

Department of MSME and Export Promotion, Govt of Uttar Pradesh

Draft District Export Action Plan, Aligarh,
Uttar Pradesh

Knowledge Partner







Preface

This district export plan for Aligarh District is being prepared as a part of Developing District as Export Hub under the District Export Hub Scheme initiated by the Ministry of Commerce & Industry, Govt of India and state Government of Uttar Pradesh. Hon'ble Prime Minister in his Independence Day Speech on 15th August 2019, had, inter- alia observed that each of our district has a diverse identity and potential for targeting global markets and there is a need for converting each district into potential export hubs. In order to implement Hon'ble PM's vision for each district, Department of Commerce has mandated the Directorate General of Foreign Trade to work with State Government and District Level authorities to promote the Unnao district as an export hub. In view of above, a District Level Export Promotion Committee has been formed by the office of DIC, Unnao under the chairmanship of District Magistrate. With the said objective, 'District Export Action Plan' has been prepared and being presented to concerned stakeholders.

The report encompasses in-depth information on district's geographic, demographic, and administrative profile, along with key statistics of prominent exporting products of district, gaps identified basis diagnostic survey, recommendations proposed to mitigate the gaps and action plans required to implement those recommendations.

The report provides insights into exports from the cluster, via analysing exports over the last five years from India and UP for the respective product. The report also shares insights on availability of raw material, technology upgradation, infrastructure, designing, packaging, access to finance, skill development etc. Besides the detailed action plans, the timeline and responsibility matrix has also been defined with implementation schedule to give implementation roadmap of the product.

For this desired purpose, an extensive primary and secondary research was conducted. The report has been prepared in coordination with the Office of DGFT, Kanpur and Uttar Pradesh Export promotion Bureau (UPEPB). The data has been sourced from multiple avenues, including but not limited to data provided by office of DGFT, Kanpur, UAM data (2019), DICs, 2011 Census of India, Diagnostic Study Reports, stakeholder consultation and several other secondary resources.

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1. Vision of Districts as Export Hubs

"Each district of our country has a potential equal to that of one country, each of our districts has the capacity equal to a small country in the world.. why should each district not think of becoming an export hub? . . Each of our districts has a diverse identity and potential for global market"

Foreign trade from India constitutes of 45% of its GDP. Until 2019, only the central government was engaged in the decision making of foreign trade, without any participation or involvement of state and/or district stakeholders. However, now, understanding that there are diverse elements that contribute towards an enabling and conducive foreign trade environment; the central government has identified that with policy & strategy, active support of the state governments and district admirations are also equally required.

Thus, to decentralize the existing activities, to boost local production & its exports and to ensure active participation of state & district stakeholders, vision of district as export hubs was put to action. Department of Commerce, through Directorate General of Foreign Trade (DGFT) is working with the State / UT Governments to achieve this objective.

DGFT and UPEPB have aimed at synergising their efforts to identify the key products, export trends and challenges. Further in order to minimize the challenges, quantify the exports and outline export strategy; a detailed district-wise Export Action Pan has been made for all 75 districts of UP, where EY has contributed as Knowledge Partner.

2. District Profile

The Jat ruler Surajmal in 1753, with patronage from Jai Singh of Jaipur and the Muslim army occupied the fort of Koil, the Bargujar Raja Bahadur Singh continued the battle from another fort under them and died fighting in what is known as the "Battle of Ghasera". It was re-named Ramgarh and finally, when a Shia commander, Najaf Khan, captured Kol, he gave it its present name of Aligarh. Aligarh Fort (also called Aligarh Qila), as it stands today, was built by French engineers under the control of French officers Benoît de Boigne and Perron.

The city of Aligarh has long been known all over the country for its 125 years old lock industry. In fact, the city is known as "the city of locks". Currently, Aligarh is home to nearly 10,500 lock manufacturing units producing around 6 Lacs locks per day,

Aligarh is also known for Aligarh Muslim University which is one the largest education centres of UP. People from all across India come here for pursuing their higher education.

Aligarh district is the division headquarter of Aligarh Division & comprises of 4 districts namely Aligarh, Hathras, Kasgani & Etah. The district has a total area of 3700.4 Sq.Km & lies on the plane of rivers Ganga and Yamuna.

2.1 Geography

Aligarh District is situated in the south western part of the state of Uttar Pradesh, Aligarh is located at the coordinates 27.88°N 78.08°E. It has an elevation of approximately 178 meters (587 feet). The city is in the middle portion of the doab, the land between the Ganges and the Yamuna rivers. The Grand Trunk Road passes through it via NH-91 is 134 km from capital of India.

Aligarh is well connected by both road and rail with the city being a major railway junction. There are trains connecting Aligarh to both Delhi and Lucknow at regular interval. The drive time between Aligarh and Delhi is only 3 hours. The nearest international airport from Aligarh is Delhi and a new airport is coming up in Jewar which will make air connectivity from Aligarh even better.

2.2Topography & Agriculture

Aligarh district is a part of Central Ganga Plain of the state covering an area of 3700.4 sq.km. The district is bounded by river Ganga in the west and the river Yamuna in the east. The entire district falling in Upper-Ganga doab represents flat topography. The irrigation in the district takes place through Upper-Ganga and Lower Ganga Canal network system and tubewells. About 85% of the district area is under active cultivation. About 79% area of net sown area (398600) is irrigated both by surface water (Upper Ganga & lower Ganga Canal network system) and ground water through shallow and moderately deep tubewells.

The economy of the district mainly depends upon Agriculture the district receives a normal rainfall of 708 mm with 46 rainy days experiences sub-tropical climate. The district is mainly drained by river Ganga & Yamuna and their tributaries. Karwan, Sirsa & Sengar are important.

3. Industrial profile of the district

There are many cottage units within households in various parts of the city. The other units in the city are located at Sasni Gate, Ramghat Road, GT Road and other area. Industries in Aligarh are based at different parts of the city. Most of the industrial units are concentrated in three industrial areas; Talanagri 1-2, Industrial estates and GT Road etc.

Table 1:Industrial infrastructure of Aligarh.

S. No.	Name of Industrial Area	Land Developed	Prevailing Rate	Allotted Plots	Units in productions
		Hectare	INR per Sqm	No.	No
1	Industrial estate	14.17	4000	130 (31shades)	154
2	Tala Nagri sector 1	69.55	3800	860	331
3	Tala nagri sector 2	53.90	3800	400	180
Total		137.6		7,818	665

Aligarh is one of the largest locks and hardware manufacturing regions in UP, with UP accounting for around 80% of total lock and hardware export of the country. The following table gives a brief of the total number of MSME units across Locks & hardware, meat processing, manufacturing, wood, metal, rubber, electrical, food processing, chemical, paper and engineering sectors in the district alongside their investment and employment.¹

Table 2: Industries details2

			Investment	
Sno	Industry	Total Units	(INR Lakhs)	Employment
1	Agro Based	860	6128.25	4120
2	Ready-made Garments and Embroidery	745	4125.25	2680
3	Wood/wooden based furniture	365	2314.25	1860
4	Paper & Paper products	220	3216.32	1540
5	Leather based	110	1547.25	450
6	Rubber, Plastic & Petro based	170	3285.45	780
7	Chemical/Chemical based	88	2245.20	125
8	Metal based (Steel Fab.)	971	21940.50	4828
9	Engineering Units	630	8451.25	1680
10	Repairing & servicing	3180	28450.55	16325
11	Others	2560	35871.28	14520

¹ District Industries Centre, Aligarh

² http://dcmsme.gov.in/old/dips/Aligarh.pdf

The locks and hardware-based industries sector of MSMEs currently has 10,500 units employing nearly 2 lakhs people in the district.³ It is the leading industry in the district's economy contributing sector, followed by sectors such as "Repairing & servicing", "Metal, Fabricated metal products" with 3180 and 971 units respectively.

