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# **1** Description of the Cluster

## 1.1 History & background of cluster

Gujranwala region is very prominent in production of Gas Appliances in Pakistan. People used to burn coal & wood before the discovery of natural gas in Pakistan. The availability of natural gas has increased the trend of usage of Gas Appliances. Natural gas is the basic fuel requirement for the usage of Gas Appliances. Pakistan is self sufficient in the reserves of natural gas and abundant natural gas reserves are found in the country.

After the partition the light engineering industry in Gujranwala started growing. The Gas Appliances manufacturing industry exists in four major cities of the country. These are Karachi, Lahore, Gujranwala and Sialkot. Gujranwala is also famous for the production of Iron, Steel and other Metal Products. So the Gas Appliance manufacturing come into existence and becomes a famous business in Gujranwala. In Punjab 70% Gas Appliances units are located in Gujranwala.

The first major Gas Appliances manufacturing unit (M/s Natural Gas Industries) was established in early 80's in Gujranwala. Over the years this industry has expanded and resulted in a long chain of Gas Appliances factories in this area and still they are growing.

## **1.2 Description of Products**

Gas Appliance is basically a non-manual apparatus or device, powered by natural gas to perform certain specific job. It is a devise or machine in homes used to perform domestic functions such as Cleaning, Cooking, and Heating etc.

Product lines of Gas Appliances produced in the cluster mainly includes Gas Water Heaters (Geysers), Cooking Range, Gas Room Heaters, Gas Stoves and Gas Lamp etc.

# **1.3 Core Cluster Actors**

The manufacturers of above mentioned product lines of Gas Appliances are core cluster actors. There are approximately 32 manufacturers of Gas Appliances in the cluster. Majority of the manufacturers are unorganized and fall in small scale industries. There are about 10 prominent and organized manufacturers in the cluster, which have developed strong linkages and dealers network in all over Pakistan and market their products through outlets of these dealers. They are also exporting their products in Middle East, Africa, Central Asia and some other European countries.

Following are some of major brands and exporters of Gas Appliance Cluster, Gujranwala:

- NASGAS
- INDUS
- NATURAL
- WELCOME



- DOMESTO
- SUPER ASIA

Industrial statistics of core cluster actors are as follows:

	Total Units Approximately <b>32</b> <ul> <li>Large Size Units: 10</li> <li>Small and Medium Size Units: 22</li> </ul>
Installed Capacity	Installed Capacity of Cluster is Around 1,193,750 Units of Different Gas Appliances
Capacity Utilized	Approximately 80%
Employment Generation	Around 450 Directly Employed

#### **1.4 Other Cluster Actors**

#### 1.4.1 Machinery Suppliers

Hydraulic and Power Press, Sheet Cutters and Power/Hand Tools, Paint Shop/Booth Equipment, Dies and Welding Machines, Molding, Shaper and Lathe Machines are main machinery and equipment used by manufacturing of Gas Appliances manufacturing unit. Theses machines are prepared by the engineering sector of the Gujranwala and the quality of work is satisfactory but if imported machines are used then better results can be obtained.

#### 1.4.2 Raw Material Suppliers:

The major raw materials include Mild Steel Sheets, Copper Pipes, Stainless Steel Sheets, Knobs, Silver, Brass, Glass Wool, Thermostats, Ceramic Plates, Bakelite, Glass and Stoving Paint. Powder Coating is also used in place of Stoving Paint but Stoving Paint is long lasting. On average, the MS Sheet constitutes 70% or more of the total cost of the raw material.

Supply chain is crucial to this field and without proper raw material supply these units cannot keep up with the production. A large number of material suppliers are present in different areas of Gujranwala and Lahore. In Gujranwala Most of the suppliers are located at Javaid Sheet Market, Kharadan Wala Bazar and Nomania Road etc.

