
UNIT 7 COMPARATIVE STRUCTURES OF ECONOMIES IN SOME EARLY STATES (MAURYA, KUSHANA, SATAVAHANA, GUPTA)

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7.1 INTRODUCTION

Fourth century BC to fourth century AD is marked by the emergence of Early Empires in the Indian subcontinent. The earliest of these was the Mauryan empire (c.324-187 BC), followed by the empires of the Satavahanas (c. BC 28-250 AD), Kushanas (c. AD 50-320), and the Guptas (c. AD 320-570). In the present Unit we will be focusing on the comparative economic structures of these empires. Mauryan period is generally considered as a landmark in the study of early Indian history. The Mauryas carved out an almost pan Indian empire and it stretched from Afghanistan in the north to Karnataka in the south and from Kathiawad in the west to perhaps north Bengal in the east. Obviously this vast empire was a melange of diverse ethnic and cultural components. It, however, goes to the credit of the Mauryas to have reduced the tremendous cultural gaps between different regions of the subcontinent. It has been argued that the Maurya Empire consisted of three zones viz. metropolitan state (Magadha in Bihar), core areas like existing states of Gandhara, Kalinga, Saurashtra, Malwa, and perhaps peripheral regions. It also included a number of peripheral regions could be anything from hunting gathering to producing societies. These may have included a large part of the peninsula as also some parts of the northern subcontinent.

In the 1st century AD, the Kushanas, originally a Central Asian nomadic tribe, established a huge empire with Bactria (Balkh in North Afghanistan) as its principal seat of power. The empire at the height of its power under Kanishka I (c.AD 100-123) embraced

extensive areas of north India up to Champa or Bhagalpur in the east, the lower Indus valley and Gujarat in the west, Chinese Turkestan and areas to the north of the river Oxus. Kanishka I's successors, however, had little control over areas to the east of Mathura. The death knell of the empire rang with the annexation of Kushanshahr up to Peshawar to the Sasanid Empire in or before c. AD 262. The territory between Peshawar and Mathura fell into the hands of the local powers.

The traditional seat of power of the Satavahanas, who are assigned to the Andhra lineage in the Puranic lists of kings, was at Pratishthana, modern Paithan in the Aurangabad district in Maharashtra. The family came to power in about the second half of the first century BC and was finally wiped out in about the first quarter of the third century AD. Their original territory was probably in the central Deccan. During the early phase of their rule their authority was extended to parts of central India including Sanchi, western Deccan and perhaps also the lower Deccan. Gautamiputra Satakarni (c. AD 167-196), the most famous of the Satavahana rulers, extended the Satavahana rule to eastern Deccan. The combined evidence of the Nasik inscription of Balasri, Nasik records of Gautamiputra, an epigraph found at Sannati (Gulbarga district) and the coins of Gautamiputra attributable to different areas indicate his authority over Kathiawad, a part of southern Rajasthan, eastern and western Malwa, western, central (including Vidarbha, mod. Berar), and the eastern Deccan. The Satavahana rulers bearing the epithet 'Dakshinapathapati' (lord of the Deccan) were engaged in protracted hostilities with the Saka Kshatrapas of western India. Economic motivation gave an added dimension to this hostility.

