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**Dr. Arun Kumar**  
Associate Professor,  
Department of History, Mahila  
College, Khagaul, Patna,  
Bihar, India

## Industry, trade and commerce in medieval India

**Dr. Arun Kumar**

### Abstract

The Persian sources give scant information about the economic conditions during the period, there are numerous references in the contemporary literature in Sanskrit and in the regional Indian languages to enable us to reconstruct the state of agriculture and other associated industries in different parts of the country under Hindu rule, prior to the Turkish conquest and during the Turko-Afghan regime. In the Ain-i-Akbari, however, we have a reliable source from which we get authentic and detailed information about agriculture. This work contains measured area statistics in detail, province wise village and area statistics have come down to us since Aurangzeb's reign. This statistical area within the Mughal empire was about half that of 1900-20 in parts of Bengal, Bihar, Eastern U.P., Berar and the Indus regions, and from two-thirds to four-fifths in Western U.P., Gujarat, Malwa and Khandesh.

**Keywords:** Sources, statistics, agriculture

### Introduction

The techniques and implements of agriculture and irrigation evidently remained unchanged during the period under review. Besides sowing by the ordinary plough, drill-sowing seems to have been an equally common practice. We learn that, during the 17<sup>th</sup> century, dibbling was prevalent in the cultivation of cotton. It may be presumed that cowdung was used more as manure than as fuel, since wood-fuel was available in plenty. Farming was carried on by individual farmers who were also owners of the land. In some cases, however, payment of revenue was the joint responsibility of the whole cultivating community of a village. Means of irrigation were both natural and artificial. Some parts had plentiful rain besides rivers and lakes. Wells, tanks, reservoirs and canals were constructed wherever necessary. Drawing water for irrigation by means of leather buckets and the Persian-wheel and lifting water by means of a dhenkli (a system worked on the lever principle) and baling were commonly employed.

The cereal crops of medieval India were the same as today, both in kind and geographical distribution. Certain crops in limited quantities were sown outside their natural zones, such as rice around Lahore and wheat in Bengal. On the whole, the distribution of barley and millets was also similar to that of the present day. As regards cash crops, the cultivation of both cotton and sugarcane in the 17<sup>th</sup> century was spread all over the country and not concentrated in a few large tracts as at present. All the oil-seed crops (except groundnut) and fibre-yielding crops were also cultivated in the medieval period. In Akbar's time the oil-seeds were cheap in relation to wheat, obviously owing to their bundance. Jute was still an unimportant crop grown only for local consumption in Bengal. On the other hand, the dye-yielding crops like indigo possessed considerable economic importance in medieval times. The best quality of indigo for the purpose of export was produced in the Bayana-Doab-Mewat area and in Sehwan (Sind) and Sarkhej (Gujarat). Opium cultivation was encouraged and it was widely grown in Malwa and Bihar. The cultivation of tobacco, introduced at the beginning of the 17<sup>th</sup> century, was extended to almost all parts of India by the middle of that century, particularly in the districts around the deltas of the Godavari and Krsna rivers.

Besides a large variety of fruits grown all over the country, there were wild fruits in abundance. Firuz Tughluq is said to have planted 1,200 fruit gardens around Delhi. The aristocrats generally maintained orchards. The Mughal gardens all over northern India are well known. Kashmir and on the western coast. Woollen cloth of the finest variety was produced in very large quantities in Kashmir and other Himalayan regions and was an item of export. In cold regions animal skin for use as apparel was quite popular.

**Correspondence Author:**  
**Dr. Arun Kumar**  
Associate Professor,  
Department of History, Mahila  
College, Khagaul, Patna,  
Bihar, India

It may be safely presumed that the medieval Indian peasant was better off in respect of cattle wealth than his modern descendant. Akbar's administration allowed four bullocks, two cows and one buffalo as the number of cattle exempted from tax. The price of *ghee* in relation to wheat was much lower. All edible oils, such as mustard, linseed, gingelly etc., were very abundant and cheap.