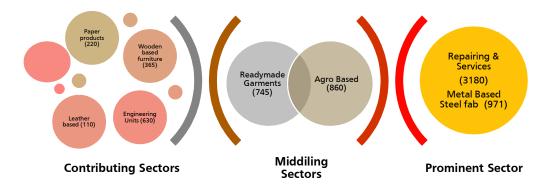


Figure 1: MSME landscape of the district

Out of total population of 36,73,889 (2011 census) 11,74,361 are working population. Out of total working population, 47% are cultivators and agricultural labourers. This indicates that agriculture is the major source of income in the district.

Table 3: Occupational Distribution of Main Workers4

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S. No.	Particulars Particulars Particulars	Aligarh	%		
1	Cultivators	2,81,501	24.0%		
2	Agriculture Laborer's	2,67,197	22.8%		
3	Household Industry Workers	78,566	6.7%		
4	Others	5,47,097	46.6%		

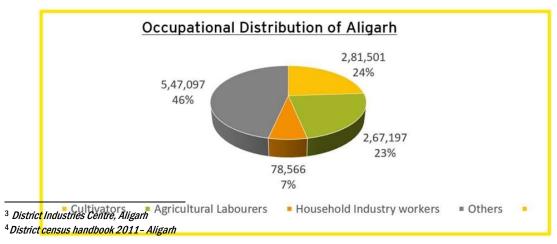


Figure 2: Occupational distribution of Aligarh

3.1 Major Exportable Product from Aligarh

The following table depicts the value of export of five major products from Aligarh for the period January 2021 to September 2021:

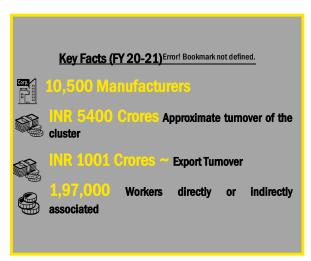
S. No HSN Code		Product	Export value (in INR) ⁵ from September 2020 to November, 2021
1 020230 Boneless meat of bovine animals , frozen		INR 34,64,79,52,341	
2	830241	Fittings for doors & windows	INR 8,04,88,91,303
3	830242	Other fittings etc suitable for furniture	INR 1,96,38,33,299
4	020629	Other edible offal of bovine animals, frozen	INR 1,35,92,94,378
5	830629	Handicraft items of metal	INR 60,00,00,000 ⁶
		Table I Eller A	10.5 16 61 00 71 0017

Table 4: Major exportable product

4. Product 1: Locks & Hardware

4.1 Cluster Overview

The presence of lock industries in Aligarh can be traced back to the early 1900's. The locks were earlier imported from England. With the passage of time, the industry gained imported and foreign engineers being involved in the manufacturing of locks in Aligarh. The Aligarh ecosystem is selfreliant with most of the process and supplies being sourced from within Aligarh. Few players source the raw material from outside Aligarh, these include the bulk purchase of materials from Ghaziabad. The material suppliers generally supply metal in the form of bars, ingots and metal sheets. MSME units use virgin metal for manufacturing whereas industries use recycled auto metal sheets for



INR 46,61,99,71,321⁷

Figure 3: Key Facts of locks & Hardware Cluster

manufacturing locks. Micro and Cottage Units use recycled metal sheets due to its lower cost. However, this also results in inferior quality products with low market prices for cottage industries.

4.2 Product profile

The demand for locks and hardware products from Aligarh is generated both domestically and internationally. There are multiple manufacturers in Aligarh, which export their products. Since the locks and hardware industry in Aligarh is quite well-known and well-established, most of the units have an established marketing/ distribution network, which has benefitted them for years. These networks help these units supply their products to retailers around the country and the world. The market linkages can be classified into five tiers – manufacturers, distributors, retailers, installers and end customers. The average price of the lock is around 150 to 550 and depends on the lock's verity and key combinations. The Indian lock and hardware industry is covered under NIC

⁵ District wise report for the period September 2020 to September 2021 received from DGFT

⁶ Stakeholders consultation.

¹ Total export from Aligarh for the period January 2021 to September 2021 as per the data received from office of DGFT, Kanpur

code 25934. The locks and hardware industry in India has grown remarkably over the last few years, with the overall output of the industry in Aligarh estimated at around INR 5400 crores FY 2020-21.

4.2.1 Product Portfolio

The following are the key products manufactured in the cluster:

- Padlock: Padlock are one of the most popular type of locks manufactured in Aligarh. Units in Aligarh uses stamping to manufacturing components from sheet metals and then assembling them into the locks. The process requires different dies for stamping as per the padlocks being manufactured.
- 2. **Door lock:** A lock on an exterior door/car door that allows entrance to or exit from a building is known as a door lock. This type of lock requires a fastener fitted to a door or a drawer to keep it firmly closed. Aligarh units have experiencing a lag in moving from the manufacturing of pad locks to door locks. This has resulted in Chinese firms gaining the first mover advantage into door lock manufacturing. Currently due to automation Chinese firms can manufacture door locks at a price variation of almost 20% compared to Indian manufacturers...
- 3. **Bicycle lock:** A bicycle lock is a security device used to deter bicycle theft, generally by fastening the bicycle to a fixed object. These locks are manufactured in different shapes and sizes.
- 4. **Furniture lock:** These types of locks are used in almirah and cabinets. They are manufactured in bulk and supplied mainly to furniture manufacturers.

4.2.2 Status of GI Tag

The registration of Geographical Indication (G.I.) status of Aligarh locks is underway.⁸ It has been filed by the Talanagri Audyogik Vikas Association & Aligarh Hardware Evam Locks Traders Association, file on 19-10-2019.

4.3 Cluster Stakeholders



Figure 4: Cluster Stakeholders

4.3.1 Industry Associations

Following are four principal Industry Associations/SPVs that are working for the development of Locks & Hardware cluster in Aligarh:

- PPDC (Process and Product Development Centre for technological upgradation for Micro and Small enterprise)
- Zakir Hussain College of Engg & Technology AMU
- National Institute of Foundry and Forge Technology NIFFT
- ► The Institute of Indian Foundrymen-IIF (Foundry Informatic centre)
- Laghu Udyog Bharti
- Talanagri Udyogik Vikas Sanghtan

⁸ https://search.ipindia.gov.in/GIRPublic/Application/Details/664

- Saksham Locks and Die Casting
- SIA Manufacturing
- Godani Infratech
- Popo Packaging Center

4.4 Export Scenario

4.4.1 HS code

The following table lists the HS codes under which the products are exported from the district:

Table 5: HS codes for Chikankari & Zari-Zardozi

HS codes	Description
830241	Base metal mountings and fittings suitable for buildings (excluding locks with keys and hinges
830242	Base metal mountings, fittings & similar articles suitable for furniture (excluding locks with keys, hinges & castors)

4.4.2 Current Scenario

The export scenario of India and Uttar Pradesh have been analysed basis the export statistics of HS codes mentioned above under which locks hardware products are exported. Alongside are the key facts⁹ pertaining to the analysed product codes.

