

## 10<sup>th</sup> - The Age of Industrialisation I



The industrialisation is considered to be the backbone of economic development. Often, we associate industrialisation with the growth of factory industry.

**Before the industrial revolution:** History of industrialisation started with the establishment of first factories, but this idea is somehow biased. Because even before factories began to appear in England and Europe, there was large-scale industrial production for the international market. This was not dependent on factories. Many historians refer to this phase as proto-industrialisation.

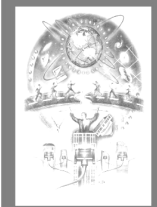
**Expansion of World Trade:** World trade had expanded at a very fast rate during the 17th and 18th century. The producers in the towns failed to produce the required quantity. Merchants could expand production within towns as urban crafts and trade guilds were very powerful. They restricted the entry of new people into the trade. These guilds trained people controlled the production and regulated competition and price. Different guilds were granted the rights of production and trade for a specific product by the rulers. The new merchants moved to the countryside as they found difficulty in setting up business towns. They supplied money to the poor peasants and artisans and persuaded them produce for an international market.

**Development of Proto-Industrial System:** In countryside, many cottagers and poor peasants who were dependent on common lands for their survival had to look now in search of alternative source of income. This was a time when open fields were disappearing and commons were being enclosed. Since the income from their tiny plots of lands was not sufficient for their livelihood So, they eagerly agreed to the proposals given by the merchants and made products them. This made it possible for the peasants and cottagers to remain in the countryside and continue to cultivate their small plots.

**Proto-Industrialisation as a System of commercial Exchange:** The income from proto-industrial production supplemented income from cultivation and in this way, they could use their full family labour resources. This system had a close relationship between town and countryside as the merchants were based in towns and the artisans who worked for them, were based in the countryside. A merchant clothier first purchased wool from wool stapler and supplied it to the spinners. The thread that was spun was taken in different stages of production to weavers, fullers and then to dyers. The finishing was done in London before it was sold in the international market. Gradually, London came to be known as a finishing centre. This proto-industrial system was thus part of a network of commercial exchanges. The unusual feature of proto-industrial system was that the goods were produced by the artisans within their family farms, not in factories. At each stage of production, 20 to 25 workers were involved which meant that each clothier was controlling hundreds of artisans or workers.

**The Coming Up of the Factory:** The earliest factories in England came up by the 1730s. But, the number of factories multiplied in the late 18th century. Cotton textile was the main industry at that time. Its production boomed in the 19th century. In 1760 to 1787, the import of raw cotton to 22 million pounds from 2.5 million pounds. In the 18th century, a series of inventions increased the efficacy of each step of the production process which included carding, twisting, spinning and rolling. These steps enhanced, the total output of the workers.

**Emergence of Mills:** Richard Arkwright is credited to create the cotton mill. Within the mill, all the processes were brought together in one roof and management.



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This overall careful supervision was not possible in production in the countryside. Factory system increased largely in England. In the early 19<sup>th</sup> century factories became an intimate part of England's landscape. Merchants concentrated their attention on the mills, neglecting the workshops of countryside where production still continued.

**The Pace of Industrial Change:** The most dynamic industries in Britain were cotton and metals. Growing at a rapid pace, cotton was the leading sector in the first phase of industrialisation upto the 1840s. After that the iron and steel industry led the way. By 1840s the demand for iron and steel increased rapidly with the expansion of railways. By 1873, Britain started exporting iron and steel worth about £ 77 million and it was double the value of its cotton exports.

**Change in Traditional Industries:** The new machinery and industries could not easily displace traditional industries. Textiles was a dynamic sector, but a large portion of it was produced within domestic units. At the end of 19<sup>th</sup> century, less than 20 per cent of the total workforce was employed in technologically advanced industrial sectors. Many ordinary and small innovations were the basis of growth in many non-mechanized sectors like food processing, building, pottery, glasswork, tanning, furniture making etc.

**Change in Technology:** The technological changes occurred slowly. They did not spread largely across the country. As new technology was expensive, industrialists were cautious about using it. James Watt improved the steam engine produced by Newcomen and patented the new engine in 1781. Mathew Boulton manufactured the new model of steam engine. But this product was not easily accepted by the industrialists. At the beginning of the 19<sup>th</sup> century, there were only 321 steam engines all over England. The typical worker in the mid-19<sup>th</sup> century was not a machine operator, but the traditional craftsman and labourer.

