

THE AGE OF INDUSTRIALIZATION

PROTO INDUSTRIALIZATION

Even before factories began to dot the landscape in England and Europe, there was large-scale industrial production for an international market. This was not based on factories. Many historians now refer to this phase of industrialisation as proto-industrialisation.

PRODUCTION IN THE PROTO INDUSTRIALIZATION PHASE

In the seventeenth and eighteenth centuries, merchants from the towns in Europe began moving to the countryside, supplying money to peasants and artisans, persuading them to produce for an international market. With the expansion of world trade and the acquisition of colonies in different parts of the world, the demand for goods began growing.

WHY MERCHANTS MOVED TO THE COUNTRYSIDE

INCREASED DEMAND : With the expansion of world trade and the acquisition of colonies in different parts of the world, the demand for goods began growing.

POWERFUL URBAN CRAFT AND TRADE GUILDS IN THE TOWNS

merchants could not expand production within towns. This was because here urban crafts and trade guilds were powerful. These were associations of producers that trained craftspeople, maintained control over production, regulated competition and prices, and restricted the entry of new people into the trade. Rulers granted different guilds the monopoly right to produce and trade in specific products. It was therefore difficult for new merchants to set up business in towns. So they turned to the countryside.

WHY PEOPLE IN THE COUNTRY SIDE ACCEPTED THE OFFER MADE BY THE MERCHANTS

1. **DISAPPEARING OPEN FIELD SYSTEM**: open fields were disappearing and commons were being enclosed. Cottagers and poor peasants who had earlier depended on common lands for their survival, gathering their firewood, berries, vegetables, hay and straw, had to now look for alternative sources of income. Many had tiny plots of land which could not provide work for all members of the household. So when merchants came around and offered advances to produce goods for them, peasant households eagerly agreed.
2. **FULL UTILIZATION OF FAMILY AND LABOUR RESOURCES**: Many farmers had tiny plots of land which could not provide work for all members of the household. Income from proto-industrial production supplemented their shrinking income from cultivation. It also allowed them a fuller use of their family labour resources.

RELATIONSHIP B/W TOWNS AND COUNTRY SIDE

Within this system a close relationship developed between the town and the countryside. Merchants were based in towns but the work was done mostly in the countryside. A merchant clothier in England purchased wool from a wool grower, and carried it to the spinners; the yarn (thread) that was spun was taken in subsequent stages of production to weavers, and then to dyers. The finishing was done in London before the export merchant sold the cloth in the international market. London

in fact came to be known as a finishing centre. This proto-industrial system was thus part of a network of commercial exchanges.

BEGINNING OF INDUSTRIALIZATION IN ENGLAND

The earliest factories in England came up by the 1730s. But it was only in the late eighteenth century that the number of factories multiplied

A SERIES OF INVENTIONS in the eighteenth century increased the efficacy of each step of the production process (, twisting and spinning, and rolling). They enhanced the output per worker, enabling each worker to produce more, and they made possible the production of stronger threads and yarn.

INVENTION OF THE COTTON MILL

Richard Arkwright created the cotton mill. Now, the costly new machines could be purchased, set up and maintained in the mill. All the production processes were brought together under one roof and management. This allowed a more careful supervision over the production process, a watch over quality, and the regulation of labour, all of which had been difficult to do when production was in the countryside.

SECTORS WHICH UNDERWENT INDUSTRIALIZATION

1. cotton was the leading sector in the first phase of industrialisation up to the 1840s.
2. iron and steel industry led the way. With the expansion of railways, in England from the 1840s and in the colonies from the 1860s, the demand for iron and steel increased rapidly. By 1873 Britain was exporting iron and steel worth about £ 77 million, double the value of its cotton export

EVEN THOUGH STEAM ENGINE WAS INVENTED IN 1781, IT WAS NOT INSTANTLY ACCEPTED BY ALL ?

A. James Watt improved the steam engine by Newcoman and Mathew Boulton, the industrialist, manufactured the new model. Yet it was not accepted by all production sector as the pace of industrialization was slow till the mid 19 century

REASONS

1. New technology was expensive and merchants and industrialists were cautious about using it. The machines often broke down and repair was costly. The machines were not effective as their inventors and manufacturers claimed.

