, Cement Blocks, Fibre glass sheets & products, Paint & varnish, Iron & steel fabrication, Edible oil & cakes, Vanaspati Ghee, Refined oil, Acid oil, Spend earth, sludge, Desi Ghee, Bus & truck bodies, tractor parts, woollen carpets, Zinc sulphate, welding electrodes, pesticides & insecticides, Nut & bolts, Processing of seeds, Preservation of fruits & vegetables, Lead Ingots (block), Glucose, Oxygen/ Nitrogen gases & liquid, Insulation Board, Cheeks (Hatchery) etc.

The Haryana government also undertook several initiatives to promote industrial development in the region. The state ensured creation of massive infrastructure in terms of complete electrification, provision of road transport, expansion of administrative, educational and health facilities in small towns, and establishment of many new industrial townships and urban estates. For promotion of industrialisation, a special sector i.e. Sector-3 has been developed as Industrial Area where number of small-scale units have been established.

[1] Source: http://103.87.24.58/KKR/Organisations/DIC/IndustrialProfile.pdf

1.4 Geographical Traits

The Kurukshetra district comprises of 419 villages and six blocks and lies between 29º34'15" and 30º-15'15" North latitude and 76º to 10" and 77º-17.5" East longitude covering an area of 1530 sq. km.

The district is surrounded by Punjab state and Ambala district in the north and Kaithal district and Karnal district towards south. The district headquarter, Kurukshetra is connected by roads with important cities of the state and Delhi. It is also connected by railway line with Delhi.

1.5 Demographic Trends and Economic Structure

The district Kurukshetra came into existence on 23 January 1973. Popularly known as the battlefield of Mahabharata, where the battle was fought between two diametrically conflicting forces of good and evil. Eventually, in this battle the forces of piety were rewarded, and the evils got vanquished in the land of righteousness.

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. Its adjoining districts are Ambala, Yamuna Nagar, Karnal, Kaithal and Patiala (Punjab).

The district has sub-tropical continental climate. The annual average rainfall of the district is 290.5 mm. Saraswati, Markanda and Ghaggar are the important rivers of the district. It constitutes 3.3% of the state share in terms of geographical area.

As per the 2011 census, Kurukshetra's total population is 964,655 persons across a geographical area of 1,530 sq. kms. Kurukshetra district has a population density of 630 persons per sq. km. The population growth rate for Kurukshetra in the last decade (2001-2011) was 16.86%. Kurukshetra has an average literacy rate of 73.11%. The district's sex ratio is 889 females per thousand males.

Sector Overview

2. Sector Overview

Agricultural implements manufacturing sector plays a key role in supporting the performance of the agriculture sector. This industry consists of businesses that manufacture and sell agricultural machinery and related goods. The manufacture of agricultural implements is undertaken by village artisans, tiny units, small scale industries, organized medium and large-scale sector. Organized sectors manufacture sophisticated machinery such as tractors, engines, milling and dairying equipment. Traditional hand tools and bullock drawn implements are largely fabricated by village craftsmen (blacksmith and carpenters) and power operated machinery by small-scale industries.

The agricultural implements are categorised on the basis of various activities across the agriculture value chain. The major activities along the value chain and the implement used in each stage are as under:

Land Development, Tillage, Seedbed Preparation	Sowing & Planting	Weeding, Inter-cultivation, Plant Protection	Harvesting & Threshing	Post Harvest and Agri-Processing
▪ Tractors ▪ Levelers ▪ Ploughs ▪ Dozers ▪ Scrapers	▪ Drill ▪ Seeder ▪ Planter ▪ Dibbler ▪ Trans-planter	▪ Shovel/Plough ▪ Harrow ▪ Tiller ▪ Sprayer ▪ Duster	▪ Harvester ▪ Thresher ▪ Digger ▪ Reaper ▪ Sheller ▪ Sickle/Dao	▪ Seed Extractor ▪ Dehusker ▪ Huller/Dehuller ▪ Cleaner ▪ Grader ▪ Mill ▪ Dryer

Figure 3: Activities and Implements of agriculture value chain

The market is driven by various factors such as shifting of agricultural activities from animal or manual operations to automated methods, government initiatives towards farm mechanization, rising urbanization rate, easy credit and financial assistance, etc. Training programs conducted by government for technicians, farmers and machinery users is another important factor that is expected to further propel the demand of agricultural implements in coming years.

2.1 Brief Global Scenario

The Global Agri Implements market size was 146.2 billion USD in 2018 and is projected to reach 156.12 USD in 2020. The global market is projected to witness significant growth on account of upcoming technologies in the industry coupled with improved economic conditions and rising farm income. These factors are expected to boost industry growth over the next couple of years. Traditional farming techniques such as ploughs, tillage, and seeders are now being replaced with various modern agricultural machinery. Advanced farming machinery such as spraying equipment, hay and forage equipment, harvesters, and irrigation and crop processing equipment are being used in various processes to enhance overall crop output and quality.

Agriculture equipment enable easy farming; it makes the process simpler and more profitable by enhancing crop quality and reducing labour cost. The market is expected to

witness high growth over the forecast period owing to amalgamation of several novel technologies in this arena. Rise in global population is increasing the demand for food, thereby increasing pressure on agriculturists to innovate time- and cost-efficient methods of production. This is projected to spur the farm machinery market.

Strong economic growth in developing countries such as China, India, and Middle Eastern countries is projected to drive the farm machinery industry. Asia Pacific is expected to emerge as the largest market and witness the fastest growth. China alone held over 30.0% of the regional revenue in 2018[2]. Regional growth can be ascribed to low level of mechanization and large area of agricultural land. However, mechanization of various agricultural processes is evolving progressively in Asia Pacific, which is estimated to spur demand for agricultural machinery over the forecast period.

North America held a share of over 22.0% in 2018 and is anticipated to exhibit strong growth by 2025[3]. This is ascribed to introduction and utilization of machines with better fuel efficiency and improved features. Additionally, shortage of farm labour is expected to be one of the factors driving demand for farm equipment in North America.

2.2 India Scenario

The agriculture sector has been the mainstay of India's economy with more than 50% of its population engaged directly or indirectly in this sector. The livelihood of millions of farmers depends on this sector. In the last two decades its contribution to GDP has decreased significantly due to rapid growth of the services sector. The sector's GVA contribution fell from 18.2% in 2014-15 to 16.5% in 2019-20, according to the Ministry of Statistics and Program Implementation (MOSPI). The sector has recently seen growth in productivity and turnover due to use of machinery for agricultural purposes.

The Indian agricultural implements market was worth 8.5 Billion USD in 2017. The market value is further projected to reach US$ 12.8 Billion by 2023, exhibiting a CAGR of 7.03% during 2018-2023. Agricultural implements consist of a wide range of manual and mechanical tools such as threshers, cultivators, over ploughs, seed drills, chaff cutter machines, axes, etc. They help in reducing labour and improving the efficiency of agricultural activities. India has achieved considerable progress in the field of agricultural implements over the past decades.

At the time of Independence, Indian farmers mostly used animal operated implements (such as bullock-drawn ploughs and wooden planks) and hand tools (including spades, pickaxes, crowbars, sickles and choppers) for pulverization, compaction and smoothening of the soil. Later, the Green Revolution brought about large-scale farm mechanization which encouraged a significant number of farmers to opt for modern agricultural implements including combine harvesters, rice trans-planters, power tillers, threshers, tractors, pumping sets, etc.

In India, the growing incomes of the farmers have boosted the demand for farm implements. In addition, acute shortage of skilled labour for agricultural activities has further led to the growing demand for agricultural equipment. Moreover, the attractive subsidies provided by

[2] Source: https://www.grandviewresearch.com/industry-analysis/agriculture-equipment-market
[3] Source: https://www.grandviewresearch.com/industry-analysis/agriculture-equipment-market

the Central and State governments have also encouraged farmers to purchase modern agricultural implements.

Farm implements or level of mechanisation in India varies greatly by region. States in the northern region of India like Punjab, Haryana and Uttar Pradesh have high level of mechanisation due to high productive land in the region. The state governments in these states have also provided timely support in promoting the mechanisation of farms. The market size of Agriculture implements equipment is increasing year by year.

In India, between FY 2008 and FY 2013, the thresher and rotavator market grew at 2.0 and 21.0 respectively. The graph below shows the projection of thresher and rotavator[4]:

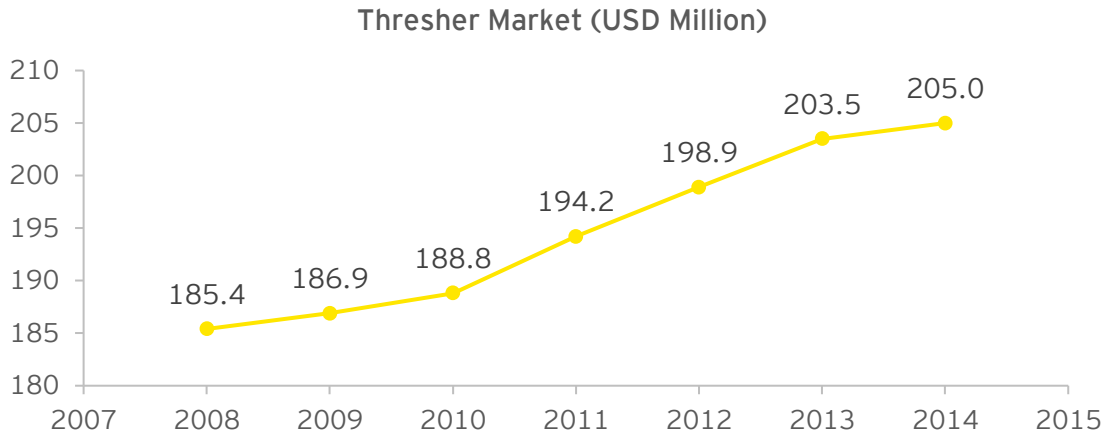


Figure 4: Thresher Market Size (2008-2014)

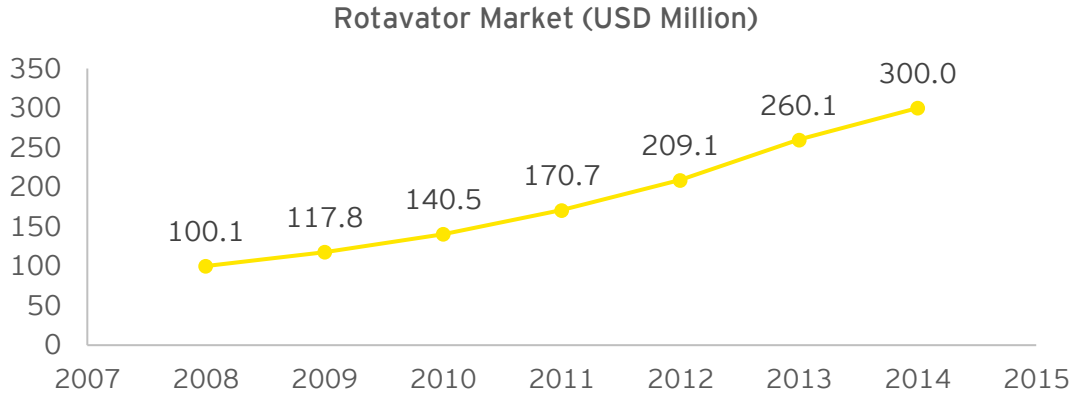


Figure 5: Rotavator Market Size (2008-2014)

Indian Agri Implements Market Drivers: Following are the key market drivers for agricultural implements industry

- **Substitute for manual labour:** One of the biggest advantages of agriculture implements is that they can replace manual labour. Although, India represents amongst the largest countries for manpower in the world, all sectors of the economy

[4] **Source:** Transforming Agriculture through Mechanization – A knowledge paper on Indian Farm Equipment Sector

have been affected by the scarcity of labour. This impact is currently being felt more in the agricultural sector compared to other sectors.

- **High Productivity and efficiency:** Use of agricultural implements increase production, efficiency and per man productivity. Mechanization increases the yield of land per unit of area and also resulting in lower cost of work, resulting in better use of land and hence increasing farm income. Agricultural implements are expected to increase yields by 25-30% in states with a low level of mechanisation, and by up to 10% in states that are already highly mechanised.
- **Long Terms Cost Savings:** Although buying agricultural implements involve a high initial capital expenditure. Over a longer period, they prove to be more cost effective compared to manual labour and work animals.
- **Government Support:** Another major driver of the agriculture implements industry is the fact that it represents a major focus area for the government. Agriculture remains a primary means of livelihood for more than 50% of the country's total population and, as a result, it represents an important vote bank for any government that wants to retain power. The government of India is also providing subsidies to local farmers on water, electricity, agricultural machinery, agrochemicals, hybrid seeds, etc. It has also exempted agriculture income under the Indian Income Tax Act, meaning income earned from agricultural operations is not taxed. In addition, both state and central government often waive off loans given to the farmers.
- **Improvements in Agriculture Techniques:** The use of agricultural implements also provides benefits during irrigation, land reclamation and the prevention of soil erosion.

2.3 Cluster Scenario

Once a food deficient state, today Haryana has become a food surplus State. Haryana has accorded high priority to Agriculture Sector, with majority of population directly or indirectly dependent on agriculture and its allied activities. The state has been involved in providing a stimulus to growth through strong infrastructure facilities such as metalled roads, rural electrification, extensive network of canals, development of market yards etc, coupled with research support and vibrant extension network to circulate information in relation to improved farm practices for farmers, much needed for agriculture progress.

Though Agriculture & Allied Sector has always been a significant contributor to the GSDP, however, the contribution at constant (2011-12) prices went down to only 16.6 percent of the GSVA during the year 2019-20.

The state has become more dependent on Industry & Tertiary Sectors during the past years; however, advancement of Agri & Allied Sectors continues to be a crucial factor in the overall performance of the state economy.

The estimates indicate that the growth rate increased from 3.8 percent in 2015-16 to 7.9 percent in 2016-17 but it fell to 6.1 percent and 5.3 percent in 2017-18 and 2018-19 respectively.

In last couple of years, Kurukshetra has noticed strong growth in agricultural implements manufacturing industry.

2.4 Cluster Products

The cluster units are engaged in the manufacturing of Rototiller, Happy Seeder, Super Seeder Zero Drill, Cultivator, Disc Harrow, Rotary Mulcher, Strawchopper, Strareaper, Power Harrow, Laser and Leveller, Rotavator, Reaper, Threshers, Tractor Hood & Hydraulic Machinery & Steel Fabrication, other agricultural machinery parts, etc. which caters to domestic market only. A few of the products manufactured by the cluster are presented in figure 3 below:

Disc Paddy Harrow

Disc Harrow

Laser Land Leveller

Mulcher

Diagnostic Study Findings

3. Diagnostic Study Findings

The diagnostic study was undertaken in the cluster during July 2020 to map the existing business processes in the cluster, identify the gaps, and understand the requirements of the cluster. The diagnostic study report (DSR) was compiled with inputs from cluster SPV in close coordination with the DIC, Kurukshetra. Most of the cluster units deploy obsolete technologies (like manual drill machines, spray paint machine and conventional lathe machine) and are unable to meet the requirements of the market due to lack of availability of modern machines / equipment. The finishing of products is ordinary due to dependence on manual techniques and conventional machines.

The DSR was approved by Director General, Directorate of MSME, Govt. of Haryana. The approval of DSR and permission to undertake the Detailed Project Report (DPR) is provided in ***Annexure 1***. The SPV was 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 Kurukshetra Agricultural Implements Manufacturing Cluster are:

A. Industry Associations

- **Agricultural Machine Manufacturing Association:**

  Agricultural Machine Manufacturing Association is one of the prominent agricultural industry association of the Haryana. It plays a key role in helping the industries to raise their issues and help them getting addressed. It also liaisons closely with the State and the Central Government to raise its concerns for the development of industries in the state. All cluster members are associated with this association and it has 128 members.

B. Government Bodies

- **District Industries Centre, Kurukshetra:**

  DIC is the most important government stakeholder for the cluster. The office of DIC comes under the Dept. of Industries & Commerce and is headed by the Joint Director who is assisted by assistant directors and technical field officers. DIC promotes and routes subsidy to micro and small enterprises in the region. The Mini Cluster Scheme under which the agri implements industry wants 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 Udyog Aadhar Memorandum (UAM). It would play a key role in project implementation.

- **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.

- **Haryana State Infrastructure and Industrial Development Corporation (HSIIDC)**

  HSIIDC is an autonomous body set up by the Government of Haryana in 1967, headquartered at Panchkula. HSIIDC has been playing a progressive role in the industrial development of various districts of Haryana. Over the years, it has greatly accelerated the pace of its activities by facilitating land allocation to industries, creating industrial areas and developing required infrastructure. Entrusted fundamentally with the task of establishing industrial areas, HSIIDC has also taken the responsibility of providing continued assistance to the units which come up in these industrial areas. HSIIDC provides a total package of assistance at a single point to the entrepreneurs and disburses incentives of behalf of State Government.

- **Haryana Shehri Vikas Pradhikaran (HSVP)**

  HSVP is the urban planning agency of the state of Haryana in India. It was established in 1967. It plays a key role in land development and execution of development works like roads, water supply, sewage, and drainage etc.

C. Educational Institutes

- **Northern Region Farm Machinery Training and Testing Institute, Hisar**

  This institute was setup under Ministry of Agriculture to propagate agricultural mechanization through imparting training on repair, maintenance and operation of agricultural machinery. Later the institute was also assigned the task of testing of agricultural equipment and machinery. Various agricultural equipment is tested as per BIS guidelines to assess the suitability under different agro climatic conditions. The institute is recognized to test combine harvester by Ministry. The training courses are being organized for user level, technician level and managerial level persons. Need based course are also organized. The institute is equipped for various workshops, imparting on the job trainings and demos, audio-visual facility etc.

- **Department of Farm Machinery & Power Engineering, CAET, Hisar**

  This is one of the most important departments of College of Agricultural Engineering and Technology under Agriculture University of Haryana. The college runs 4-year graduation program in technology and agriculture engineering, post graduate programs in technology, farm power, machinery, soil and water engineering. Research projects of the college include:

  a) Development, testing and popularization of implements in Haryana State

b) All India Coordinated Research Project on research and development of farm implements and their adoption under actual field conditions in the state of Haryana.

The Department has done pioneer research and extension work for giving a boost to farm mechanization in the state. The salient achievements of department include:

a) Development/ promotion of bullock drawn machines like land preparation, land levelling, Stubble collector cum planter, mustard drill, seed cum fertilizer drills, weeding machines
b) Development/ promotion of Tractor operated machines i.e. rotavators, puddlers, high clearance weeders, high capacity crop threshers, paddy trans-planters, automatic sugarcane planters, ridge seeders/bed planters, potato planter & digger etc.

- **Government Industrial Training Institute (ITI), Kurukshetra**

This Govt. ITI was started during the year 1962. The objective was to provide technical education to aspiring candidates who want to specialize in different trades. This institute holds courses in various trades such as Carpenter, Turner, Machinist, Fitter, Plumber, Mechanic, etc.

- **Kurukshetra University**

Kurukshetra University is one of the premier educational institutions of India having its campus spreads over 473 acres. Established in 1956, the University is providing higher education to over half a million students on the campus and its affiliated colleges. Kurukshetra university offers a variety of technical and non-technical courses. The University has been awarded A+ Grade by NAAC and has been placed at 8th position amongst the State Universities of the country in Category-I by the Ministry of Human Resource Development (MHRD).

D. Banks / FIs

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

SIDBI has been sincerely supporting cluster development initiatives in the State. SIDBI extends assistance directly as well as through primary lending institutions-FIs/Industrial Investment Corporations. SIDBI has been assisting the entire spectrum of SSIs and also Medium scale industries under various schemes tailored to meet the requirements of setting up of new projects, expansion, diversification, modernization and rehabilitation of existing units. Some related schemes such as the CGTMSE as well as the CLCSS are yet to be twinned with requirements of cluster firms.

- **Punjab National Bank (PNB), Kurukshetra**

PNB Kurukshetra is the lead bank of the district and is responsible for acting as a leader for coordinating the efforts of all credit institutions in the district and to

increase the flow of credit to agriculture, small-scale industries and other economic activities included in the priority sector in the rural and semi-urban areas.

E. Leading Manufacturers

Most of the manufactures in the cluster are engaged in production of agricultural implements such as Rototiller, Happy Seeder, Super Seeder Zero Drill, Cultivator, Disc Harrow, Rotary Mulcher, Strawchopper, Strareaper, Power Harrow, Laser and Leveller, Tractor Hood & Hydraulic Machinery & Steel Fabrication, other agricultural machinery parts, etc. Some of the leading manufacturers of the cluster are VS Industries, Azad Industries, Zimidara Engineering Works, MKV Industries, Azad Engg. Works, etc.

Key stakeholders of Kurukshetra agricultural implements manufacturing cluster are presented in figure 6 below:

Figure 6: Key Cluster Actors

3.2 Cluster Turnover, Market and Employment

Kurukshetra agricultural implements manufacturing cluster has about 100 units, out of which 90 are micro units and 10 are small units across the value chain. Most of the units are in Thanesar sub-division of district Kurukshetra. The cluster units are engaged in the manufacturing of Rototiller, Happy Seeder, Super Seeder Zero Drill, Cultivator, Disc Harrow, Rotary Mulcher, Strawchopper, Strareaper, Power Harrow, Laser and Leveller, Tractor Hood & Hydraulic Machinery & Steel Fabrication, other agricultural machinery parts. The annual turnover of the cluster (micro and small) is about INR 100 Crore.

The units of the cluster are mainly catering to the markets of various districts of Haryana and neighbouring states like Punjab, Uttar Pradesh, Rajasthan. Some of the prominent

manufacturers in cluster also supply their products to Madhya Pradesh and Bihar. At present, the cluster is catering to local and national market only and no unit is exporting its products to international markets due to quality restrains and price competitiveness.

Presently, this cluster provides employment to 3000 people directly & indirectly. On an average micro unit employ approximately 3-6 persons, and small units in the cluster employ approximately 5-10 persons. On an average, micro and small-scale implements manufacturing units employ approximately 4-10 people. The average wages of unskilled labour in the industry are of INR 10,000 – 12,000 per month for workers operating on 8-10-hour shift. The average wages of skilled labour for precision activities such as cutting, drilling, bending and finishing etc. is around INR 15,000 – 20,000 per month. Cluster also provides employment to engineering graduate by offering monthly enumeration around INR 30,000 per month.

The proposed facility will be open to all cluster firms to enable them to get job work done in order to cater the requirements of the market. The proposed CFC will provide an opportunity to micro units to get job work done on modern machines and manufacture high quality products, thereby increasing their individual capacity utilization and profitability. 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

The main raw materials required in production process are mild (structural) steel section, e.g. flats, angles, channels, squares, pipes, plates, rounds, BP sheets, CR sheets, etc. Agricultural implements have a wide gamut of products. All the implements have different functions, design and configuration, e.g. cultivator has no moving parts at all; harrow has low speed moving discs, mounted on an axle; seed drills and rotavators also have some low medium speed moving parts; whereas reapers and threshers have high speed moving parts. Therefore, there is no generic manufacturing process sequence for each product.

The typical production process of agriculture implements does not involve any highly technical operations. Some of the important operations involved for most of the agricultural implements are shearing, cutting, pressing, gas cutting, sheet metal fabrication, welding, turning, grinding and painting etc. However, some degree of specialization is required in manufacturing of components such as harrow disc, cultivator tyne and cultivator spring or cultivator shovel. Simple machines such as welding sets, power presses, lathes, drilling machines are sufficient to produce majority of the implements.