Based on our analysis, we have identified key synergies that should be developed to expand our current reach and potential; These synergies are divided into immediate and long term. The immediate synergies include countries with Signed FTA's, high growth potential, and one is catered by India and not UP. Whereas the long-term synergies include countries with untapped market potential which can only be fulfilled if UP's exporters comply and raise the quality of the product to the highest standards, freight rates are more subsidized and major efforts is required in marketing which will require time to accommodate the same.



Figure 5: Key facts locks & hardware exports.

4.5 Export Potential

- ► The total exports of locks & hardware products from Aligarh district was approx. INR 1001 crores from Sep 2020- Nov 2021.¹0
- The cluster has tremendous export potential. As per the exporters, the demand for the locks & hardware products is driven by rapid infrastructure development in the housing as well as corporate sector.
- Hence, it was pointed out that the proper study of the foreign market, region specific demand patterns to be ascertained. Along with that, a common platform to be created where there can be an integration between the exporters and importers, thereby making the export ecosystem robust and effective.
- The said products are majorly exported under HS code viz, 830241 & 830242, from Aligarh.

Product 830241: India exports this product to **Germany**, **Poland**, **United Kingdom**, **Canada**, **France**, **Russian Federation**, **Netherlands**, **Italy**, **Belgium**, **Japan**, **Austria**, **Australia**. Below figure shows the top importers for this product (581092) in the world:

⁹ https://www.trademap.org/

¹⁰ Total export from Aligarh as per the data received from office of DGFT, Kanpur

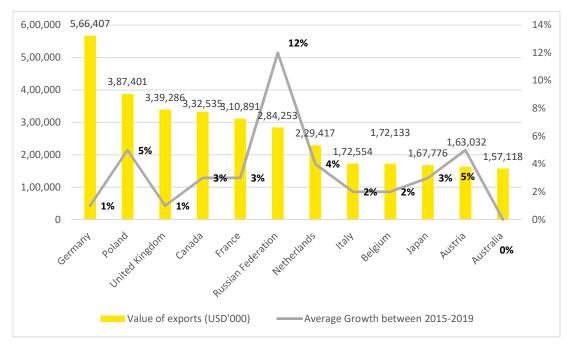


Figure 6: Top importers for this product (830242) in the world

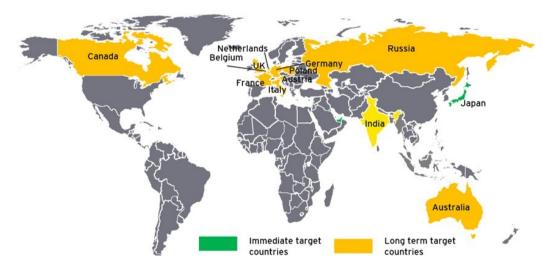
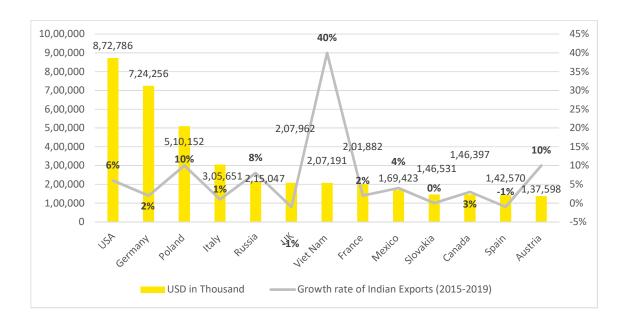


Figure 7: Markets for export potential

Product 830242: India exports this product to USA, Germany, Poland, Italy, Russia, UK, Viet Nam, France, Mexico, Slovakia, Canada, Spain, Austria. Below figure shows the top importers for this product (581092) in the world:



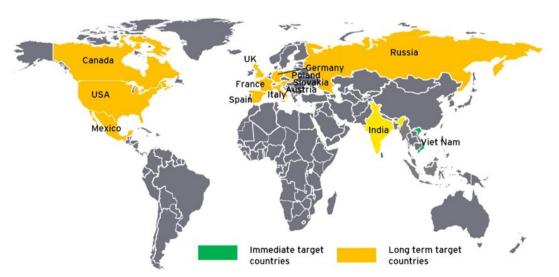


Figure 8: Top importers for this product (830242) in the world

Figure 9: Markets for export potential

4.6 Potential Areas for Value Added Product

Product Diversification is one of the most crucial product uplifting strategies which in turn is an important part of a product's export. This plays a vital role in any products exports as it is a product uplifting strategy. Adaptation towards new market trends of electronic digital locks which are in high demand in domestic as well as international market due to the rapid expansion in corporate sector as well as modern housing is recommended.

- 1. It will involve a two-pronged approach.
 - a. Bridging the skill gap required to understand & work with latest technology.
 - b. Introduction of new machinery and electronic parts capable of producing the desired product.

4.7 SWOT analysis

Table 6: SWOT Analysis

	Strengths	Weakness
	Easy availability of workforce. A brand name in itself due to recognition well established cluster more than 100 years old. Easy availability of raw material for mass production. Availability of various government interventions for fostering the cluster. 4 existing CFC's for packaging, & 3 in Dye casting.	 Minimal technological upgradation. Lack of skilled individuals with technical qualifications. Lack of focus on increasing export especially SME's are content with fulfilling local orders and thus the quality also remains somewhat lower than the international markets. No GI tag for Aligarh locks & hardware products despite being such an old cluster.
	Opportunities	Threats
> >	Huge scope of market expansion- domestic and foreign. Scope for modifying existing range of products moving on from pad locks & foraying into mortise and cylindrical locks as well as digital locks. Potential technological collaborations for manufacturing the digital locks major components in Aligarh. Increase participation in marketing events-International and domestic	 High influx of Chinese products in the domestic markets. Loosing share in the international arena owing to inferior quality and low price competitiveness of the product

4.8 Challenges and interventions

Table 7:Figure 9:Locks & hardware cluster; challenges & interventions.

Parameter	Challenges	Intervention
Raw Material	 Raw Material Bank: Sourcing of Raw Material, fluctuation in prices of metal. 	Establishment of a Raw Material Bank within the CFC (under CFC Scheme of ODOP) ensuring easy availability of all types of metal and hedge against price fluctuations and cutting on the middle men commission.
Technological upgradation	Lack of advanced machinery used for precision cutting computer-controlled (CNC machines), tempering as well as electroplating & PVD coating.	Establishment of Common Production Center (under CFC Scheme of ODOP)with modern facilities for electroplating, PVD coating, die tempering & nitriding along with high end CNC machines.
Design	Traditional designs are still being followed by artisans they are not focusing on design innovation	 Establishment of Product Design Center (under CFC Scheme of ODOP) with CAD/ CAM facility along with a display center. Collaboration with renowned designers to conduct workshops for artisans pertaining to design forecasting, upcoming trends, market assessment etc.