2. The new industries could not easily displace traditional industries. Even at the end of the nineteenth century, less than 20 per cent of the total workforce was employed in technologically advanced industrial sectors. Textiles was a dynamic sector, but a large portion of the output was produced not within factories, but outside, within domestic units

3. The pace of change in the traditional industries was not set by the steam powered

cotton or metal industries, but they did not remain entirely stagnant either. Seemingly ordinary and small innovations were the basis of growth in many non-mechanised sectors such as food processing, building, pottery, glass work, tanning, furniture making, and production of implements. There was plenty of labour and wages were low.

HOW HAND LABOUR WAS DIFFERENT FROM MACHINES / WHY THE ELITE PREFERRED HAND MADE GOODS

1.. Hand Labour could produce a range of products. Machines were oriented to producing uniforms and standardized goods for a mass market.

2. The market demand was often for goods with intricate designs and specific shapes that Only hand labour could produce

1. In Victorian Britain, the upper classes (the aristocrats and the bourgeoisie) preferred things produced by hand. They symbolized refinement and class. They were better finished, individually produced and carefully designed. Machine-made goods were meant for export to the colonies

LIFE OF THE WORKERS

The abundance of labour in the market affected the lives of workers

1. As news of possible jobs travelled to the countryside, hundreds tramped to the cities. The actual possibility of getting a job depended on existing networks of friendship and kin relations.
2. Many job- seekers had to wait weeks, spending nights under bridges or in night Some stayed in Night Refuges that were set up by private individuals; others went to the Casual Wards maintained by the Poor Law authorities.
3. Seasonality of work in many industries meant prolonged periods without work. After the busy season was over, the poor were on the streets again. Some returned to the countryside after the winter, when the demand for labour in the rural areas opened up in places.
4. Wages increased somewhat in the early nineteenth century. During the prolonged Napoleonic War, the real value of what the workers earned fell significantly, since the same wages could now buy fewer things.
5. The fear of unemployment made workers hostile to the introduction of new technology.eg when the spinning jenny was introduced women workers started attacking the machines as they feared unemployment

IMPACT OF INDUSTRIALIZATION IN THE CITIES

INTENSIFICATION OF BUILDING ACTIVITIES: opened up employment opportunities as roads were widened, new railway stations came up, railway lines extended and tunnels were dug up. The number of workers employed in the transport industry doubled in the 1840s, and doubled again in the subsequent 30 years.

INDUSTRIALIZATION IN THE COLONIES

CASE STUDY INDIA

Before the age of machine industries, **SILK AND COTTON GOODS** from India dominated the international market in textiles. Coarser cottons were produced in many countries, but the finer varieties often came from India

IMPORTANT SEAPORTS BEFORE ARRIVAL OF BRITISH TO INDIA

. Surat on the Gujarat Coast connected India to the Gulf and the Red Sea ports. Masulipatam on the Coromandel Coast and Hoogly in Bengal had trade links with South-East Asian ports.

ROLE OF THE INDIAN MERCHANTS AND BANKERS IN THE NETWORK OF EXPORT TRADE BEFORE THE AGE OF MACHINE INDUSTRIES?

THE merchants gave advances to weavers, procured the woven cloth from weaving villages, and carried the supply to the ports. At the port, the big shippers and export merchants had brokers who negotiated the price and bought goods from the supply merchants operating inland

EFFECTS ON THE THE INDIAN EXPORTS AFTER THE EUROPEAN TRADING COMPANIES TOOK CONTROL OF TRADE IN INDIA

1. The Indian exports drastically declined
2. The old ports of Surat and Hoogly declined and Bombay and Calcutta grew as new ports
3. Many of the old trading houses collapsed and the Indian Bankers henceforth flourishing on Indian export trade became bankrupt.

OTHER EUROPEAN TRADERS COMPETING WITH THE EAST INDIA COMPANY IN 1760-1770 IN INDIAN MARKETS FOR EXPORTS?

The French, The Dutch and the Portuguese were the other European traders competing with the East India Company in 1760-1770 in Indian markets for exports.

STEPS TAKEN BY EIC TO ENSURE A REGULAR SUPPLY OF SILK AND COTTON

1. **APPOINTMENT OF A PAID SERVANT CALLED GOMASTHA:** . First: the Company tried to eliminate the existing traders and brokers connected with the cloth trade, and establish a more direct control over the weaver. It appointed a paid servant called the to supervise weavers, collect supplies, and examine the quality of cloth. Second: it prevented Company weavers from dealing with other buyers
2. **SYSTEM OF ADVANCES:** Once an order was placed, the weavers were given loans to purchase the raw material for their production. Those who took loans had to hand over the cloth they produced to the gomasthas and. They could not take it to any other trader