The forests covered nearly half the area of northern India. In the Deccan as well as the coastal regions, there were extensive forests. These were sources of a large variety of economically valuable products, including timber, firewood, gums, fruits and numerous herbs. Fish also formed an important part of the diet of the masses in Kashmir, Bengal and in the coastal regions. Medieval India could also boast of pearl fisher, located off the south-western coast. As many as 60,000 person are said to have been engaged in collecting pearls at the end of the 16<sup>th</sup> century.

Salt, an every day necessity, was extracted from the soil almost everywhere. The Sambhar lake in Rajasthan and the Salt Range in the north-west produced plenty of salt which served the needs of the whole of North India. Stone of several varieties besides marble, both black and white, was quarried in large quantities. This industry and crafts of architects, masons, carpenters and smiths prospered greatly under the state's patronage. Diamond-mining, associated with Golconda, was another notable industry of the Deccan. The actual mines were, in fact, situated far away from Golconda. Iron was plentiful everywhere, except on the western coast. Copper was mined at several places in Rajasthan. It appears to have been a government monopoly in the 17<sup>th</sup> century. Silver was scarce, but the large amount of gold found in the form of both coins and ornaments in all parts of the country makes one presume that the metal was available in sufficient quantities to satisfy the enormous demand.

A number of processes of production, which have now been separated from agriculture, were in Medieval times undertaken by the agricultural producer himself. Cotton for instance, was ginned by the peasants, then cleaned or carded by a class of itinerant labourers, called *dhunvas*, and finally spun into yarn by the *julahas*. Sugar and *gur* were manufactured from sugarcane in "mills" and "furnaces" in the villages as observed by travellers in the 17<sup>th</sup> century. The extraction of oil from oil-seeds was entirely in the hands of a semi-itinerant class of *telis* (oilmen) working with ox-driven presses. Indigo too was manufactured almost entirely in the villages. Among other rural industries may be mentioned the manufacture of spirits and liquors from unrefined sugar, mahua, barley and rice and scents from flowers.

Pottery and leather-work were the most important non-agricultural village industries. Leather-tanning, manufacture of such articles as leather-bucket, footwear, sheaths, bags and boxes etc., were flourishing industries all over the country. The smith's craft in gold, silver, bronze, iron, copper and many alloys was highly developed. Besides ornaments, the craftsmen produced agricultural implements, weapons of war, domestic utensils, and bronze, silver and copper statues of gods and goddesses, in large quantities. All these crafts attained an excellence and refinement not found anywhere else in the world at that time.

The weaving of cloth from cotton yarn was undoubtedly the foremost industry in the country. The ordinary weavers (*julahas*) formed the largest group among the artisans. Just

as cotton cultivation was spread throughout India, so also was cloth made everywhere for local use. The cotton cloth was of such fine quality that it was in great demand abroad. A large amount of wealth was earned from this export. In addition to ordinary cloth, finer varieties were woven for a limited market. In the 14<sup>th</sup> century, as well in the 16<sup>th</sup> and 17<sup>th</sup>, the muslin of Dacca enjoyed a high reputation for its fine texture and light weight. In Akbar's time fine cloth of many varieties was also produced at Varanasi, Mau, Agra, Malwa and Gujarat.

Cotton-weaving also supported certain subsidiary industries, such as dyeing and, in certain regions, calico-printing, besides that marvellous variety of cloth-printing technique known as *bandhani* (tie and dye) which was the speciality of Rajasthan and its neighbouring regions. Gujarat had a long established silk-weaving industry. Although sericulture itself was alien to that province. Cambay silks were listed among luxury goods at the time of 'Alau'd-din Khalji (A.D. 1296-1316). In the Mughal days, silk fabrics woven at Ahmedabad enjoyed a high reputation. Abu'l Fadl also notices the silk-weaving industry of Lahore, Agra and Fatehpur Sikri.

Blankets and carpets were woven from the coarse Indian wool. The production of woollen cloth was, however, small since quilted vests stuffed with cotton were generally used in winter. The famous shawls of Kashmir were woven from the mountain-goats' fleece imported from Ladakh and Tibet. Among the coarser fibres, hemp, not jute, predominated. Outside Bengal, sack-cloth was woven out of hemp, but on the western coast, coconut fibre was in extensive use for this purpose.

