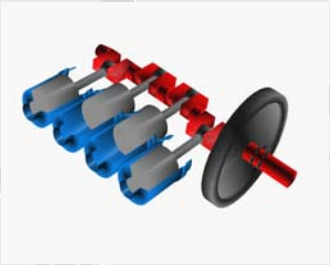
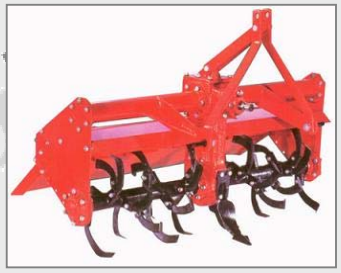
CLUSTER PROFILE

AGRICULTURAL IMPLEMENTS, SARGODHA



Turn Potential into Profit

Small & Medium Enterprise Development Authority
Ministry of Industries, Production & Special Initiatives
Government of Pakistan
http://www.smeda.org.pk

8th Floor, LDA Plaza, Egerton Road **Lahore**
Tel: +92-42-111-111-456
Fax: +92-42-6304926-27

TABLE OF CONTENTS

1 Introduction – Sargodha

Sargodha District is an agricultural district of Punjab province, Pakistan. The district has an area of 5,864 km. According to the 1998 census of Pakistan the district had a population of 2,665,979 of which 27.96% lived in urban settlements.

The District is playing a leading role in agricultural production. It contributes about 95% to annual Citrus Fruit production in the country. Even with agricultural goods being the major income generator for the city as well as the district, the economy and industry has been diversifying itself to generate more demand for other goods which can be manufactured and produced in the city. Other industrial markets include: foundry products (Crankshaft), Bakelite, Footwear, Oil mills as well as Daal mills, Stone Crushing and Agricultural Implements (Wheat Thresher).

2 Description of Cluster

2.1 History and Background of Cluster

Pakistan's largest gram and grain markets are situated at Sargodha. The strong presence of agriculture practices has emerged the needs of traditional agriculture tools, implements and machinery. Basically agriculture implements manufacturing is off shot of the demand generation of value added agriculture products due to increase in population and changing living standards.

Currently, Sargodha is well known for production of various types of Agricutural Implements which mainly includes Ploughs, Threshers, Trolly, and Fodder Choppers etc.

2.2 Description of Products

Agricultural Implements are any kind of machinery used on a farm to help with farming. The truly elemental human need for food has often driven the development of technology and machines. Tools such as knives, scythes, and wooden ploughs were eventually developed, and dominated agriculture for thousands of years. Sargodha, Faisalabad, Daska, Okara and Hafizabad are the major agricultural implements manufacturing cities in Pakistan. But the combined Thresher is only manufactured in Sargodha and is famous for its high performance and quality. The major supply of hydraulic trolley and combined Thresher is also being supplied from this region.

Over the last decade Agriculture Implements Cluster Sargodha advances from traditional farm equipment manufacturing to latest and modernized machinery and equipment ranging from Land Development to Sowing & Harvesting Machinery. The major products manufactured in Sargodha are as follows:

- Combined Thresher (Wheat & Gram)
- Rottavator
- Disc Cultivator
- Wheat Wrapper Machine
- Sub-soilers
- Hydraulic Trolley
- Heavy Cane Loader

- Trolley

Production of combined Thresher is 60% of the total production while the other implements contribute 40% of the total production

2.3 Core Cluster Actors

The manufacturers of Agricultural Implements (mainly Threshers and Trolleys) are core cluster actors. Following table indicates the size of core cluster actors:

Table: Agricultural Implements Cluster, Sargodha[1]

Number of Units	Total Units Approximately **40** - Large Size Units: 10 (mainly manufactures of Threshers and Hydraulic Trolleys) - Small and Medium Size Units: 30 (manufacturers of other implements)
Employment Generation	Approximately 800~1000 (Directly Employed)
Annual Production	Approximately 5,000 units of various implements
Capacity Utilized	At present installed capacity and production of Agricultural Implements is assumed sufficient to fulfill the demand. However, a sufficient gap is still exists particularly for Threshers which are mainly needed by farmers of the area due to increase in cultivation of land for sowing of wheat, gram and vegetables.

2.4 Other Cluster Actors

2.4.1 Casted Product Suppliers

Production of Threshers and other Agricultural implements need to procure various casted products like Bearing Brackets, V Shape Pulli, Round Circle Weight, Wheel Hub, Bush, Bracket Tikki, and Conveyer Star etc. No casted products supplier exists in the cluster. A larger number of casted product manufacturers are operative in Faislabad and fulfill the requirements of core cluster actors of Sargodha. The manufacturers of Sargodha are heavily dependent on these suppliers of Faisalabad.