Marketing & branding	 Lack of infrastructure for marketing and trading of the product in domestic and international markets Offline marketing is broadly used over online marketing Lack of knowledge of existing schemes and govt. initiatives Lack of participation in national and international events. Absence of GI tag for Aligarh locks. 	 Establishment of a Marketing centre within the CFC (under CFC Scheme of ODOP) to facilitate marketing events & to encourage exports. Collaboration with E-commerce companies like Flipkart, Amazon, E-bay for maximizing market outreach. GI Tagging- GI tag will help lock manufacturers of Aligarh differentiate their products from similar lock manufacturers. The DGFT/FIEO can set targets for participating in events per year. Example: Participation in at least 3 international events for this sector every year to create foreign linkages and increase. Leveraging ODOP Marketing Assistance Scheme and International Cooperation Scheme.
Quality Improvement	Lack of awareness on quality parameters & standards of the products.	Launching drives for awareness about the different certifications required in international markets like, 'CE marking' to export to the EU market, 'CSA marking' in Canada etc. These certifications will enable manufacturers in Aligarh to tap international markets by educating them that how their quality can be maintained/ improved and their merchandise can be exported across the globe.
Infrastructure	The industrial character of the city demands for modern & quality support infrastructure for productivity enhancement. A strong need is felt for upgradation of infrastructure in industrial estates to resolve day to day issues of the manufacturing units on various fronts.	The electroplating units in Aligarh discharge their effluents without treating them. This has been causing a lot of environmental problems and has brought Aligarh under the eye of the NGT. The electricity supply needs to improve. The easing of traffic congestion is also highly desired for swift movement of goods.
Exporter's issue	No focal point to address exporters ongoing issues.	DIEPC to act as a focal point for all exporters issues. Deputy Commissioner Industries may be given this responsibility to monitor the cell in consultation with DGFT.

4.9 Future Outcomes

Annual Turnover Increase in annual turnover from existing INR 5400 Cr. to 7000 Cr. by 2025

Figure 10: Future Outcomes; locks & hardware cluster.

5. Product 2: Metal Handicraft

5.1 Cluster Overview

The process of emergence of Brass handicrafts cluster in Aligarh was spontaneous and not induced. The brass sculptures industry in Aligarh is

Cluster exports

also increase by from INR 1001 Cr to INR 1300 Cr. by 2025.



close to 50 years old. Easy availability of raw materials was one of the reason to attract establishment of brass cluster in Aligarh subsequently made available through thriving locks and hardware industry. The advent of Aligarh Brass cluster is largely dependent on locks & hardware industry in Aligarh. To study the origins of the current brass cluster its imperative to learn about the history of locks manufacturing in Aligarh, which dates back almost 125 years. In 1870, a company, Johnson and Company was established by an Englishman to import locks from England for sale in Aligarh. In 1950, Surendra Kumar, the son of a barrister started manufacturing locks in a very systematic way by importing machines and techniques and even foreign engineers. But in 1975 the company collapsed, resulting in the engineers, contractors, mechanics, and labourers employed in this large concern setup their own small-scale lock units scattered all over the city. A few pioneering entrepreneurs started manufacturing brass statuettes. As their enterprises grew in volume and operation, others also followed. The metal artware cluster of Aligarh is specialized in casting of metal which involves pouring of molten metal in the molds and allowing it to solidify & take the shape of a specified object. There are close to 1200 units providing direct/indirect employment to around 30,000 workers.

5.2 Product Profile

Statues of Gods and Goddesses: These mostly includes handcrafts such as Brass Statues of Hindu Gods & Goddesses such as Krishna, Ganpati amongst most popular one as well as Buddha, Mother Mary, Jesus Christ a and Greek Gods idols



the

2 Artware: These may include a wide variety of products used for home decoration ranging from animal motifs such as elephant as well as photo frames, jewelry boxes, candle stands, wall hangings etc.



3 Pooja Items: Large Dia stands used mainly in ceremonial occasions such as openings, inauguration and small dia's as well as decorative thalis are also made Aligarh.



5.2.1 Status of GI Tag

GI tag registration for Aligarh Metal Handicrafts is yet to be initiated.

5.3 Cluster Stakeholders

- Raw Material Suppliers.
 - Brass, Aluminium, Copper.
- Manufacturers.
- Workers.
 - polisher, casting technician, welder, grinding/turning man, furnace operator, mould setter.
- Machinery Suppliers.
- Transport & Packaging service providers.
- Dealers.
- Exporters.

- Banks.
 - Public & Private banks.
- Training institutes.
 - ITI, DIC Aligarh
 - Industry Associations.
 - Aligarh Brass Statue and Artware Association.

Figure 12: Cluster Stakeholders

5.4 Export Scenario

5.4.1 HS Code

HS codes under which the product is exported from the district.

Table 8: HS Code with description

HS Code	Description	Value of exports (in USD Thousand)
830629	Statuettes and other ornaments, of base metal, not plated with precious metal (excluding works of art, collectors' pieces and antiques.	3,895

Current Scenario

The export scenario of India and Uttar Pradesh have been analysed basis the export statistics of HS codes 830629 under which Brass Metals are being exported Alongside are the key facts pertaining to the analysed product code.¹¹

a. Export Potential

- ► The total exports of Metal Handicrafts from Aligarh district were around INR 60 crores¹² in year 2020-21.
- India's exports represent 0.002% of world exports for this product. 11

Product 830629: India exported this product to USA, Germany, Netherlands, Canada, Switzerland, Australia, Japan, Sweden etc. Below figure shows the top importers for this product (080450) in the world:13

Key Fact of Export

16,29,638 (USD Thousand)

Value of world exports in 2020

4240 (USD Thousand)

Total Exports from India in 2020

0.002%

Share of India Exports in World

1290 (USD Thousand)

Total Exports from UP in 2020

30%

Figure 13: Key facts; metal handicrafts exports.

¹¹ https://www.trademap.org/

¹² Source: Stakeholders consultation.