Operations involved in the manufacture of individual components are forging, heat treatment, hot forming, spring coiling, pickling, turning, drilling, punching etc. Since there are a variety of agriculture implements manufactured in the cluster, the manufacturing operations for various components and implements are different. Production process for some of the agricultural implements are shown in figure 5, 6 & 7 below:

Figure 7: Manufacturing Process of Cultivator

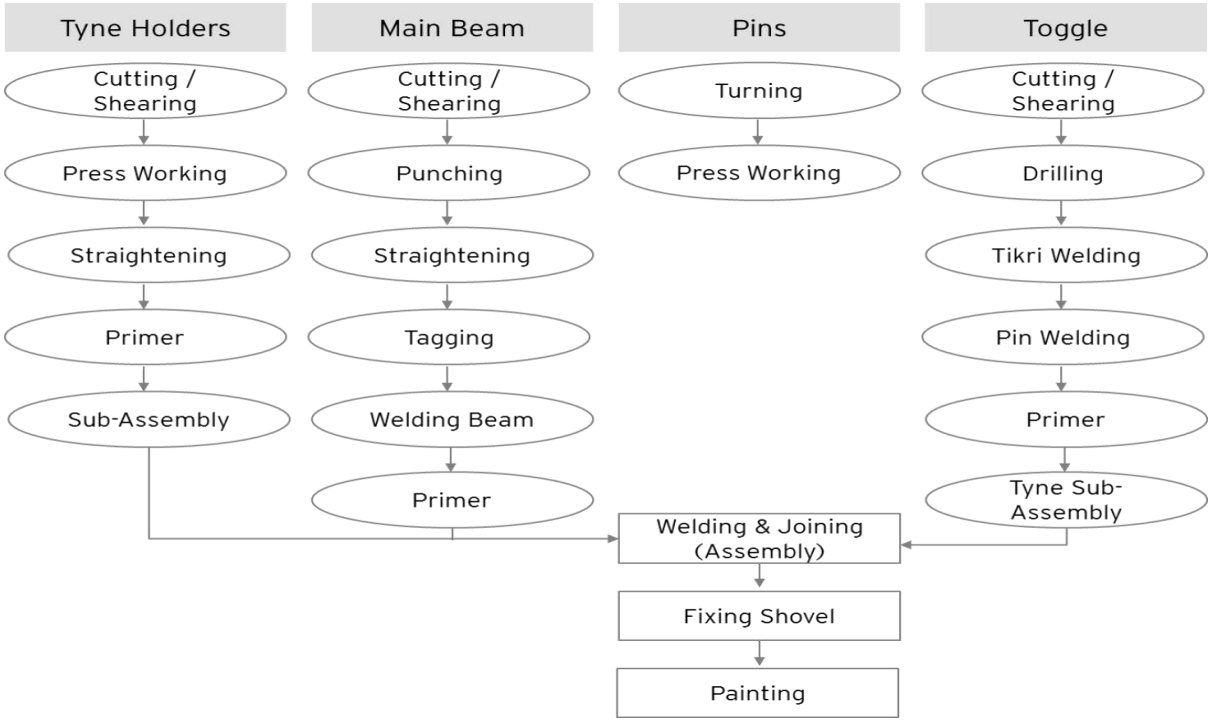


Figure 8: Manufacturing Process of Thresher

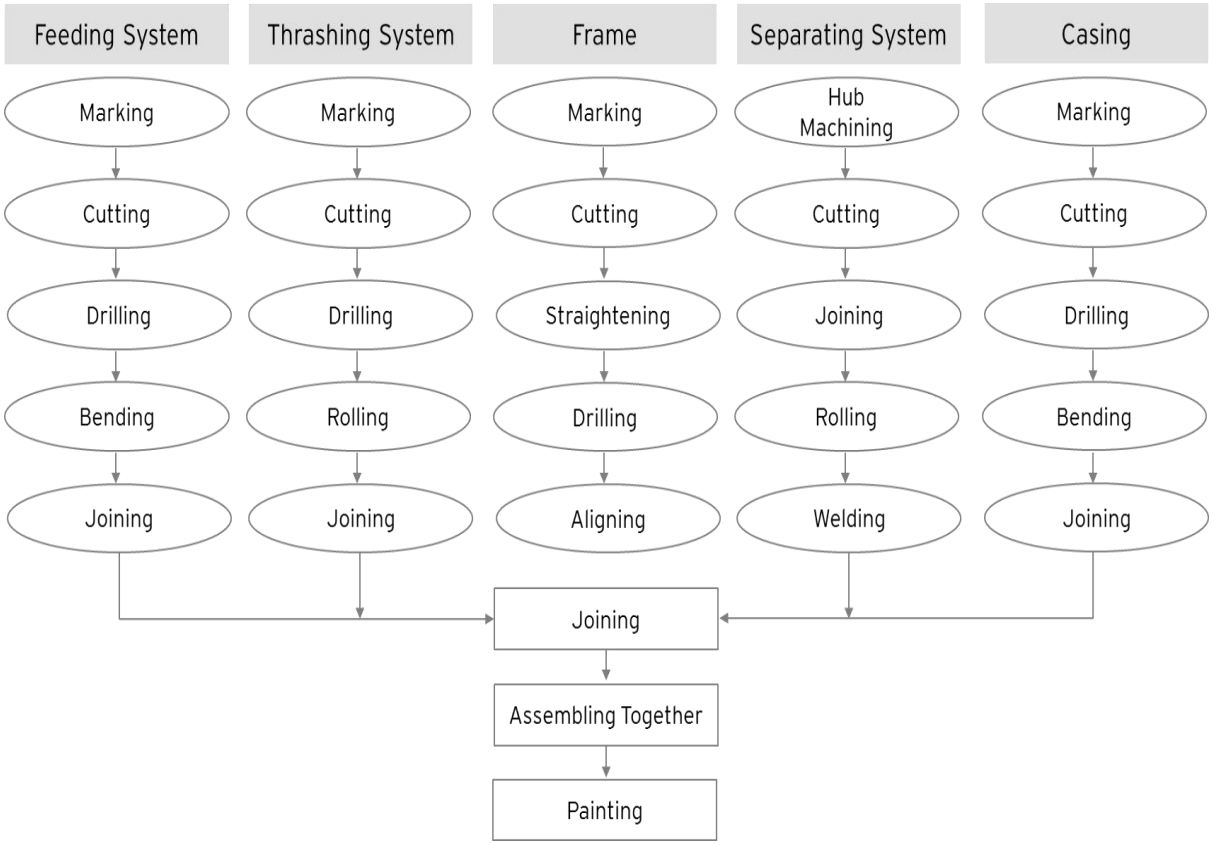
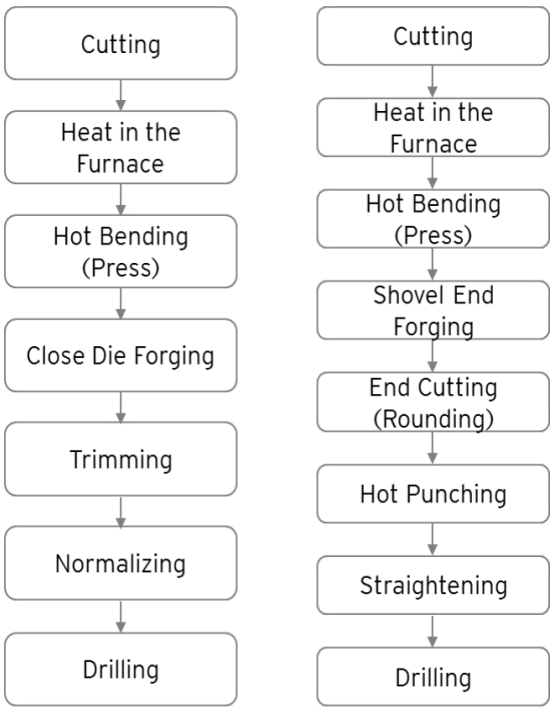


Figure 9: Manufacturing Process of Cultivator Tyne



The manufacturing also involves inspections at various stages till they are finally assembled and packed as per the quality assurance standards/plans.

3.4 Value Chain Analysis

Value chain analysis of the Rotavator has been conducted to ascertain the major cost areas and identify suitable interventions. The value chain analysis of Rotavator is provided in table 2.

Table 2: Value Chain Analysis of Rotavator[5]

	Before Intervention			After Intervention		
Particulars	**Value Added (INR)**	**Total Value (INR)**	**% of cost of production**	**Value Added**	**Total Value (INR)**	**% of cost of production**
Mild (structural) steel section, e.g. Flats, Angles, Channels, squares, Pipes, Plates, Rounds, BP sheets, CR sheets, etc. (Raw Material)	50,000	50,000	55.56%	50,000	50,000	64.10%

[5] Source: Stakeholders consultation inputs

	Before Intervention			After Intervention		
Particulars	**Value Added (INR)**	**Total Value (INR)**	**% of cost of production**	**Value Added**	**Total Value (INR)**	**% of cost of production**
Designing and Precision Work Cost (outsourced)	25,000	75,000	27.78%	13,000	63,000	10.96%
Electricity charges	5,000	80,000	5.56%	5,000	68,000	0.73%
Labour Cost	6,000	86,000	6.67%	6,000	74,000	7.29%
Paint/ Thinner Cost	3,500	89,500	3.89%	3,500	77,500	3.64%
Loading/ Unloading Cost	500	90,000	0.56%	500	78,000	0.29%
Total Production Cost	**90,000**		**100%**	**78,000**		**100%**
Profit Margin (10% before intervention and expected 18% after intervention)	**9,000**			**14,040**		
GST (12%)	**17,820**			**16,567**		
Selling Price	**1,16,820**			**1,08,607**		

The value chain analysis has been prepared based on the stakeholder consultation. It can be observed that the raw materials amount to over **55.56%** of total cost of production. The industry is labour intensive, with labour costs accounting for approximately **6.67%** of total production cost of a rotavator which includes also paint labour cost. The designing and precision work are outsourced whose costs around **27.78%** of the total production cost. The painting cost is around **3.89%** of the total production cost. The competitiveness of the cluster units can be increased by targeting the major cost area and providing common facilities to the units in order to undertake process at a lower cost. At present the cluster units are getting the **10%** profit margin. Post implementation of CFC, there will be reduction in designing cost and thereby resulting in significant reduction of cost of production and rise in profit margin by **18%.**

3.5 Strength, Weakness, Opportunities and Threats (SWOT) Analysis

A SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis of the 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	▸ Strong presence in domestic market ▸ Haryana and adjoining states are agrarian economies and have good demand of agri-implements ▸ Major market within 1000 to 1500 km distance ▸ Good transport linkage- National Highway, State Highway and Railways Purchase by State Govt. Agriculture Departments and Corporations for further supply to farmers	▸ Seasonal marketing for different products, therefore, longer off seasons for majority units that are confined to narrow product range ▸ Most of the manufacturers of the cluster are working only under the "Crop Residue Management Scheme for 2018-19 and 2019-20" of Government of India" ▸ Implements normally have long life, therefore, the replacement sale occurs to the tune of 10 to 15% ▸ Payment is not prompt from dealers/traders due to stiff competition ▸ Lack of export opportunities due to quality restrains	▸ Possibility of export to neighbouring countries ▸ Enterprises can join hands together for International marketing, brand building and participation in trade fairs ▸ Globalization can usher tremendous market potential for competitive firms ▸ Quality and productivity can be game changer for the cluster	▸ Strong competition from international players entering domestic market and other players within the domestic market ▸ Overseas importers may change their sourcing country

Area	Current situation		Future	
	Strengths	Weaknesses	Opportunities	Threats
		▸ Lack of knowledge of export marketing/ documentation ▸ Lack of brand image ▸ Cutthroat competition on price at the expense of quality ▸ Inadequate information on new farming techniques		
Technology/ Product Quality	▸ Medium investment & low accuracy machinery required ▸ Basic technology infrastructure available ▸ Labour intensive & not high-tech sector	▸ Lack of modern technology ▸ Lack of awareness about latest trends and products in the industry ▸ No modern testing facility available ▸	▸ Lot of scope for technology upgradation ▸ Creating technological awareness among entrepreneurs will create technology base to enter into new segments ▸ Possibility of establishing Common Facility Centre	▸ Low level of technology development ▸ If after modernization, cost competitiveness is not achieved ▸ Technology is ever changing process
Skill/ Manpower	▸ Workers have the skill and knowledge to operate machinery currently being used by the units ▸ Most work can be learnt easily on the job	▸ No skill development training programme/ facility for workers in the pipeline ▸ Cluster usually depends on under qualified tools and die makers who have no facility/ ability to upgrade their knowledge	▸ Training and organising workshops would help to increase the knowledge and skill of the existing workforce ▸ Unemployed youth can be trained easily	▸ Youth interested to work in other lucrative sectors ▸ Skill base needs continuous up-gradation to adapt new techniques

Area	Current situation		Future	
	Strengths	Weaknesses	Opportunities	Threats
Inputs	▸ Availability of castings from nearby districts and other working parts for the thresher and seed drill etc. from within the vicinity of Punjab ▸ Major raw material structural steel supply from Ludhiana, Mandi Gobindgarh ▸ TATA & SAIL sales offices in Delhi/Faridabad & Mandi Gobindgarh are an advantage.	▸ Local non-availability of sufficient casting parts and moving parts like gears/shafts and sub-soiler ▸ Cluster is solely dependent on other districts of Haryana and Punjab for supply of structural steel ▸ No facility available for testing of raw materials and related components ▸ No structured system of quality control	▸ Increased competition would make inputs cheaper and sufficient	▸ Price escalation of steel could lead to increase in input cost which may increase price of machinery
Innovation	▸ Ability to develop products as per customer requirements ▸ Flexibility in choosing other products in the range due to similar manufacturing operations	▸ Lack of marketing products in the domestic & international market ▸ Low level of development in process ▸ Traditional methods of production	▸ Sharing of best practices and information could lead to innovation in products amongst MSMEs in the cluster	▸ Innovation required in every facet of business operation ▸ Advent of newer methods in technology for farming
Business Environment	▸ Medium investment required in plant & Machinery ▸ Weak presence of other industries, entrepreneurs	▸ Lack of knowledge of regulatory frameworks and government schemes among micro level units	▸ Establish CFC with latest technologies ▸ Progressive and innovative enterprises have the ability to grow and meet requirement of export	▸ Dynamic business environment is always a challenge for less enterprising firms

Area	Current situation		Future	
	Strengths	Weaknesses	Opportunities	Threats
	interested in manufacturing activity as no easy alternate for investment available in the region	► Lack of common infrastructure/CFC facilities ► No long-term vision of manufacturers ► Competition is increasing from the local fabricators / Manufacturing at other places ► Unprofessional way of managing enterprises	market as the developed countries may not like to enter in the low-tech segment	► Change in policies and regulatory environment

3.6 Major issues/ Problem Areas of the cluster

As it can be deciphered from the analysis in the preceding sections, cost competitiveness and quality of the product of MSE units engaged in agriculture implements manufacturing in the cluster is affected by absence of in-house modern machines for performing activities like cutting, turning and bending like plasma cutting machine, vertical machining centre, CNC turning machine, CNC bending machine, etc. Most of the MSEs are unable to individually afford those facilities. As per discussion with stakeholders, it is found that, as of now, they are heavily dependent upon third party private players in Ludhiana and Delhi for some essential operation like precision job work, finishing etc. Those private players charge exorbitant price for their services.

The key problems cluster related problems identified are:

- **Absence of hi-tech cutting facility:** Currently, cluster units are dependent on private services providers in Ludhiana (Punjab) and Delhi for cutting related work. This results in high cost and production delay. Some units are using conventional machines and methods for cutting which are outdated.
- **Absence of proficient and modern machines:** The major problem of the cluster is lack of modern machinery. The units are using conventional machines and methods for processes which are too old and need to be upgraded, particularly for cutting, bending and turning operations. These machineries are out-dated and cannot match the quality and standard of modern age. The machines are slow, non-precise and consume time and energy.
- **Lack of Space:** Units are very small. They cannot stock raw material in bulk at their units. So, they cannot purchase raw material in bulk to realize benefits of economies of scale.
- **Marketing:** The cluster is mainly catering to the markets of local districts of Haryana and neighbouring states like Punjab, Uttar Pradesh and Rajasthan. Some units of the cluster also supply their products to Madhya Pradesh and Bihar. Therefore, there is scope for expansion of the market be it from national or international point of view. They have to increase their capacity and capability in terms of technology, buying power, manufacturing etc. to meet latest industry quality standards and achieve cost competitiveness.
- **Technology:** Kurukshetra Agricultural Implements cluster units are dominated by aging technology and practically no technological innovation. However, in recent years, the demand of automatic and semi-automatic production systems is rising. This made them to look for modernisation and adaptation of latest machinery and technology.
- **Lack of skilled manpower:** Lack of skilled manpower is responsible for wastage of raw material, higher production time, low accuracy and low productivity results.
- **Limited access to markets**: The cluster units are small in size with low production capacity. Individually, they have not been able to garner bulk orders. Moreover, they have been unable to diversify their production capacity due to lack of technological

capacities, which has led to limited access to market. In order to increase the production capacity as well as manufacturing of high-quality implements, the units would require modern efficient machinery. Lack of capital to purchase these machines has limited the production capacity of these units.

Due to lack of these facilities, the units face higher costs, thereby reducing their competitiveness, especially compared to other competitive areas. This results in loss of market share. These facilities, if provided through a CFC in the cluster with government support will help the units become more competitive.

3.7 Key Technologies Missing

The technological gaps on various fronts that the CFC proposes to target, along with scope and illustration of major facilities is provided in table 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**
Advanced Machining Centre	
Currently, the cluster units proceed with manual machining methods or using outdated lathe/milling machines. This put extra burden on cluster units as those machines are slow and it is very difficult to get precision work out from them. Further, maintenance of those old machines is also time and money consuming. Likewise, modern machines, those machines cannot handle multiple operations at a time, which leads to slower process, and higher production time. This is the pain area of the cluster.	Installation of modern machine provides better usage of raw material, shorter production time and multiple operations at a time. Those machines require low maintenance and offers lower production time. Fully automated high quality, high precision pressing & draw machines are required for achieving accuracy, quality and consistency along with productivity, which increase quality of the product and decrease raw material wastage.
The units are using conventional machines and methods for processes, which are too old, and needs to be upgraded, particularly for agricultural implements. These machineries are out-dated and cannot match the quality and standard of modern age. The machines are slow and consume time and energy. Fabricators are using conventional manual methods for bending & pressing operation. It is very difficult to achieve accuracy by	By establishing of Plasma Cutting Machine, CNC Lathe Machine, Vertical Milling Machine, advanced grinding machines, with higher accuracy & less operational time are required to increase the productivity. The cluster units are dependent on private players for machining work. So, this facility is much needed in the cluster. By establishing these advanced machines in the CFC cluster units are able to improved the product quality and increase the production.

those manual techniques. Those methods are highly time consuming & laborious too which put negative effect on operations and product. Some time they have to outsource this service in case of complex design or bigger workpiece.	
Powder Coating Facility	
The cluster units do not have the powder coating facility in house. Units are dependent of private for painting of their products and some of units paint their products by manual process. In addition, the private players charge high prices for painting.	By the establishing this facility under the banner of CFC units are able to do the in-house painting & improved the finishing of the products.

3.8 Cluster growth potential

Micro and small units of the cluster have small tool rooms with conventional lathes, milling, shaper and surface grinder, drill and a traub machine (in pipe cutting units). Due to unavailability of high proficient machines for cutting and machining facility, cluster units have to sent to testing labs their products to NCR and Punjab which increases the lead time and cost of production. In this context, the proposed Common Facility Centre (CFC) is expected to help cluster firms unleash potential to offer a range of agricultural implements to existing industrial customers and retail consumers. This shall also help cluster units increase their competitiveness and access to new markets (both India and overseas) thereby ensuring sustainability and growth of the cluster.

The CFC fits into the long-term vision of the cluster in terms of enabling cluster enterprises improve quality and efficiency by means of appropriate tool room facilities and testing facilities. This in turn shall enable cluster firms to tap regional demand and increase export. The common facility is expected to enhance the levels of co-operation and joint action amongst cluster stakeholders and SPV members to co-operate in the areas of marketing and procurement. The skill upgradation requirement of cluster manpower shall be met conducting training with help from equipment manufacturers and suppliers as part of additional service.

Diagnostic Study Recommendations

4. Diagnostic Study Recommendations

4.1 Soft Interventions Recommended and Action Taken

Based upon the diagnostic study report and subsequent discussions with various cluster stakeholders and members of Agricultural Implements Manufacturing cluster during formulation of this Detailed Project Report (DPR), a mix of hard and soft interventions are being proposed to enhance the competitiveness of the cluster units. These have to be undertaken with government support to ensure the survival and growth of the agricultural manufacturing units in Kurukshetra. The recommendations for both soft and hard interventions have been elaborated in subsequent sections.

Cluster enterprises have also been undertaking several soft interventions (before, during and after the DSR) on their own and have been active in enhancing their awareness and exposure. The units have conducted several awareness programs and trainings in collaboration with DIC, Kurukshetra and BDS providers.

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

   - **Member Meetings:** Cooperation and trust building among members is foremost condition for smooth functioning of the cluster and SPV. A meeting was organized by cluster members during the month of August 2018 in Sirsa to enhance cooperation among member units and to obtain inputs for the DSR. Members of the cluster were informed about the registration of company for the cluster and identification of land for the CFC. Members of the cluster raised their concerns during the meeting that were resolved by other members of the cluster.

   - **Awareness Programme on Mini Cluster Development Scheme:** A programme for awareness of SPV members of agricultural implements manufacturing cluster Kurukshetra on mini cluster development scheme was conducted on June 2020. EY team members highlighted the main points of the scheme, informed the cluster member about what benefits they can avail from the scheme, and explained their role in case if they apply for scheme.

   - **UAM registration campaign**: Many of the cluster members, who did not have UAM (Udyog Aadhar Memorandum), got their unit registered under UAM. They not only support cluster members in online filling of UAM but also informed them about benefits of UAM.

- **Exposure Visit to Ludhiana & Batala:** SPV members visited Ludhiana to identify essential machineries for CFC. Ludhiana is the hub of almost all kind of machineries in north India. Being the hub, in present era of competition, Ludhiana produce machines with very competitive prices. While Ludhiana visit, beside the prices, SPV members gained knowledge of latest machineries and technologies, which would be beneficial of proposed CFC.

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

The agricultural implements manufacturing units in the Kurukshetra need technological support 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 infrastructural facilities are being proposed for the CFC, with support from the state industry department;

4.2.1 Advanced Machining Facility

(a) **Plasma Cutting Machine:** Plasma cutting machine can be used at CFC to cut through electrically conductive materials by means of an accelerated jet of hot plasma. Typical materials cut with a plasma torch include steel, Stainless steel, aluminium, brass and copper, although other conductive metals may be cut as well. It works by sending an electric arc through a gas that is passing through a constricted opening. It produces a very hot and very localized "cone" to cut with, they are extremely useful for cutting sheet metal in curved or angled shapes. This machine has the capacity to cut metal sheet up to 25 mm with given dimension. This improves the quality significantly.

(a) **CNC Vertical Machining Centre (VMC):** This machine is computer controlled and use rotary cutters to remove metal from a workpiece. With a vertically oriented spindle, tools stick straight down from the tool holder, and often cut across the top of a workpiece. The machine is operated by a programme to facilitate machining of moulds and dies with intricate shapes, meriting higher accuracy. The cluster units do not have inhouse vertical machinery centre machine. They are dependent on private player at Ludhiana, Delhi and Chandigarh for machining work.