Brass and copper were among the large-scale industries. These metals were used in the mints for currency. The high level of purity and uniformity of the coins of the Delhi Sultans and the Mughals is a testimony to the skill and technique of medieval coiners. Copper, brass and bronze were largely used for making images of deities in various sizes, the famous *Nataraja* being an example. They were also used for making vessels of worship. The architectural enterprises of the state included palaces, fortresses, city-walls, mosques and tombs. These kept a large force of labourers and artisans employed. The number of skilled artisans, sculptors, masons and other craftsmen engaged in building private houses in the cities, the gigantic temples and palaces, fortresses and dams must have been literary countless.

A large number of boats operated by the *mallah* caste were constructed throughout India for riverine navigation. Large sea-going ships were built on an extensive scale both on the eastern and the western coasts. They were built not only for Indian ship-owners but for foreigners as well. The heaviest passenger ships of the time (1,000-1,500 contemporary tons) were meant for the haj traffic in the 16<sup>th</sup> and 17<sup>th</sup> centuries.

There is enough evidence that paper of some sort was manufactured and used in ancient and early medieval India. It is likely, however, that the Chinese type of paper was brought to this country only in the 11<sup>th</sup> century. Even in Balban's time (A.D. 1266-1287), paper used to be so scarce that old *farmans* had to be washed off so that new ones could be written on the same paper. In southern India palm leaves were still largely in use still the 17<sup>th</sup> century. In northern India, the manufacture as well as use of paper developed so rapidly that the village accountant had begun

to keep his detailed records on paper as early as the 14th century. All extensive book trade, unknown in previous times, now developed. The printing press, was not established in India, despite the fact the Chinese invention had reached Europe as early as the 15<sup>th</sup> century.

Leather was used for making a large variety of articles, such as saddles, scabbards, book-covers, shoes and shields. In Bengal, sugar was packed in leather parcels. In Gujarat, gold and silver embroidered leather mats of such beauty were manufactured that they won the admiration of the Italian traveller Marco Polo. Two other important industries, providing means of livelihood to large numbers of artisans, were carpentry and pottery. It is not possible to enumerate here all the minor industries that existed in medieval India. A large number of these were devoted to the production of decorative articles. The coral industry of Gujarat and Bengal, the cornelian industry of Gujarat, besides ivory-carving, gold-embroidery, etc., may be cited as examples.

The industrial production of medieval India was entirely based on handicraft, the instruments in use being simple and cattle being the main source of power. There is no evidence of wind or water being harnessed. However, the use of grinding mills driven by hydraulic turbines (*pan-chakkis*) seems to have come into vogue quite early. Production was carried on by individual craftsmen usually in their homes and with tools owned by themselves. The village artisans as well as those who rendered domestic services, such as barbers, washermen and water-carriers, were paid through land allotments or fixed shares out of each harvest from every peasant. The rural cotton-carders, weavers, oil-men, smiths, carpenters and potters generally bartered their services for such payments in kind. However, in the cities, the artisans generally sold their finished products for cash in the open market. Here, too, on festive occasions, some of them bartered their products for gifts in kind. Others, such as gold and copper smiths, weavers, and glass-manufacturers seemed to have worked on a kind of 'putting-out' system very similar to that of Europe during the 17<sup>th</sup> century. The existence of a number of wealthy merchants, who also carried on import and export trade, shows that these and many other similar industries thrived because they were well organized. In such industries as ship-building, mining and construction of forts, palaces, bridges, *sarais*, *baolis* (stepwells) and many others, large numbers of skilled and unskilled labourers were employed. For state consumption, *karkhanas* or workshops were maintained by kings and nobles who perhaps imposed still greater discipline and supervision on the artisans. Firuz Shah's *karkhanas* are well known and Bernier (17<sup>th</sup> century) has left us a description of these workshops, which were maintained to meet the requirements of the employers and their households.