IMPACT OF THE GOMASTHAS AND ADVANCE SYSTEM ON THE INDIAN WEAVERS

1. Many weavers had small plots of land which they had earlier cultivated along with weaving, and the produce from this took care of their family needs. Now they had to lease out the land and devote all their time to weaving. Weaving, in

- fact, required the labour of the entire family, with children and women all engaged in different stages of the process.
2. in many weaving villages there were reports of clashes between weavers and the gomasthas who acted arrogantly, marched into villages, and punished weavers for delays
 3. In many places in Carnatic and Bengal, weavers deserted villages and migrated, setting up looms in other villages where they had some family relation
 4. Elsewhere, weavers along with the village traders revolted, opposing the Company and its officials. Over time many weavers began refusing loans, closing down their workshops and taking to agricultural labour.

STEPS TAKEN BY EIC TO PROMOTE ITS TEXTILE INDUSTRY IN MANCHESTER

In 1772, **HENRY PATULLO**, a Company official, had ventured to say that the demand for Indian textiles could never reduce, since no other nation produced goods of the same quality.

1.IMPOSITION OF IMPORT DUTIES: import duties were imposed on the Indian cotton textiles so that Manchester goods could sell in Britain without facing any competition from outside.

2.FLOODING THE INDIAN MARKET WITH THE CHEAP MACHINE MADE BRITISH GOODS

At the same time industrialists persuaded the East India Company to sell British manufactures in Indian markets as well

IMPACT OF MACHINE MADE CLOTH ON THE INDIAN MARKET

1. **SHRINKING OF LOCAL MARKET** the local market shrank, being glutted with Manchester imports. Produced by machines at lower costs, the imported cotton goods were so cheap that weavers could not easily compete with them.
2. **COLLAPSE OF THE EXPORT MARKET:**After imposition of import duties Indian textiles lost their world market
3. **SHORTAGE OF RAW MATERIAL:** By the 1860s, weavers faced a new problem. They could not get sufficient supply of raw cotton of good quality.as the American Civil war broke out and the British cotton supplies from US were cut off and so they turned to India. Cotton export from India increased and price of raw cotton shot .

FACTORIES IN INDIA

- . **FIRST COTTON TEXTILE MILL OF INDIA**
- . Bombay in 1854

- . **FIRST JUTE MILL IN INDIA**
- . Seth Hukumchand, a marwari set up the first Indian Jute Mill in Calcutta in 1917.

INDIAN INDUSTRIALISTS / ENTREPRENEURS WHO TRADED WITH CHINA IN 18TH & 19TH CENTURIES.

- . Dwarakanath Tagore, Parsis like Dinshah Petit and Jamshedjee Nusserwanjee Tata and Seth Hukumchand and father and grandfather of G.D. Birla traded with China in 18th & 19th centuries.

- . **Dwarakanath Tagore.**
- . Dwarakanath Tagore believed that India would develop through Westernization and Industrialization. He invested in shipping, shipbuilding, mining, banking, plantations and insurance in 1830's. These were his six joint-stock companies. He traded with China also. But, his business sank along with those others in the wider business crisis of the 1840's.

- . **FIRST IRON AND STEEL MILL OF INDIA**

- . J.N. Tata set up the first iron and steel mill in India in Jamshedpur in 1907.

WHERE DID THE WORKERS COME FROM?

1. In most industrial regions workers came from the districts around. . Over 50 per cent workers in the Bombay cotton industries in 1911 came from the neighbouring district of Ratnagiri, while the mills of Kanpur got most of their textile hands from the villages within the district of Kanpur.
2. Most often millworkers moved between the village and the city, returning to their village homes during harvests and festivals. Over time, as news of employment spread, workers travelled great distances in the hope of work in the mills. From the United Provinces, for instance, they went to work in the textile mills of Bombay and in the jute mills of Calcutta. R.D. Tata, Sir R.J. Tata, and Sir D.J. Tata.
3. Industrialists usually employed a **JOBBER** to get new recruits. Very often the jobber was an old and trusted worker. He got people from his village, ensured them jobs, helped them settle in the city and provided them money in times of crisis. The jobber therefore became a person with some authority and power. workers.

BIGGEST EUROPEAN MANAGING AGENCIES, WHICH CONTROLLED A LARGE SECTOR OF INDIAN INDUSTRIES

Bird Heiglers & Co., Andrew Yule and Jardine Skinner & Co.