By establishing this machine in the CFC, the cluster units will be able to improve the quality of the products, reduced the wastage of raw material and increase the production capacity of the units.

- **Lathe:** Lathe Machine rotates a work piece about an axis of rotation to perform various operations by holding the work piece in place by either one or two centers, at least one of which can typically be moved horizontally to accommodate varying work piece lengths. By establishing the Lathe Machine under the banner of CFC, cluster units are able to accommodate woodturning, metalworking, metal spinning, thermal spraying, parts reclamation, glass-working and shape pottery activities. It helps the cluster units to perform cutting, sanding, knurling, drilling, deformation, facing, and turning to create an object with symmetry about axis.

- **Conveyor Powder Coating Facility:** The cluster units do not have the powder coating facility in house. Units are dependent of private for painting of their products and some of units paint their products by manual process. In addition, the private players charge high prices for painting. By the establishing this facility under the banner of CFC units are able to do the in-house painting & improved the finishing of the products.

4.3 Expected Outcome after Intervention (Long term vision)

The cluster vision that has been progressively evolved is:

"The agricultural-implements manufacturing cluster of Kurukshetra would evolve into a preferred base for Indian and global customers by means of standardization, technology up-gradation through modern tool room and quality improvement through powder coating facilities by the year 2020. The emphasis is on tapping national and global customer base by producing internationally competitive products."

The mission of the project is closely twinned with cluster vision:

- Enhance productivity and efficiency in the agricultural implements manufacturing process by employing appropriate technology in the form of common facility.
- Value addition to services offered to customers by manufacturing quality products and contributing to consumer satisfaction as well as improving performance of cluster enterprises.

- Encourage cluster firms to cater the demand of large industries through integrated equipment envisaged in the CFC and benefit the firms of adjacent districts for regional development as agriculture implement manufacturing hub.

The CFC fits into the long-term vision of the cluster in terms of enabling cluster enterprises improve quality and efficiency by means of appropriate tool room facilities and powder coating facilities. This in turn shall enable cluster firms to tap regional demand and increase export. The common facility is expected to enhance the levels of co-operation and joint-action amongst cluster stakeholders and SPV members to co-operate in the areas of marketing and procurement. The skill upgradation requirement of cluster manpower shall be met conducting training with help from equipment manufacturers and suppliers as part of additional service.

In addition, mini cluster at Kurukshetra will complement the efforts of State Government to promote clusters in the State and serve as a model for up gradation of micro, small enterprise clusters.

Special Purpose Vehicle (SPV) for Project Implementation

5. SPV for Project Implementation

The micro & small units at Agricultural Implements Manufacturing Cluster came together to form a Special Purpose Vehicle (SPV) as a private limited company under section 7 of the Companies Act, 2013 and rule 18 of the Companies (Incorporation) Rules, 2014. The SPV is named as **'Azzad Agriculture Manufacturing Private Limited'** with CIN U01110HR2020PTC088295. The SPV was registered on 12th August, 2020. The certificate of registration along with Memorandum of Association (MoA) and Articles of Association (AoA) and PAN Card of the SPV are provided in ***Annexure – 2***. The company has an authorized paid up capital of INR 10.00 Lakh which shall be enhanced in the near future. The members are micro & small -sized firms (registered units) involved in the manufacturing of agricultural implements and related activities, predominately based in Thanesar area of district Kurukshetra.

DIC, Kurukshetra and state government both played an important role in SPV formation by cluster stakeholders. The SPV includes about 16 members who are subscribing to the necessary equity base of the company. The SPV shall always be open for new members to join and for the existing members to leave while maintaining a minimum member base of at least 10 . The proposed CFC will be implemented on public-private partnership basis through SPV **'Azzad Agriculture Industries Private Limited'** by availing support from Government of Haryana (under EPP 2015) state mini cluster development scheme.

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 fabrication 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 agricultural equipment industry, design interventions and new technologies.

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 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 Shareholder profile and Shareholding mix

List of Directors: The SPV has two directors. The details of the directors are furnished in the table 5. Other than these directors, the SPV will have provision of having one director/member from the state government. The SPV comprises members from micro agricultural implements manufacturing units. It is homogeneous in nature due to similar products and activities performed by the cluster units:

Table 5: List of Directors

S. No.	Office bearer Name	Name of the unit	Unit address
1	Vishnu Saini	VS Industries	Didar Nagar Narkatari Road, Kurukshetra 136118
2	Gurmeet Kaur	Azad Industries	Vill Bhiwani Khera Jhansa Road, Kurukshetra 136118

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

Members of the SPV have been engaged in production of agricultural implements products in Kurukshetra for several years. SPV directors/ members of the SPV also have considerable experience in marketing and manufacturing of agricultural implements products. Directors/members have been in close interactions with technical experts, government institutions and machinery suppliers. Post the DSR validation, 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 shareholding pattern of members of the registered SPV includes the contribution from every member of SPV and no individual shareholder holds more than 10% equity stake in the capital of the company. Details of SPV members along with their contact persons, unit details, UAM numbers and products manufactured are provided in table 6.

Table 6: Details of SPV members of Agricultural Implements Manufacturing Cluster, Kurukshetra

S. No.	Contact Person	Company Name	Address of the Unit	UAM No	Products
1.	Mr. Vishnu Saini	VS Industries	Didar Nagar Narkatari Road, Kurukshetra	HR11A0001698	Tractor Hood & other Agri-implement
2.	Mrs. Gurmeet Kaur	Azad Industries	Vill Bhiwani Khera Jhansa Road, Kurukshetra 136118	HR11B0001734	Rotavator, Happy Seeder & Other agriculture Implements
3.	Mr. Krishan	Zamidara Engg Works	Vill Dhurala Jhansa Road, Kurukshetra 136118	HR11A0001229	Zero Drill, Trolley & Other Agriculture Implements

S. No.	Contact Person	Company Name	Address of the Unit	UAM No	Products
4.	Mr. Manish Saini	MKV Industries	Jhansa Road, Kurukshetra 136118	HR11A0005765	Rotavator, Plastic Botal & Agriculture Implements
5.	Mr. Ramdutt	Azad Engg Works	Jhansa Road, Kurukshetra 136118	HR11A0001534	Gar Grill Rotavator, Happy Seeder etc.
6.	Miss Jyoti	Guru Nanak Engineering Works	Jhansa Road Opp Janta School Thanesar, Kurukshetra 136118	HR11A0005766	Gat Grill Sugar Can Thresher Agri Implements
7.	Mr. Abhay Vats	A1 Earth Mover	Jhansa Road near OP Jindal Park, Kurukshetra 136118	HR11A0001531	Hydraulic Pipes & Tractor Trolley Pipes
8.	Mr. Raj Kumar	Jhangra Engg Works	Jhansa Road opp Ritu Nursing Home, Kurukshetra 136118	HR11E0001702	Tractor Hood Bumper & Agri Implements
9.	Mr. Gurpreet Singh	Guru Nanak Electrical	Jhansa Road, Thanesar Kurukshetra 136118	HR11A0002233	Cooler & Motor Parts & Other Agri Parts
10.	Mr. Lakhwinder Singh	Guru Nanak Engineering Works	Villkirmach opp Petrol Pump Kurukshetra	HR11A0005767	Trolley & Reaper Parts
11.	Mr. Gurmeet Singh	Guru Nanak Engg Works	Villdhurala Hansala Road, Kurukshetra 136118	HR11A0005768	Reaper Parts Harrow Cultivator & Agri Implements
12.	Mr. Harpal Singh	Harman Engg Works	Jhansa Road, Kurukshetra 136118	HR11A0005757	Sugar Can Crusher & Agri Implements
13.	Mr. Vikramjeet Singh	Vikram Engg Works	Opp Janta School Jhansa Road Kurukshetra 136118	HR11A0005779	Sugar Can Crusher & Agri Implements
14.	Mr. Sunil Kumar	Saini Agriculture	Jhansa Road Kurukshetra 136118	HR11A0005790	Agri Implements
15.	Mr. Pardeep Kumar	Akash Engg Works	Vill Jyotisar Peowa Road Kurukshetra 136118	HR11A0005792	Trolley & Agri Implements

S. No.	Contact Person	Company Name	Address of the Unit	UAM No	Products
16.	Mr. Rohtas	Maha Laxmi Engg Works	Vill Kamodha Dhand Road, Kurukshetra 136118	HR11A000 5789	Dol Maker Suhga & Agri Implements

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 many capacity building initiatives to promote the cooperation among cluster units and enhance knowledge and exposure of the units. These initiatives have been undertaken in collaboration with DIC, EY, Haryana Agriculture Manufacturing Association 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 Punjab/NCR to understand the latest available technology and machinery related to fabrication. This would help them to adopt latest methods and machinery for the manufacturing of agricultural equipment and made them more competitive in market.
- 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 building for setting up of CFC and collective effort made by the SPV members to identify the suitable space for 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 lease deed registration of building in SPV name
- Garnering the SPV project contribution from the members
- Formation of purchase committees for procurement of goods
- 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 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 based on decision by members of SPV.
- Preparation and submission of progress reports to state industry department

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

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

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

2. **Managerial, Technical and Administrative staff**: A competent and qualified professional with a background in the fabrication industry will be appointed as the Cluster Development Executive (CDE), who will look after day-to-day operations of the CFC and shall be directly reporting to the Board of Directors. Each facility (cutting , machining & powder coating etc.) will have its own expert staff (supervisors, operations and helpers) as per the requirement. The details of work force and other requirements are already mentioned in the DPR in the Project Economics section. There shall be provisions for administrative staff such as accounts personnel, marketing professional, etc. to ensure effective functioning of the CFC. The proposed organizational structure of the CFC is given in figure10:

Figure 10: Organisational Structure of Proposed CFC

Project Economics

6. Project Economics

6.1 Project Cost

The total project cost is estimated at **Rs. 218.82 lakh**. The project cost for setting up a CFC in the Agricultural Implements Manufacturing Cluster in Kurukshetra includes the following:

1. Building (on lease)
2. Machinery and equipment
3. Miscellaneous fixed assets
4. Preliminary & Pre-operative expenses
5. Contingency
6. Margin money for working capital

6.1.1 Building

The SPV shall lease on a 10-year irrevocable lease. The SPV has identified the building and obtained a letter establishing the availability of the building. The building is located in the village Bhiwani Khera, district Kurukshetra, Haryana. The available area is 1600 square feet and the monthly rent for the first year would be Rs. 1.80 lakh, with an annual increase at the market rate (estimated at 10%). The detail of each project component is provided below;

Table 7: Building Lease Basis

BUILDING - LEASE BASIS		
S. No.	**Particulars**	**Actual Cost**
1	Building Area (sq. ft.)	1600
2	Monthly Rent (INR lakh)	0.15
3	Rent for first year (INR lakh)	1.80
4	Year on year increase in rent @	10.00%

6.1.2 Plant and Machinery

As detailed in section 4.2 (hard interventions), the machines proposed in the cluster will 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 for Plasma Cutting Machine, CNC Vertical Machining Centre, Lathe Machine and Powder Coating Facility. The total cost of plant and machineries has been estimated at INR 201.65 lakh including taxes and installation fees, and contingency works out to INR 30.76 lakh. The details of the proposed machinery items are presented in the table below. The detailed specifications and quotations of the machines are provided in the annexure. 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 8: List of Proposed Plant & Machinery

PLANT & MACHINERY								
S. No.	Machine Name	Quantity	Basic Price	Total Basic Price	Custom Duty as Applicable*	Gst as Applicable *	Total Price	Supplier Options
		Indigenous	Indigenous	Indigenous	Indigenous	Indigenous	Indigenous	
A	Primary Machinery							
1	CNC Lathe Machine with standard accessories & tooling with FANUC CNC System RIG 1000	1	45.75	45.75	-	8.24	53.99	M/s MSUI Machines Pvt. Ltd. Manufacturer KTM Machines
2	Vertical Machining Centre with standard accessories & tooling with FANUC CNC System	1	47.85	47.85	-	8.61	56.46	M/s MSUI Machines Pvt. Ltd. Manufacturer KTM Machines
3	Plasma Cutting Machine 3500mm x 8000 mm	1	19.70	19.70	-	3.55	23.25	M/s Supercut Industries
4	Powder Coating Plant	1	16.95	16.95	-	3.05	20.00	M/s KSW Equipment
5	CNC Lathe Machine RIG600	1	30.65	30.65	-	5.52	36.17	M/s MSUI Machines Pvt. Ltd. Manufacturer KTM Machines
	Sub Total (A)	**5**	**160.90**	**160.90**	**-**	**28.97**	**189.87**	
B	Secondary Machinery							
2	Forklift (2 tonne)	1	9.99	9.99	-	1.80	11.78	M/s MSUI Machine Pvt. Ltd.
	Sub Total (B)	**1**	**9.99**	**9.99**	**-**	**1.80**	**11.78**	
	Grand Total	**6**	**170.89**	**170.89**	**-**	**30.76**	**201.65**	

6.1.3 Miscellaneous Fixed Assets

The CFC would also require fixed assets such as furniture, fixtures, firefighting equipment, first-aid equipment etc. for smooth running of operations. The total estimated capital expenditure for purchase of miscellaneous fixed assets is estimated to be Rs. 1.64 Lakh. Details are provided in the table below.

Table 9: Miscellaneous Fixed Assets

MISCELLANEOUS FIXED ASSETS		
S. No.	**Particulars**	**Amount (Rs. In Lakh)**
1	Office Table (1)	0.10
2	Office Chair (4)	0.12
3	Guest Chair (4)	0.20
4	Firefighting equipment (8)	0.22
5	Other Fixed Assets	1.00
	Total	**1.64**

6.1.4 Preliminary and Pre-operative Expenses

Another major component of the project cost is the preliminary and pre-operative expenses. The preliminary expenses are envisaged as expenses incurred for registration of SPV, legal and administrative expenses, tendering forms, tendering cost, etc.

Pre-operative expenses include expenses for electricity connection charges, refurbishment of the building, administrative establishment, travelling, bank charges, stationery, telephone, overhead expenses during machinery testing period such as salaries, machine testing cost, bank charges, travelling, etc. The total expenditure for preliminary and pre-operative expenses are estimated at Rs. 2.47 Lakh (details provided in the table below).

Table 10: Preliminary and Pre-Operative Expenses

(Rs. In Lakh)

PRELIMINARY & PRE OPERATIVE EXPENSES		
S. No.	**Particulars**	**Amount**
1	Company Registration Charges	0.50
2	Tender forms & tendering cost	0.10
3	Project Management Charges	Nil
4	Travelling Cost	0.50
5	Machine testing cost	0.35
6	Lease deed registration charges	0.43
7	Bank Appraisal Charges	0.59
	Total	**2.47**

6.1.5 Provision for Contingencies

As per the guidelines of state-mini cluster development scheme a provision for contingencies has to be made on plant/machinery and building (not applicable in this case as the building is being taken on a lease basis). Contingencies on plant and machinery have been estimated at 5% that amounts to Rs. 10.08 lakh.

6.1.6 Margin Money for working capital

The total working capital requirement during the first year of operation at 75% capacity utilization is estimated at Rs. 9.98 lakh. The working capital loan, if required, will be availed from a local bank and is calculated at Rs. 7 lakh with margin money requirement of Rs. 2.98 Lakh (minimum 25% of working capital requirement as margin). The working capital requirement has been calculated based on requirement of one month of operational expenses and 1-month debtor collection period. The calculation has been provided in the subsequent section.

6.1.7 Summary Project cost

A summary of the total estimated project cost as per actual and as per State Mini Cluster Development Scheme is presented in the table below:

Table 11: Detailed Project Cost

(Rs in Lakh)

PROJECT COST					
S. No.	**Particulars**	**Total Project Cost**	**Eligible Amount as per Guidelines**	**State Govt. grant-in-aid as per guidelines**	**Remarks**
1	**Land & Building**				
	a. Land Value	0.00	0.00	0.00	**Eligible (Max 25% of total of L&B, P&M, and Misc. F.A.)**
	b. Land Development	0.00			
	c. Building & Other Civil Works	0.00			
	d. Building Value	0.00			
	Sub Total (A)	**0.00**	**0.00**	**0.00**	
2	**Plant & Machinery**			180.00	**Eligible**
	a. Indigenous	189.87	189.87		
	b. Imports	0.00	0.00		
	c. Secondary Machines	11.78	11.78		
	Sub Total (B)	**201.65**	**201.65**	**180.00**	

3	**Miscellaneous fixed assets (C)**	1.64	0.00	0.00	**Not eligible for grant**
4	**Preliminary & Preoperative Expenses (D)**	2.47	0.00	4.00	
5	**Contingency**				**Eligible**
	a. Building @ 2%	0.00	0.00	0.00	
	b. Plant & Machinery @ 5%	10.08	0.00	0.00	
	Sub Total (E)	**10.08**	**0.00**	**0.00**	
6	**Margin money for working capital @ 75% CU (F)**	2.98	0.00	0.00	
	Grand Total (A+B+C+D+E+F)	218.82	201.65	180.00	

6.2 Means of Finance

The project will be financed from two sources: equity from SPV, and grant-in-aid from Govt. of Haryana (under State Mini Cluster Development Scheme, EPP-2015). Working capital loan, if required, will be secured from a local bank. The assistance to the project from Govt. of Haryana under State Mini Cluster Development Scheme is envisaged to the tune of 90% of the project cost for project up to 200 lakh. 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 the entire amount beyond Rs. 180 lakh, taking their overall contribution to about 17.74 % of the total project cost. The total contribution of SPV members will amount to Rs. 38.81 lakh. Support from State Government is envisaged for Rs. 180.00 Lakh. Details of the means of finance are provided in the table below:

Table 12: Means of Finance

Detailed Means Of Finance							
S. No.	Source of finance	Project cost upto eligible cost		Project cost over eligible cost			Remarks
		Percentage Contribution	Amount (INR in lakh)	Percentage Contribution	Amount (INR in lakh)	Total Amount (INR in lakh)	
1	Grant-in-aid under State Mini Cluster Development Scheme	90%	180.00	0%	0.00	180.00	As per EPP, 2015 GoH contribution is max 90% (Including soft intervention expenses)
2	Contribution of SPV	10%	20.00	100%	18.82	38.82	
	Total	**100%**	**200.00**	**100%**	**18.82**	**218.82**	

6.2.1 Share Capital

The contribution of the SPV members will be by way of subscription to shares in the SPV registered as a Private Limited Company. The extent of paid-up share capital would be Rs. 38.82 lakh contributed by the cluster SPV. The authorized share capital of the company is INR 10 lakh at present which shall be increased in due course. The extent of equity subscription by each member will be restricted to a maximum of 10% of total share capital of the company.

6.2.2 Grant-in-Aid

Grant-in-aid of Rs. 180.00 lakh is expected from Government of Haryana. The amount received by the way of grant under State Mini Cluster Development Scheme will only be utilized to procure plant and machinery for the project. The state government will deduct the INR 4.00 lakh towards the preparation DSR & DPR of the project from the eligible grant-in-aid of the project.

6.3 Expenditure Estimates

In this section, a detailed estimate of expenditure of the CFC has been conducted on eight-hour single shift (i.e. 8 hours) operation basis. This has been estimated based upon extensive inputs by the cluster members and the prevalent rates of consumables, utilities and manpower in the cluster. This section considers annual cost of undertaking job work and expenditure estimates. The critical components related to expenditure comprise consumables, manpower, electricity and also expenditure on repair and maintenance of assets, insurance and administrative overheads. Other elements comprise expenditures by the way of interest toward working capital loans, miscellaneous expenses and non-cash depreciation expenditure.

6.3.1 Consumables

Machines installed at the CFC shall require consumables during operations and completion of the job work. Consumables are critical components of project facilities and may be understood in terms of machinery oil, water, grease oil and chemicals & powder & paint etc.

Table 13: Consumables

CONSUMABLES REQUIRED FOR MACHINES											
S. No.	Machine Name	No. Of Machines	Particulars	Total monthly Amt (Rs.)	Consumables required annually (Rs. In Lakh)	Amount (in Rs. Lakh)	Amount (in Rs. Lakh)	Amount (in Rs. Lakh)	Amount (in Rs. Lakh)	Amount (in Rs. Lakh)	Amount (in Rs. Lakh)
						Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
						75%	80%	85%	90%	95%	100%
1	CNC Lathe Machine with standard accessories & tooling with FANUC CNC System	1	Oiling, Greasing, Tools	1000.00	0.12	0.09	0.10	0.10	0.11	0.11	0.12
2	Vertical Machining Centre with standard accessories & tooling with FANUC CNC System	1	Oiling, Greasing, Tools	1500.00	0.18	0.14	0.14	0.15	0.16	0.17	0.18
3	Plasma Cutting Machine 3500mm x 8000 mm	1	Oiling, Greasing, Tools	1000.00	0.12	0.09	0.10	0.10	0.11	0.11	0.12
4	Powder Coating Plant	1	Oiling, Greasing, Tools, powder an	1000.00	0.12	0.09	0.10	0.10	0.11	0.11	0.12
5	CNC Lath Machine RIG600	1	Oiling, Greasing, Tools	600.00	0.07	0.09	0.10	0.10	0.11	0.11	0.12
6	Forklift	1	Diesel, Oiling, Greasing, Tools	800.00	0.10	0.09	0.10	0.10	0.11	0.11	0.12
	Total				**0.71**	**0.59**	**0.62**	**0.66**	**0.70**	**0.74**	**0.78**
	Consumables per month				**0.06**	**0.05**	**0.05**	**0.06**	**0.06**	**0.06**	**0.07**

6.3.2 Manpower Requirement

Another major expenditure head is the manpower. Facilities installed at CFC will require manpower to function effectively. The total manpower requirement for the project would be about 15 persons. The manpower required under project has been divided under two categories: Direct & Indirect. Direct manpower is required for operation of machines while indirect manpower is required for administrative purposes. The annual expenditure on salary component for direct manpower is estimated at Rs. 10.56 lakh and for indirect at 7.13 lakh. The total expense on manpower is projected at Rs. 1.82 lakh per month or Rs. 17.69 lakh per annum. The details of monthly and yearly expenses for manpower required for running the project is provided in table below:

Table 14: Expenditure related to Salary (direct manpower - machine operators and helpers)

MANPOWER REQUIREMENT				
DIRECT MANPOWER				
Category	**No. of Manpower Required**	**Salary per month per person (INR)**	**Total Salary Per Month (INR)**	**Total salary & wages per Year (INR lakh)**
CNC Lathe Machine with standard accessories & tooling with FANUC CNC System RIG 1000 (Operator)	1	12,500.00	12,500.00	1.50
Vertical Machining Centre with standard accessories & tooling with FANUC CNC System (Operator)	1	15,000.00	15,000.00	1.80
Plasma Cutting Machine 3500mm x 8000 mm	1	15,000.00	15,000.00	1.80
Powder Coating Plant (Operator)	1	12,500.00	12,500.00	1.50
CNC Lathe Machine with standard accessories & tooling with FANUC CNC System RIG 600 (Operator)	1	12,500.00	12,500.00	1.50
Forklift Operator	1	12,500.00	12,500.00	1.50
Helper	5	9,500.00	47,500.00	5.70
	11	**0.90**	**1.28**	**9.60**
Add: Perquisites/Fringe Benefits @ 10%				**0.96**
Sub Total (A)				**10.56**

Table 15: Expenditure Related to Salary (indirect manpower – administrative and support staff)

INDIRECT MANPOWER				
Category	**No. of Manpower Required**	**Salary per month per person (INR)**	**Total Salary Per Month (INR)**	**Total salary & wages per Year (INR lakh)**
Cluster Dev Executive (Supervisor)	1	20,000.00	20,000.00	2.40

INDIRECT MANPOWER				
Category	No. of Manpower Required	Salary per month per person (INR)	Total Salary Per Month (INR)	Total salary & wages per Year (INR lakh)
Accountant	1	15,000.00	15,000.00	1.80
Watchman	1	9,500.00	9,500.00	1.14
Peon	1	9,500.00	9,500.00	1.14
	4	**0.54**	**0.54**	**6.48**
Add: Perquisites/Fringe Benefits @ 10%				**0.65**
Sub-Total (B)				**7.13**

6.3.3 Utilities

The most important utilities required in the project is 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 73.70 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 in the case of operating facilities and shop floor.