A large number of Gas Cock suppliers are available in Sheikupura. Some materials are being imported from China like glass for oven, moving motors, timers & auto ignition and copper pipes importing from Taiwan. However raw material supply is irregular and manufacturers have to face late delivery of raw material or shortage of raw material. Plastic Switches and Temperature Gauges



<sup>&</sup>lt;sup>1</sup> Source: Directory of Industries 2006, Directorate of Industries

are manufactured in different areas of Gujranwala and wholesale from Gondlanwala Road market.

#### 1.5 Geographical Location

Geographically Gas Appliances manufacturers are not concentrated at one specific place in Gujranwala. Majority of units found in following areas.

- Gala Darbar Qadri
- Hafizabad Road
- Noshehra Road
- Kot Ishaq
- Muslim Road
- S.I.E I, Dhulay

The biggest cluster of Gas Appliances is in Gala Darbar Qadri. The cluster is approachable by metal roads and railway facilities.

#### 1.6 Current Cluster Scenario

The Gas Appliances Industry still mainly exists at the level of SMEs, with exception of some firms, who have gained an extraordinary growth. This sector is not an organized sector. There is no exact figure available about total no. of units, installed capacity and operational capacity.

The industry is not only fulfilling the domestic needs but also exporting small quantities of Gas Appliances. There is large export potential in Middle East, Africa and Cetral Asia. The main reason for not achieving the significant break through in export by this industry is lack of modern manufacturing machines and techniques. Gas Appliances are the need of every household and their usage will continue to increase in future.

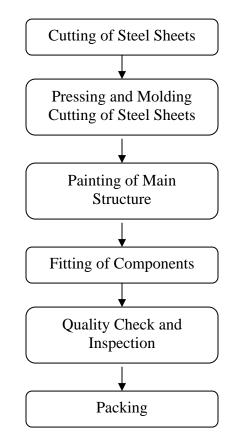
The market for Gas Appliances exists in almost every part of the country. There are a few major market players and the small units cater the remaining market. In recent times, due to setting up of a few quality units, it is evident that exports can also be increased by this sector in the near future.



# 2 Analysis of Business Operations

## 2.1 Production Process and Work Flow

Production process flow diagram of Gas Appliances manufacturing is explained as follows:



# 2.1.1 Cutting, Pressing & Molding of Steel Sheets:

Different gauge of Steel sheets are used for manufacturing of Gas Appliances. This step involves the cutting of stainless steel sheets and mild steel sheet in to appropriate size and shape by using the sheet cutter. They are bent using a metal brake, and formed into many different types of components.

# 2.1.2 Painting of Main Structure:

Paint (Stoving) in different colors is used for painting of Gas Appliances through paint booth. Powder coating is also used in place of Stoving paint.

# 2.1.3 Fitting of Other Component:

In this phase the parts or pieces are fitted together.



#### 2.1.4 Testing, Repairing and Packing:

This is the last process of production. Finished products are determined according to stipulated standards to select passed products and un-passed parts by repairing. Passed products are carefully packed and then send to customers.

#### 2.2 Raw Materials Availability

Different gauge of metal sheets are available at many areas of Gujranwala, most of the supplier are in Javaid Sheet Market, Sheikhupura raod and Gondlanwala Road, Gujranwala. Glass for oven, timers, moving motors, auto ignition are also major raw materials which are imported from China. Main wholesale market for purchase of Burners and knobs are in Abid market Lahore and gas cocks in Sheikhupura.

#### 2.3 Quality Assurance

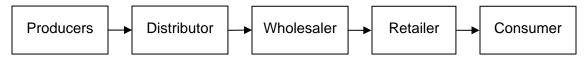
After completions of the product different type of in-house tests are conducted for own quality assurance purposes as well as for meeting the buyer's requirement.

#### 2.4 Technology Status

There is lack of use of modern manufacturing machines and techniques, due to those small units are closing down and large size manufacturing units are filling this gap.