#### Trade and Commerce

There can be little doubt that the bulk of marketable products, both agricultural and non-agricultural, was absorbed by local demand. The needs of the towns for food, clothing and other articles had to be met largely from the country around them. It may be justly presumed that the large urban population, interspersed in the midst of villages all around, would have absorbed a considerable portion of the production of the villages. The sale of these products was well organized. A market day was fixed for each locality when all the cottage manufactures were brought and exposed for sale. These consumer goods represented the surplus left after the bulk had been taken by the rich

merchants who marketed them. Apart from the periodical markets known variously as *peth* or *hat*, itinerant peddlars also supplied articles of daily consumption to householders in towns as well as villages.

The conception of a road in medieval times was naturally very different from that of the present day. Most roads seem to have been unmetalled and were only in the form of a track with rows of trees on both sides. One notable feature of all roads was the existence, at short distances, of *sarais* (rest-houses or pavilions), wells, a small clump of shady trees and quite often a tank, all in one group. Small tanks containing water for cattle were also invariably added. These amenities were provided by well-to-do Hindus who believed it to be a necessary religious duty. There can be no doubt that there were cross-country or trunk roads as well as branch or minor roads, pathways and, in hilly areas, bridle-paths. On some roads at least, there were minarets at intervals of *karohs* (about 3 to 4 km) to show the way. There were bridges on smaller rivers and ferries and fords on the larger ones. Bullock carts, camels (in western India only) and pack-oxen were chiefly used for conveying goods over long distances. The merchants usually organised themselves in *qafilahs* or caravans for safety. The *banjaras* specialised in conveying goods of bulk, such as foodgrains, sugar, butter and salt on their pack-oxen. Each mobile camp or *tanda* of *banjaras* could consist of thousands of pack animals. But, unless price differences were very substantial, it did not pay to transport goods in bulk overland. River transport was cheaper and, therefore, very common. In Bengal, Sind and Kashmir, goods were mostly conveyed by boats. There was considerable traffic on the Yamuna and Ganga rivers as, indeed, on all navigable rivers. In the 17<sup>th</sup> century, barges of 300 to 500 tons are said to have sailed from Agra to Patna and Bengal, each taking a year to make the downward and return journey. In the Indus system, Lahore and Multan were big river-ports sending down boats to the port of Tatta. The tonnage of Indian shipping engaged in coastal trade was also quite large by contemporary standards.

The evidence available enables us to draw a fairly comprehensive picture of the pattern of trade between various regions of the country in the 17<sup>th</sup> century. Information about the earlier centuries is rather scanty, but we may assume that, in broad features, the pattern was practically similar.

During the 17<sup>th</sup> century, as also earlier, Bengal enjoyed great reputation for plenty and low prices. It maintained a regular coastal trade with Coromandel, exporting rice, sugar and butter, and importing cotton yarn and tobacco. Kerala received rice and sugar, besides opium, from Bengal by sea. Bengal sugar was carried even to Gujarat. Wheat was also sometimes exported from Bengal to southern India and to the Portuguese possession on the western coast. There was an equally brisk trade between Bengal and Patna, which was further connected with Agra by river and by the great imperial highway. Bengal exported rice, raw silk, sugar and textile to Patna and Agra, receiving salt, cotton, opium and wheat in return. Salt was very scarce in Bengal and was imported from other places, especially from Rajasthan *via* Agra.

Agra was certainly the biggest commercial centre of the 17<sup>th</sup> century. Its needs of rice, wheat and butter were met by supplies drawn from places far down the Ganga, Patna and even Bengal. Salt was brought here from Rajasthan, while it sent sugar, wheat and Bengal silk to Gujarat. Agra owed

much of its commercial fame to indigo, which was exported to all parts of India and to many parts of the world. From Lahore and Multan, textiles, suga and ginger were sent down to Tatta in return for pepper and dates. Sehwan indigo was also exported through Tatta, which itself received pepper from Malabar. The chief export of Kashmir was saffron and shawls, while it imported salt, pepper, opium, cotton yarn, etc., from the rest of India. Gujarat occupied a very prominent position in the commercial world of the time. It imported wheat and other foodgrains from the Malwa and Ajmer provinces, while rice was brought from the Malwa and Ajmer provinces, while rice was brought from the Dccan and Malabar. It exported cotton, cotton textiles and silk goods to Agra and tobacco to Tatta. With Keral, it had a traditional coastal traee, exchanging opium for pepper. From the Deccan, specially khandesh, cotton and cotton textiles were sent to Agra. Pepper from the western coast was also sent overland to Agra. Coromandel had an extensive trade with Bengal. In addition, it exported rice to Kerala *via* Kanniyakumari.