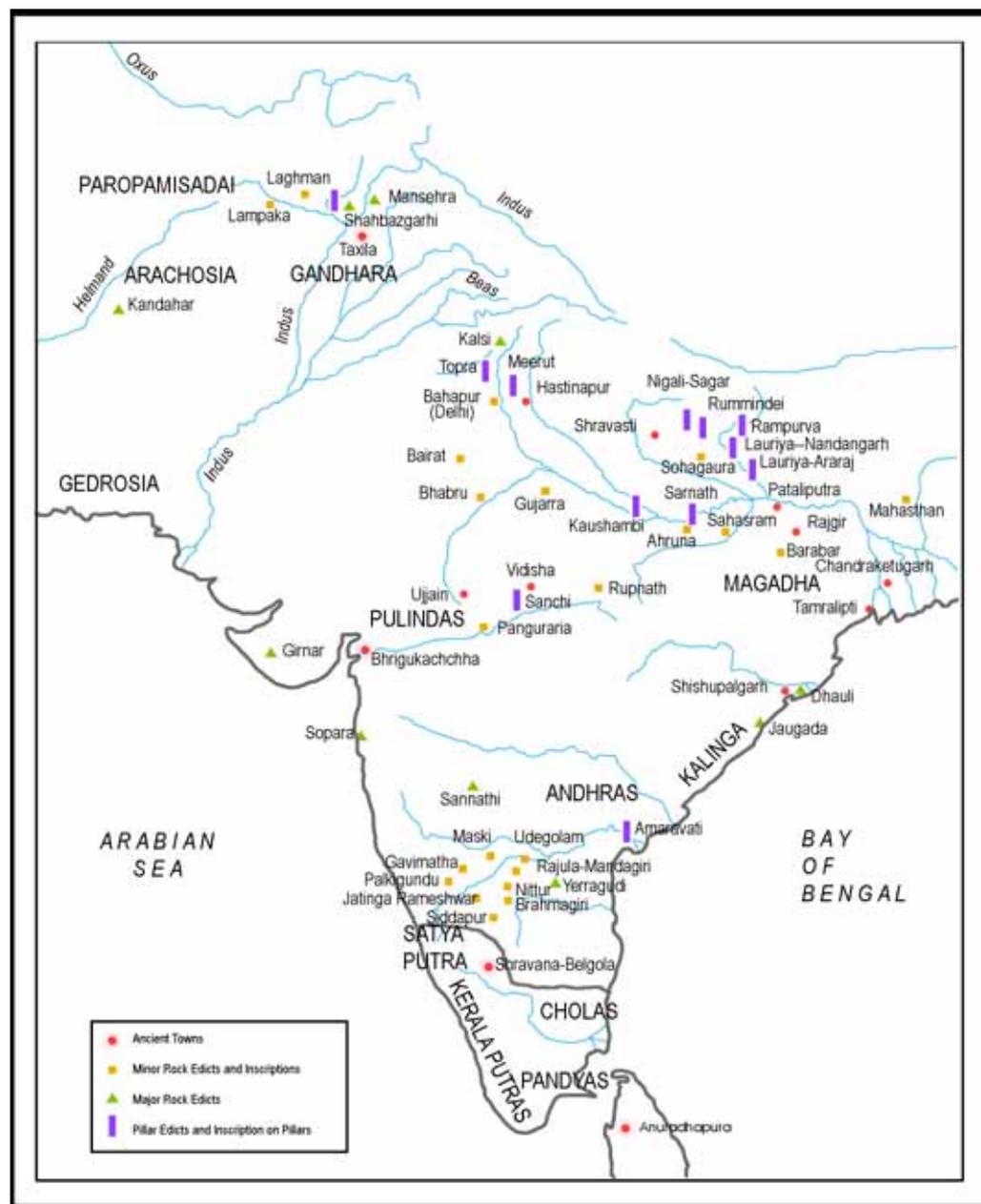
The Guptas were the most outstanding political power of North India from the beginning of the fourth to the middle of the sixth century AD (320-570). The foundation of the Gupta power by Chandragupta I brought the middle Ganga valley and the region around Pataliputra back to limelight. From the Allahabad Prasasti we learn that during the reign of Samudragupta (AD 335-375), successor of Chandragupta I, the Guptas aimed at the extermination of rivals in the Ganga-Yamuna doab, upper Ganga valley, Punjab and Haryana, Central India and Malwa plateau and tried to expand in the lower Ganga regions. Thus, in the last quarter of the fourth century AD, the Guptas emerged as the masters of virtually the whole of northern India except the western part, covering western parts of Malwa, Gujarat and Kathiawar. This task was successfully completed by Chandragupta II (AD 375-414), son and successor of Samudragupta. The penetration of the Gupta power into western Malwa was made possible due to their firm grip over Mathura which was a well known nodal point in the Ganga-Yamuna doab for reaching out into western India through the Malwa plateau. Silver coins of the Guptas, issued following the pattern of the coins of the Saka rulers, in Gupta era 90, ie. AD 409-410, clearly suggest the capture of this area which gave the Gupta monarchs access to the huge resources of western India in addition to the fertile tracts of the Ganga valley.