2.4.2 Raw Material Suppliers

Iron, Scrape Metals, Welding Rods and Plants, Cutters and other Light Engineering Products are major raw materials used for production of Agricultural Implements. The quantity of these items is used in abundantly. The suppliers of raw material are available in the cluster. The availability of raw material is often scarce or uncertain due to fluctuation in prices and the manufacturers have to face numerous difficulties to maintain the demand.

[1] Source: Agricultural Engineering Association, Sargodha

2.5 Geographical Location

Geographically the majority of Agriculture Implements Manufacturing units in Sargodha arte located at following areas.

- University Road, Near Railway Crossing
- Civil Lines (Old Tractor Spare Parts Market)

2.6 Major Players

Sr. No	Name of Company	Annual Production (Units)
1	**Sharif Agricultural Industries** Fatima Jinah Road, Sargodha. Contact Person: Shabir Hussain Tel: 048-3710242 Fax: 048-3710742 E-mail: info@saipk.com	1000
2	**Saleem Wheat Thresher** Saeed Park, Sargodha. Contact Person: Muhammad Saleem Cell: 0300-8602244	800
3	**Diamond Wheat Thresher** University Road, Near Railway Crossing, Sargodha. Contact Person: Mirza Abdul Razzaq Tel: 048-3213795	600

2.7 Current Cluster Scenario

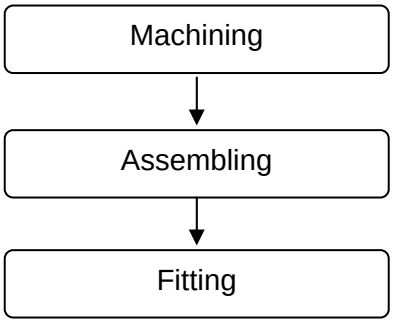
Agricultural Implements manufacturing Industry of Sargodha has a huge potential. The industry faces numerous problems particularly to deal with the farmers who are almost illiterate and it become very hard to make them convinced upon the purchase of products. Moreover the collection of payment from the farmers is depending upon the good crop production of crop and most often the debt collection defer to the next season.

As industry is still working on conventional lines and they do not have the basic facility for casting as most of the items used in manufacturing of Agricultural Implements is made by casting. There is an urgent need to move the industry to compete with rapidly changing environment of world in technology and regulatory framework

3 Analysis of Business Operations

3.1 Production Process & Work Flow

The manufacturing of Agricultural Implements requires high level of technical skills and competencies. The production processes carried out by manufacturers in Sargodha can be broadly categorized in following three processes.



3.1.1 Machining

Making of certain items used in implements manufacturing in desired shape and length for further processing like surfacing, assembling etc.

3.1.2 Assembling

Fitting of various items in an organized manner through welding and applying other techniques is known as assembling.

3.1.3 Fitting

After machining and assembling, the machine is ready to use. The most parts of the machine are dipped in rust preventive oil to avoid any hazard in rainy season.

3.2 Technology Status

Cluster is suffering from serious technological deficiencies. Lack of education among entrepreneurs, limited financial resources and change repellent culture has resulted in production facilities with primitive process techniques and obsolete machinery and equipment. This has hampered manufactured products quality severely. The use of low skilled labor and technology is also hindering the production capacity.

3.3 Raw Material Availability

The suppliers of raw material are available in the cluster. The availability of raw material is often scarce or uncertain due to fluctuation in prices and the manufacturers have to face numerous difficulties to maintain the demand.

3.4 Quality Control

Cluster is not yet provided with any institutional infrastructure support in the areas of Technological Development, Design & Product Development and Human Resource Development. No real quality control system and standard is followed in the industry. Physical appearance and measurement fits are the only parameters considered for declaring a part of machinery fit.

3.5 Market Analysis

The implements are being sold through direct sale method to the end users. Usually farmers approach the manufactures and order the desired machine on advance payment which oftenly delivered to farmers before season upon full payment.

3.6 Financing

An informal credit system prevails in the cluster which usually varies from season to season. No special financing scheme for manufacturers has been introduced by any of the financial institution in Sargodha. The financial products available in the market are not geared to cater the requirements of the cluster. The financial institutions are reluctant to offer customized financial products to SMEs. An inadequate level of education of entrepreneurs is also an obstacle to accept the financial products offered by financial institutions.

3.7 Human Resource

Availability of Human Resources is not an issue but available skill and competency level of workers is a major hindrance in learning and accepting new tools/techniques. Synergies between practical industry demand and vocational training are also very minimal. The industry is forced to work on conventional lines. Normally workers get on the job training through the Ustaad-Shagird system. Middle level management is non-existent in the cluster; the entrepreneur himself is the manager.