¹³ https://www.trademap.org/

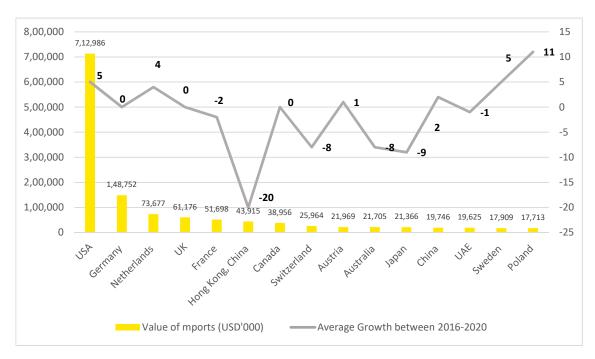


Figure 14: Top importers for the product 830629

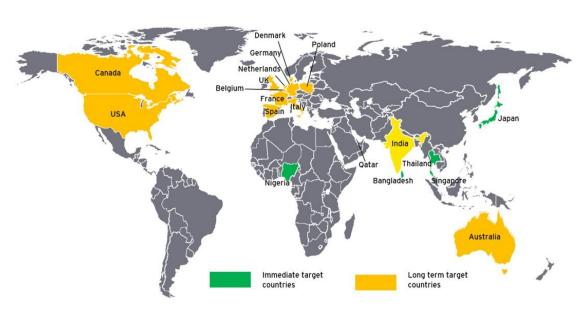


Figure 15: Markets for export potential

b. Potential Areas for Value Added Product

Product Diversification – The Industry is currently focussed on traditional statues only of gods and goddesses of same repeated pattern. Innovation & new product development Modern contemporary designs such as feng shui art, Brass wall art along with religious idols would lead to penetration in newer domestic as well as international markets and drive increase in demand.

c. SWOT Analysis

Table 9: SWOT Analysis for Metal Handicrafts.

	Strengths	Weaknesses
> > >	Strong historical background of around 50 years in metal artware manufacturing provides advantage in know how over the years. Availability of skilled labour. Ability to develop duplicate & customized designs.	 Lack of advanced machines Low investment in development of designs. Focus on domestic markets only. Designs are outdated
	Opportunities	Threats
	Large scope in domestic and foreign market for	Competition in domestic markets from China due to cheap imports of machine made goods

d. Challenges and interventions

Table 10: Challenges & interventions; Metal Handicrafts cluster.

Parameter	Challenges	Intervention
Technology	 The coal furnace is expensive as compared to other gas based furnaces and a source of pollution. Lack of advanced Machines in various processes such as lacquering, polishing, grinding & manual such as manual prototyping take longer time and result in poor quality of finished goods. 	 Introduction of gas-based furnaces shall increase the cost competitiveness of the cluster. The use of Gas based furnaces shall result in saving 35-40% of the costs incurred on fuel as compared to Conventional coal based pit furnaces. Development of common infrastructure such as tool rooms equipped with CAD operated CNC machines which cuts metal more precisely, accurately, consistently and economically, better equipment for polishing & grinding, dust free booths for polishing & lacquering as well as 3D printers for making prototypes for swift manufacturing process.
Marketing & Branding	 Offline marketing is broadly used over online marketing. Market access is restricted due to factors ranging from awareness of export documentation procedures. Lack of knowledge of existing schemes and govt. initiatives Lack of participation in national and international events related to the 	 Collaboration with E-commerce companies like Flipkart, Amazon etc. Establishment of a Common Display Center for Buyers visiting Aligarh. Conduct awareness workshops at block level to create awareness about schemes like International Cooperation (IC), Market Assistance Scheme (MAS) etc. which provides assistance to individuals/ associations wishing

Parameter	Challenges	Intervention
	sector.	to participate in marketing events.
		 Onboarding of manufacturers/artisans on odopmart.com for selling of products
		Spreading awareness and providing encouragement to participate in exhibitions such as Dilli Haat & Hunar Haat etc.
Design	 There is no designing facility in the cluster. No new designs, cluster highly reliant on selling the traditional statues only of gods and goddesses of same repeated pattern. 	 Establishment of a product design & development center & design bank equipped with CAD based designing software, 3D printer software and expert personnel. MOU with institutes such as MGIRI (Mahatma Gandhi Institute for rural industrialization) which provides services in 'product design and fabrication of prototypes in the development of new products and to craft products to become globally competitive.
Quality	There is no testing lab facility in the cluster for conducting tests as per the buyer protocol for testing of the metal handicraft product.	Establishment of a quality testing lab with accreditation from National Accreditation Board for Laboratories (NABL), ISO 17025:2017 – General requirements for the competence of testing and calibration laboratories for tests such as Lead in Surface Coating as per 16 CFR 1303. Lead & Cadmium Leaching Test according to FDA, California Prop. 65 & European Directives. Metallic coating thickness, Adhesion acid resistance, alkali resistance, resistance to water/ warm water, salt spray test, tilt test, colour shade matching etc.
Access to finance	 Finance availed through unorganized sectors on higher rate based on personal relationship. Low awareness on existing schemes, poor report and documentation preparation owing to higher rate of rejection. 	 Leverage ODOP, MYSY, PMEGP margin money scheme. Awareness campaigns, workshops to spread awareness on existing government schemes.
Skill development	There is no specialised institute which imparts training for manufacturing of the product.	Leverage existing OODP Skill Development, entrepreneurship & Skills Development program (ESDP) and Toolkit Scheme through DIEPC.
Exporter's issue	No focal point to address exporters issues.	DIEPC to act as a focal point for all exporters issues. Deputy Commissioner Industries may be given this responsibility to monitor the cell in consultation with DGFT.
Cost Structure	 U.P. is a land-locked state. India's cost of logistics is one of the highest in the world. Since the start of Covid 19 Pandemic, the availability of containers and the Freight Charges by the Shipping lines has been the main concern of the industry 	 The DIC office should organize workshops for exporters to apprise them about Foreign Trade Policy benefits viz. Duty Exemption Scheme / Advance Authorization Scheme / Duty Free Import Authorization Scheme. The CONCOR rates are to be made available at regular intervals to the DIC office for updation of the same at the district website. The formation of the Sub-committee comprising

Parameter	Challenges	Intervention
		the representative of CONCOR and Deputy Commissioner Industries to understand the issue and suggest ways to help Industry. Ease of Logistics portal of FIEO has been developed to provide information about container availability and issues relating to it. The industry may be informed of this portal.

e. Future Outcomes

Annual Turnover Cluster exports Increase in the annual turnover from current 600 grow from 60 crores to 780 by 2025. Substantial growth in cluster exports expected to be grow from 60 crores to ~75 crores by 2025.

Figure 16: Future outcomes; Metal Handicrafts cluster.

6. Product 3: Frozen Meat

6.1 Cluster Overview

UP has 41 of India's 73 buffalo abattoirs/meat processing plants approved by the Agricultural & Processed Food Products Export Development Authority (APEDA) under the Union Commerce Ministry. UP accounts for nearly 50% of India's total meat exports, a huge industry that provides livelihood to 25 lakh people, directly or indirectly.

The cluster's annual turnover in 2020-21 was around INR 3,900 Cr^{14} . The export turnover from September 2020 to November 2021 was INR 3,600 Cr^{15} . Total employment in the cluster is around 2,000 16 .

The abattoirs in the cluster are namely Allana Frigario Conserva, Al-dua Food processing, Al-Ahmad Agro Food Pvt. Ltd., Al Hamd Agro Food Products Pvt. Ltd., Al Ammar Frozen Foods Exports Pvt. Ltd. Al Hasan Surti & Al Tabarak Frozen Foods Pvt Ltd. These units contribute for major export of processed meat from the district.

6.2 Product Profile

- Carcasses Of Bovine Animals.
- Meat Of Bovine Animals With Bone.
- Boneless Meat Of Bovine Animals.