7.2 ECONOMY OF THE MAURYAN EMPIRE

The major sources for understanding the economy of the Mauryan empire are the *Indica* of Megasthenes, who came as an ambassador from Seleucus to the court of Chandragupta Maurya, Asokan inscriptions which were engraved in prominent places covering more or less the major part of the empire, archaeological remains found from explorations and excavations and the *Arthashastra* of Kautilya which champions the economic interest of the political authority.

This vast empire was supported by a large army and an equally impressive administrative set up, maintenance of which required enormous resources. Mobilization of huge resources was possible in an economic structure which was controlled by the state. The Maurya state actively participated in the production and distribution of commodities. The Mauryas

had a well established revenue system and in the Arthashastra revenue collection has been categorized as the most important administrative business of the state and instructions in this connection are specific, detailed and thoughtful.



Map 1 : Mauryan Empire (After Romila Thapar,
Early India from the Origins to AD1300, Penguin, 2002, Map 5)

7.2.1 Agrarian Economy

Agriculture and the revenue from the agrarian sector was the mainstay of their economy. The Mauryas were the first political authority to have exercised control over both the Indus and the Ganga river systems which supported the major agrarian communities. The royal farms working under the supervision of the *sitadhyaksha* or superintendent of agriculture formed a major source of income to the royal treasury. From Megasthenes we learn that the tillers of the soil form the most numerous class of population. The cultivator's listed as the largest category, underline the centrality of agriculture and its requirement to maintain the Mauryan infrastructure both civil and military. Apart from the activities of the state in agriculture, private owners as farmers or land owners, cultivated the land or had it cultivated and paid the state a variety of taxes. The hunters and shepherds used to clear the countryside of wild beasts and thereby helped the administration in

expanding the area under cultivation. This act must also have facilitated the growth of new settlements, the importance of which is also indicated in the *Arthashastra*. The new settlements helped in the expansion of the existing economic and fiscal base of the empire. Megasthenes has commented upon the absence of slavery, but domestic slaves were a regular feature in prosperous households. The compound phrase *dasa-karmakara* meant slaves and hired labourers. The status of both were not pleasant and perhaps there were much oppression. Slave labour was also used in the mines and by some craft associations. State initiative in irrigation, both during the time of Chandragupta Maurya and Asoka, is amply clear from the history of Sudarshan reservoir as gleaned from the Junagarh Prasasti (AD 150) of the Saka ruler Rudradaman (c. AD 130-150). Asoka not only maintained the lake but also decorated it with conduits which definitely helped distribution of water to nearby arable areas. The state also provided local level irrigation facilities and regulated water supply for the benefit of the agriculturists. Megasthenes speaks of a special category of officers who inspected the sluices so that the cultivators could have equal supply of water. These officers might have been the Rajukas who along with other things also supervised welfare works.

JUNAGARH PRASASTI

(Be it) accomplished:

(Line 1) This lake **Sudarsana**, from **Girinagara** [even a long distance?] . . . of a structure so well joined as to rival the spur of a mountain, because all its embankments are strong, in breadth, length and height constructed without gaps as they are of stone, [clay] . . . furnished with a natural dam, [formed by?] . . . and with well provided conduits, drains and means to guard against foul matter, . . . three sections. . . by . . . and other favours is (now) in an excellent condition.

(Line 3) This same (lake)- on the first of the dark half of *Margasirsa* in the seventy-second – 72nd – year of the king, the Mahatsatrapa Rudradaman whose name is repeated by the venerable, the son of . . . [and] son's son of the king, the Mahakshatrapa Lord Cashtana, the taking of whose name is auspicious, . . . when by the clouds pouring with rain the earth had been converted as it were into one ocean, by the excessively swollen floods of the *Suvarnasikata Palasini* and other streams of Mount *Urjayat*, the dam. . . ; though proper precautions [were taken], the water churned by a storm which, of a most tremendous fury befitting the end of a mundane period, tore down hill-tops, trees, banks, turrets, upper stories, gates and raised places of shelter-scattered, broke to pieces, [tore apart] . . . , with stones, trees, bushes and creeping plants scattered about, was thus laid open down to the bottom of the river.