Table 16: Machine & Equipment (facility) wise power requirement

S. No.	Machine & Equipment	Power Requirement (kW)/ Connected Load	Total power requirement (60% of drawn power) kWh
1	CNC Lathe Machine with standard accessories & tooling with FANUC CNC System	10.00	6.00
2	Vertical Machining Centre with standard accessories & tooling with FANUC CNC System	20.00	12.00
3	Plasma Cutting Machine 3500mm x 8000 mm	25.00	15.00
4	Powder Coating Plant	4.00	2.40
5	CNC Lathe Machine RIG600	8.00	4.80
	Total Connected load for CFC Load	**67.00**	**40.20**
	Buffer Connected Load (10% of Total Connected Load)	**6.70**	
	Total	**73.70**	

The power requirement for operation of core machinery and equipment and administrative facilities is 67.00 kW. The facility is heavily based on electricity for operations and will also require additional 10% connected load as a buffer to get the electricity connection. The total connected load for the CFC is estimated to be 73.70 kW.

Fixed charges for connection of 73.70 kW @ Rs. 235 per kW equals Rs. 17,319.50/- per month and monthly consumption charge @ Rs. 6.70 per unit for 8040 units amounts to Rs. 53,868/- per month. This has been calculated based on the prevalent rates of the power provider.

The table below presents the envisaged annual expenditure in terms of power related charges.

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

Power charges at various C.U.										
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
	75%	80%	85%	90%	95%	100%	100%	100%	100%	100%
Fixed	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08
Variable	4.85	5.17	5.49	5.82	6.14	6.46	6.46	6.46	6.46	6.46
Total	**6.93**	**7.25**	**7.57**	**7.90**	**8.22**	**8.54**	**8.54**	**8.54**	**8.54**	**8.54**
Per month	**0.58**	**0.60**	**0.63**	**0.66**	**0.68**	**0.71**	**0.71**	**0.71**	**0.71**	**0.71**

6.3.4 Annual Repairs and Maintenance Expenses

The annual repairs and maintenance expenses have been estimated to be Rs. 6.51 lakh. The details are presented in the table below:

Table 18: Annual Repairs and Maintenance Expenditure

REPAIR & MAINTENANCE	
ANNUAL REPAIR AND MAINTENANCE EXPENSES	
Repair & Maintenance of Building	0.10
Repair & Maintenance of Plant and Machineries @ 3%	6.05
Sub Total A	**6.15**

6.3.5 Insurance and Miscellaneous Expenses

Insurance is a critical component of asset protection at the CFC. Insurance is computed on the basis of 0.5 percent on the fixed assets. Cost of insurance shall remain as a fixed cost. Miscellaneous administrative expenses are estimated at a lump-sum of Rs. 0.60 lakh per year. The details are presented in the table below:

Table 19: Insurance and Miscellaneous Administrative Expenses

OTHER EXPENSES	
Insurance Charges (Estimate @ 0.5% on fixed assets (such as buildings, civil works, and Plant & machinery, including related contingency expenses of approx. Rs. Lakh)	1.06
Miscellaneous Expenses (Stationery, communication, travelling, and other misc. overheads)	0.60
Sub Total B	**1.66**

6.4 Working Capital

Working capital has been calculated in terms of one month's operating expenses required for the CFC as well as one-month debtor collection period. The operating expenses includes in form of consumables, salaries, utilities and rent expenses.

The working capital requirement of the project for the one month of operation has been considered for consumables and expenses. The SPV will contribute the margin money for working capital and rest of working capital will be borrowed from local bank. While calculating the project cost, a minimum of 25% of working capital is shown as margin for working capital and the remaining will be borne by SPV as borrowings. The total working capital is estimated to be Rs. 9.98 lakh during the first year of operation (75% C.U.). Further, total working capital required at an operating capacity of 80% during the second year comes out to Rs. 10.59 lakh. The corresponding margin money for working capital requirement at 75% & 80% capacity utilization in the first 2 years amounts to Rs. 2.98 lakh and Rs. 3.59 lakh respectively, and the corresponding loan amounts to Rs. 7.00 lakh.

The details are presented in the table below:

WORKING CAPITAL								
S. No.	Particulars	Period	As per Capacity Utilisation					
			Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
			75%	80%	85%	90%	95%	100%
1	Consumables	1 month	0.05	0.05	0.06	0.06	0.06	0.07
2	Utilities (Power)	1 month	0.58	0.60	0.63	0.66	0.68	0.71
3	Working Expenses (Manpower)	1 month	1.25	1.30	1.34	1.39	1.43	1.47
4	Sundry Debtors (Sales Value)	1 month	8.10	8.64	9.18	9.72	10.26	10.80
5	Working capital (Total expenses)		9.98	10.59	11.21	11.82	12.44	13.05
6	Working Capital Margin		2.98	3.59	4.21	4.82	5.44	6.05
7	Working Capital Loan		7.00	7.00	7.00	7.00	7.00	7.00
8	Interest on Working capital loan @11% p.a.		0.77	0.77	0.77	0.77	0.77	0.77
9	Working Cap Margin %age		29.86%	33.93%	37.55%	40.79%	43.71%	46.36%

6.5 Depreciation Estimates

Estimates of depreciation are non-cash expenditure and presented in this section on the basis of Written down Value (WDV) methods. Accounting for depreciation would facilitate sustainability of operations in terms of developing a fund for replacement of assets. The relevant fund that is accumulated could facilitate the replacement of such assets toward the end of the envisaged asset life of 10 years. Depreciation of plant and machinery is considered at 15% a year (envisaged project life of 10 years prior to replacement of assets), depreciation of furniture at 10% per year, and depreciation of miscellaneous fixed assets at the rate of 15% a year. The computation of depreciation as per WDV method is provided in the tables below.

Table 20: Depreciation based on WDV

(Rs. In lakh)

DEPRECIATION (WRITTEN DOWN VALUE METHOD)										
Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Less: Depreciation @ 10%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Closing Balance	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plant & Machinery										
Opening Balance	211.73	179.97	152.97	130.03	110.52	93.94	79.85	67.88	57.69	49.04
Less: Depreciation @ 15%	31.76	27.00	22.95	19.50	16.58	14.09	11.98	10.18	8.65	7.36

(Rs. In lakh)

DEPRECIATION (WRITTEN DOWN VALUE METHOD)										
Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Closing Balance	179.97	152.97	130.03	110.52	93.94	79.85	67.88	57.69	49.04	41.68
Furniture										
Opening Balance	0.42	0.38	0.34	0.31	0.28	0.25	0.22	0.20	0.18	0.16
Less: Depreciation @ 10%	0.04	0.04	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02
Closing Balance	0.38	0.34	0.31	0.28	0.25	0.22	0.20	0.18	0.16	0.15
Other Misc. Fixed Assets										
Opening Balance	1.22	1.03	0.93	0.84	0.75	0.68	0.61	0.55	0.49	0.44
Less: Depreciation @ 15%	0.18	0.10	0.09	0.08	0.08	0.07	0.06	0.05	0.05	0.04
Closing Balance	1.03	0.93	0.84	0.75	0.68	0.61	0.55	0.49	0.44	0.40
Total Depreciation	31.98	27.14	23.07	19.62	16.68	14.18	12.06	10.26	8.72	7.42
Depreciated value	181.38	154.24	131.17	111.55	94.87	80.69	68.63	58.37	49.65	42.23

6.6 Income/Revenue Estimates

The CFC is expected to generate revenue by way of user charges that shall be levied based upon the sheet cutting, machining work & powder coating cost. 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 machining and powder coating work. The user charges have been estimated based upon the operational expenses of the CFC and the prevalent market rates in Ludhiana and Delhi. User charges for secondary machines 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. An average user charge has been used, taking into account the demand for basic and specialized in-house modern machines for performing activities like cutting & powder coating, like plasma cutting machine,

vertical machining centre, CNC lathe machine & powder coating plant etc. The relevance and appropriateness of user charges is also evident from the fact that the rates fixed help meet operating expenditures and provide sustainable replacement of assets. It is also envisaged that the CFC will generate enough income to sustain and grow, making it an absolutely viable project.

The estimated user charges are presented in table below:

Table 21: User Charges for Machinery

REVENUE GENERATION AT CFC													
S. No.	Machine Name	No. Of Machines	User Charge per hour (Rs.)	No. Of Working hours per day	No. Of Working days per month	Revenue per month (Rs. lakh)	Annual Revenue generation (in Rs. lakh)	Amount in Rs. Lakh)	Amount in Rs. Lakh)	Amount in Rs. Lakh)	Amount in Rs. Lakh)	Amount in Rs. Lakh)	Amount in Rs. Lakh)
								Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
								75%	80%	85%	90%	95%	100%
1	CNC Lathe Machine with standard accessories & tooling with FANUC CNC System	1	875	8	25	1.75	21.00	15.75	16.80	17.85	18.90	19.95	21.00
2	Vertical Machining Centre with standard accessories & tooling with FANUC CNC System	1	1100	8	25	2.20	26.40	19.80	21.12	22.44	23.76	25.08	26.40
3	Plasma Cutting Machine 3500mm x 8000 mm	1	1200	8	25	2.40	28.80	21.60	23.04	24.48	25.92	27.36	28.80
4	Powder Coating Plant	1	1500	8	25	3.00	36.00	27.00	28.80	30.60	32.40	34.20	36.00
5	CNC Lathe Machine RIG600	1	725	8	25	1.45	17.40	13.05	13.92	14.79	15.66	16.53	17.40
	Total						129.60	97.20	103.68	110.16	116.64	123.12	129.60

6.7 Estimates of profitability: Income and Expenditure Statement

The projection for income and expenditures of the CFC has been conducted for ten years. The projections have been undertaken based upon the income and expenditure heads mentioned in previous sections. The projected statements highlight income, expenses, profits earned, income tax and net profit etc. The details are presented in the table below:

The total gross revenue is estimated to be Rs. 97.20 lakh for the first year of operation at an operating capacity of 75%. For projection purposes, operating capacity of 75% is considered during first year, 80% during second year and 100% capacity from 6th year onwards.

The income tax rates have been considered depending upon the announcement made in the Budget 2020 and the tax applicable to a Pvt. Limited Company. Income tax has been considered at 22 per cent on taxable profit inclusive of all the tax components. The incidence of tax ranges from INR 7.15 lakh in the first year to INR 18.12 lakh in Year 10.

Table 22: Income and Expenditure Statement

(Rs. In Lakh)

PROFIT & LOSS ACCOUNT										
Particulars	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**	**Year 7**	**Year 8**	**Year 9**	**Year 10**
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 %	**75%**	**80%**	**85%**	**90%**	**95%**	**100%**	**100%**	**100%**	**100%**	**100%**
A. Income										
(User/ Service Charge)	**97.20**	**103.68**	**110.16**	**116.64**	**123.12**	**129.60**	**129.60**	**129.60**	**129.60**	**129.60**
B. Cost of Production :										
1. Utilities Power (Fixed + Variable)	6.93	7.25	7.57	7.90	8.22	8.54	8.54	8.54	8.54	8.54
2. Direct labour and wages	7.92	8.45	8.98	9.50	10.03	10.56	10.56	10.56	10.56	10.56

(Rs. In Lakh)

PROFIT & LOSS ACCOUNT										
Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
3. Consumable	0.59	0.62	0.66	0.70	0.74	0.78	0.78	0.78	0.78	0.78
4. Repair and Maintenance	4.61	4.92	5.23	5.53	5.84	6.15	6.15	6.15	6.15	6.15
5. Depreciation	31.98	27.14	23.07	19.62	16.68	14.18	12.06	10.26	8.72	7.42
Total Cost of production	**52.03**	**48.38**	**45.51**	**43.26**	**41.52**	**40.22**	**38.09**	**36.29**	**34.75**	**33.45**
C. Administrative expenses :										
6. Manpower (Indirect)	7.13	7.13	7.13	7.13	7.13	7.13	7.13	7.13	7.13	7.13
7. Rent	1.80	1.98	2.18	2.40	2.64	2.90	3.19	3.51	3.86	4.24
8. Insurance	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
9. Misc. Expense	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
Total Administrative Expenses	**10.59**	**10.77**	**10.96**	**11.18**	**11.42**	**11.69**	**11.98**	**12.29**	**12.65**	**13.03**
D. Financial expenses:										
10. Interest on Working capital loan @ 11% per annum	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Total Financial Expenses	**0.77**	**0.77**	**0.77**	**0.77**	**0.77**	**0.77**	**0.77**	**0.77**	**0.77**	**0.77**
E. Total Expenses B+C+D	**63.38**	**59.91**	**57.25**	**55.21**	**53.71**	**52.67**	**50.84**	**49.35**	**48.17**	**47.25**
F. Profit A - E	**33.82**	**43.77**	**52.91**	**61.43**	**69.41**	**76.93**	**78.76**	**80.25**	**81.43**	**82.35**
G. P&P Expenses written off	1.29	1.29	1.29	1.29	1.29	0.00	0.00	0.00	0.00	0.00
H. Income before Tax (F-G)	**32.52**	**42.47**	**51.62**	**60.14**	**68.12**	**76.93**	**78.76**	**80.25**	**81.43**	**82.35**
I. Adjustment of Loss	-	-	-	-	-	-	-	-	-	-
J. Income Tax (@22% for company)	7.15	9.34	11.36	13.23	14.99	16.92	17.33	17.65	17.91	18.12
K. Net Profit /Loss for the year	**25.37**	**33.13**	**40.26**	**46.91**	**53.13**	**60.00**	**61.43**	**62.59**	**63.52**	**64.23**
L. Cumulative Surplus	**25.37**	**58.50**	**98.76**	**145.67**	**198.80**	**258.80**	**320.24**	**382.83**	**446.35**	**510.58**

As evident from the table above, the project is financially viable. A cumulative surplus of about Rs 510.58 Lakh shall be earned by the SPV even after accounting for taxation and depreciation at the end of ten years. This surplus generated shall be used for further addition in the machinery or improvement and up-gradation of facilities. Additionally, the SPV intends to conduct a lot of other development activities in the cluster that shall be funded through the surplus earned at the CFC.

6.8 Cash Flow Statement

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

Table 23: Cash Flow Statement

(Rs in Lakh)

CASH FLOW STATEMENT											
Particulars	Lease deed Period	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
A. Source Funds :											
1. Cash Accruals (Net Profit + Interest Paid)		34.59	44.54	53.68	62.20	70.18	77.70	79.53	81.02	82.20	83.12
2. Increase in capital	38.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3. Depreciation		31.98	27.14	23.07	19.62	16.68	14.18	12.06	10.26	8.72	7.42
4. Increase in WC Loan		7.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5. Change in Expenses Payable		2.03	0.09	0.09	0.09	0.09	0.10	0.02	0.03	0.03	0.03
5. Increase in Grant-in-aid from GoH	180.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Sources of Funds	**218.81**	**75.60**	**71.76**	**76.85**	**81.91**	**86.96**	**91.98**	**91.62**	**91.30**	**90.95**	**90.57**
B. Use of Funds :											

(Rs in Lakh)

CASH FLOW STATEMENT											
Particulars	Lease deed Period	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
1. P&P Expenses	2.47	-	-	-	-	-	-	-	-	-	-
2. Increase in fixed assets	213.36	-	-	-	-	-	-	-	-	-	-
3. Increase in other Assets	2.98	0.45	0.66	0.66	0.67	0.67	0.68	0.07	0.08	0.09	0.10
4. Increase in Sundry Debtors		8.10	0.54	0.54	0.54	0.54	0.54	0.00	0.00	0.00	0.00
5. Interest		0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
6. Taxation		7.15	9.34	11.36	13.23	14.99	16.92	17.33	17.65	17.91	18.12
Total Use of Funds	**218.81**	**16.47**	**11.31**	**13.33**	**15.21**	**16.97**	**18.91**	**18.17**	**18.50**	**18.77**	**18.98**
C. Net Surplus (A -B)		**59.12**	**60.45**	**63.52**	**66.70**	**69.99**	**73.06**	**73.45**	**72.80**	**72.18**	**71.59**
D. Cumulative Surplus		**59.12**	**119.57**	**183.09**	**249.79**	**319.78**	**392.85**	**466.29**	**539.09**	**611.27**	**682.86**

The cash flow statement shows the available net surplus for 10 years of the CFC operations. As most of the capital expenditure is being supported as grant under the State Mini Cluster Development Scheme (EPP 2015), therefore it does not have any negative effect on the Cash flow, in terms of interest, etc.

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 and also current and fixed assets. As evident from the projections, a considerable amount of reserves and surplus gets accumulated. These shall also be utilized for expansion of the CFC and undertaking other cluster development activities. Decision on deployment of reserves and surplus accumulated will be based on the performance of the project and requirements of cluster firms and members of the SPV. The projected balance sheets are provided in the table below:

Table 24: Balance Sheet

(Rs in lakh)

PROJECTED BALANCE SHEET											
Particulars	At the end of impl. Period	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
1. Fixed Assets:											
Gross Block	213.36	213.36	181.38	154.24	131.17	111.55	94.87	80.69	68.63	58.37	49.65
Less: Depreciation (WDV)		31.98	27.14	23.07	19.62	16.68	14.18	12.06	10.26	8.72	7.42
Net Block	213.36	181.38	154.24	131.17	111.55	94.87	80.69	68.63	58.37	49.65	42.23
Total Fixed Assets (A)	**213.36**	**181.38**	**154.24**	**131.17**	**111.55**	**94.87**	**80.69**	**68.63**	**58.37**	**49.65**	**42.23**
2. Current Assets:											
Cash & bank Surplus (B.F)		59.12	119.57	183.09	249.79	319.78	392.85	466.29	539.09	611.27	682.86
Sundry Debtors		8.10	8.64	9.18	9.72	10.26	10.80	10.80	10.80	10.80	10.80
Margin Money for WC Loan	2.98	2.98	3.59	4.21	4.82	5.44	6.05	6.05	6.05	6.05	6.05
Other Current Assets		0.45	0.50	0.54	0.60	0.66	0.72	0.80	0.88	0.96	1.06
P&P Exp	2.47	5.18	3.88	2.59	1.29	0.00	0.00	0.00	0.00	0.00	0.00
Total current Assets (B)		**75.83**	**136.18**	**199.61**	**266.23**	**336.14**	**410.42**	**483.94**	**556.82**	**629.09**	**700.77**
Total Assets (A+B)	**218.81**	**257.21**	**290.43**	**330.78**	**377.78**	**431.01**	**491.11**	**552.57**	**615.19**	**678.73**	**743.00**
3. Current Liabilities:											
Working Capital Loan		7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
Expenses Payable		2.03	2.12	2.21	2.30	2.40	2.49	2.52	2.54	2.57	2.60
Total Current Liabilities (C)		**9.03**	**9.12**	**9.21**	**9.30**	**9.40**	**9.49**	**9.52**	**9.54**	**9.57**	**9.60**

(Rs in lakh)

PROJECTED BALANCE SHEET											
Particulars	At the end of impl. Period	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
4. Fixed Liabilities											
Shareholders' Contribution	38.81	38.81	38.81	38.81	38.81	38.81	38.81	38.81	38.81	38.81	38.81
Grant from GoH	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00
Reserves and Surplus		25.37	58.50	98.76	145.67	198.80	258.80	320.24	382.83	446.35	510.58
Total Fixed Liabilities (D)	**218.81**	**244.18**	**277.31**	**317.57**	**364.48**	**417.61**	**477.62**	**539.05**	**601.64**	**665.16**	**729.39**
Total Liabilities (C+D)	**218.81**	**253.21**	**286.43**	**326.78**	**373.78**	**427.01**	**487.11**	**548.57**	**611.19**	**674.73**	**739.00**

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. It also portrays whether the revenue contribution is sufficient to meet the fixed costs. From this point, the 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 25: Break Even Estimates

(Rs. In Lakh)

BREAKEVEN POINT AT VARIOUS C.U.										
Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Capacity Utilization	75%	80%	85%	90%	95%	100%	100%	100%	100%	100%
A. Total Earning by way of user charges	97.20	103.68	110.16	116.64	123.12	129.60	129.60	129.60	129.60	129.60
B. Variable costs										
Consumables	0.59	0.62	0.66	0.70	0.74	0.78	0.78	0.78	0.78	0.78
Utilities (Power- variable charge)	4.85	5.17	5.49	5.82	6.14	6.46	6.46	6.46	6.46	6.46
Interest on WC Loan	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Repair & Maintenance	4.61	4.92	5.23	5.53	5.84	6.15	6.15	6.15	6.15	6.15
Manpower (Direct)	7.92	8.45	8.98	9.50	10.03	10.56	10.56	10.56	10.56	10.56
Misc. Expenditure (90% variable)	0.41	0.43	0.46	0.49	0.51	0.54	0.54	0.54	0.54	0.54
Total Variable Cost (B)	18.74	19.93	21.13	22.33	23.53	24.72	24.72	24.72	24.72	24.72
C. Contribution (A-B)	78.46	83.75	89.03	94.31	99.59	104.88	104.88	104.88	104.88	104.88
D. Fixed Overheads (Cash)										
Manpower (Indirect)	7.13	7.13	7.13	7.13	7.13	7.13	7.13	7.13	7.13	7.13

(Rs. In Lakh)

BREAKEVEN POINT AT VARIOUS C.U.										
Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Capacity Utilization	75%	80%	85%	90%	95%	100%	100%	100%	100%	100%
Utilities (Power - fixed charges)	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08
Rent	1.80	1.98	2.18	2.40	2.64	2.90	3.19	3.51	3.86	4.24
Insurance	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Misc. Expenditure (10% fixed)	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Sub-total (D)	**12.12**	**12.30**	**12.50**	**12.72**	**12.96**	**13.22**	**13.51**	**13.83**	**14.18**	**14.57**
E. Fixed Overheads (Non-cash)										
Depreciation	31.98	27.14	23.07	19.62	16.68	14.18	12.06	10.26	8.72	7.42
Preliminary & Pre-operative expenses written off	1.29	1.29	1.29	1.29	1.29	0.00	0.00	0.00	0.00	0.00
Sub-total (E)	**33.28**	**28.43**	**24.37**	**20.91**	**17.98**	**14.18**	**12.06**	**10.26**	**8.72**	**7.42**
F. Total Fixed Overheads (D+E)	**45.40**	**40.74**	**36.87**	**33.63**	**30.94**	**27.41**	**25.58**	**24.09**	**22.91**	**21.99**
Break even point (F/C)	**57.86%**	**48.64%**	**41.41%**	**35.66%**	**31.06%**	**26.13%**	**24.39%**	**22.97%**	**21.84%**	**20.96%**

Book break-even is achieved at 57.86% (of operational capacity at 75 per cent) and at 48.64% (of operational capacity at 80 percent). The operation of the CFC is expected to break-even and realizes profit from 1st year of operations. Therefore, very low risk is involved in the project.

