# UNIT 13: SECONDARY AND TERTIARY INDUSTRIES

Industry forms the backbone of a country's economy, contributes to the national income and affects the GDP and GNP of a country.

**GDP** stands for **Gross Domestic Product**, i.e. the total worth estimated in currency values of a nation's production in a given year, including service sector, research, and development. This means the sum of all industrial production, work, sales, business, and service sector activity in the country. Usually this is calculated over a period of one year but short and long term trends may also be analyzed for economic forecast. Gross Domestic Product can also be calculated on a per capita (or per person) basis to give a relative example of the economic development of a nation.

**GNP** stands for **Gross National Product**. In general terms, GNP means the total of all business production and service sector industry in a country plus its profits on overseas investment. An accurate picture of a nation's yearly economy can be analyzed and studied for trends since GNP calculates the total income of all the nationals of a country, regardless of their location. Gross National Product can also be calculated on a per capita basis to show the buying power of an individual and an estimate of average wealth, wages, and ownership distribution in a society.

## Pakistan's economy at a glance

Pakistan has come a long way since 1947 in the expansion of its industrial base and its economy as you will read in this section on industry. Pakistan's economic growth is affected not only by its internal situation and challenges, but also by the position of the global economy. Despite these issues, Pakistan's economy improved in 2012, but it has been affected, for the fifth consecutive year, by low growth, falling investment, high fiscal deficits, high inflation, and a deteriorating external position. The situation is further aggravated by lack of security and natural disasters as well as structural problems, especially the lack of a steady power supply for industry. The severe floods in 2010 and 2011 and the record power cuts due to load-shedding had an impact on Pakistan's economic performance in 2011–12. Inflation also affects a country's economic growth. The rate of inflation in Pakistan from 1957 to 2013 was on average 8.0 per cent but it rose to 20.8 in 2008–09 and came down to 13.7 in 2010–11 and 7.8 per cent in 2013. Although growth improved to 3.7 per cent, it is still below the 7 per cent required to absorb newcomers in the workforce.

## Types of industry

There are three main types of industry: primary, secondary, and tertiary. Primary industry is the process of acquiring raw material through agriculture, forestry, fishing, mining, and drilling.

Secondary industry is based mainly on two activities: processing and manufacturing.

Processing is the initial stage by which the raw material is changed and made fit for manufacturing. For example, cotton ginning is a processing industry in which cotton is separated from the seeds. Raw cotton is then used to make thread; this is a manufacturing industry. Similarly, dressing of raw copper to remove the waste material is a processing industry. The smelting of copper ore to make wire and other goods is a manufacturing industry.

Tertiary industry is based on provision of services such as storage or warehousing, advertising, health, education, transport, communication, tourism, and related service industries.

## Types of industries in Pakistan

There are three types of industries in Pakistan:

i) cottage industries;
ii) small-scale industries;
iii) large-scale industries.

These can also be categorized as the formal and informal sectors of industry. Formal industries are regularized and registered with the government and documented by the tax department, whereas the cottage industries are generally not documented. However, they do contribute considerably to the national income and GDP, and provide employment as well as hands-on training to a large number of people.

**FACTS AND FIGURES**

Inflation in Pakistan registered an all-time high at 38 per cent in December 1973 and the lowest to date at -10.3 per cent in February 1959.