(Line 7) By a breach four hundred and twenty cubits long, just as many broad, [and] seventy-five cubits deep, all the water escaped, so that [the lake], almost like a sandy desert, [became] extremely ugly [to look at].

(Line 9) . . . – he the Mahakshatrapa Rudradaman, in order to . . . cows and Brahmanas for a thousand of years, and to increase his religious merit and fame, –without oppressing the inhabitants of the towns and country by taxes, forced labour and acts of affection – by [the expenditure of] a vast amount of money from his own treasury and in not too long a time made the dam three times as strong in breadth and length. . . [on] all [banks] . . . [and so] had [this lake] made [even] more beautiful to look at.

(Line 16) When in this matter the Mahakshatrapa's counsellors and executive officers, who though fully endowed with the qualifications of ministers, were averse to a task [regarded as] futile on account of the enormous extent of the breach, opposed the commencement [of the work], (and) the people in their despair of having the dam rebuilt were loudly lamenting, [the work] was carried out by the minister *Suvisakha*, the son of *Kulaipa*, a *Pahlava*, who for the benefit of the inhabitants of the towns and country had been appointed by the king in this government to rule the whole of *Anarta* and *Surastra*, [a minister] who by his proper dealings and views in things temporal and spiritual increased the attachment [of the people], who was able, patient, not wavering, not arrogant, upright [and] not to be bribed, and who by his good government increased the spiritual merit, fame and glory of his master.

F. Kielhorn, 'The Junagadh Rock Inscription of Rudradaman', *Epigraphia Indica*, Vol. 8, 1981, pp. 45-9.

7.2.2 Production of Other Resources

Resources in the Mauryan empire were realised from the non-agrarian sector too. Recommendations of the *Arthashastra* and the observations of the classical authors suggest that revenue from the agrarian sector was considerably supplemented by trade, exploitation of metals and minerals, working in metals and the existence of different types of industries. Parts of the southern Deccan which were not perhaps in the same cultural level as that of Magadha and Gandhara became economically very important due to the availability of iron, gold and diamond. A number of Asokan inscriptions have been located in the Deccan. The areas of Kurnool, Gulbarga, Raichur, Bellary and Chitaldurga districts, the first belonging to Andhra Pradesh and the rest to Karnataka, have yielded Asokan edicts. They perhaps belonged to the southern province whose head quarter was at Suvarnagiri (a site near Maski). This is a pointer to the fact that the Mauryas were aware of and interested in the rich mineral resources of the region. The state enjoyed a monopoly in the working of mines and in trade in mineral products. The evidence of direct supervision of mines by Maurya officials, which obviously included those yielding metallic ores usable for manufacturing of weapons, should have naturally encouraged the administration to find out and excavate new mines which were source of great income. The *Arthashastra* dwells in detail on the technique of mining and metallurgy. The characteristics of ores and methods of smelting and purification of ores are discussed. It frequently reminds that mines are an important source of wealth and they constitute a main reason for seeking to establish new settlements. It is significant to note that the southernmost headquarters of the Mauryas named Suvarnagiri was situated very near the famous Kolar gold fields. Raymond Allchin discovered traces of very old workings of gold and diamond fields in Karnataka and western Andhra Pradesh. These, according to him, could possibly go back to the days of the Mauryas.

STARTING OF MINES AND FACTORIES

No. 1 The Director of Mines, being conversant with the science of (metal) veins in the earth and metallurgy, the art of smelting and the art of colouring gems, or having the assistance of experts in these, and fully equipped with workmen skilled in the work and with implements, should inspect an old mine by the marks of dross, crucibles, coal and ashes, or a new mine, where there are ores in the earth, in rocks or a new mine, where there are ores in the earth, in rocks or in liquid form, with excessive colour and heaviness and with a strong smell and taste.... (p.105, 2.12.1)

No. 5 Ores in earth or rocks, which are yellow or copper-coloured or reddish-yellow, which, when broken, show blue lines or are of the colour of the *mudga*, or *masa* bean or *krsara*, which are variegated with spots or lumps as of curds, which are of the colour of turmeric or myrobalan or lotus-leaf or moss or liver or spleen or saffron, which, when broken, show lines, spots or *svastikas* of fine sand, which are possessed of pebbles and are lustrous, which, when heated, do not break and yield plenty of foam and smoke, are gold-ores, to be used for insertion, as transmuters of copper and silver.... (p. 106, 2.12.2).