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 26: Financial Analysis

FEASIBILITY		
S. No.	**Particulars**	**Estimates**
1	BEP (cash BEP at initial operating capacity of 75%)	57.86%
2	Av. ROCE (PAT/CE)	29.72%
3	Internal Rate of Return (IRR)	26.20%
4	Net Present Value (at a discount rate of 10 per cent) - incorporating viability gap funding (grant) by GoH	NPV is positive and high (Rs. 167.92 lacs) at a conservative project life of 10 years
5	Payback period	4 years 7 months with Grant-in-aid assistance from GOH
6	DSCR	Not Applicable (non-availment of term loan in this project)

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

Table 27: Calculation of Return on Capital Employed

RETURN ON CAPITAL EMPLOYED (ROCE)											
Particulars	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**	**Year 7**	**Year 8**	**Year 9**	**Year 10**	**AVG.**
ROCE	14.94%	19.41%	24%	27.34%	30.92%	34.87%	35.69%	36.36%	36.89%	37.30%	29.72%

The average value of ROCE (with grant-in-aid) is 29.72%. This indicates high techno-economic viability of the project should the government contribute a significant portion of the project cost as grant. Capital employed considered includes the SPV contribution as well as the grant component to the project.

The Net Present Value, estimated at a discount rate of 10%, is Rs. 138.51. 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 22.64% (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 would like to explore the potential of undertaking cluster initiatives to improve the backward and forward linkages of the cluster units.

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

6.13 Risk analysis & Sensitiveness

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 manufacturing of agricultural implements 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 and proceeding towards procurement of land, and securing commitment from members, vis-à-vis progressively mobilizing necessary paid up capital, all reflect the strength of the SPV.

High economic viability indicators upon considering the benefits of grant-in-aid under the State Mini Cluster 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 28: Sensitivity Analysis

SENSTIVITY ANALYSIS					
S. No.	Particulars	Base case	With 10% decline in user charge	With 15% decline in user charge	With 5% decline in user charge
1	BEP (cash BEP at operating capacity of 75%)	57.86%	64.88%	69.82%	60.66%
2	Internal Rate of Return (IRR)	26.20%	22.64%	20.34%	24.86%
3	Av. ROCE (PAT/CE) (with Grant)	29.72%	25.06%	22.36%	27.76%
4	Net Present Value (at a discount rate of 10 per cent) - incorporating viability gap funding (grant) GoH	187.34	138.51	110.91	166.11

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

6.14 Assumption 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. 218.82 Lakh on the basis of estimates and quotations.

2. To finance the project, a total of Rs. 218.82 Lakh is required. The financing will consist of grant from Government of Haryana and contribution by SPV.

3. In the financial projections and analysis, year 2020 is the envisaged period of project implementation also involving 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 2020.

4. The registered SPV will manage the CFC, and these services are to be used by the SPV to member as well as non-member units. The common facility will benefit registered SPV as well as non-member firms who (in some cases) may not afford to contribute to necessary equity capital.

5. The CFC will operate for 25 days a month, that is, for 300 days a year on an eight hour single shift basis. Operation on single shift basis is assumed for purposes of projecting income estimates.

6. Capacity utilization is assumed at 75% in the first year; 80% for second, 85% for third year and 100% from 6th year onwards.

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 @ 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 will not be required as it is already present in the building.

11. Fixed charges per kW of electric connection shall be charged @ Rs. 235 and variable charges @ Rs. 6.70 per unit consumed.

12. Income estimates have been projected most conservatively. The prescribed user charges are competitive vis-à-vis charges for similar services in other regions.

13. Depreciation on fixed assets is calculated on Written Down Value (WDV) method for all purposes.

14. Debtors' collection period is taken at 1 month of calculation of Working Capital Limits.

15. Provision for income tax has been made @ 22% (excluding cess).

16. Profitability estimates in terms of ROCE, NPV, and 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 6 months upon receipt of final approval of grant-in-aid assistance from the Government of Haryana under Mini Cluster Development Scheme, Govt. of Haryana.

2) **User Base:** SPV members and non-members may use the facilities. 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 GC 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 6 months involves several activities. The schedule is elaborated in the table 29 below:

Table 29: Project Implementation Schedule

Activity/Month	1	2	3	4	5	6
Receipt of final approval from Govt. of Haryana						
Bipartite Agreement						
Formation of purchase committee						
Finalisation of Bidding document for the procurement of Plant & Machinery & publish to tender on e-procurement portal						
Finalisation of tenders						
Issuance of LOAs & Contract Agreements						
Collecting Contribution from SPV/ stakeholder						
Purchase of Machinery and equipment & physical verification of the machinery						
Installation and trial run of machinery and equipment						
Arrangement for working capital						

Activity/Month	1	2	3	4	5	6
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 16 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 of Articles and Articles of Association:** Memorandum of Articles & Articles of Association are indicative of the management and decision-making structure of the SPV. All the members of SPV have paid an advance and are became the members of the Society.

6 **Availability of Building & Status of Acquisitions**: The SPV has identified the building for the proposed CFC at village Bhiwani Khera in Kurukshetra district. The total area of the plot is 1600 sq. feet.

7 **Availability of Requisite Clearances:** the SPV Government will procure necessary required clearances. Electricity is already available in the area and the proposed CFC can easily be connected to the grid. The other required clearances (environment, labor. IPH etc.) will be taken to the concerned department for NOC issuance, which 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:

- Minor Civil Works Alteration
- 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.

The project will be implemented through SPV and PMC will report progress of implementation to the State Government & Central Government.

7.3 Project Monitoring

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

The members may comprise the following:

i. Principal Secretary, Industries and Commerce, Government of Haryana (Chairman)
ii. Director General, Department of MSME, Member
iii. Director MSME DI, Karnal, Member
iv. Deputy Director, DIC, Kurukshetra
v. Members of related SPV
vi. EY Cluster Development Expert under MSME project

In addition, for implementing the Kurukshetra Agricultural Implements Manufacturing cluster CFC project, a Project Management Committee (PMC) comprising the Deputy Director, DIC, Kurukstera, and representatives of SPV, 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 DIC Kurukshetra.

Conclusion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8. Conclusion

The micro & small agricultural implements manufacturing units of Kurukshetra are dependent on manual, low capacity and obsolete technologies for production and are barely surviving due to intense competition from large firms. The increasing costs of raw materials coupled with high production costs is driving many micro players out of the market. The micro & small units do not have the advanced machining facilities and hence are unable to procure orders from MNCs. To add to their woes, the micro and small units are unable to produce quality products for the biggest market segment in the region.

Against this backdrop, it is inevitable to support the micro & small agricultural manufacturing units in Kurukshetra to adopt an advanced cutting Centre, machining Centre & powder coating facility. This will reduce their processing costs significantly while increasing the quality of their products.

The future of agricultural implements industry is bright. This segment is poised to grow at a steady rate with major applications being in engineering goods. Several factors are enhancing the demand and supply of agricultural implement products in India such as high growth of end-user industry & govt. focus on agriculture industries etc. Particularly in the Kurukshetra region, the market possibility for high quality agricultural implement products is promising. The only constraint is the lack of technologies and related infrastructure which can be removed by setting up a CFC. The cluster firms have not been able to obtain bulk orders from large customers due to lack of quality, production capacity and poor quality of produce. The technologies required for upgradation are extremely expensive and the same cannot be adopted by any individual units in the cluster. Hence, the following facilities have been proposed in the CFC:

- Value added cutting facility
- Value added machining facility
- Value added powder coating facility

The total project cost (including plant/machinery and buildings) is estimated to be INR **218.81 lakh**. The project shall be implemented by the SPV '**Azzad Agriculture Industries Pvt. Ltd.'** which has been constituted by the cluster firms. 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 MSME) under PPP mode. The building for the project has already been identified by the SPV and shall be acquired immediately upon in final approval by State Government. The state industry department is envisaged to provide grant for setting up of the CFC under the Mini Cluster Development scheme, Haryana EPP 2015. The SPV members have proposed to contribute **INR 38.81 lakh** of the project cost. Support from Mini Cluster Development Scheme of the State Government of Haryana is envisaged for **INR 180.00 lakh.** ICICI Bank will provide working capital requirement for the project, if required. The project is financially viable and is expected to generate enough revenue to ensure its sustainability.

Annexures

9. Annexures

Annexure 1: DSR Approval Letter

From

The Director General, MSME, Haryana

To

M/s Ernst & Young LLP,
Unit 613-615, 6th Floor,
Elante Offices, Chandigarh
Email :- upinder.dhingra@in.ey.com

Memo No. Mini Cluster/Agri Implements Cluster/KKR/ 13541-A
Dated Chandigarh, the 28/08/2020

Subject:- **Regarding conducting Detailed Project Report (DPR) in case of Kurukshetra Agri Implements Manufacturing Cluster under the State Mini Cluster Development Scheme.**

Kindly refer to the subject cited above.

In this connection, it is informed that the Diagnostic Study Report (DSR) in case of Kurukshetra Agri Implements Manufacturing Cluster under State Mini Cluster Development Scheme has been approved by the Director General, MSME, Haryana on 14.08.2020. You are, therefore, requested to prepare the Detailed Project Report (DPR) for the above said mini cluster.

Additional Director (Cluster)
for Director General, MSME, Haryana

Endst. No. Mini Cluster/Agri Implements Cluster/KKR/13542-A Dated:- 28/08/2020

A copy of the above is forwarded to the SPV of the Agri Implements Cluster, Kurukshetra M/s V. S. Industries, Kurukshetra, Haryana with a request to provide requisite documents and information as asked by Ernst & Young LLP immediately which are required for preparation of DPR. E-mail : kurukshetracluster@gmail.com

Additional Director (Cluster)
for Director General, MSME, Haryana

Endst. No. Mini Cluster/Agri Implements Cluster/KKR/13543A Dated:- 28/08/2020

A copy of the above is forwarded to Deputy Director, District Industries Centre, Kurukshetra for information and further necessary action.

Additional Director (Cluster)
for Director General, MSME, Haryana

Annexure 2 (a): SPV Certificate of Incorporation

GOVERNMENT OF INDIA
MINISTRY OF CORPORATE AFFAIRS
Central Registration Centre

Certificate of Incorporation

[Pursuant to sub-section (2) of section 7 and sub-section (1) of section 8 of the Companies Act, 2013 (18 of 2013) and rule 18 of the Companies (Incorporation) Rules, 2014]

I hereby certify that AZZAD AGRICULTURE INDUSTRIES PRIVATE LIMITED is incorporated on this Twelfth day of August Two thousand twenty under the Companies Act, 2013 (18 of 2013) and that the company is limited by shares.

The Corporate Identity Number of the company is U01110HR2020PTC088295.

The Permanent Account Number (PAN) of the company is **AATCA8451F** *

The Tax Deduction and Collection Account Number (TAN) of the company is **RTKA17796C** *

Given under my hand at Manesar this Twelfth day of August Two thousand twenty .

Digital Signature Certificate
Mr MANGAL RAM MEENA
Deputy Registrar Of Companies
For and on behalf of the Jurisdictional Registrar of Companies
Registrar of Companies
Central Registration Centre

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

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

AZZAD AGRICULTURE INDUSTRIES PRIVATE LIMITED
SHOP NO. 1, BHIWANI KHERA, TEHSIL THANESIL, KURUKSHETRA,
Kurukshetra, Haryana, India, 136118

* as issued by the Income Tax Department

Annexure 2 (b): Copy of Memorandum of Association (MoA)

[Pursuant to Schedule I (see sections 4 and 5) to the Companies Act, 2013] FORM NO. INC-33

SPICe+MOA
(e-Memorandum of Association)

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

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

1. The Name of the Company is: AZZAD AGRICULTURE INDUSTRIES PRIVATE LIMITED

2.The Registered office of the company will be situated in the state of: Haryana-HR

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

1. To function as Special Purpose Vehicle (SPV) and Set up Common Facilities Centre(CFC) and other infrastructure activities for Agriculture & allied Industry and for the benefits of its members and Industry/concerned stakeholders following the guidelines and notifications for State Mini Cluster Development Scheme of Govt. of Haryana.
2. To undertake works/schemes/programs of Government relating to growth and development of Agriculture & Allied Industry and carry out/ conduct soft and hard intervention activities under State Mini Cluster Development Scheme of Govt. of Haryana.
3. To act as a resource centre for development and strengthening network as Business Development Services related to Technology, Market, Capacity building and Hand holding support for the purpose of growth and development of the Agriculture & Allied Industry under State Mini Cluster Development Scheme of Govt. of Haryana.
4. To make available raw and packing material to all members of Agriculture & allied industry at competitive rates by opening of raw and packing material bank.
5. To arrange latest technology for upgrading all processing units to provide Quality certificate to its members.
6. To render assistance and encouragement as may be necessary to persons engaged in Agriculture Industry.
7. To undertake job work, manufacturing, import, export of all type of Agriculture & allied products and research work in connection with development of Agriculture & allied industry.
8. To conduct training programs/seminars for capacity building and skill enhancement of workers in the Agriculture & allied industry.

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

Page 1 of 4

) To receipt of contract amount in foreign currencies & repatriate the amount out side India

(2) To do all or any of the acts or things as mentioned in the main objects either as principals, contractors or otherwise and either alone or in conjunction with others.

(3) To pay all costs, charges and expenses incurred or sustained in or about the formation, registration, promotion, incorporation, establishment and advertisement of the Company or which the Company shall consider to be preliminary including contracts entered into by the Company.

(4) To enter into contracts or arrangements or other dealings for more efficient conduct of the business of the Company or any part thereof and also to enter into any arrangement with any Government or Authorities or any persons or companies that may seem conducive to the main objects of the Company.

(5) To buy, sell, repair, alter, improve, exchange, let on hire, import, export and deal in all works, plant, machinery, tools, appliances, apparatus, products, materials technical collaboration and necessary formulas and patent rights for furthering the main objects of the Company.

(6) To lease, sub-lease, hire, purchase, license or otherwise acquire and/or sell, dispose of, construct, alter, modify, develop or otherwise deal in any properties, factories, shades, offices, guest houses, employee accommodation, godowns, warehouses, or other structures for housing and carrying on the businesses of the Company or for its employees, clients or other persons or for any other persons or for any other purpose as the Board of Directors may think expedient for the benefit of the Company.
(7) To enter into, undertake and execute contracts or other arrangements with any parties for any transactions, including the provision and supply or use of materials, machinery, equipment, articles or other products and/or services necessary for or otherwise required for or incidental to carrying out the objectives of the Company.

(8) To recruit, train and develop staff, organize seminars, training programs and conferences for employees, customers and the general public.

(9) To recruit, train and develop a pool of technical, managerial and administrative personnel including staff, employees, agents, for the Company or any subsidiary, affiliate or group companies or any other company, firm or other person, particularly where such companies, firms or persons are engaged in any business related to the business of the Company.

(10) To employ, engage, appoint, retain or otherwise procure, suspend or terminate the services of professionals, consultants, engineers, design consultants, technicians, legal and financial advisors, or other experts and to imbibe innovation and modern management techniques in the functioning and businesses of the Company.

(11) To retrench, lay-off, suspend, terminate the appointment of or dismiss executives, managers, assistants, support staff and other employees and to remunerate them at such rates as may be thought fit.

(12) To adopt such means of making known the articles, goods, products, appliances produced or dealt in or processes and services provided by, or at the disposal of the Company, as well as properties, assets and effects of the Company as may seem expedient, in particular by advertising in the press and through billboards, hoardings, motion pictures, by broadcasting, telecasting or by publication of books, periodicals and any other material convenient to the Company, by participating in trade fairs, exhibitions and by granting prizes, rewards and donations.

(13) To acquire, and possess the whole or part of the business assets, property, goodwill, rights and liabilities of any persons, society, association or company carrying on any business.

(14) To appoint dealers, sub-dealers, agents, sub-agents, distributors, sole selling agents, sole concessionaries, either in India or any place in India, for the efficient conduct of the bus iness of the Company, and remunerate them for their services.

(15) To take and/or provide discounts or to approve other terms of payment or credit in relation to any sums owing to or due from the Company and to impose or agree to pay any interest thereon or to write off any such sums or parts thereof.

(16) To carry on research and development activities on all aspects related to the business and objects of the Company.

(17) To acquire from any person, firm or body corporate, whether in India or elsewhere, technical information, know -how, processes, engineering, and operating data, plans, lay-outs and blue-prints useful for the design, erection and operation of plant and machinery, required for any of the businesses of the Company and to pay remuneration thereof in any currency by way of lump-sum or instalments or fees or royalties.

(18) To develop and/or furnish to any person, firm or body corporate whether in India or elsewhere, technical information, know-how, processes, engineering and operating data, plans, lay-outs and blue-prints useful for the design, erection and operation of plant and machinery, required for any of the businesses of the Company and to obtain remuneration thereof in any currency by way of lump-sum or installments or fees or royalties or through any other arrangement.

(19) To apply for, purchase, or otherwise acquire, protect or prolong any patent, design, concessions, trademarks, copyrights and the like, conferring an exclusive or non-exclusive or limited right of use, or any secret or other information and/or systems, processes of the Company or which the Company may develop or acquire or propose to develop or acquire.

(20) To apply for, purchase or otherwise acquire brand names/service marks for the products produced and the ser vices rendered by the

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

5.The share capital of the company is 1,000,000.00 rupees, divided into,

100,000.00	Equity	shares of	10.00	rupees each	,and

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

☐ I, whose name and address is given below, am desirous of forming a company in pursuance of this memorandum of association and agree to take all the shares in the capital of the company (Applicable in case of one person company):

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S.No.	Subscriber Details					
	Name, Address, Description and Occupation	DIN/PAN/Passport Number	No. of shares taken		DSC	Dated
1	NAME:- VISHNU SAINI FATHER'S NAME :- MR.RAM DUTT SAINI ADDRESS:- VILLAGE BHIWANI KHERA, TEHSIL THANESAR , DISTRICT KURUKSHETRA (HARYANA)- 136118, OCCUPATION :- BUSINESS	DUHPS8640J	5000	Equity		11/08/20
				Preference		
2	NAME:- GURMEET KAUR FATHER'S NAME :- MR. BARKHA RAM ADDRESS:- VILLAGE BHIWANI KHERA, TEHSIL THANESAR , DISTRICT KURUKSHETRA (HARYANA)- 136118, OCCUPATION :- BUSINESS	AQAPK5481H	5000	Equity		
				Preference		
	Total Shares taken		10,000.00	Equity		
				Preference		

Signed before Me					
Name		Address, Description and Occupation	DIN/PAN/Passport Number/ Membership Number	DSC	Dated
FCA	AJAY MONGA	#1758/6, JYOTI NAGAR, KURUKSHETRA-136118 (HARYANA), INDIA OCCUPATION - CA I WITNESS TO SUBSCRIBER/ SUBSCRIBER(S), WHO HAS/HAVE SUBSCRIBED AND SIGNED IN MY PRESENCE; FURTHER I HAVE VERIFIED HIS	511570		11/08/20

Modify Check Form

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Annexure 2 (c): Copy of Article of Association (AoA)

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

SPICe+ AOA
(e-Articles of Association)

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

AZZAD AGRICULTURE INDUSTRIES PRIVATE LIMITED

A COMPANY LIMITED BY SHARES

Check if not applicable	Check if altered	Article No	Description
			Interpretation
☐	☒	I	(1) In these regulations – (a) "Company" means M/s AZZAD AGRICULTURE INDUSTRIES PRIVATE LIMITED (b) "Office" means the Registered Office of the Company. (c) "Act", means the Companies Act, 2013 and any statutory modifications thereof. (d) "The Seal" means the Common Seal of The Company. (e) "Directors" means the Directors of the Company and includes persons occupying the position of the Directors by whatever names called. (2) Unless the context otherwise requires, words or expressions contained in these regulations shall bear the same meaning as in the Act or any statutory modification thereof in force at the date at which these regulations become binding on the company. (3) The Company is a Private Company within the meaning of Section 2(68) of the Companies Act, 2013, and accordingly: (i) The right to transfer shares in the Company is restricted in the manner and to the extent hereinafter appearing; (ii) The number of members of the Company (exclusive of persons who are in the employment of the Company, and persons who having been formerly in the employment of the Company, were members of the Company while in the employment and have continued to be members after the employment ceased) shall be limited to two hundred; provided that for the purpose of this definition where two or more persons jointly hold one or more shares in the Company, the shall, be treated as a single member, and. (iii) prohibits any invitation to the public to subscribe for any securities of the company;
			Share capital and variation of rights
☐	☒	II 1	Subject to the provisions of the Act and these Articles, the shares in the capital of the company shall be under the control of the Directors who may issue, allot or otherwise dispose of the same or any of them to such persons, in such proportion and on such terms and conditions and either at a premium or at par and at such time as they may from time to time think fit. (a) The Authorised Share Capital of the Company shall be such amounts and be divided into such shares as may, from time to time, be provided in Clause V of the Memorandum of Association, with power to increase or reduce the capital in accordance with the Company?s regulations and legislative provisions for the time being in force in that behalf with the powers to divide the share capital, whether original increased or decreased into several classes an d attach thereto respectively such ordinary, preferential or special rights and conditions in such a manner as may for the time being be provided by the Regulations of the Company and allowed by law. (b) The minimum paid up Capital of the Company shall be Rs. 1,00,000/-(Rupees One Lakhs)

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☐	☐	2	(i) Every person whose name is entered as a member in the register of members shall be entitled to receive within two months after incorporation, in case of subscribers to the memorandum or after allotment or within one month after the application for the registration of transfer or transmission or within such other period as the conditions of issue shall be provided,- (a) one certificate for all his shares without payment of any charges; or (b) several certificates, each for one or more of his shares, upon payment of twenty rupees for each certificate after the first. (ii) Every certificate shall be under the seal and shall specify the shares to which it relates and the amount paid-up thereon. (iii) In respect of any share or shares held jointly by several persons, the company shall not be bound to issue more than one certificate, and delivery of a certificate for a share to one of several joint holders shall be sufficient delivery to all such holders
☐	☐	3	(i) If any share certificate be worn out, defaced, mutilated or torn or if there be no further space on the back for endorsement of transfer, then upon production and surrender thereof to the company, a new certificate may be issued in lieu thereof, and if any certificate is lost or destroyed then upon proof thereof to the satisfaction of the company and on execution of such indemnity as the company deem adequate, a new certificate in lieu thereof shall be given. Every certificate under this Article shall be issued on payment of twenty rupees for each certificate. (ii) The provisions of Articles (2) and (3) shall mutatis mutandis apply to debentures of the company.
☐	☐	4	Except as required by law, no person shall be recognised by the company as holding any share upon any trust, and the company shall not be bound by, or be compelled in any way to recognise (even when having notice thereof) any equitable, contingent, future or partial interest in any share, or any interest in any fractional part of a share, or (except only as by these regulations or by law otherwise provided) any other rights in respect of any share except an absolute right to the entirety thereof in the registered holder.
☐	☐	5	(i) The company may exercise the powers of paying commissions conferred by sub-section (6) of section 40, provided that the rate per cent or the amount of the commission paid or agreed to be paid shall be disclosed in the manner required by that section and rules made thereunder. (ii) The rate or amount of the commission shall not exceed the rate or amount prescribed in rules made under sub-section (6) of section 40. (iii) The commission may be satisfied by the payment of cash or the allotment of fully or partly paid shares or partly in the one way and partly in the other.
☐	☐	6	(i) If at any time the share capital is divided into different classes of shares, the rights attached to any class (unless otherwise provided by the terms of issue of the shares of that class) may, subject to the provisions of section 48, and whether or not the company is being wound up, be varied with the consent in writing of the holders of three-fourths of the issued shares of that class, or with the sanction of a special resolution passed at a separate meeting of the holders of the shares of that class. (ii) To every such separate meeting, the provisions of these regulations relating to general meetings shall mutatis mutandis apply, but so that the necessary quorum shall be at least two persons holding at least one-third of the issued shares of the class in question.
☐	☐	7	The rights conferred upon the holders of the shares of any class issued with preferred or other rights shall not, unless otherwise expressly provided by the terms of issue of the shares of that class, be deemed to be varied by the creation or issue of further shares ranking pari passu therewith.
☐	☐	8	Subject to the provisions of section 55, any preference shares may, with the sanction of an ordinary resolution, be issued on the terms that they are to be redeemed on such terms and in such manner as the company before the issue of the shares may, by special resolution, determine.
			Lien
☐	☐	9	(i) The company shall have a first and paramount lien- (a) on every share (not being a fully paid share), for all monies (whether presently payable or not) called, or payable at a fixed time, in respect of that share; and (b) on all shares (not being fully paid shares) standing registered in the name of a single person, for all monies presently payable by him or his estate to the company: Provided that the Board of directors may at any time declare any share to be wholly or in part exempt from the provisions of this clause. (ii) The company?s lien, if any, on a share shall extend to all dividends payable and bonuses declared from time to time in respect of such shares.
☐	☐	10	The company may sell, in such manner as the Board thinks fit, any shares on which the company has a lien: Provided that no sale shall be made- (a) unless a sum in respect of which the lien exists is presently payable; or (b) until the expiration of fourteen days after a notice in writing stating and demanding payment of such part of the amount in respect of which the lien exists as is presently payable, has been given to the registered holder for the time being of the share or the person entitled thereto by reason of his death or insolvency.