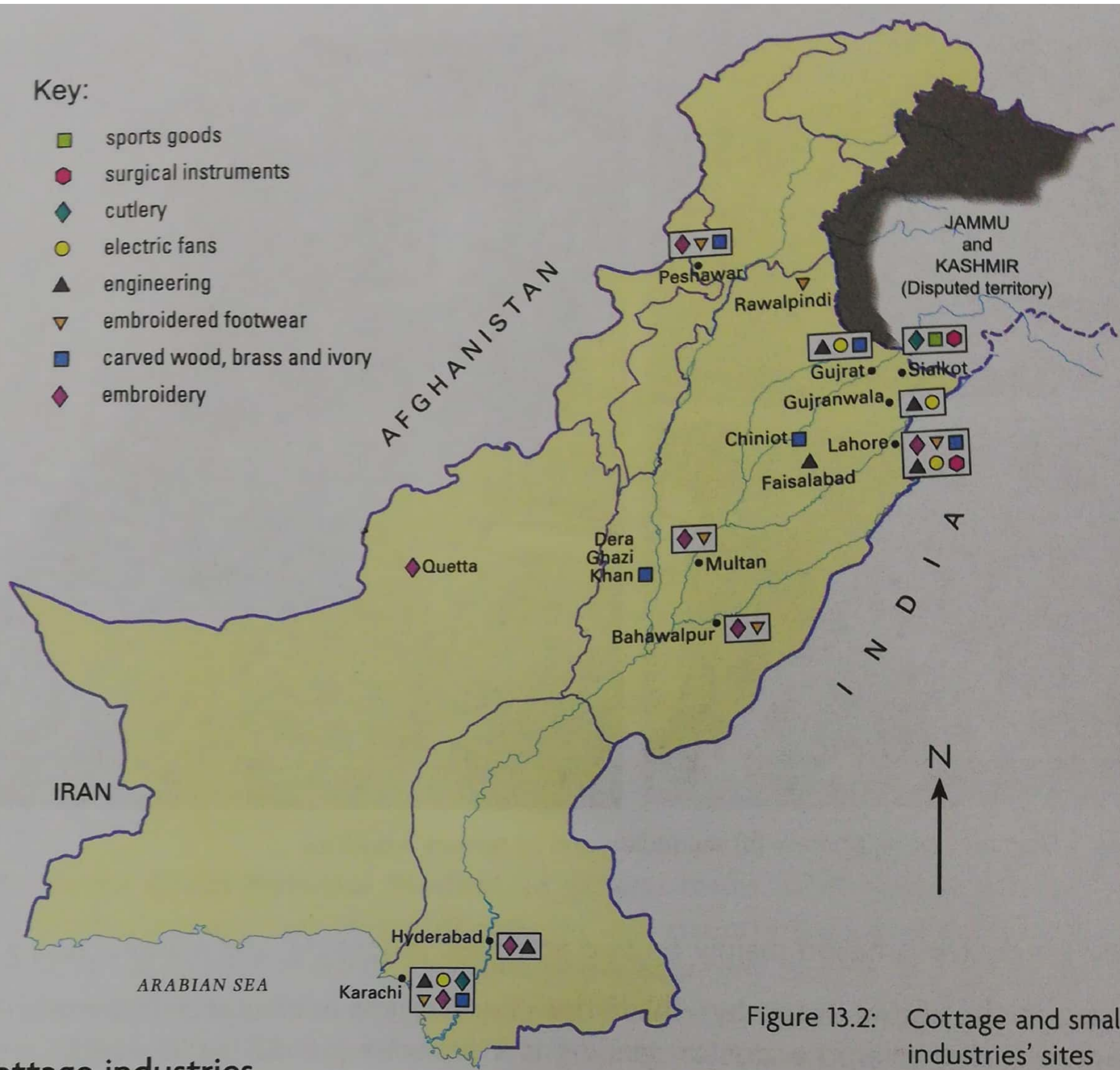


Figure 13.2: Cottage and smalls scale industries' sites

## i) Cottage industries

Cottage industry is based on small industrial units in which the owner and his family members work and usually no hired labour is employed. Electricity may or may not be used as a source of power. Carpentry, pottery, metal work, jewellery, hand-woven rugs and shawls, handicrafts, embroidery, hand-made leather goods, marble, wood, and brass work, etc. all fall into this category.

Figure 13.5: Large-scale industries in Pakistan

### ii) Small-scale industries

A small-scale industry is one in which capital investment does not exceed a specified sum, excluding loan, land, and building. Besides family labour, a specified number of hired workers can also be employed. Sports goods, surgical instruments, and carpets are largely the products of small-scale industries in Pakistan.

### iii) Large-scale industries

A large-scale industry is one in which there is no limit to investment made or to the number of workers employed. Cotton textile production, sugar production, oil refining, cement industry, heavy engineering, and the petroleum industry are examples of large-scale industries.

## Factors of industrial development

Industrial development depends upon a number of factors.

i) **Raw materials:** Raw materials are changed by manufacturing processes. For example, raw cotton is required to make yarn for making cloth. If a raw material is not locally available, it is imported.

ii) **Power:** Power, i.e. energy is required to run machinery. It can be any type of energy like coal, oil, gas, nuclear power, or any other. In some cases manual power is used such as for carpet weaving.

iii) **Capital:** Capital means the wealth or funds invested in an industry or business, i.e. financing; it also means the excess of a company's assets over its liabilities. Capital is a necessity for the establishment of any industry. The source of capital today has become very fluid; it can come from or go to any part of the world if profit is assured and the investment is safe.

iv) **Labour:** For running an industrial plant, the availability of labour is necessary. Three types of labour are required: unskilled, skilled, and managerial. Automation has greatly decreased dependence upon unskilled labour but the demand for skilled and managerial labour has increased.

v) **Market:** A market is necessary where the manufactured goods can be consumed. Cotton textile goods manufactured in Pakistan are sold in Europe. Machinery made in Japan finds a market in Pakistan.

vi) **Transport:** Transport is essential for the movement of raw materials to the factories and of finished goods to the market. Therefore, it is a necessity for the development of industries.

vii) **The government:** The government has an important role in the development of industries. It lays down the industrial policy. It frames industrial laws and taxation policies. It develops the infrastructure: roads, railways, transport facilities, telephone lines, water supply, and, importantly, it manages the law and order situation in the country.