The main land routes connecting India with the rest of Asia went through mountain-passes in the north-west. Abu'l Fadl wrote that Kabul and Kandahar were 'the twin gates of Hindustan, the one leadin to Turkistan and the other to Persia.' The caravas for these places and beyond were made up in Lahore and Multan, which were great marts partly for this reason. Sea-borne trade was conducted from a large number of pors. On the western coast, Lahari Bandar (in Tatta) had replaced in importance the old port of Diabal by the 13<sup>th</sup> century. In Gujarat, Cambay was the chief port till the end of the 16<sup>th</sup> century, when its place was taken by Surat. Further South, there were a series of ports *viz.* Kandahar (till the 17<sup>th</sup> century), Goa, Calicut and Cochin. From these ports, trade was carried on with the Pesian Gulf and Europe. Calicut and Cochin also served as stopping places for ships plying between the Arabian Sea and the Bay of Bengal. On the eastern coast, Masulipatam, Pulicut, Nagappattinam, Madras (in the 17<sup>th</sup> century). Satgaon (and later Hooghly) and Sripur (near Sonagaon, Bengal) served for trade with the East Indies. There were cargo-ship services to Persia and the East Indies *via* Coromandel. Chittagong was a base for pirates and was more closely associated with Arakan than with Bengal. It is difficult to estimate the volume of trade conducted through these ports. The overland trade was probably much smaller in volume than sea-borne trade. A description of the exports and imports may now be attempted. China exported to India silk goods, porcelain, lacquered ware, camphor and various drugs and perfumes. From Burma and the East Indies (Pegu to Java), India received spices, particularly colves and nutmeg, and small quantities of gold and silver. In return, textiles, yarn and opium were sent from both Bengal and Coromandel. Bengal exported sugar and textiles received from Gujarat. To Central Asia, India exported textiles, indigo, silk and opium, receiving in return horses, fur and musk. Bengal silk and sugar were exported to Persia, from where were brought coined silver, horses, dried fruits, silk goods, carpets, etc. From Bahrain came pearls. Trade with the Levnt was conducted either through Basra or the Red Sea ports. Before the 16<sup>th</sup> century, when Europe also drew supplies of Indian goods through the Levant, this trade was more important. India exported textiles, indigo and pepper and received coined gold and silver, fine woollen cloth and silk. From the Red Sea region, India received Yemen horses,

coffee, corals and Abyssinian slaves; textiles were the chief articles of export from India to this region, though rice was also sent to Yemen. With the Eat African coast the volume of trade could not have been large, Indian textiles being exchanged for small quantities of amber, ebony and ivory.

A new element, which we have excluded from this description, was introduced by the opening of the direct sea-route between Europe and India at the end of the 15<sup>th</sup> century, when Vasco da Gama reached India after rounding the Cape of Good Hope in A.D. 1498. This resulted in an immense increase in the volume of Indo-European trade, though it is difficult to speak in precise quantitative terms. Undoutebdly, the new trade stimulated production in particular commodities, such as indigo and textiles in Gujarat and silk in Bengal. In the internal economy of the country, the most important effect of the European trade was probably seen in the rise of prices which the influx of silver and gold brought about in the 17<sup>th</sup> century.