☐	☐	11	(i) To give effect to any such sale, the Board may authorise some person to transfer the shares sold to the purchaser thereof. (ii) The purchaser shall be registered as the holder of the shares comprised in any such transfer. (iii) The purchaser shall not be bound to see to the application of the purchase money, nor shall his title to the shares be affected by any irregularity or invalidity in the proceedings in reference to the sale.
☐	☐	12	(i) The proceeds of the sale shall be received by the company and applied in payment of such part of the amount in respect of which the lien exists as is presently payable. (ii) The residue, if any, shall, subject to a like lien for sums not presently payable as existed upon the shares before the sale, be paid to the person entitled to the shares at the date of the sale.
			Calls on shares
☐	☐	13	(i) The Board may, from time to time, make calls upon the members in respect of any monies unpaid on their shares (whether on account of the nominal value of the shares or by way of premium) and not by the conditions of allotment thereof made payable at fixed times: Provided that no call shall exceed one-fourth of the nominal value of the share or be payable at less than one month from the date fixed for the payment of the last preceding call. (ii) Each member shall, subject to receiving at least fourteen days? notice specifying the time or times and place of payment, pay to the company, at the time or times and place so specified, the amount called on his shares. (iii) A call may be revoked or postponed at the discretion of the Board.
☐	☐	14	A call shall be deemed to have been made at the time when the resolution of the Board authorizing the call was passed and may be required to be paid by instalments.
☐	☐	15	The joint holders of a share shall be jointly and severally liable to pay all calls in respect thereof.
☐	☐	16	(i) If a sum called in respect of a share is not paid before or on the day appointed for payment thereof, the person from whom the sum is due shall pay interest thereon from the day appointed for payment thereof to the time of actual payment at ten per cent per annum or at such lower rate, if any, as the Board may determine. (ii) The Board shall be at liberty to waive payment of any such interest wholly or in part.
☐	☐	17	(i) Any sum which by the terms of issue of a share becomes payable on allotment or at any fixed date, whether on account of the nominal value of the share or by way of premium, shall, for the purposes of these regulations, be deemed to be a call duly made and payable on the date on which by the terms of issue such sum becomes payable. (ii) In case of non-payment of such sum, all the relevant provisions of these regulations as to payment of interest and expenses, forfeiture or otherwise shall apply as if such sum had become payable by virtue of a call duly made and notified.
☐	☐	18	The Board- (a) may, if it thinks fit, receive from any member willing to advance the same, all or any part of the monies uncalled and unpaid upon any shares held by him; and (b) upon all or any of the monies so advanced, may (until the same would, but for such advance, become presently payable) pay interest at such rate not exceeding, unless the company in general meeting shall otherwise direct, twelve per cent per annum, as may be agreed upon between the Board and the member paying the sum in advance.
			Transfer of shares
☐	☐	19	(i) The instrument of transfer of any share in the company shall be executed by or on behalf of both the transferor and transferee. (ii) The transferor shall be deemed to remain a holder of the share until the name of the transferee is entered in the register of members in respect thereof.
☐	☐	20	The Board may, subject to the right of appeal conferred by section 58 decline to register- (a) the transfer of a share, not being a fully paid share, to a person of whom they do not approve; or (b) any transfer of shares on which the company has a lien.
☐	☐	21	The Board may decline to recognise any instrument of transfer unless- (a) the instrument of transfer is in the form as prescribed in rules made under sub-section (1) of section 56; (b) the instrument of transfer is accompanied by the certificate of the shares to which it relates, and such other evidence as the Board may reasonably require to show the right of the transferor to make the transfer; and (c) the instrument of transfer is in respect of only one class of shares.
☐	☐	22	On giving not less than seven days? previous notice in accordance with section 91 and rules made thereunder, the registration of transfers may be suspended at such times and for such periods as the Board may from time to time determine: Provided that such registration shall not be suspended for more than thirty days at any one time or for more than forty-five days in the aggregate in any year.

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			Transmission of shares
☐	☐	23	(i) On the death of a member, the survivor or survivors where the member was a joint holder, and his nominee or nominees or legal representatives where he was a sole holder, shall be the only persons recognised by the company as having any title to his interest in the shares. (ii) Nothing in clause (i) shall release the estate of a deceased joint holder from any liability in respect of any share which had been jointly held by him with other persons.
☐	☐	24	(i) Any person becoming entitled to a share in consequence of the death or insolvency of a member may, upon such evidence being produced as may from time to time properly be required by the Board and subject as hereinafter provided, elect, either- (a) to be registered himself as holder of the share; or (b) to make such transfer of the share as the deceased or insolvent member could have made. (ii) The Board shall, in either case, have the same right to decline or suspend registration as it would have had, if the deceased or insolvent member had transferred the share before his death or insolvency.
☐	☐	25	(i) If the person so becoming entitled shall elect to be registered as holder of the share himself, he shall deliver or send to the company a notice in writing signed by him stating that he so elects. (ii) If the person aforesaid shall elect to transfer the share, he shall testify his election by executing a transfer of the share. (iii) All the limitations, restrictions and provisions of these regulations relating to the right to transfer and the registration of transfers of shares shall be applicable to any such notice or transfer as aforesaid as if the death or insolvency of the member had not occurred and the notice or transfer were a transfer signed by that member.
☐	☐	26	A person becoming entitled to a share by reason of the death or insolvency of the holder shall be entitled to the same dividends and other advantages to which he would be entitled if he were the registered holder of the share, except that he shall not, before being registered as a member in respect of the share, be entitled in respect of it to exercise any right conferred by membership in relation to meetings of the company. Provided that the Board may, at any time, give notice requiring any such person to elect either to be registered himself or to transfer the share, and if the notice is not complied with within ninety days, the Board may thereafter withhold payment of all dividends, bonuses or other monies payable in respect of the share, until the requirements of the notice have been complied with.
			Forfeiture of shares
☐	☐	27	If a member fails to pay any call, or instalment of a call, on the day appointed for payment thereof, the Board may, at any time thereafter during such time as any part of the call or instalment remains unpaid, serve a notice on him requiring payment of so much of the call or instalment as is unpaid, together with any interest which may have accrued.
☐	☐	28	The notice aforesaid shall- (a) name a further day (not being earlier than the expiry of fourteen days from the date of service of the notice) on or before which the payment required by the notice is to be made; and (b) state that, in the event of non-payment on or before the day so named, the shares in respect of which the call was made shall be liable to be forfeited.
☐	☐	29	If the requirements of any such notice as aforesaid are not complied with, any share in respect of which the notice has been given may, at any time thereafter, before the payment required by the notice has been made, be forfeited by a resolution of the Board to that effect.
☐	☐	30	(i) A forfeited share may be sold or otherwise disposed of on such terms and in such manner as the Board thinks fit. (ii) At any time before a sale or disposal as aforesaid, the Board may cancel the forfeiture on such terms as it thinks fit.
☐	☐	31	(i) A person whose shares have been forfeited shall cease to be a member in respect of the forfeited shares, but shall, notwithstanding the forfeiture, remain liable to pay to the company all monies which, at the date of forfeiture, were presently payable by him to the company in respect of the shares. (ii) The liability of such person shall cease if and when the company shall have received payment in full of all such monies in respect of the shares.

☐	☐	32	(i) A duly verified declaration in writing that the declarant is a director, the manager or the secretary, of the company, and that a share in the company has been duly forfeited on a date stated in the declaration, shall be conclusive evidence of the facts therein stated as against all persons claiming to be entitled to the share; (ii) The company may receive the consideration, if any, given for the share on any sale or disposal thereof and may execute a transfer of the share in favour of the person to whom the share is sold or disposed of; (iii) The transferee shall thereupon be registered as the holder of the share; and (iv) The transferee shall not be bound to see to the application of the purchase money, if any, nor shall his title to the share be affected by any irregularity or invalidity in the proceedings in reference to the forfeiture, sale or disposal of the share.
☐	☐	33	The provisions of these regulations as to forfeiture shall apply in the case of nonpayment of any sum which, by the terms of issue of a share, becomes payable at a fixed time, whether on account of the nominal value of the share or by way of premium, as if the same had been payable by virtue of a call duly made and notified.
			Alteration of capital
☐	☐	34	The company may, from time to time, by ordinary resolution increase the share capital by such sum, to be divided into shares of such amount, as may be specified in the resolution.
☐	☐	35	Subject to the provisions of section 61, the company may, by ordinary resolution,- (a) consolidate and divide all or any of its share capital into shares of larger amount than its existing shares; (b) convert all or any of its fully paid-up shares into stock, and reconvert that stock into fully paid-up shares of any denomination; (c) sub-divide its existing shares or any of them into shares of smaller amount than is fixed by the memorandum; (d) cancel any shares which, at the date of the passing of the resolution, have not been taken or agreed to be taken by any person.
☐	☐	36	Where shares are converted into stock,- (a) the holders of stock may transfer the same or any part thereof in the same manner as, and subject to the same regulations under which, the shares from which the stock arose might before the conversion have been transferred, or as near thereto as circumstances admit: Provided that the Board may, from time to time, fix the minimum amount of stock transferable, so, however, that such minimum shall not exceed the nominal amount of the shares from which the stock arose. (b) the holders of stock shall, according to the amount of stock held by them, have the same rights, privileges and advantages as regards dividends, voting at meetings of the company, and other matters, as if they held the shares from which the stock arose; but no such privilege or advantage (except participation in the dividends and profits of the company and in the assets on winding up) shall be conferred by an amount of stock which would not, if existing in shares, have conferred that privilege or advantage. (c) such of the regulations of the company as are applicable to paid-up shares shall apply to stock and the words "share" and "shareholder" in those regulations shall include "stock" and "stock-holder" respectively.
☐	☐	37	The company may, by special resolution, reduce in any manner and with, and subject to, any incident authorised and consent required by law,- (a) its share capital; (b) any capital redemption reserve account; or (c) any share premium account.
			Capitalisation of profits
☐	☐	38	(i) The company in general meeting may, upon the recommendation of the Board, resolve- (a) that it is desirable to capitalise any part of the amount for the time being standing to the credit of any of the company?s reserve accounts, or to the credit of the, profit and loss account, or otherwise available for distribution; and (b) that such sum be accordingly set free for distribution in the manner specified in clause (ii) amongst the members who would have been entitled thereto, if distributed by way of dividend and in the same proportions. (ii) The sum aforesaid shall not be paid in cash but shall be applied, subject to the provision contained in clause (iii), either in or towards- (A) paying up any amounts for the time being unpaid on any shares held by such members respectively; (B) paying up in full, unissued shares of the company to be allotted and distributed, credited as fully paid-up, to and amongst such members in the proportions aforesaid; (C) partly in the way specified in sub-clause (A) and partly in that specified in sub-clause (B); (D) A securities premium account and a capital redemption reserve account may, for the purposes of this regulation, be applied in the paying up of unissued shares to be issued to members of the company as fully paid bonus shares; (E) The Board shall give effect to the resolution passed by the company in pursuance of this regulation.

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☐	☐	39	(i) Whenever such a resolution as aforesaid shall have been passed, the Board shall- (a) make all appropriations and applications of the undivided profits resolved to be capitalised thereby, and all allotments and issues of fully paid shares if any; and (b) generally do all acts and things required to give effect thereto. (ii) The Board shall have power- (a) to make such provisions, by the issue of fractional certificates or by payment in cash or otherwise as it thinks fit, for the case of shares becoming distributable in fractions; and (b) to authorise any person to enter, on behalf of all the members entitled thereto, into an agreement with the company providing for the allotment to them respectively, credited as fully paid-up, of any further shares to which they may be entitled upon such capitalisation, or as the case may require, for the payment by the company on their behalf, by the application thereto of their respective proportions of profits resolved to be capitalised, of the amount or any part of the amounts remaining unpaid on their existing shares; (iii) Any agreement made under such authority shall be effective and binding on such members.
			Buy-back of shares
☐	☐	40	Notwithstanding anything contained in these articles but subject to the provisions of sections 68 to 70 and any other applicable provision of the Act or any other law for the time being in force, the company may purchase its own shares or other specified securities.
			General meetings
☐	☐	41	All general meetings other than annual general meeting shall be called extraordinary general meeting.
☐	☐	42	(i) The Board may, whenever it thinks fit, call an extraordinary general meeting. (ii) If at any time directors capable of acting who are sufficient in number to form a quorum are not within India, any director or any two members of the company may call an extraordinary general meeting in the same manner, as nearly as possible, as that in which such a meeting may be called by the Board.
			Proceedings at general meetings
☐	☐	43	(i) No business shall be transacted at any general meeting unless a quorum of members is present at the time when the meeting proceeds to business. (ii) Save as otherwise provided herein, the quorum for the general meetings shall be as provided in section 103.
☐	☐	44	The chairperson, if any, of the Board shall preside as Chairperson at every general meeting of the company.
☐	☐	45	If there is no such Chairperson, or if he is not present within fifteen minutes after the time appointed for holding the meeting, or is unwilling to act as chairperson of the meeting, the directors present shall elect one of their members to be Chairperson of the meeting.
☐	☐	46	If at any meeting no director is willing to act as Chairperson or if no director is present within fifteen minutes after the time appointed for holding the meeting, the members present shall choose one of their members to be Chairperson of the meeting.
			Adjournment of meeting
☐	☐	47	(i) The Chairperson may, with the consent of any meeting at which a quorum is present, and shall, if so directed by the meeting, adjourn the meeting from time to time and from place to place. (ii) No business shall be transacted at any adjourned meeting other than the business left unfinished at the meeting from which the adjournment took place. (iii) When a meeting is adjourned for thirty days or more, notice of the adjourned meeting shall be given as in the case of an original meeting. (iv) Save as aforesaid, and as provided in section 103 of the Act, it shall not be necessary to give any notice of an adjournment or of the business to be transacted at an adjourned meeting.
			Voting rights
☐	☐	48	Subject to any rights or restrictions for the time being attached to any class or classes of shares,- (a) on a show of hands, every member present in person shall have one vote; and (b) on a poll, the voting rights of members shall be in proportion to his share in the paid-up equity share capital of the company.
☐	☐	49	A member may exercise his vote at a meeting by electronic means in accordance with section 108 and shall vote only once.

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

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

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

☐	☐	87	Subject to the provisions of Chapter XX of the Act and rules made thereunder- (i) If the company shall be wound up, the liquidator may, with the sanction of a special resolution of the company and any other sanction required by the Act, divide amongst the members, in specie or kind, the whole or any part of the assets of the company, whether they shall consist of property of the same kind or not. (ii) For the purpose aforesaid, the liquidator may set such value as he deems fair upon any property to be divided as aforesaid and may determine how such division shall be carried out as between the members or different classes of members. (iii) The liquidator may, with the like sanction, vest the whole or any part of such assets in trustees upon such trusts for the benefit of the contributories if he considers necessary, but so that no member shall be compelled to accept any shares or other securities whereon there is any liability.
			Indemnity
☐	☐	88	Every officer of the company shall be indemnified out of the assets of the company against any liability incurred by him in defending any proceedings, whether civil or criminal, in which judgment is given in his favour or in which he is acquitted or in which relief is granted to him by the court or the Tribunal.
☒			***Others***

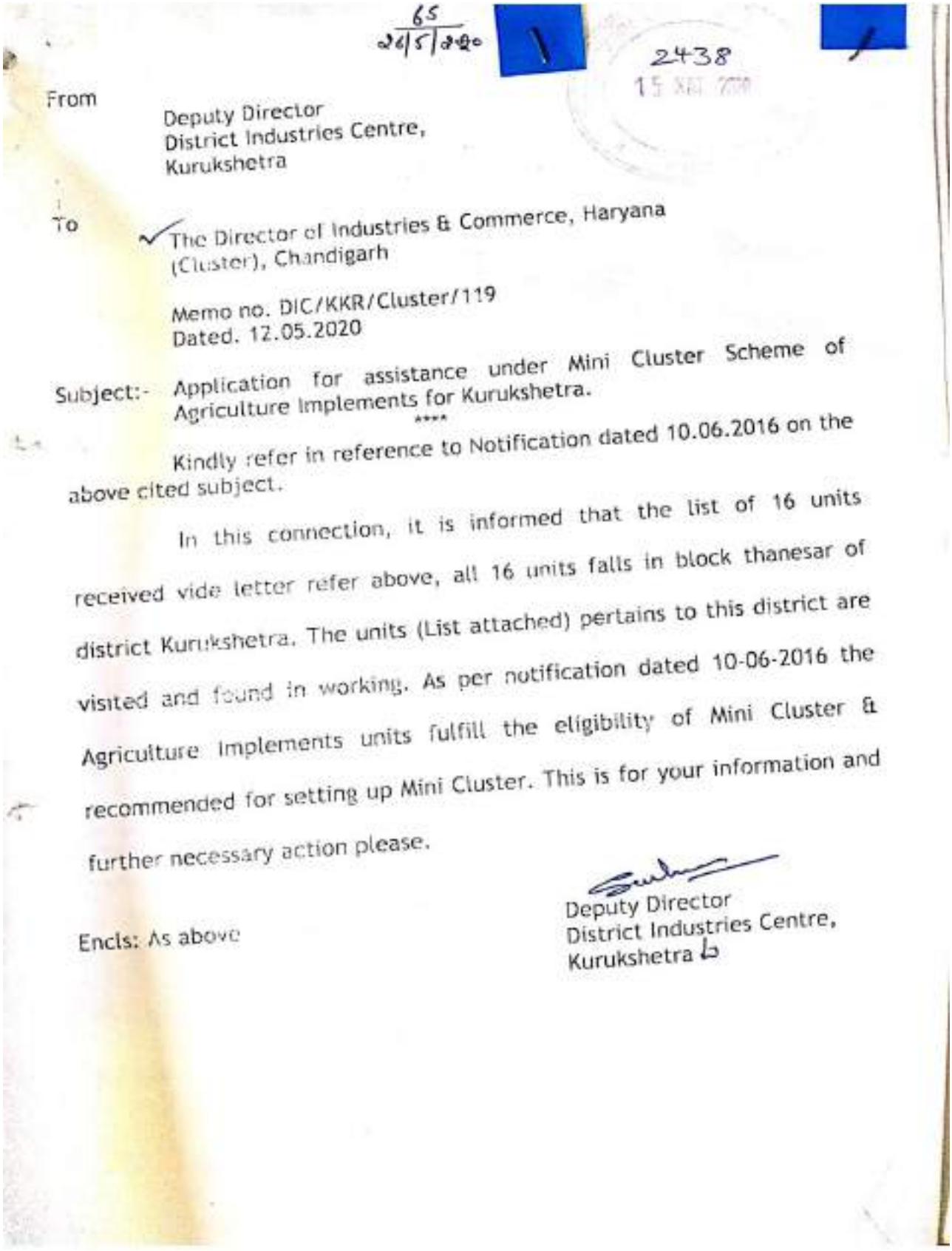
		89	BORROWING POWERS a) Subject to section 73 and 179 of the Companies Act. 2013, and Regulations made there under and Directions issued by the RBI the directors may, from time to time, raise or borrow any sums of money for and on behalf of the Company from the member or other persons, companies or banks or they may themselves advance money to the company on such interest as may be approved by the Directors. b) The Directors may, from time to time, secure the payment of such money in such manner and upon such terms and conditions in all respects as they deem fit and in particular by the issue of bonds or debentures or by pledge, mortgage, charge or any other security on all or any properties of the Company (both present and future) including its uncalled capital for the time being. OPERATION OF BANK ACCOUNTS The Directors shall have the power to open bank accounts to sign cheques on behalf of the Company and to operate all banking accounts of the Company and to receive payments, make endorsements, draw and accept negotiable instruments, hundies and bills or may authorise any other person or persons to exercise such powers. AUDIT (a) The first Auditor of the Company shall be appointed by the Board of Directors within one month from the date of registration of the Company and the Auditors so appointed shall hold office until the conclusion of the first Annual General Meeting. b) At first annual General Meeting the Company shall appoint an Auditor to hold Office from the conclusion of the Meeting till the conclusion of its sixth Annual General Meeting and thereafter till the conclusion of every six meeting. c)The remuneration of the Auditor shall be fixed by the Company in the Annual General Meeting or in such manner as the Company in the Annual General Meeting may determine. In case of an Auditor appointed by the Board his remuneration shall be fixed by the Board. SECRECY Subject to the provisions of law of land and the act, every manager, auditor trustee, member of a committee, officer servant, agent accountant or other persons employed in the business of the company shall, if so required by the Board of Directors before entering upon his duties, sign, declaration, pledging himself to observe strict secrecy respecting all transactions of the Company with its customers and the state of account with individuals and in matters relating thereto and shall by such declaration pledge himself, not to reveal any of the matters which may come to his knowledge in the discharge of his duties except when required to do so by the directors or by any court of law and except so far as may be necessary in order to comply with any of the provisions in these presents. PRIVATE COMPANY The Company is a Private Company within the meaning of Section 2(68) of the Companies Act, 2013 and accordingly:- (a) No invitation shall be issued to the public to subscribe for any securities of the company. (b) The number of members of the Company (exclusive of persons who are in the employment of the Company and persons who, having been formerly in the employment of the Company, were members of the Company while in that employment and have continued to be members after the employment ceased) is limited to 200 (Two hundred) provided that for the purposes of this definition, where two or more persons jointly hold one or more shares in the Company, they shall be treated as a single member and; (c) The right to transfer the shares in the Company is restricted in the manner and to the extent hereinafter appearing. (d) Prohibits any invitation or acceptance of deposits from Persons other than its members, directors or their relatives.