In addition to the factors listed above, education, health, climate, and location also play their role in the establishment and development of industries.

## Factors of economic growth

The economy of Pakistan is based mainly on agriculture, industry, and the service sector, and its growth depends upon several factors related to government policies and internal conditions and to international policies and factors. A major problem is the high volume of foreign loans and debts and the low volume of tax collection across the country—leaving Pakistan at the mercy of foreign lenders and donors.

Pakistan's economy has been affected by four major factors, namely, security, chronic energy crisis, corruption, and natural disasters.

- Internal security has been a major concern since 2001 with the situation fluctuating but not improving over the years. Terrorist attacks, kidnappings, and threats have had a strong impact on industry and both local and foreign investment.
- Karachi, the main industrial hub of the country, and the industrial sector in Khyber Pakhtunkhwa have been badly affected by security and law and order problems, leading to low investment, low output, and fewer jobs for the people.
- The chronic energy crisis across the country has worsened with industrial units reducing their production or shutting down, resulting in loss of jobs, particularly of daily wage earners; the service sector has also been affected.
- Corruption is an endemic problem for Pakistan; Transparency International rates Pakistan as 139$^{th}$ out of 174 countries with a score of 27 per cent—the figures speak for themselves.

- Furthermore, Pakistan suffered catastrophic floods in 2010 as well as 2011, which destroyed crops and agriculture, left hundreds of thousands homeless, and also added to food inflation.

These factors contributed to slow GDP growth of 2.4 to 3.6 per cent from 2011 to 2013.

On the positive side there has been 3.5 per cent growth in the large-scale manufacturing sector, despite power shortages and security issues.

- Textile, food processing, and construction materials showed faster growth.
- Improvement in the construction sector was supported by flood rehabilitation, public sector development such as for power projects, and its positive carry-over effects on the economy.
- There has been improvement in net exports and there is a lower volume of imports.
- Continuance of the Benazir Income Support Programme to alleviate poverty along with initiatives such as skills training and small enterprise support for beneficiaries has proved effective.

However, the government needs to have consistent economic policies and a secure environment to attract investment. Funds should be spent on meaningful development, health, education, developing alternate sources to resolve the energy problem, and improving agriculture for food security instead of spending on mega projects like inter-city Metro Transport services which are economically unproductive.

# UNIT 14: INDUSTRIAL RAW MATERIALS AND ENERGY RESOURCES

Among the factors listed in Unit 13 for industrial development, the availability of raw materials, capital, power, labour, transport, and market are essential. Some of these factors have been briefly discussed in Unit 13. The impact of the other factors is further elaborated in the Units that follow. Raw materials are the basic resources for manufacturing. The industrial raw materials used in Pakistan are of three types:

i) agricultural;
ii) natural;
iii) imported.

### i) Agricultural raw materials

Pakistan is rich in agricultural raw materials such as cotton, sugar cane, wheat, and rice.

Cotton is the chief cash crop of Pakistan and the major industrial raw material. Pakistan is the fourth-largest producer of raw cotton in the world after China, the USA, and India, hence the cotton textile industry is Pakistan's largest manufacturing industry. Cotton goods from Pakistan entered the world market in 1953; today, cotton cloth, cotton yarn, ready-made garments, and hosiery constitute 86 per cent of the total exports from Pakistan. Besides cotton cloth and cotton yarn, many ginning factories have developed in the cotton-growing areas of Pakistan.

### ii) Natural resources

Things created by nature without any part played by man are called natural resources. Minerals are by far the most important natural resources which are used as industrial raw materials. Pakistan is quite rich in non-metallic minerals but poor in metallic minerals. Limestone, rock salts, clays, gypsum, and barite are some of the important non-metallic minerals. Limestone is particularly important in cement production.

Until recently chromite was the only metallic mineral which is mined; however, large deposits of copper along with gold, discovered in Reko Diq in Balochistan, have potential for export as well as use in local industry.