6.2.1 Product Portfolio

Chilled Boneless Buffalo Meat

¹⁴ DIEPC Aligarh

¹⁵ DGFT Kanpur

¹⁶ DIEPC Aligarh

Chilled Boneless Buffalo Offal

f. Cluster Stakeholders

Primary raw material providers
 Farmers
 Research Institutions
 Exporters
 Registered suppliers
 Transporters
 Unit owners.
 Workers

Figure 17: Cluster Stakeholders

- Farmers: The animals having served their utility, are a burden (commonly referred as bojh) on the farmer and thus sold for reinvesting in the purchase of fresh cattle. The buffaloes that are a bojh (burden) are of following four categories:
 - The first includes those that after about five lactations, If they are beyond the age on 9-10 years or have stopped producing enough milk to justify their continued maintenance.
 - The infertile animals.
 - The third are the ones with damaged udders.
 - Male calves.
- **Vyapari (middlemen):** The vyapari is the vital cog in the buffalo meat value chain, connecting the small dairy farmer in UP's rural hinterlands to the processor. Vyaparis source and aggregate buffaloes from farmers.
- Registered Suppliers: are technically authorised to supply animals to integrated abattoirs-cum-meat processing plants on a commission basis and to whom payment is made through RTGS bank fund transfer. He, in turn, pays the middlemen independently in cash.
- Transporters: They render logistical support or freight services for transporting animals to the processing plants.

6.2.2 Industry Associations

Following are main Industry Associations that are working for the development of Frozen meat:

Table 11: Industry associations; Frozen Meat cluster.

Concerned Ministry	Ministry of Commerce & Industry	
Associated State Departments, Boards and Associations		
Name	About the organization	Contact Details

UP Industrial Consultancy Organisation (UPICO)	This is a consultancy organization set up by all India financial institutions, banks and support institutions of Govt. of U.P. having its head office at Kanpur. It is mandated to provide feebased services for conducting feasibility studies, preparing project reports and also giving micro consultancy to SMEs. Usage of its services by SMEs as observed during field visits is negligible. Presently its major activities are to conduct studies sponsored by Govt. departments and implement Govt. sponsored programmes.	7th Floor, summit building, Gomti Nagar, Lucknow, Uttar Pradesh 226001
Agricultural & processed Food Products Export Development Authority (APEDA)	The Agricultural and Processed Food Products Export Development Authority (APEDA) was established by the Government of India under the Agricultural and Processed Food Products Export Development Authority Act passed by the Parliament in December, 1985. The Act (2 of 1986) came into effect from 13th February, 1986 by a notification issued in the Gazette of India: Extraordinary: Part-II [Sec. 3(ii): 13.2.1986). The Authority replaced the Processed Food Export Promotion Council (PFEPC).	Address: 3rd Floor, NCUI Building 3, Siri Institutional Area, August Kranti Marg, (Opp. Asiad Village), New Delhi - 110 016, India Phone: 91-11- 41486013,20863919, 26513219, 26514572, 20867008, 20867007, 26534870, 26850301
All India Meat & Livestock export Association. (AIMLE)		3rd Floor, Sidhwa House, Sasoon Dock, N.A Sawant Marg, Nr. Colab Fire Brigade Mumbai Maharashtra 400005
MSME- Development Institute (MSME DI), Kanpur	MSME-DIs are the subordinate offices of Development Commissioner, MSME. These offices are responsible for assisting MSMEs financially through schemes and improving their technical skills through skill upgradation / training programmes. UP has 3 MSME – DIs at Agra, Kanpur and Prayagraj. MSME DI, Kanpur provides services related to the promotional & developmental needs of the MSMEs. The institute maintains a close liaison with the state's Department of MSME and Export Promotion, DIEPCs, financial Institutions, and other agencies concerned with the development of MSMEs in UP.	107, Kalpi Rd, Industrial Estate, Darshan Purwa, Kanpur, Uttar Pradesh 208012

6.3 Export Scenario

6.3.1 HSN Code

HS codes under which the product is exported from the district

Table 12: Frozen Meat HSN codes.

HS Code	Description
020230	BONELESS MEAT OF BOVINE ANIMALS, FROZEN

Current Scenario

The export scenario of World and India have been analysed basis the export statistics of HS codes 020230 & 020629 under which meat is exported. Alongside are the key facts pertaining to the analysed product code.¹⁷

6.4 Export Potential

- ► The total exports of boneless meat from the district as per HS code 020230 & 020629 is around INR 3,600 crores from September 2020 to November 2021.¹⁸
- India's exports represent 11% of world exports for this product, its ranking in world exports is 3

Key Fact of Export¹⁷

26,973,672 (USD Thousand)

Value of world exports in 2020

2,998,033 (USD Thousand)

Total Exports from India in 2020

11%

Share of India in exports

Figure 18: Key facts; Frozen Meat exports.

under HS code 020230. Under HS Code 020629, India contributes close to 10% to the world exports and ranks 4% in the world after Australia, USA & Brazil respectively.

Product 020230: Below figure shows the top importers for this product:

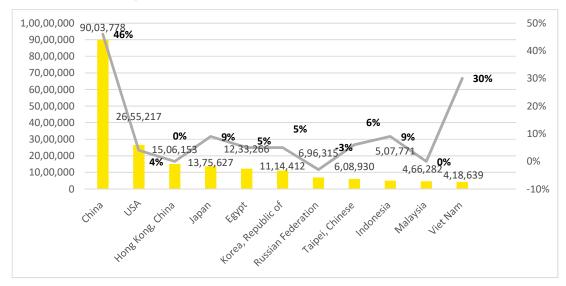


Figure 19: Top importers for this product (020230) in the world17

¹⁷ www.trademap.org

¹⁸ DGFT, Kanpur

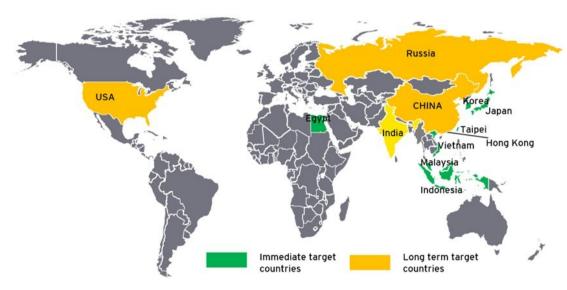


Figure 20: Markets for export potential for this product 020230.