	Subscriber Details				
S. NO	Name, Address, Description and Occupation	DIN/PAN/Passport Number	Place	DSC	Dated
1	NAME:- VISHNU SAINI FATHER'S NAME :- MR. RAM DUTT SAINI ADDRESS:- VILLAGE BHIWANI KHERA, TEHSIL THANESAR , DISTRICT KURUKSHETRA (HARYANA)- 136118, OCCUPATION :- BUSINESS	DUHPS8640J	KURUKSHETRA		11/08/2020
2	NAME:- GURMEET KAUR FATHER'S NAME :- MR. BARKHA RAM ADDRESS:- VILLAGE BHIWANI KHERA, TEHSIL THANESAR , DISTRICT KURUKSHETRA (HARYANA)- 136118, OCCUPATION :- BUSINESS	AQAPK5481H	KURUKSHETRA		11/08/2020

Signed Before Me						
Name		Address, Description and Occupation	DIN/PAN/ Passport Number/ Membership Number	Place	DSC	Dated
FCA	AJAY MONGA	#1758/6, JYOTI NAGAR, KURUKSHETRA	511570	KURUKSHETRA		11/08/2020

Checkform Modify

Annexure 3: Verification of units by DIC, Kurukshetra



65
26/5/2020

2438
15 MAY 2020

From

Deputy Director
District Industries Centre,
Kurukshetra

To

The Director of Industries & Commerce, Haryana
(Cluster), Chandigarh

Memo no. DIC/KKR/Cluster/119
Dated. 12.05.2020

Subject:- Application for assistance under Mini Cluster Scheme of Agriculture Implements for Kurukshetra.

****

Kindly refer in reference to Notification dated 10.06.2016 on the above cited subject.

In this connection, it is informed that the list of 16 units received vide letter refer above, all 16 units falls in block thanesar of district Kurukshetra. The units (List attached) pertains to this district are visited and found in working. As per notification dated 10-06-2016 the Agriculture Implements units fulfill the eligibility of Mini Cluster & recommended for setting up Mini Cluster. This is for your information and further necessary action please.

Deputy Director
District Industries Centre,
Kurukshetra

Encls: As above

List of SPV Members for agriculture implement cluster, Kurukshetra

S.N	Contact Persan	Company/Firms/ Units/Proprietor /Name	Contact No.	Address of Unit	UAM No	Products	Last year turnover	P/M Investment	Signature
1.	Mr. Vishnu Saini	V.S Industries	9215236432	Didar Nagar Narkatari road Kurukshetra (136118)	HR11A0001698	MFR OF TRACTOR HOOD &OTHER AGRI IMPLEMENT	18294310.64 (31-03-2019)	356900.04	
2.	Mrs. Gurmeet Kaur	Azad industries	9991209420	vill&tehsil Khera,Jhansaroad Kurukshetra (136118)	HR11B0001734	Mfrs rotavator, Happy seeder, &other agriculture implements	51420867.96 (31-03-2019)	1032097.01	
3.	Mr. Krishan	Zamidara Engg Works	9215335477	Vill.Dhuralajhans a road Kurukshetra (136118)	HR11A0001229	Mfrsof zero drill, trolley, &other agriculture implements	18466793.58 (31-03-2019)	3593764.78	
4	Mr. Manish Saini	M.K.V Industries	7027022122	Jhansa road Kurukshetra(136 118)	HR11A0005765	Mfrs rotavator, plastic botal&agriculture implements	118438370.06 (31-03-2019)	402000	
5.	Mr. Ramdutt	Azad Engg works	9254035432	Jhansa road Kurukshetra(136 118)	HR11A0001534	Mfrs of gat grill rotavator, happy seeder, &other agriculture implements	68528992.13 (31-03-19)	717288.16	
6.	Miss Jyoti	GURUNANK ENGINEERING WORKS	9729692904	JHANSA ROAD OPP JANTA SCHOOL THANASER KURUKSHETRA(1 36118)	HR11A0005766	Mfrs of gate grill SUGAR CAN THERSER AGRI implements	4500000.00 (31-03-2019)	200000.00	
7.	Mr. Abhay Vats	A1Earth mover	7988661664	Jhansa road near op jindal park Kurukshetra(136 118)	HR11A0001531	Mfr of hydraulic pipes&tractor trolley pipes	2000000.00 (31-03-2019)	450000.00	
8.	Mr. Raj Kumar	JhangraEnggWor ks	9406218115	JhansaRoad opp.ritu nursing home Kurukshetra	HR11E0001702	Mfr of tractor hood bumper & Agri implements	10969679.12 (31-03-2019)	109662.50	

List of SPV Members for agriculture implements cluster, Kurukshetra

S.N.	Contact Person	Company/Firms/ Units/Proprietor /Name	Contact No.	Address of Unit	UAM No	Products	Last year turnover	P/M Investment	Signature
9.	Mr. Gurpreet Singh	Gurunank electrical	9896776606	Jharsa road thanasenkurukshetra	HR11A0002233	Mfrs of cooler & motor parts &other agri parts	1500000.00 (31-03-2019)	256040.00	
10.	Mr. lakhwinder singh	Gurunanak engineering Woorks	9896544803	Villkirnach opp petrolpump kurukshetra 136118	HR11A0005767	Mfr of trolley&Reeper parts	200000.00 (31-03-2019)	240000.00	
11.	Mr. Gurmeet singh	GurunankEngg works	9812961612	Villdhurala hansala road Kurukshetra 136118	HR11A0005768	Mfrof reaper parts, Harrow cultivator & Agri imp	2560000 31-03-2019	190000.00	
12	Mr. Harpal Singh	Harman Engg works	8059881313	Jharsa road Kurukshetra 136118	HR11A0005757	MFR OF SUGAR CAN CRUSHER& AGRI IMP	1564000 31-03-2019	245000.00	

List of SPV Members for agriculture implement cluster, Kurukshetra

S.N.	Contact Person	Company/Firms/ Units/Proprietor /Name	Contact No.	Address of Unit	UAM No	Products	Last year turnover	P/M Investment	Signature
13	Mr. Vikramjeet singh	VIKRAM ENGG. WORKS	7404368005	opp janta school jhansa road kurukshetra (136118)	HR11A0005779	mfr. of sugar cain crusher&agri imp	1345600 31-03-2019	356900.00	
14	Mr.SUNIL KUMAR	SAINI AGRICULTURE	8813861644	JHANSA ROAD KURUKSHETRA	HR11A0005790	MFR OF AGRI IMP	1378560.00 (31-03-2019)	156000.00	
15	Mr.PARDEEP KUMAR	AKASH ENGG. WORKS	8529972562	VILL JYOTISAR PEHOWA ROAD KKR	HR11A0005792	MFR OF TRALLY & Agri imp	1256800 (31-03-2019)	256000.00	
16	MR.Rohtas	MAHA LAXMI ENGG. WORKS	9996129989	VILL KAMODHA DHANDI ROAD KURUKSHETRA	HR11A0005789	MFR OF DOL MAKER SUHGA &AGRI IMP	1056000.00 (31-03-2019)	156000.00	

Annexure 4: Building availability proof

24th Aug., 2020

To,

The Director General,
Department of MSME, Govt. of Haryana,
HEPC, Sector-2, Panchkula

Subject: Regarding building lease for Centre of Agricultural Implements Manufacturing Cluster, Kurukshetra

Reference: Cluster project to establish Common Facility Centre (CFC) under State Mini Cluster development scheme of Government of Haryana

Dear Sir,

This is to confirm that I, Ved Parkash S/o Sh. Sita Ram am willing to provide my building at village Bhiwani Khera, district Kurukshetra on a 10 years irrevocable lease to the Centre of Agricultural Implements Manufacturing Cluster for the establishment of a Common Facility Centre, provided the cluster is approved by the Government of Haryana. The area which will be provided is 1600 square feet and shall be provided on a lease basis with rent of Rs. 15,000 per month for the first year, with a standard annual increase as per the market norms.

Yours sincerely,

Name: Ved Parkash S/o Sita Ram

Signature:

Address: Village Bhiwani Khera, District-Kurukshetra, Haryana

Annexure 5: Machinery Quotations

M-SUI MACHINES PRIVATE LIMITED
(An ISO 9001-2015 Certified Company)

Ref: MS/20-21/O-08109
Dated: 19-08-2020

Azad Agriculutre Industries pvt Ltd
Bhiwani Khera
Kurukshetra

Dear Sir,

We are pleased to submit herewith our offer for CNC Lathe Machine as below:-

S.No.	Product Description	Unit	Price (Rs.)
1.	KTM Make CNC Lathe Machine With standard Features and Accessories as Below:- Model Lathe – RIG 1000 With Fanuc CNC Systems	1 Set	41,75,000/-
2.	Set of Tooling	1 Lot	4,00,000/-

Standard Features

> Dual Torque Tube Design with 45° True Slant Bed Construction
> 40X10 Size Ball Screw with C3 Grade , Double Nut, Long Nut and Deep Groove with Zero Backlash
> High Precision Grade 45 Size Ball Type LMGuide ways with Medium Preloaded Flange Type Blocks
> Digital Servo Spindle Motor
> Cartridge Type High Speed Rigid Spindle with P4 Class Angular Contact Ball Bearings (3+2)
> Hydraulic Power Chuck 250x3 Jaw with Hard Jaw and Soft Jaw
> Hydraulic CLT-100 Bi-Directional Turret
>All Telescopic Cover in Stainless Steel Grade (Corrosion Free)
>Machine Guard With RAL 9003 & RAL 2046 Powder Coated
> Electric Panel with Air Conditioner
> High Pressure Coolant Unit
> Auto Lubrication Unit

1

ANNEXURE – I

	Technical Specification CNC Lathe		
	DESCRIPTION	**Unit**	**Value**
	Capacity		
	Max. Turning Dia.	mm	500
	Max. Turning Length	mm	1000 Min.
	Swing Over Bed	mm	625
	Swing Over Carraige	mm	500
	Std. Turning Dia.	mm	250
	Dist. Between Center	mm	1020 Min.
	Axis Slides		
	X Axis Stroke	mm	260
	X Axis Rapid	m/min	24
	Z Axis Stroke	mm	1020
	Z Axis Rapid	m/min	24
	Turret		
	Type	-	Hydraulic
	No. of Tool Block	-	8
	Boring Bar Size	mm	40
	Tool Shank	mm	25 x 25
	Spindle		
	Spindle Nose	-	A2-11
	Spindle Bore	mm	105
	Spindle Motor Power (Fanuc)	KW	11/15'
	Bar Through Spindle Capacity	mm	90
	Speed Range	rpm	100-2200
	Tailstock		
	Quill Taper	-	MT-4
	Quill Dia	mm	85
	Quill Stroke	mm	120
	Quill Force	KN	200
	Coolant Tank Capacity	Liters	**185**
	Hydraulic Tank Capacity	Liters	**40**
	Positioning Accuracy	mm	**0.007**
	Repeatability	mm	**0.005**
	Weight (Approx)	Kg	**4800**

2

TERMS AND CONDITIONS:

1. **Price** : The Price is Ex Factory
2. **Tax and Duties** : GST shall be charged Extra at actual.
3. **Packing & Forwarding** : **Included** of basic Price
4. **Delivery** : 12 - 16 Weeks from the date of receiving your Technically and Commercially clear order.
5. **Payment** : 30% advance along with Order and balance before dispatch.
6. **Warranty** : The Machine is having a warranty of 12 months from the date of Commissioning or 15 months from the date of dispatch, Whichever is earlier. The damages due to accidents/misuse/Mishandling/Wear & Tear etc. are not covered under warranty.
7. **Transit Insurance** : Included in the basic price
8. **Transportation** : Extra at Actual on " To Pay" Basis
9. **Validity** : Our offer is valid for 30 days from the date of the offer

We hope you will find the above in line with your requirements. We now look forward to receive your most valued order at the earliest.

Thanking you
For **M-Sui Machines Private Limited**

Mukesh Rustagi
Director

3

M-SUI MACHINES PRIVATE LIMITED
(An ISO 9001-2015 Certified Company)

Ref. No. : MS/20-21/08110
Date :19.08.2020

To,

Azad Agriculture Industries Pvt Ltd
Bhiwani Khera
Kurukshetra

Subject: Quotation for Vertical Machining Center – **MSV - 11065**

Dear Sir,

Please find enclosed herewith Specification & Quotation with standard scope of supply for the **Model: MSV – 11065**

If you need any more information please call / mail us, we will be pleased to assist you.

We thank you once again and hope to receive your valuable order soon.

Thanking you,

For, **M Sui Machines Private Limited**

Authorized Signatory

Plot No : 202,Anupam Plaza I, 6 Local Shipping Center Gazipur Delhi 110096
Phone No 011-22248223 , 9810048557

M-SUI MACHINES PRIVATE LIMITED
(An ISO 9001-2015 Certified Company)

STANDARD SPECIFICATIONS

SR.	Description		Unit Price (INR)
	KTM Make VMC Machine Model **MSV – 11065**		
	Control System:		
		Fanuc CNC System	**37,00,000/-**
		4 axis	**4,50,000/-**
		Set of Tooling	**3,00,000/-**
A	**Standard Scope of Supply :**		
	1	A/C Servo Drives for 'X' ,'Y" &'Z' axis	
	2	A/C Drive & Servo Motor for Spindle	
	3	Linear Motion Guide ways for 'X' ,'Y" &'Z' axis (P Class)	
	4	Milling Spindle Taper BT-40	
	5	High precision Ball Screws for 'X' ,'Y" &'Z' axis (C3 Class)	
	6	Flush Coolant with Coolant Gun	
	7	20 Tools Bi Directional ATC – (Arm Type)	
	8	Pressurize Coolant System with Coolant Tank & Chip Tray	
	9	Auto Lubrication System	
	10	Total Machine Enclosure Guard with TPM Concept	
	11	Electrical & Electronic Quality Device with Panel AC	
	12	Leveling Pads	
B	**Essential Options**		
1	Chip Conveyor with Chip Bin		**1,15,000/-**
2	Anti-Vibrating Mounting Pad		**25,000/-**
3	Voltage stabilizer 20 KVA		**45,000/-**
4	Packing and Forwarding (Base Packing)		**50,000/-**
5	Transportation		**1,00,000/-**
Total			**47,85,000/-**

Plot No : 202,Anupam Plaza I, 6 Local Shipping Center Gazipur Delhi 110096
Phone No 011-22248223 , 9810048557

M-SUI MACHINES PRIVATE LIMITED
(An ISO 9001-2015 Certified Company)

TECHNICAL DETAILS FOR MODEL: MSV –11065

SR	Make	UNIT	MSV – 11065
1	**Table**		
	Table Size	mm x mm	1300 X 650
	T Slot	Nos./mm/mm	5 X 18 X 125
	Max. Load on Table	Kg.	1000
2	**Travel**		
	X Axis Stroke	mm	1100
	Y Axis Stroke	mm	650 (four LM guide ways)
	Z Axis Stroke	mm	650
	Distance from Spindle Face to Table top Min-Max	mm	150-800
	Rapid	m/min	24
3	**Spindle**		
	Spindle Taper		BT-40
	Spindle Power	Kw	11/15
	Speed Range	rpm	8000
4	**ATC**		
	Without ATC		20
5	**Positional Accuracy**		0.008
	Repeatability		+/- 0.003
	Weight - Kgs.	Approx	6800
	Size		2800 X 2700 X 2400

Plot No : 202,Anupam Plaza I, 6 Local Shipping Center Gazipur Delhi 110096
Phone No 011-22248223 , 9810048557

M-SUI MACHINES PRIVATE LIMITED
(An ISO 9001-2015 Certified Company)

TERMS & CONDITIONS

1 PRICES:
The prices quoted for EX WORKS – Delhi and are subject to change at any time until the order is accepted by us.

2 VALIDITY:
The prices quoted will be valid for 30 days from the date of quotation.

3 PAYMENT TERMS:
30% advance along with order, balance 70% against Pro-forma invoice prior to dispatch.
Our Bank Detail
Punjab National Bank
AC. NO. 1538002100016027
IFSC Code: PUNB0483800
Bank Address: Gazipur Delhi 110096

4 TAXES:
GST Shall be charges extra at actual. **(Our GSTIN : 07AACCM7751K1Z5)**

5 DELIVERY:
10 to 12 Weeks from the date of receiving your technically and commercially clear order.

TRANSPORTATION

6 Transportation charges will be borne by you on "To Pay Basis".

7 LIABILITY:
Liability will pass over to the Purchaser once the machine has been dispatched from our premise. Unless otherwise instructed we will dispatched the good at owner's risk. And accept no liability for damages or delay in transit.

8 WARRANTY:
All machines are being dispatched after proper inspection by the Quality Assurance department of KTM. The liability of KTM in respect of any defect in or failure of the machine supplied or for any loss, injury or damage attributed thereto, is limited to making good by replacement or repair defects which under proper use appear therein arise solely from faulty design, materials or workmanship within the warrantee period at the termination of which all liabilities ceases on the part of KTM. The warrantee period is either 13 months from the date of dispatch of the machine from KTM or 12 months from the date of the machine being certified as ready to use at the site by KTM engineer whichever is earlier. Warranty is not applicable for parts, which have normal, wear & tear like chuck, Collets, Soft Jaws, Revolving Centers, etc. and certain consumables items like bulb, Indicators lamps, work lights, Rubber Sealing / Gaskets, O ring, bearing, belts, encoders. The damage due to the machine due to any accident is not covered under this warranty. Warrantee of CNC system would be as given by respective manufacturer.

9 INSPECTION & TESTING:
Machine inspection and Geometrical Test Accuracies as per BMTMA test chart at our works before dispatch. Test report will be supplied with the machine.

10 INSTALLATION & COMMISSIONING:
Our Engineer will do commissioning. However, the Customer will do the installation of machine at site as per the instructions.

11 TITLE OF GOODS:
Unless & until 100% payment is received by us, the Title of the goods will not be passed to the purchaser.

12 CANCELATION:
Due to any reason if wish to cancel the order, We reserves the right to forfeit the advance.

13 CONTRACT & JURISDICTION:
Order (Contract) will be considered as having been accepted only after Written acceptance. Any change or modification order can be confirmed only after written acceptance by us. All are subject to Delhi jurisdiction.

Plot No : 202,Anupam Plaza I, 6 Local Shipping Center Gazipur Delhi 110096
Phone No 011-22248223 , 9810048557

Quotation

SUPERCUT Cutting & Welding

PUSAN PS Cutting & Service

OEM Hypertherm

SUPERCUT WELDING INDUSTRIES

WORKS: PLOT NO.11, NEAR RADHA SWAMI SATSANG BHAWAN
NANGLA GUJRAN, SOHNA ROAD N.I.T FARIDABAD-121005
PHONE: 9810305345, 7840893777

Website: www.supercutindia.net , E-mail: sanjay@supercutindia.net

REF:SWI/MK/A-018/2020 DTD:17/09/2020

M/S :-AZZAD AGRICULTURE INDUSTRIES PRIVATE LIMITED.
BHIWANI,KHERA KURUKSHETRA.

Email :- mkvazad@gmail.com

Subjest :-CNC GENTRY FLAME/PLASMA CUTTING MACHINE 3500X8000.

EASYCUT DP 3500X8000

1. Machine Model, Specification & Technical Parameters:

1.1. Model: 3500 x 8000 Flame/Plasma Cutting Machine
1.2. Specification: (Gantry type)
- Track Width: 3500 mm
- Track length: 8000 mm
- Effective cutting width: 2600mm
- Effective cutting length: 6500 mm
- Cnc system
- One flame torch
-One plasma torch station.

Quotation

SUPERCUT
Cutting & Welding

PUSAN
Cutting & Service

OEM Hypertherm

TECHNICAL PARAMETERS	
CNC SYSTEM	FLSK2300B PUSAN
ONE PLASMA STATION	PUSAN
PLASMA TORCH HEIGHT	CONTROLLER XPTHC /F 1620
PLASMA TORCH ANTICOLLISSION	PUSAN
ONE FLAME STATION	PUSAN
ONE FLAME TORCH HEIGHT	CONTROLLER CHC - 200 D1
FLAME TORCH	PUSAN
FLAME TORCH AUTO IGNITION	HYD
PLANETARY GEAR BOX	NUGUART GERMANY/ SHIMPO JAPAN
X-AXIS SERVO MOTOR	1 NOS PANASONICS
X-AXIS SERVO DRIVE	PANASONICS
Y-AXIS SERVO MOTOR	2 NOS PANASONICS
Y-AXIS SERVO DRIVE	2 NOS PANASONICS
DRAG CHAIN	CSK TURKEY
NESTING SOFTWARE	FASTCAM AUSTRALIA
CABLES	LAPP KABEL GERMANY/ANY STANDARD BRAND
X-AXIS LINEAR MOTION GUIDE	DUAL GUIDE(KHS-LG)
Y-AXIS LINEAR MOTION	24 KG/MTR GRIND RAILS
RACK AND PINION	20X25MM
PLASMA	HYPERTHERM PLASMA PMX 105A

Quotation

SUPERCUT Cutting & Welding

PUSAN Cutting & Service

OEM Hypertherm

1.5 Flame torch : 01 set

1.51. With Auto-ignition, The components used for flame cutting automatic ignition , the success rate of automation, over 90%.

1.52. With capacitive hight sensor

- Mains supply: AC24V±5%, 50Hz/60Hz (isolated power supply)
- Lifter motor: DC24V
- Output current: 1A-4A
- Env.Temperature: Control box -10~60℃, HF-coaxial-cable: -10~200℃, the Parts of sensor: : -10~350℃,
- Accuracy: ±0.2mm
- Sensor distance: 5mm — 20mm to work piece, adjustable
- MAX power output: 100W. It can get 150W via changing the current feedback resistance.
- Torch lifting distance 170mm.

1.6 Plasma torch station : 01 set
- with Anti collision system & IHS system

2. Control system

CNC system
- USB interface for reading part program in USB disk
- Ability to use and display real-time motion and I/O data
- Choice of industry-standard EIA RS-274D or ISO 6582 ESSI part programming languages
- English or metric units
- Scale part, mirror part
- Repeat shape with three grid patterns
- Plate alignment
- Kerf compensation between pierce points
- Forward and Backup along path with off-path lead-in and cut-loss recovery
- Complete built-in diagnostics for checkout and test

Quotation

SUPERCUT
Cutting & Welding

PUSAN PS
Cutting & Service

OEM Hypertherm

3.1. Mechanical parts

3.1.1.Gantry type structure

3.1.2.High tension high accuracy driven rack & pinion drive.

3.1.3. Automatic wear compensation by high tension cup spring keeps the engagement of the pinion in this rack free of backlash.

Quotation

SUPERCUT Cutting & Welding

PUSAN PS Cutting & Service

OEM Hypertherm

3.2. Drive system: DUAL SIDE SERVO PANASONICS. DRIVE:

3.2.3. Transverse driven on master carriage.

3.3. Anti collision system & proximity protection

3.3.1. Limit switch on both side of longitudinal track end, with mechanical bumpers, provide emergency collision protection.