#### 2.5 Marketing & Sales

Manufacturers have developed contacts with the distributors in all over the country and place their product on the market through these outlets. The distribution channel moves goods from producer to consumer.



Some small manufacturers are supplying their products to the wholesalers and retailers of other cities. Sales agents are working in this sector. They book orders from other cities and supply the required quantity after purchasing from small manufacturers.

#### 2.6 Financing

Almost all the registered commercial and industrial development banks of Pakistan have their branches in the cluster and providing the financing at competitive rates. But most of stakeholders depend upon their own financial equity based resources. It is also observed that the entrepreneurs normally prefer obtaining loan from the informal sources. Due to unawareness, ineffective information flow and paper work these entrepreneurs are reluctant to go to the financial institutions.

#### 2.7 Human Resources

Human resource is present in abundance and skills are traditionally inherited. The owner usually deals with management issues and marketing related activities.



Most of the labor is semi skilled and are trained on job. There is no specialized marketing or accounts department. They facilitate their sales only on the basis of personal contacts and no proper accounts are maintained therefore certain problems related to tax return, monitoring and evaluation are faced. Only primary or intermediate level employees are handling accounts.

# 3 Institutional Setup

#### 3.1 Trade Associations

An exclusive Trade Association or representative body of Gas Appliance Manufacturers does not exist in the cluster. Gujranwala Chamber of Commerce and Industry is the sole platform for manufacturers and traders.

Gujranwala chamber of commerce & industry (GCCI) established in 1978, has more than 5650 members. GCCI provides various services to this cluster; arranging of Made in Gujranwala Industrial Exhibition for the promotion of local brands, trade delegations, research & development and information dissemination.

## 3.2 Government & Semi-government Organizations

SMEDA, PSIC & TDAP are three organizations which are providing facilitation to this cluster at the government level.

#### 3.2.1 Small and Medium Enterprise 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 Gujranwala.

#### 3.2.2 Trade Development Authority of Pakistan (TDAP)

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.

#### 3.2.3 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 Gujranwala which helps in credit facilitation and establishing of new industrial areas for small industries (i.e. Small Industrial Estates S.I.E)

## 3.3 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 of Gujranwala.

# 3.4 **Private BDS Providers**

No significant private business development service providers are operating in the region with specific reference to power looms engineering industry.

# 4 SWOT Analysis

#### 4.1 Strengths

- Abundance of Low cost Labor
- Simple management structure.
- Extensive supplier industry
- Strong linkages with other key regional clusters, i.e. Light Engineering Cluster facilitate in Metal Sheet and Machinery for Gas Appliances.
- High export potential.

#### 4.2 Weaknesses

- Inconsistent raw material prices.
- Low framework for Intellectual Property Rights and Research & Development in Cluster.
- High Utilities Cost of utilities (gas & electricity) which resulted in high production cost
- Low R&D for product innovation
- Lack of quality controls.
- Use of traditional techniques and technology
- Preference of informal credit
- No proper accounts maintenance.
- Lack of marketing skills.

#### 4.3 **Opportunities**

- Increasing local and international demand of Gas Appliances.
- Large export potential in Gas Appliances in Middle East, Africa and Central Asia.
- Exploit local expertise in related sectors, clusters technologies.

#### 4.4 Threats

- Political situation of the country
- Low priced import from China
- Changing consumer preferences



 Increasing regulatory pressures (e.g. Tax Regulation and various other Government departments like Labour, Wapda etc)

# 5 Investment Opportunities:

Keeping in view the strong presence of Light Engineering Industry in the area and growing demand of Gas Appliances, there is an ample opportunity of investment in the cluster. Some potential projects for investment are as follows:

- Raw Material Stores of Copper Pipes, Stainless Steel Sheet, Knobs, Silver Brass, Glass Wool etc.
- Manufacturers of Thermostats and Switches
- Networks of Vendors
- Traders (Importers and Exporters)
- Retail Sales and Service Centre