(Kautiliya's *Arthashastra*, tr. R. P. Kangle, 2nd ed. Bombay, 1972, Part II, Chapter Twelve, Section 30, pp. 105-106)

Almost unrestricted monopoly was enjoyed by the state in trade in liquor and salt. Ships were built by the government and were let out to sailors and merchants. All these

helped the growth of economy and should have also enriched the treasury by way of taxes. The spread of the use of Northern Black Polished Ware (NBPW) and punch-marked coins over the greater parts of India since c. 300 BC is also compatible with the literary evidence of trade during the Mauryan times. This pottery type is subsequent to and technologically more advanced than the Painted Grey Ware (PGW). The chronological span of NBPW is more or less assumed to be from c. 600 BC to 100 BC. The heaviest concentration of NBPW sherds have been at numerous places in the middle Ganga plains in association with iron objects though it has also been found in other parts of the empire. The advent of the use of NBPW coincides with the emergence of urbanisation in the middle Ganga plains. This ware was used by affluent sections of the society and thus considered to be a deluxe pottery. The metal for punch-marked coins were either silver or copper and were round/roundish or square/squarish in shape. These coins did not carry the name or imprint of any ruler or political authority. Instead different symbols were struck with the help of separate punches on the metal pieces. Recovery of a large number of silver punch-marked coins indicates that a great volume of money was in circulation. Regular use of these coins as a medium of exchange definitely points to burgeoning trade. Copper cast coins datable to the Maurya period have also been found. In the *Arthashastra*, coin minting was a state prerogative. We have reference to an officer called '*rupadarshaka*', who was authorised to monitor the production and circulation of the coins. Mauryan administration was instrumental in transforming coinage into an all India phenomenon or nearly so.

7.2.3 Trade

Mauryan expansion of trade and the facilitating of contacts between distant areas accelerated exchange particularly in small items such as glass, clay and shell beads as also beads of agate, carnelian, jasper and lapis-lazuli. Bhṛigukaccha (Broach) was associated with the manufacture of ivory and shell items. Mathura was also an important bead manufacturing centre. Kautilya *Arthashastra* strongly advocates state supervision and control of trade. The overall supervision and the framing of the commercial policy of the state are entrusted to the *panyadhyaksha* or the Director of Trade. The *Arthashastra* seems to have been well aware of the revenue bearing potential of trade, including foreign trade. However it is difficult to ascertain to what extent the Mauryas actually controlled and supervised trade in the absence of relevant data. From Megasthenes we learn that Mauryas had a state monopoly on shipbuilding. *Arthashastra* recommends the state supervision of shipping under the officer *navadhyaksha* (Director of shipping). Though these facts are not enough to understand Mauryan attitude to the sea and maritime trade yet the fact that the Mauryan realm included within it long stretches of coastal strip on both the seaboard of India may suggest some interests of the Mauryas in seaborne commerce. Archaeological discoveries at Failaka near Bahrain show active trade in the Persian Gulf during the Seleucid rule with whom the Mauryas had regular contacts. In the Failaka collection we have Indian material like moulded pottery, stamped pottery (rosettes, leaves), black washed pottery etc and these archaeological data from Failaka are becoming a key reference to the interpretation of the relations between Mesopotamia and India in the Hellenistic period. Trade in Indian goods during the Seleucid rule is also attested by many Hellenistic sources, e.g. we have reference to Seleucus I's (311-281 B.C.) offerings to the temple of Apollo in Didyma in 288/7 B.C., which included frankincense, myrrh, cassia, cinnamon and costus, the three latter products being definitely imported from India.