Product 020629: Below figure shows the top importers for this product:

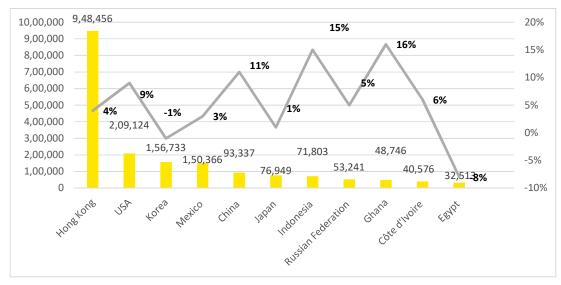


Figure 21: Top importers for this product (020629) in the world¹⁷

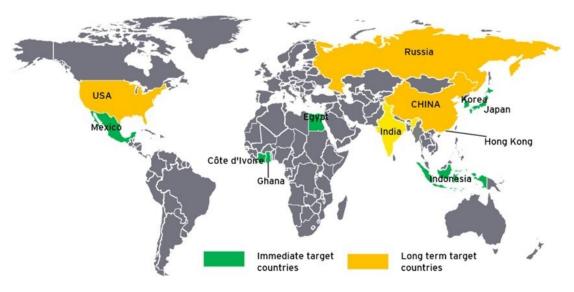


Figure 22: Markets for export potential for this product 020629

6.5 SWOT Analysis

Table 13: SWOT Analysis for Boneless meat and other edible offal of bovine animals

Strengths	Weaknesses
 Rich experience in meat processing Low-cost manpower Leadership position in export of boneless meat 	 Low compliance by smaller units of the stringent environmental regulations. Suboptimal backward integration of supply chain Cost of running CETP is very high
Opportunities	Threats
 Increasing demand for buffalo meat in global market Exposure to new markets through fairs by leveraging MDA scheme. 	 Polluting Industry Looming fear of temporary or permanent closure of slaughterhouses due to activism of cattle protection lobby. Restrictions on movement of cattle by vigilantes.

6.6 Challenges and interventions

Table 14: Frozen Meat cluster-challenges & interventions

Parameter	Challenges	Intervention
Environmental Issues	Challenges faced by slaughterhouses/ industries in complying pollution control norms regarding treatment of effluents and TDS levels of discharge. There is lack of awareness of global environmental and social norms. Smaller units find it difficult to bear the operational cost of CETP.	Hard Intervention: Setting up modern technology based CETPs would ensure in reduction of effluents in TDS levels of liquid discharge. Soft Intervention: Awareness and outreach program for raising consciousness about environment issues due to the pollutants. Use of codes of conduct (COC) for assessment of suppliers on social and environmental compliance.
Marketing & Branding	 Increasing the participation in International Trade fairs Lack of knowledge of existing schemes and govt. initiatives Lack of participation in national and international events related to the sector. 	 DIC and FIEO can play a pro-active role in this regard. 10% increase in every year in the number of units taking part in the trade fairs organized by FIEO and other organizations may be proposed as a target under this segment Conduct awareness workshops to create awareness about schemes like International Cooperation (IC), Market Assistance Scheme (MAS) etc. which provides assistance to individuals/ associations wishing to participate in marketing events. The DGFT/FIEO can set targets for participating in events per year. Example: Participation in at least 3 international events for this sector every year to create foreign linkages and increase
Exporter's issue	No focal point to address exporters issues.	DIEPC to act as a focal point for all exporters issues. Deputy Commissioner Industries may be given this responsibility to monitor the cell in consultation with DGFT.
Cost Structure	 U.P. is a land-locked state. India's cost of logistics is one of the highest in the world. Since the start of Covid 19 Pandemic, the availability of containers and the Freight Charges by the Shipping lines has been the main concern of the industry. 	 The DIC office should organize workshops for exporters to apprise them about Foreign Trade Policy benefits viz. Duty Exemption Scheme / Advance Authorization Scheme / Duty Free Import Authorization Scheme. The CONCOR rates are to be made available at regular intervals to the DIC office for updation of the same at the district website. The formation of the Sub-committee comprising the representative of CONCOR and Deputy Commissioner Industries to understand the issue and suggest ways to help Industry. Ease of Logistics portal of FIEO has been developed to provide information about container availability and issues relating to it. The industry may be informed of this portal.

6.7 Future Outcomes¹⁹

Annual Turnover Increase in annual turnover from INR ~3900 Crore in 2020-21 to ~4500 Crore by 2025.

Cluster exports

The increase in export of the product from INR ~3600 Crore during the September 2020 to November 2021 to ~4300 Crore by 2025.

Figure 23:Future outcomes Frozen meat products.

¹⁹Basis Stakeholder Consultation

7. Scheme under Uttar Pradesh Export Promotion Bureau

Various schemes being run by Export Promotion Bureau to apprise the exporters are as follows:

A. Marketing Development Scheme (MDA)

S. No	Incentive Offered	Amount of incentive against total expenditure
1	Participation in foreign fairs/exhibitions (total three fairs / annum) a. Stall charges b. Air fare (economy class)	a. 60% of stall charges (max 01 lakh /fair)b. 50% (max 0.5 lakh for one person /fair)
2	Publicity, advertisement, development of website	60 % (max 0.60 lac/annum)
3	Sending of samples to foreign buyers	75 % (max 0.50 lac/annum)
4	ISO /BSO certification	50 % (max 0.75 lac/annum)

B. Gateway Port Scheme

Brief Description	Assistance is given to all manufacturing exporting units on expenses incurred on the rail transport of their goods from ICD/CFS to Gateway ports.
Eligible units	Micro, small & medium enterprises.
Incentives Offered against actual expenditure	25% of the total expenditure or Rs 6000 (20 ft' container) & Rs 12,000 (40 ft' container) whichever is less
Maximum limit	Rs 12 lacs /unit /year
Empowered committee	District Users Committee under the chairmanship of district magistrate.

C. Air Freight Rationalization Scheme

Incentive offered	20% of the actual expenditure or Rs 50 / kg (whichever is less)
Eligible Units	Manufacturer & merchant exporter
Maximum limit	Rs 2 lacs /unit /year
Recognized Cargo Complexes	Varanasi & Lucknow

8. Action Plan

Table 15: Action Plan

Quantifiable activity/ intervention	Responsible authority	Timeline for implementation ²⁰
Increasing the overall exports from the	ne state	
Sensitization and facilitation in availing Import/ export documents: Majority of the cluster actors though interested and sensitized on exports are unaware of Import-Export Code which is crucial for participating in global trade. While some of them are aware, they face challenges in applying. Thus, at district level, a camp should be set in every three months to help the individuals interested in trade to understand about the requisite documents required for undertaking import/ export and provide support in availing them	DIEPC, UPEPB	Continuous initiative
Creation of an event calendar comprising of events to be conducted in a Financial Year with a focus on international marketing events. Further, DGFT and FIEO can finalize a target to participate in at least 3 international events in a year per product category/industry (food, engineering & auto components, handicrafts, textile& apparel etc.) by utilizing schemes like IC and MAS	DIEPC , UPEPB	Continuous initiative
 a. The individuals of a cluster should be sensitized on the plethora of schemes²¹ available for them for maximizing the potential of exports. Merchandise Exports from India Scheme, Service Export from India Scheme etc. provides various exemptions for facilitating exports. Further, schemes like Advance Authorization Scheme (AAS), Duty Free Import Authorization (DFIA Scheme) ensure procurement of imported duty-free raw materials b. Currently, majority of the exporters and traders focus on selling their goods to USA, UK and European countries without correctly analyzing the demand market. Thus, these cluster actors should be sensitized on target countries identified through export analysis mentioned in DAPs and EAP 	DIEPC , UPEPB	Continuous initiative

²⁰ Short term: Should be initiated within 6 months, Intermediate: to be initiated between 6- 12 months, long terms after 12 months