The standard coin under the Delhi Sultans from Iltutmish onwards was the silver *tanka* weighing 175 grain. The currency system was, however, bimetallic, there being parallel coins in copper, the basic unit of which the *jital*. In the 14<sup>th</sup> century, 48 or 50 jitals were held equal in worth to a *tanka*. The Sultans issued billon coins as well, and gold issues have also survived. The Lodis, who never minted silver, issued a heavy billon coin of 145 grains called *bahloli*. In many of the successor kingdoms of the Delhi Sultanate, such as Gujarat, Malwa, Khandesh and Berar, *tankas* of coarse silver continued to be minted well into the 16<sup>th</sup> century. The Vijayanagar empire had only gold and copper coins, the standard gold coin being the *hun* or pagoda. The pagoda continued to be the standard coin in southern India and Golconda in the 17<sup>th</sup> century, long after the destruction of the Vijayanagar empire. In northern India, Sher Shah established a bimetallic system by issuing a rupee of silver and making the *tanka* a purely copper coin. The Mughals from Akbar onwards continued the same system: their rupee weighed 178 grains (180 under Aurangzeb), and the alloy in these never rose above 4 per cent. In copper they minted *dams* of 323 grains each, these being originally the half-*tanka* of Sher Shah. In the last years of Akbar, a rupee fetched 40 *dams*, and this became subsequently the paper value of the rupees. In fact, the copper price of the rupee decline throughout the 17<sup>th</sup> century. The Mughals also issued gold coins, known s *mohur* or *ashrafi*, but these were not normally used in the market. The Mughal coinage was of great metallic purity and uniformity. The minting was 'free' in the sense that anyone could take bullion to the mint and get it coined at a small charge (not exceeding 6 per cent of the value). The value of coins, therefore, corresponded with their weight in bullion. They were, however, liable to depreciate not only from loss in weight, but also with the passage of time. A newly minted coin enjoyed a premium over older coins. The *sarrafs* or shroffs specialised in getting the bullion coined at the mints, and in testing and changing money.

Trade in medieval times was helped by an elaborate system of short-term credit, based on the drawing and discounting of *hundis*. The *hundi* was a written order or promise to pay an amount at sight or after a period of time at a place specified in the paper. When an ordinary person wanted to remit money to some other place, he went to a *sarraf* who accepted the amount and drew a *hundi* on his agent or correspondent at the other place. The *sarraf's* charges for

this service were not very high, for instance, it was 1 per cent on *hundis* drawn at Dlihi on Agra (A.D. 1651). The *hundi* was also drawn by merchants for raising money to pay for goods purchased. In such cases, a *hundi* was very similar to a bill of exchange. It was usually discounted by the *sarrafs* and was fully transferable. The rates of discount naturally varied with the credit of the drawer. The discount on *hundis* of merchants with high credit drawn at Agra on Surat amounted to about 4¼ to 5 per cent in the 17<sup>th</sup> century. The *hundis* generally matured after two months, but the holder could not demand payment if the goods against which it was drawn were lost in transit.

Goods in transit, whether on land or on sea, could be insured with *sarrafs* by taking *hundis* covering the risk of loss of goods against which they were drawn. Sea-going ships were also insured. Insurance charges do not seem to have been very heavy, e.g., 2½ per cent of insured value on cochineal sent from Surat to Agra (A.D. 1655), while it was 2¾ per cent on sugar sent from Surat to GAMBROON (a Persian port) by sea. The *sarrafs* also undertook to convey insured goods themselves, a practice for which the term *bimah* was employed.

Medieval India had a large class of professional money-lenders, known as *sahukars*, *mahajans* and *sarrafs*. They engaged in money-lending of all types, from usurious loans to the discounting of *hundis*. The *sarrafs* and *mahajans* sometimes attempted to augment their resources by accepting deposits. The augmentation of the resources of the *sarrafs* and *mahajans*, either through their own profits or through deposits, did not necessarily add much to the volume of mercantile capital, the additional resources being largely re-employed in usurious money-lending. The big money-lenders and bankers of the town found in the nobility a much more profitable clientele than among merchants. The medieval Indian state commanded large financial resources. 'Alau'd-din Khalji's government is said to have advanced loans to merchants to encourage trade. The Multani merchants alone received twenty lakh *tankas* from his treasury to enable them to bring goods to Delhi. But these were exceptional measures, and medieval governments normally did not grant financial assistance to merchants.

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