1. **WHICH FIELDS OF ACTIVITY DID THE EUROPEAN MANAGING AGENCIES INVESTED IN INDIA?**

A. Tea and coffee plantations, acquiring land at cheaper rates from the colonial government, mining, indigo and jute were the most important fields of activity in which the European Managing Agencies invested in India.

SERIES OF EVENTS THAT HELPED INDIA TO REGAIN ITS MARKET AND HELPED IN INDUSTRIALIZATION?

By the first decade of the twentieth century a series of changes affected the pattern of industrialization

1. As the swadeshi movement gathered momentum, nationalists mobilised people to boycott foreign cloth. Industrial groups organised themselves to protect their collective interests, pressurising the government to increase tariff protection and grant other concessions.

2. From 1906, moreover, the export of Indian yarn to China declined since produce from Chinese and Japanese mills flooded the Chinese market. So industrialists in India began shifting from yarn to cloth production. Cotton piece- goods production in India doubled between 1900 and 1912.

3. Out break of the First World WAR

- A. With British mills busy with war production to meet the needs of the army, Manchester imports into India declined. Suddenly, Indian mills had a vast home market to supply. As the war prolonged, Indian factories were called upon to supply war needs: jute bags, cloth for army uniforms, tents and leather boots, horse and mule saddles and a host of other items.
- B. New factories were set up and old ones ran multiple shifts. Many new workers were employed and everyone was made to work longer hours

WHILE CHEAP MACHINE-MADE THREAD WIPED OUT THE SPINNING INDUSTRY IN THE NINETEENTH CENTURY, THE WEAVERS SURVIVED, DESPITE PROBLEMS/ HOW THE SMALL SCALE INDIAN INDUSTRIES PREDOMINATE REASONS

1. This was partly because of technological changes. Handicrafts people adopted new technology if that helped them improve production without excessively pushing up costs. Eg the invention of the **Fly Shuttle** a mechanical device used for weaving, moved by means of ropes and pulleys. It places the horizontal threads called the weft into the vertical threads (warp). The invention of the Fly Shuttle made it possible for the Indian weavers to operate large looms and weave wide pieces of cloth.

A. It increased productivity of worker, speed-up production and reduced labour demand. It helped them to compete with mill sector

B. By 1941, over 35% handlooms in India were fitted with Fly Shuttles. Fly Shuttle fittings went up to 70% - 80% in regions like Travancore, Madras, Mysore, Cochin and Bengal.

2. Certain groups of weavers were in a better position than others to survive the competition with mill industries. Amongst weavers some produced coarse cloth while others wove finer varieties. The coarser cloth was bought by the poor and its demand fluctuated violently. In times of bad harvests and famines, when the rural poor had little to eat, and their cash income disappeared, they could not possibly buy cloth. The demand for the finer varieties bought by the well-to-do was more stable. The rich could buy these even when the poor starved. Famines did not affect the sale of Banarasi or Baluchari saris. Moreover, mills could not imitate specialised weaves. Saris with woven borders, or the famous lungis and handkerchiefs of Madras, could not be easily displaced by mill production. Weavers and other craftspeople who continued to expand production through the twentieth century, did not necessarily prosper.

HOW WAS THE MARKETING OF GOODS DONE IN INDIA BY THE BRITISH

- a. **THROUGH LABELS:** When Manchester industrialists began selling cloth in India, they put labels on the cloth bundles. The label was needed to make the place of manufacture and the name of the company familiar to the buyer. expected

- to feel confident about buying the cloth. twentieth century. Images of Indian Gods and Goddesses regularly appeared on these labels . It was as if the association with gods gave divine approval to the goods being sold.
- b. **CALENDARS** :By the late 19 century manufacturers were printing calendars to popularize their products. Unlike newspapers and magazines, calendars were used even by people who could not read..

MESSAGE THAT WAS CONVEYED THROUGH LABELS, CALENDARS AND ADVERTISEMENTS:

A. ADVERTISEMENTS: When Indian manufacturers advertised the nationalist message was clear and loud. If you care for the nation then buy products that Indians produce. Advertisements became a vehicle of the nationalist message of swadeshi.

B. LABELS: Images of Gods and Goddesses regularly appeared on labels giving it divine approval. When Manchester industrialists began selling their cloth in India they put the label made in Manchester which became a symbol of quality

c. CALENDARS: The figures of gods were used to sell new products. Like the images of gods, figures of important personages, of emperors and nawabs, adorned advertisement and calendars. The message very often seemed to say: if you respect the royal figure, then respect this product; when the product was being used by kings, or produced under royal command, its quality could not be questioned.