 $^{^{21}}$ List of available schemes facilitating exports: https://cdn.s3waas.gov.in/s3555d6702c950ecb729a966504af0a635/uploads/2020/12/2020120965.pdf and https://www.ibef.org/blogs/indian-export-incentive-schemes:

DIC and FIEO can play a pro-active role in this regard. 10% increase in every year in the number of units taking part in the trade fairs organized by FIEO and other organizations may be proposed as a target under this segment	DIC, UPEBP and FIEO	Intermediate
Common Interventions across sectors/	clusters	
Collaboration with e-commerce companies like Amazon, ebay, Flipkart etc. & licious, fleshkart etc.	ODOP cell, UPEPB/DIEPC	Short term
MoU with QCI for defining quality standards of the products	ODOP cell, UPEPB/DIEPC	Short term
Collaboration with IIP to define cluster-wise packing standards	ODOP cell, UPEPB/DIEPC	Short term
Sensitization of banks and bankers to help them understand the niche sectors of MSME and their specific requirements which shall help banks evaluate projects better while lending credit	UPEPB/DIEPC and banks	Short term
Introduction of revolving working capital within the cluster to help MSMEs procure raw materials and undertake production without hinderances	UPEPB/DIEPC and banks	Intermediate
Tie up with the banks/financial institutions (SIDBI, BoB etc.) for better interest rates, enhanced working capital limits etc.	UPEPB/DIEPC and banks	Intermediate
Handholding of MSMEs for increasing their awareness on schemes of state & centre and the procedure to apply to avail financial assistance	UPEPB/DIEPC	Intermediate
Sensitization of cluster actors from this sector on Make in India initiative and PLI for leveraging the assistance provided to the sector to enhance productivity and expand exports	DIEPC UPEPB	Short term
DIEPC to act as a focal point for all exporters issues. Deputy Commissioner Industries may be given this responsibility to monitor the cell in consultation with DGFT.	DIEPC/DGFT/UPEPB	Long term
 a. The DIC office should organize workshops for exporters to apprise them about Foreign Trade Policy benefits viz. Duty Exemption Scheme / Advance Authorization Scheme / Duty Free Import Authorization Scheme. b. The CONCOR rates are to be made available at regular intervals to the DIC office for updation of the same at the district website. 	DIEPC/UPEPB	Long term
c. The formation of the Sub-committee comprising the representative of CONCOR and	DIEPC/UPEPB	Long term

Deputy Commissioner Industries to understand the issue and suggest ways to help Industry. Ease of Logistics portal of FIEO has been developed to provide information about container availability and issues relating to it. The industry may be informed of this portal.	DIEPC/UPEPB/FIEO	Short term
Product 1: Locks & Hardware		
Establishment of Common Facility Centre incorporating one or more of following: a. Raw Material Bank b. Common Production Center c. Design and display center and space to showcase products to undertake sale. d. Marketing centre for undertaking marketing events. e. Dye tempering & hardening facility within the cluster. f. Electroplating & PVD/CVD/Powder coating facility with ETP.	DIEPC, DGFT	Long term
g. DIC to identify 100 authorized users to become IEC holder in a year Organize one seminar within two months to apprise the stakeholders about the importance of Geographical Indication (GI) and for increasing the authorized users	DIEPC/UPEPB/ODOP Cell	Intermediate term
Product 2: Metal Handicraft		
 a) Common Production Center with modern facilities for production & prototyping. b) Design and display center and space to showcase products to undertake sale along with marketing centre for undertaking marketing events. c) Establishment of a quality testing lab with accreditation from National Accreditation Board for Laboratories (NABL). d) Establishment of a product design & development center & design bank equipped with CAD based designing software, 3D printer software and expert personnel. 	DIEPC, DGFT and ODOP Cell	Long term

Promotion of post GI initiative: a. DIC to identify 100 authorized users to become IEC holder in a year Organize one seminar within two months to apprise the stakeholders about the importance of Geographical Indication (GI) and for increasing the authorized users	DIEPC/UPEPB	Long term
Collaboration with E-commerce companies	Amazon/Flipkart and UPEPB and DIEPC	Short term
Collaboration/MOU with institutes such as MGIRI (Mahatma Gandhi Institute for rural industrialization) which provides services in 'product design and fabrication of prototypes in the development of new products and to craft products to become globally competitive.	MGIRI, UPEPB and DIEPC	Intermediate Term
Product 3: Frozen Meat		
Setting of modern technology based CETPs	UPEPB/DIEPC/District Administration	Long term
Collaboration with E-commerce companies like Big Basket, Nature Basket etc.	UPEPB and DIEPC	Short term

Abbreviations

APEDA	The Agricultural and Processed Food Products Export Development Authority
API	Active pharmaceuticals ingredients
CAD	Computer-Aided Design
CAM	Computer Aided Manufacturing
CFC	Common Facility Center
CONCOR	Container Corporation of India
СРС	Common Production Center
DGFT	Director General of Foreign Trade
DHO	District Horticulture Officer
DIC	District Industries Centre
DIEPC	District Industry and Enterprise Promotion Centre
DPR	Detailed Project Report
EPC	Export Promotion Council
EPCG	Export Promotion Capital Goods
FIEO	Federation of India Export Organization
FP0	Farmer Producer Organizations
FTA	Free Trade Agreement
GCC	Gulf Cooperation Council
GI	Geographical Indication
HS	Harmonized System
IC	International Cooperation
IC Engines	Internal Combustion Engines
IEC	Import Export Code
IIP	Indian Institute of Packaging
ISW	Industrial Solid Waste
т	Industrial Training Institute
KVK	Krishi Vigyan Kendra
MAS	Market Assistance Scheme

MSME Micro, Small Enterprises - Cluster Development Programme MSME Micro, Small and Medium Enterprises NHB National Horticulture Board NIC Code National Industrial Classification Code NIC National Informatics Center NID National Institute of Design NIFT National Institute of Fashion Technology NSDC National Skill Development Cooperation
NHB National Horticulture Board NIC Code National Industrial Classification Code NIC National Informatics Center NID National Institute of Design NIFT National Institute of Fashion Technology
NIC Code National Industrial Classification Code NIC National Informatics Center NID National Institute of Design NIFT National Institute of Fashion Technology
NIC National Informatics Center NID National Institute of Design NIFT National Institute of Fashion Technology
NID National Institute of Design NIFT National Institute of Fashion Technology
NIFT National Institute of Fashion Technology
NSDC National Skill Development Cooperation
ODOP One District One Product
PM FME Pradhan Mantri Formalisation of Micro food Processing Enterprises
PMU Project Monitoring Unit
QCI Quality Council of India
R&D Research & Development
RMB Raw Material Bank
Sanjay Gandhi Post Graduate Institute of Medical Science
SIDBI Small Industries Development Bank of India
SPS Sanitary & Phytosanitary
SPV Special Purpose Vehicle
SWOT Strength, Weakness, Opportunities, Threats
TBT Technical Barriers to Trade
UAE United Arab Emirates
UK United Kingdom
UP Uttar Pradesh
UPEPB Uttar Pradesh Export Promotion Bureau
UPICO UP Industrial Consultancy Organisation
USA United States of America