3.3.2. Electrical limit switches installed on both end side of transverse track & torch suspension, together with mechanical bumper, provide emergency collision protection

3.3.3. Track wiper device

3.3.4. Transverse drag chain & floor type longitudinal drag chain, including drag chain support

4. FastCam standard version software 1set

* For automatic programming on separate PC
* Professional drawing and pathing software
* With integrated post processors
* NC graphic verification and intelligent nesting
* Software with interactive, array and high speed
* Block nesting including plate remnant nesting
* Fully automatic true shape nesting module

Automatic & Intelligent Pathing Module, including DXF/IGES interface for CAD

5. Technical documentation

Supplier will provide following documentation:

- 1 set of English version documentation for CNC system .
- 2 sets of English version instruction manuals for other parts including installation instructions, foundation drawing (including earthing), utility connection diagram, mechanical instruction, electrical instruction, CNC instruction, wiring diagram,
- instruction manual of Fast CAM programming software
- operation & service manual with wiring diagram.
- customer acceptance certificate, etc.
- Supplier will provide installation instructions, foundation drawing (including earthing), utility

Quotation

SUPERCUT Cutting & Welding

PUSAN Cutting & Service

OEM Hypertherm

connection diagram within 10 days after contract come into effect. Other documentation will be provided to customer together with machine shipment.

Sr. No	Description	Unit price (Rs)	Quantity	Total (RS)
1	**CNC Profile Flame Plasma Gentry cutting Machine Model PUSAN – 3508** **Cutting width -2600 mm** **Cutting length -6500 mm** **WITH Hypertherm Plasma 105A**	16,20,000/-	01 set	16,20,000/-
2.	**Machine bed 3500 mm X 8000mm With all Accessories Suitable longitudinal and Transverse rail. One plasma station suitable for 6 -150 mm Fast cam standard Software.**	3,50,000/-	01 set	3,50,000/-
			TOTAL	**19,70,000/-**
			IGST	**3,54,600/-**
			G. TOTAL	**23,24,600/-**

Quotation

SUPERCUT
Cutting & Welding

PUSAN PS
Cutting & Service

OEM Hypertherm

6. COMMERCIAL TERMS AND CONDITIONS:

Payment Condition: 30 % in advance along with P.O,60 % before machine dispatch and balance part after machine installation in your site.

Validity: 20 days from the date of quotation

Tax- GST 18% extra

Transport:-As per actual borne by the customer side

Engineer expensive: Fooding and stay also night charges 300/-Rs per night in custom scope

Mode of Delivery: - By Road or as suggested by Purchaser.

Delivery Period: - Within 4 to 5 Weeks from the date of the letter of intent if placed, Should have accompanied with advance. The delivery date will be counted from the receipt your clear Purchase order with advance.

Warranty: The repair or replacement due to defects arising out of faulty design, materials or workmanship will be applicable within 12 months from the date of Supply, provided that if we so require the parts in respect of which a claim is made, must be sent to our works at the Purchasers expenses before the Warranty period. Electrical & Electronics components like motors, switches etc are not covered under this Warranty However any defect caused by wrong treatment or mal operation of the equipment will not be covered by the warranty team and purchaser shall born related cost supplier will provide service of the equipment after warranty period.

Training & Installation: - One time training for 5 working days will be provided at free of professional fees but travelling, Lodging, boarding and incidental expenses to be born by Buyer or payable in advance. Installation will be done by us but provision of civil work, fabrication work & other necessary labour work to be made by Buyer with materials. Any additional training apart from 5 days will be charged extra at the rate of Rs. 2000/- Per day.

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SUPERCUT Cutting & Welding

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OEM Hypertherm

Consumables: - One set consumables will be provided for Installation & trial, Additional required consumables will be supplied against 100% payment in advance on the prevailing prices of the consumables.

General: - The order received by us shall not be subject to cancellation wholly or Partly for any reason without our consent. Similarly, the advance given to us against this order is not refundable. In case, due to any reason order received by us is get cancelled, then total advance will be forfeited.

Design Services: - To draw drawings will not in our scope of supply or not a part of services. Drawing file in .dwg or .dxf format is must for nesting by purchaser if customer doesn't have drawings & would like to draw that by our Engineer then it will be chargeable extra as applicable.

Unless and otherwise mentioned anywhere, the terms & conditions written here with will be a part of final Purchase Order to be placed on us.

7. **PRE- INSTALLATION ACTIVITIES**

USER SKOPE OF WORK

THE CUSTOMER MUST FINISH FOLLOWING WORK BEFORE OUR TEAM ARRIVES

Customer Scope Estimate

Sr.No	Product Name	QTY.	Price
1	Online UPS (3 KVA)	1	32,000/-
2	Air Dryer	1	35,000/-
3	Servo (25 KVA)	1	45,000/-
4	Air Compresser (7.5) HP	1	68,000/-
5	Earthing	3	
6.	Machine Bed	1	

Quotation

SUPERCUT Cutting & Welding

PUSAN Cutting & Service

OEM Hypertherm

MATERIAL PROVIDED BY USER :-

(a) Water Level.
(b) Lifting equipment.
(c) Welding machine.
(d) Cotton Yarn, Oil etc.
(e) Material for cutting test.
(f) Operating persons and other concerned co-operating Person.

THE USER MUST FINISH FOLLOWING WORK BEFORE OUR TEAM ARRIVES:-

User Must finish the installation of:
(i) Power Supply MCCB (as per requirement) Box.
(ii) UPS 3 kva, Online, Installation with Incomer 25A MCB, DP & output at 16 A, MCB , DP. AND Servo stabilizer as per plasma power source.
(iii) User must finish installation of the gas supply system.
(iv) User must finish the installation of compressed air line system.
Included: - (i) 7.5 HP motor compressor with 200 liter tank capacity.
(ii) Incomer supply 3Phase, 25 A MCB, 3 P.
(iii) Dryer of 25 CFM.
(iv) Incomer supply,1 Phase,25 AMP,2P
(v) Incomer supply for Plasma m/c, MCCB/ MCB (as per requirement) .
(vi) Incomer spare: - 25 Amp MCB, DP.
(vii) Make a work piece supporting table as per Drawing-1 supplied.
(viii) Earthing for Plasma as per Drawing-3 supplied.
(ix) Foundation for machine track as per Drawing-3 supplied

If you require any further technical clarification, feel free to contact us.

Thanking You,
Yours faithfully,
MUKESH RAGHUVANSHI
+91 8178446685
For SUPERCUT WELDING INDUSTRIES

KSW/AAIPL/20-21/148 August 17th, 2020

M/S Azzad Agriculture Industries Pvt Ltd
Bhiwani Khera, Kurukshetra.

E-mail- mkvazad@gmail.com,
Mob- +91- 9416035432

Kind Attn.	Mr. Manish Ji.
Subject	Your requirement of batch type Powder Coating Plant for Rotavator Component.
Reference	Your Telephonic discussions had with us on the subject requirement.

Dear Sir,

This has further reference to our discussion had with you regarding your requirement for the above subject. Based on the details provided by you we are pleased to submit our most competitive techno commercial proposal and Layout for the above captioned subject.

All our equipment's are supported with the technical after sales service and troubleshooting, if required. In short, we can provide all the related services under one roof, ably backed with an efficient after sales service to ensure a trouble-free operation.

We look forward to your response in the matter and no sooner we hear from you in this regard, we shall be available for any further discussions in this regard.

We hope the same shall meet your requirement and hope to receive your valued order at the earliest.

If you have any queries further, please feel free to contact us at any time.

Thanking you,

Yours faithfully,

For KSW India Pvt. Ltd.

Vikash Singh
Executive Sales
Mob: +91- 8527893305
Email:sales@kswindia.com,

Surinder Singh
Managing Director
Mob:+91-9810202712
Email:ssingh@kswindia.com

DETAILED TECHNO-COMMERCIAL PROPOSAL

1. BRIEF SCOPE OF SUPPLY

Our brief scope of supply would include the designing, manufacturing, supply and commissioning of the Batch Type Plant having following items:

Sr.	Items	Qty.
[A]	**Batch Type Line Having following items: -**	
1.	Electro Static Powder Spray Guns.	02 Set.
2.	Powder Coating Booth Single Cyclone type.	01 Set.
3.	Batch Type GAS Fired Paint Curing Oven with 02 Nos. Trolleys & track line.	01 Set.
4.	Monorail Track Line (Approx. - 20 Mtrs) with 06 Nos Free Trolleys & support Structure.	01 Set.

2. ELECTROSTATIC POWDER COATING GUNS (MAKE PULSAR COATING)

PRODUCT DESCRIPTION

POWDER COATING GUN

One No. of Powder Coating gun with Powder Hopper and necessary interconnecting piping's Shall be Provided.

Make: Auto stat

Model : 2010

Product Description

Technical Parameters are as follows:

1. **Input Voltage:** **230 – 260 Single Phase 30 w**
2. **Output Voltage:** **14 V**
3. **Output Current:** **70 UA MAX**
4. **Output Kv:** **0-85 KV Adjustable**
5. **Powder Flow:** **400 G/Min. Max**

6. **Input Air Pressure:** **7 Bar Max**
7. **Trolley:** **Multi Utility Trolley With Tool Box**

Main features of the equipment:

A. Assembled with best international components
B. Very high first pass efficiency
C. Auto adjustment of electrostatic field with changing distance
D. Very good coverage on corners and crevices
E. Unique venture block gives uniform flow of powder
F. Multi utility trolley with tool box

3. POWDER COATING BOOTH (CYCLONE TYPE)

WORKING OF THE BOOTH

Over sprayed powder is sucked by centrifugal blowers mounted on the top of the single cyclone. This mixture of air & powder enters tangentially into the cyclone tubes at high velocity. This geometric arrangement creates a cyclone. Heavier powder particles are thrown out at the periphery of the tube and are finally collected into the recovery bin mounted at the bottom of the tubes. Clean air remains at the center and is finally exhausted.

FEATURES

Powder recovery –Cyclone recovery system ensures extremely high levels of powder recovery.
Faster Colour Change: - We provide ductless booth that ensures less accumulation of powder. It facilitates easy & fast cleaning and quick colour change.
Dynamically balanced blowers operate at lower noise level. The noise level from 1 mtr distance of blower shall be 85db Maximum.
Sufficient illumination level to maintain clear visibility.
Modular design allows easy installation and maintenance.
Proper air velocity ensures uniform suction.

TECHNICAL & CONSTRUCTIONAL DETAILS FOR EACH PC BOOTH

SR.	ITEM	SPECIFICATIONS
1	Type of application	Manuel
2	Type of booth	Single Cyclone, Back to Back Opening

3	No. of units	**One**
4	Component	**Rotavator Size (10' x 3' x 3') as per customer provided.**
5	**Working Dimension**	**4000mm x 1200 mm x 2100 mm (L, W, H)**
6	**Overall dimensions of Booth**	**6600 mm (Including 300 mm Vestibules on either side of booth) x 1280 mm x 3100 mm (w, d, h) plus Space for Cyclone on Both Side of the Booth.**
7	Side openings for component entry / exit	1200 mm x 1700 mm (w x h), on both side of booth + Opening for conveyor.
8	Operator Position	Two operators will be working simultaneously, having back to back spraying arrangement.
9	Operator Opening	1000 mm X 1500 mm (W X H)
10	**Cyclone Qty.**	02 Nos. Back to back.
11	**Blower Qty.** Mounting Capacity Pressure	02 Nos. On Top of Cyclone Arrangement 3000 CMH Approx 150mm WC minimum
12	**Blower motor** Power Specs.	5 hp, with each blower 4 pole, flange mounted, 3 phase Direct mounted to blower impeller
13	**MOC** : Booth panels Cyclone	1 Set in Sheets 1.6 mm (16 swg) thick GI Sheets
14	Illumination	4 sets of 2 x 40 watts
15	Painting scheme	One coat of primer followed by finish synthetic enamel paint/Powder coated.

4. BATCH TYPE GAS FIRED POWDER CURING OVEN

Description

The oven is constructed from a self supporting fabricated angle iron frame, and the double walled, insulated sheet steel cassettes which slide fit into each other. The cassettes are being fixed into the iron frame. Anabond glaze, a special heat resistant sealing compound additionally seals off the joints between the cassettes. This totally unique twin angle frame and cassettes construction of the oven minimize direct metal contact, in turn ensuring low heat transfer to the oven surface and saving on precious energy resources.

The air from the working chamber of the oven is drawn by the circulating air blowers over the centralized heat source. This heated air is then fed back in to the working chamber through the hot air ducts and the adjustable air directional blinds (ADBs). This control is essential for temperature uniformly over the entire oven cross section.

A number of major safety elements like temperature controller, safety thermostat, pressure release valve, blower-heat source-interlock etc. are also provided for, in the oven.

HEAT EXCHANGER BOX

The heat exchanger box consists of a mono bloc burner coupled to a four pass heat exchanger.

The flue Gas pass through the heat exchanger whereas air to be heated is made to pass over the heat exchanger. The four pass design for the flue Gas path of the heat exchanger and the flow direction of the air to be heated draws out the maximum quantum of heat from the flue Gas.

The heat exchanger is made from special grade temperature resistant steel. The design of the heat exchanger ensures minimum soot accumulation on the heat exchanger inside surface and a very low cleaning down time.

Technical details of oven:

1	Treatment process	Powder Baking
2	Transfer of energy	Connective with air circulation
3	Type of heating	Direct Fired
4	Type of Oven	Batch type.
5	Inside dimensions	3300 mm x 1500 mm x 1800 mm (l x w x h).
6	Thermal insulation	150 mm thick rock wool slabs (resin bonded) having 64-kg/cum density, duly fitted; silicon sealant applied between the panels' joints.
7	Circulating air temp.	Max. 160 Deg. C respectively.
8	Heating media	GAS Fired

9	Heating Load	80,000 Kcal/hr approx kcal/Hr. .
10	Heating system	Direct heating consisting of heat exchanger with combustion chamber mounted to automatic Gas fired burner. Circulating air system for special ventilation through high performance circulating air fan.
11	Burner	Fully automatic mono block imported burner of suitable capacity make Ecoflame / Equivalent make.
12	Blower	Suitable CMH capacity blower coupled with 2/3 HP Motor shall be provided. Motor Make: ABB / CG
13	Blower impeller	Reverse blade type, V-belt driven duly protected with fan casing for proper directional flow of air. Make DM Ventilation
14	Movement of articles	Manually, Job Load on Ground trolleys to put into the curing oven.
15	Heat Exchanger	Shell and tube type, mounted suitably inside heat exchanger cabin. Having four-pass flue Gas exhaust system to transfer maximum possible heat.
16	MOC of heat exchanger	Stainless steel grade SS-304,
17	Heat exchanger cabin	Contains heat exchanger, burner and blower suitably placed to get the desired air at required temperature. Proper window cassettes are given for the easy maintenance. Separate window for Heat Exchanger movement inside the cabin shall be provided.
18	MOC of Oven	Outer frame – MS 2.5 mm. Cassettes panels – GI 1.2 mm.
19	Painting	The oven shall be powder coated from outside.
20	Trolley for handling	**02 nos. of the size - 3300 x 1350 x 1500 mm (LXHXW). CUSTOMER SCOPE:**

5. SCHEDULE OF EXCLUSIONS

Following are the schedule of exclusion from our scope of supply :

1.	**Electrical Connection : Required power supply up to our Control panel.**
2.	**Ducting for plant shall be in your scope.**
3	Civil Work – Any type of civil work required at site.
4.	Jigs / Hangers / Fixtures / Trolleys for components in paint shop
5.	Cutting and Sealing of roof for Ducting, Piping, etc
6.	CVT's of 1000 VA for supply of Gas Burner.
7.	**Gas supply at required pressure & volume up to Burner along with Gas Train Customer**

	Scope .
8.	All consumables like Chemical etc. required for plant operation and testing
9.	Welding machine along with consumables.
10.	Gas cutting sets for installation work along with consumables.
11.	Temporary Air Connection of compressed air for painting the plant.
12.	Accessories and working tools for manual operations, such as air blowing, paint spraying, etc. other then quoted.
13.	**Unloading and safe storage of material at site.**
14.	Energy supply during erection
15.	**Any other item specifically not mentioned in our offer.**

6. PRICE SCHEDULE

Based on above mentioned scope of supply, basis of design, technical specifications and following terms and conditions, we offer our prices for above mentioned systems is as follows :

No	Description	Qty	Unit Price	Total Price
1.	Electro Static Powder Spray Guns	2 Set	75,000/-	1,50,000.00
2.	Powder Coating Booth (Cyclone Type)	1 Set	500,000/-	500,000.00
3.	Batch Type Powder Curing Oven with Control Panel.	1 Set	6,50,000/-	6,50,000.00
4.	'I' Beam Monorail Track Line (Approx. - 20 Mtrs.) with 06 Nos. Free Trolleys & Support Structure.	1 Set	3,50,000/-	3,50,000.00
	Total price Rupees Sixteen Lacs Fifty Thousand only.			**16,50,000.00**
5	**Erection & Commissioning charges extra @ 50,000/-.**			

OPTIONAL ITEM:

Sl.	Item	Qty.	Total cost
1.	**Gas Train for Burner**	**01 Set.**	**45,000/-**

7. TERMS AND CONDITIONS OF SALES

	The quoted prices are Ex our works at Greater Noida.	
	GST	Extra @18% & freight on basic value, or at actual at the time of dispatch.
	Freight	To Pay at actual.
	Delivery	Material would be delivered within 25 Days from the date of receipt of your Technically and Commercially Clear Purchase Order and advance payment. Installation and Erection & Commissioning would take approx 1 week time.
	Payment terms	Rs. 40% advance, 60% of basic value plus 100% GST against PI before dispatch.
	Excess Material At site:	In case of Projects, we may send excess material to site to avoid any delay in the project schedule due to material shortage. Such excess material will accompany the regular material, but on the invoice only the value of the regular material will be reflected. Therefore, after the execution excess material shall be taken back without commercial invoice from your side. You shall provide the Challan for the same.
	Warranty	For twelve months from the date of commissioning or 15 months from the date of dispatch, whichever is earlier; against any manufacturing defect. Our liability shall restrict only to the repair / replacement of the defective part. No warranty for wear and tear parts. The warranty of bought out items such as motor, burner etc. shall be from their respective manufacturer only.
	Validity	Our offer shall remain valid for a period of 30 days.

M-SUI MACHINES PRIVATE LIMITED
(An ISO 9001-2015 Certified Company)

Ref: MS/20-21/O-08109
Dated: 19-08-2020

Azad Agriculutre Industries pvt Ltd
Bhiwani Khera
Kurukshetra

Dear Sir,

We are pleased to submit herewith our offer for CNC Lathe Machine as below:-

S.No.	Product Description	Unit	Price (Rs.)
1.	KTM Make CNC Lathe Machine With standard Features and Accessories as Below:- Model Lathe – RIG600+ With Fanuc CNC Systems	1 Set	2800000/-
2.	Set of Tooling	1 Lot	265000/-

Standard Features

> Dual Torque Tube Design with 45° True Slant Bed Construction
> 40X10 Size Ball Screw with C3 Grade , Double Nut, Long Nut and Deep Groove with Zero Backlash
> High Precision Grade 45 Size Ball Type LMGuide ways with Medium Preloaded Flange Type Blocks
> Digital Servo Spindle Motor
> Cartridge Type High Speed Rigid Spindle with P4 Class Angular Contact Ball Bearings (3+2)
> Hydraulic Power Chuck 200x3 Jaw with Hard Jaw and Soft Jaw
> Hydraulic CLT-100 Bi-Directional Turret
>All Telescopic Cover in Stainless Steel Grade (Corrosion Free)
>Machine Guard With RAL 9003 & RAL 2046 Powder Coated
> Electric Panel with Air Conditioner
> High Pressure Coolant Unit
> Auto Lubrication Unit

1

ANNEXURE – I

Technical Specification CNC Lathe			
	DESCRIPTION	**Unit**	**Value**
	Capacity		
	Max. Turning Dia.	mm	350
	Max. Turning Length	mm	625 Min.
	Swing Over Bed	mm	500
	Swing Over Carraige	mm	350
	Std. Turning Dia.	mm	250
	Dist. Between Center	mm	625 Min.
	Axis Slides		
	X Axis Stroke	mm	190
	X Axis Rapid	m/min	24
	Z Axis Stroke	mm	620
	Z Axis Rapid	m/min	24
	Turret		
	Type	-	Hydraulic
	No. of Tool Block	-	8
	Boring Bar Size	mm	40
	Tool Shank	mm	25 x 25
	Spindle		
	Spindle Nose	-	A2-8
	Spindle Bore	mm	86
	Spindle Motor Power (Fanuc)	KW	09/11'
	Bar Through Spindle Capacity	mm	75
	Speed Range	rpm	100-3500
	Tailstock		
	Quill Taper	-	MT-4
	Quill Dia	mm	85
	Quill Stroke	mm	120
	Quill Force	KN	200
	Coolant Tank Capacity	Liters	**165**
	Hydraulic Tank Capacity	Liters	**40**
	Positioning Accuracy	mm	**0.007**
	Repeatability	mm	**0.005**
	Weight (Approx)	Kg	**4400**

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TERMS AND CONDITIONS:

1. **Price**	: The Price is Ex Factory
2. **Tax and Duties**	: GST shall be charged Extra at actual.
3. **Packing & Forwarding**	: **Included in** of basic Price
4. **Delivery**	: 12 - 16 Weeks from the date of receiving your Technically and Commercially clear order.
5. **Payment**	: 30% advance along with Order and balance before dispatch.
6. **Warranty**	: The Machine is having a warranty of 12 months from the date of Commissioning or 15 months from the date of dispatch, Whichever is earlier. The damages due to accidents/misuse/Mishandling/Wear & Tear etc. are not covered under warranty.
7. **Transit Insurance**	: Included in the basic price
8. **Transportation**	: Extra at Actual on " To Pay" Basis
9. **Validity**	: Our offer is valid for 30 days from the date of the offer

We hope you will find the above in line with your requirements. We now look forward to receive your most valued order at the earliest.

Thanking you

For **M-Sui Machines Private Limited**

Mukesh Rustagi
Director

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M-SUI MACHINES PRIVATE LIMITED
(An ISO 9001-2015 Certified Company)
202, ANUPAM PLAZA-I, 6, LOCAL SHOPPING CENTER
OFF NH-24, GHAZIPUR, DELHI-110096, INDIA
PH: 011-43048557/ 09810048557,
EMAIL: info@msuimachines.com
mukesh_rustagi@yahoo.co.in

Ref: MS/20-21/08110
Dated: 19-08-2020

Azad Agriculture Industries Pvt Ltd
Bhiwani Khera
Kurukshetra

Subject: Quotation for Fork Lift

Dear Sir,

We are pleased to submit herewith our offer for Fork Lift" as below:-

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Fork Lift Capacity: 2 tonne
Type: Deisel engine Operat d
Lifting height: 3 Meter Approx

Price; Rs.9,98,644/-

TERMS AND CONDITIONS:

1. Price	: The Price is Ex-Factory
2. Tax and Duties	: GST shall be charged Extra at actual.
3.Packing & Forwarding	: Inclusive in of basic Price
4. Delivery	: 4 to 6 Weeks from the date of receiving your Technically and Commercially clear order.
5. Payment	: 30% advance along with Order and balance before dispatch.
6. Warranty	: The Machine is having a warranty of 12 months from the date of Commissioning or 15 months from the date of dispatch, Whichever is earlier. The damages due to accidents/misuse/Mishandling/Wear & Tear etc. are not covered under warranty.

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7. Transit Insurance : Inclusive in basic price

8. Transportation : Extra at Actuals on " To Pay" Basis

9. Validity : Our offer is valid for 30 days from the date of the offer.

We hope you will find the above in line with your requirements. We now look forward to receive your most valued order at the earliest.

Thanking you

For **M-Sui Machines Private Limited**

Mukesh Rustagi
Director

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