**Hand Labour and Steam Power:** In Britain, there was no shortage of workers. Poor peasants and vagrants moved to the cities in search of jobs. Supply of workers was more than the demand, so workers were available at low wages. Moreover, the industrialists did not want to introduce machines that got rid of human labour and also required large capital investment. In many industries, the demand for labour was seasonal. e.g. gas works and breweries, book binding and printing, ship repairing etc needed seasonal labour. The industrialists also preferred hand labour when it required.

**Preference for Handmade Products:** A range of products could be produced only with hand labour. These required human skill, not mechanical technology. In Victorian Britain, handmade products which were refined had a class. Handmade products were preferred by the aristocrats and the bourgeoisie. These handmade products were better finished and carefully designed.

**Life of the Workers:** Since, there was an abundance of workers in the market, getting a job was not easy. The actual possibility of getting a job depended on existing networks of friendship and kin relations. Seasonality of work in many industries was another big problem.

**Technology and Employment:** Fear of unemployment made workers unfriendly to the introduction of new technology. When the Spinning Jenny was introduced in the woollen industry, women who survived on hand spinning began attacking new machines. After the 1840s, building activities increased which opened up opportunities of employment. At that time roads, railways (from the 1850s railway

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stations began coming up all over London) tunnel, drainage system etc, were developing which needed large-scale employment. The number of labourers employed in the transport industry doubled in the 1840s which again doubled in the next 30 years.

**Industrialisation in the Colonies:** British colonies like India industrialised with the development of factory industries and non-mechanised sector. Textile industries have major role in the industrialization of India.

**The Age of Indian Textiles:** Silk and cotton products of India dominated the international market before the age of machine industries. Armenian and Persian merchants took the finer qualities of cotton from Punjab to Afghanistan, Eastern Persia and Central Asia. Surat, Masulipatam and Hoogly were the most important ports, which were used for trade. Supply merchants gave advances to the weavers and obtained the finished woven cloth. At the port, the big shippers and export merchants had brokers who negotiated the price and bought the products from the supply merchants.

**Arrival of European Companies:** By the 1750s, with the arrival of the European companies, the Indians started losing their control over the trade. The European companies were gaining power by securing a variety of concessions from local courts. Some of the companies got monopoly rights to trade. All this resulted in a decline of the old ports like Surat and Hoogly, through which local merchants had operated. Slowly, the local bankers went bankrupt. By the 1740s, the gross value of trade through Surat fell to Rs.3million from Rs 16 million. While Surat and Hoogly decayed, Bombay and Calcutta grew. This change was an indication of the growth of colonial power.

**Situation of Weavers:** As Indian fine textiles were in great demand in Europe, the East India Company was keen on expanding textile exports from India. Before establishing political power in Bengal and Carnatic in 1760s and 1770s, the East India Company found it difficult to ensure a regular supply of goods for export. The French, Dutch, Portuguese and local traders competed in the market, thus the producer had a bargain power. The officials of the East India Company faced problems for getting smooth supply and they also complained about the high prices of the product. Once, the Company established its political power, it started to eliminate its competitors and tried to assert a monopoly right to trade. **They did it through the following steps**

**Step I** Elimination of existing traders and brokers The Company tried to eliminate the existing traders and brokers connected with the cloth trade and establish a more direct control over the weaver.

**Step II** Prevention of Company weavers from dealing with the buyers Company prevented its workers from dealing with buyers. To do so, system of advances was followed. Once the order was placed, the weavers were given loans to purchase the raw material for their production.

In many places of Bengal and Carnatic, weavers left villages and migrated to different villages. Sometimes, they even revolted against the Company and refused to take loans. Those, who took loans had to hand over their product to the gomasthas. They lost any chance of bargaining. Many weavers had to lease out their land and devote all their time to weaving.

**Gomasthas:** The East India Company started appointing gomasthas i.e. paid servant to supervise weavers, collect supplies and examine the quality of the



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cloth. In fact, weaving required the labour of entire family i.e. children and women all engaged in this process. The new gomasthas, having no social links with the villages, acted arrogantly and punished the weavers for delay in supplies. They marched into villages with sepoys and peons and often punished the weavers by beating with stick. Further the weavers received low prices from the Company. Contrary to this, earlier supply merchants lived within the same weaving villages and maintained a close relationship with the weavers. They looked after the needs of weavers and even helped them in their times of crisis.