### iii) Imported raw materials

Pakistan is not self-sufficient in all the raw materials used by the industries, many of which have to be imported. Crude petroleum heads the list of imported raw materials. Edible oil, iron, steel, and medicinal products are other important imported raw materials.

### Other agricultural raw materials

Wheat, rice, and oilseeds are food items but they need to be processed before being consumed. Flour, rice, and oil mills have been established to process wheat, rice, and oilseeds for human consumption; maize, millet, and other agricultural products also go through different processes to convert them into consumable products.

### Power and energy resources

A steady supply of power is essential for industry hence location of industrial zones is generally close to energy sources. In Unit 9, Power and Energy Resources, the location, generation and transmission of power plants have been discussed in detail. It should be noted that in the last two to three years industries in some parts of the country, such as Faisalabad, have suffered due to power shortages. This results not only in loss to industrial output but also to loss of employment and problems for the labour class. Furthermore, this also discourages much needed investment in development and infrastructure; hence many industries have opted to shift their production outside Pakistan, with a negative impact on the country's economy. This issue needs to be resolved on an urgent basis through planning, consensus, and implementation of decisions taken.

## Governmental effort to encourage industrial growth

### Industrial Estates and Export Processing Zones (EPZ)

At independence, the industrial base was practically non-existent in Pakistan. In 1947, the Sindh Industrial Trading Estate (SITE) was established in Karachi. Subsequently, the government established more industrial estates across the country and presently there are more than 70 industrial areas in all the provinces of Pakistan.

### Sindh

i) **Karachi Industrial Estates**

Karachi is the largest industrial centre in Pakistan, with industries located mainly in SITE, the Sindh Industrial Trading Estate, to the north of the city, and Korangi Industrial Area to the south.


Figure 14.2: Industrial Estates in Pakistan

ii) **Nooriabad Industrial Estate**

The Nooriabad Industrial Estate is located on the Super Highway about 90 km north of Karachi, on the way to Hyderabad. It was established in 1983 under the government's industrial policy to set up industries near rural areas. However, water shortage and security issues have hindered its development.

iii) **Hub Industrial Estate**

The Hub Industrial Estate was established in 1981 in south-eastern Balochistan about 40 km west of Karachi with a plan for 1200 industries of which only 170 were set up, some of which have been closed down. The industries face a number of problems, a major one being inadequate supply of water.

Faisalabad and Gujranwala in Punjab are major industrial hubs with access to energy resources, water, and skilled as well as unskilled labour.

## Rural Industrial Estates Project

In 1978, the Rural Industrial Estates Project was launched to develop industries in less developed parts of the country. Two estates, Hub and Winder were established in Balochistan, and further estates at Chunnian in Punjab, and Hattar and Gadoon Amazai in Khyber Pakhtunkhwa. While the industrial estates in Punjab and Khyber Pakhtunkhwa are operational, those in Balochistan are not doing so well due to lack of facilities and support.

Five exclusive projects have also been granted the status of export processing zones: Saindak copper and gold mines; Duddar lead and zinc mines; Reko Diq copper, silver, and gold mines, Tuwairiqi Steel Mill (Gujranwala), and Khalifa Coastal Oil Refinery (Balochistan).

## Export Processing Zones

In 1980 the Export Processing Zones Authority (EPZA) was established to manage and develop export processing to attract foreign capital, establish export-oriented industries, and bring in sophisticated technology and general employment opportunities.

The first EPZ was set up at Port Qasim, Karachi in 1981. It has been developed in three phases, two of which are operational now and Phase 3 is in the pipeline. EPZA has also set up EPZs as joint ventures with foreign investors in Sialkot, Faisalabad, and Gujranwala (Tuwairiqi Steel Zone) in Punjab, Risalpur in Khyber Pakhtunkhwa, and at Saindak and Duddar in Balochistan. Gwadar is the latest EPZ location being developed near the newly constructed port on the Balochistan coast.-

Several incentives are provided to attract business and investment. The advantages are that these zones have security, duty free import of machinery, equipment, and material; exemption from import regulations and exchange control; no sales tax on gas and electricity bills. Furthermore they provide employment and job opportunities to the people in their surroundings.

## Special Industrial Zones

In 1992–93, the government announced the setting up of industries in 11 zones. Of them, some industries were established in Nawabshah in Sindh, Leiah, Rahimyar Khan, and Dera Ghazi Khan in Punjab, and Winder in Balochistan. Unfortunately, these zones have failed to attract interest and investment mainly because of security and various other reasons.