4 Institutional Setup

4.1 Entrepreneurs Associations

There is no formal association of Agricultural Implements manufacturers however an informal association of stakeholders called **Agricultural Engineering Association; Sargodha** is sole representative of the cluster. The association is not formerly registered with any Chamber of Commerce & Industry or any other registration body. There is an urgent need to develop such a platform for this industry however the small and medium size industries do not share same concerns/issues. The manufacturers however are members of the local chamber i.e. Sargodha Chamber of Commerce and Industry (SCCI).

4.2 Government/Semi Government Support Institutions

The following Government/Semi Government organization have there sub offices in Sargodha and facilitate the cluster stakeholders to certain extent, however in order to develop the cluster the linkages with technical organizations should be established i.e. PITAC, MIRDC (TSC), TEVTA and EDB etc.

4.2.1 Small & Medium Enterprises Development Authority (SMEDA)

The Small and Medium Enterprises Development Authority (SMEDA) was established in 1998 under the Ministry of Industries and Production in order to foster the development of SME in the economy and was expected to take a key role in this process. Its functions include, inter-alia, the facilitation on policy making and the provision of overall planning, programming, research and evaluation of matters related to SME in Pakistan; monitoring and evaluation; encouraging and facilitating development of SME and to protect their interests. SMEDA has its Regional Business Coordinator in Sargodha.

4.2.2 Punjab Small Industries Cooperation (PSIC)

PSIC is also working for the facilitation of small industries in Punjab. They offer soft loans to small entrepreneurs at subsidized rates. Their main focus is on small and cottage units. PSIC also has a regional office in Sargodha which helps in credit facilitation and establishing of new industrial areas for small industries (i.e. Small Industrial Estates S.I.E)

4.2.3 Trade Development Authority of Pakistan (TDAP)

Is the primary agency of the Government of Pakistan engaged in promotion and boosting of country's exports. Since its inception in 1963, it continues to facilitate the exporters in overcoming difficulties faced by them, TDAP helps exporters to participate in exhibitions abroad and sends delegations to export markets with a view to explore new markets and develop the traditional markets. TDAP also initiate projects in various export sectors to train necessary manpower that can manage the export trade and industry.

4.3 Educational Institutions

Technical Education and Vocational Training Authority (TEVTA) and Punjab Vocational Training Council (PVTC) are major institutes, which offer technical courses relevant to local industry need. However there is a dire need to upgrade the courses and the training programs according to the requirements of local industry.

4.4 Private BDS Providers

No significant private business development service providers are operating in the region with specific reference to Agricultural Implements Cluster.

5 SWOT ANALYSIS

5.1 Strengths

- Availability of cheap labor.
- Persistent and increasing demand due to adaptation of modern tools and technology for Agriculture practices.
- Cost competitiveness of locally manufactured Agricultural Implements as compared to imported.
- Geographically situated on ideal place as Sargodha Region is well known for various crop productions.
- Strong Product Mix

5.2 Weaknesses

- Low skill labor
- Out dated conventional technology and production process for manufacturing.
- Lack of Quality Control
- Lack of standardization
- Lack of marketing awareness (branding and retailing)
- Non Availability of financial support.
- Lack of Research and Development.

5.3 Opportunities

- Adequate level of demand.
- Adequate level of Marketing and Promotion may able the manufacturers to promote their products at international level.
- Large export potential in Middle East, Africa and Central Asia.
- Exploit local expertise in related sectors, clusters technologies

5.4 Threats

- Power shortage and high utility rates
- Increasing prices of raw materials on almost daily bases is causing severe threat to this industry.
- Monopolistic behavior of raw materials suppliers.
- Increasing regulatory pressures (e.g. Tax Regulation and various other Government departments like Labour, Wapda etc)

6 Investment Opportunities in Cluster

Keeping in view the strong Agriculture base of the region, there is an ample opportunity of investment in the cluster. Some potential projects for investment are as follows:

- Casted Products Manufacturing (especially Bearing Brackets, V Shape Pulli, Round Circle Weight, Wheel Hub, Bush, Bracket Tikki, and Conveyer Star)
- Specialized Components Manufacturing Unit
- Melting Furnaces
- Reverse Engineering of Products and Parts
- Computer Aided Product/Pattern Designing Center
- Raw Material Supplies (e.g. Welding Rods, Cutters, Nuts & Bolts, Scrape Metal and other components)
- Local Machinery Manufacturing
- Traders (Importers and Exporters)
- Retail Sales and Service Centre
- Consultancy (Technology, Production Processing, Supply Chain Management and Export marketing)