7.2.4 Extraction of Revenue Resources

Imposition of taxes was an important mode of resource extraction for the Mauryas. The

normal taxes were not considered sufficient to meet all the needs of the state and hence the state undertook and regulated numerous economic activities which formed profitable sources of income. A large number of customary and new taxes were levied. The chief tax was the royal share (*bhaga*) in the produce of the peasants, amounting to $1/6^{\text{th}}$ or $1/4^{\text{th}}$. Besides the regular *bhaga*, *bali* and *udakabhaga* (water tax) were also imposed. That the Maurya state imposed both *bhaga* (share of the produce) and *bali* (an obligatory payment) is amply borne out by the Rummindei Pillar Inscription of Asoka. The peasants were required to pay the *pindakara* which was lump assesment made on groups of villages. The irrigation cess was not levied at a flat rate but according to the manner of procurement of water. Another important source of income was customs and ferry dues. Taxes were also levied from the guilds of artisans living in the capital. The urban centres were important not only because of the state control of crafts and commerce but also because of rich dividends they paid in the form of various types of taxes. To replenish the depleted treasury, additional tax like *pranaya* could be levied only once and amounted to $1/3^{\text{rd}}$ or $1/4^{\text{th}}$ of the produce according to the nature of the soil. The government officials collected taxes and used to superintend the crafts connected with land—those of wood cutters, carpenters, workers in brass and miners. Even if the rate of taxation was high and heads of taxes numerous the government had a strong machinery to realise the dues. The *Mahabhashya* of Patanjali, which states that ‘images were made by the Mauryas longing for gold’ suggests that the Mauryan administration was bent upon looking for economic gain from every possible source.

RUMINDEI PILLAR INSCRIPTION

King Piyadasi, beloved of the gods, having been anointed twenty years, came [1] himself and worshipped [2], saying [3] : “Here Buddha Sakyamuni was born.” And he caused to be made a stone (slab) bearing a big sun (?) [4]; and he caused a stone pillar to be made free of taxes and a receipt of wealth [6].

G. Buhler, ‘The Ashoka Edict of Paderia and Nigiliva’, *Epigraphia Indica*, 1898-99 Vol. V, p. 4

The resources, thus extracted, were employed for a variety of purposes. Expenditure in maintaining a huge administrative machinery as well as a large standing army obviously claimed a major bulk of the resources extracted. Resources were also needed for public welfare works as well as the general development of the Maurya state though this development was not uniform in all the areas. It has been argued that efforts were directed at enriching the metropolitan state of Magadha and its relation with other areas was therefore exploitative. In spite of being a part of the Maurya empire, the important sites in Deccan show the continued predominance of the Megalithic culture ways. The location of Asokan inscriptions throughout the vast empire is an indicator of the well maintained communication system of the empire. Asokan edicts were located at strategic points of both the Uttarapatha and the Dakshinapatha. In the Uttarapatha, e.g. the Lauriya-Nandangarh and Lauriya Araraj inscriptions in the Champaran district (Bihar) were clearly along the route towards the Nepalese Terai where Asokan epigraphs are found at Lumbinigrana and at Nigalisagar. Another branch from Bihar went along the Barabar hills through Sasaram towards Benares and Kausambi. Asokan inscriptions have been found in all these places. The location of Asokan edicts along the Dakshinapatha is also significant. Thus we have Gujjara, near Jhansi, Rupnath, on one of the arterial routes from Bundelkhand to the Godavari delta, Sanchi, a few kilometres off ancient Vidisa, Deotak in ancient Vidarbha and Sopara on the Konkan coast. Andhra Pradesh was also strategically very important. This can be understood not only by the presence of Asokan

edicts in the Kurnool district but also by the archaeological evidence of a mint with the authority to issue Mauryan currency at Veerapuram in Kurnool. The distribution of Asokan edicts suggests that from Kurnool the line of interaction went to the Raichur doab, Bellary and Chitaldrug districts. Strabo, on the authority of Megasthenes, stated that the *Agronomoi* make public roads and at every ten stadia set up a pillar to indicate by roads and distances. This is substantiated by the two Lamghan edicts of Asoka which served as indicators of distances to different places. Construction of roads and maintenance of a well set-up communication network can only be made possible when the state has a strong economic base. Resources generated from taxation and other sources were also used for the propagation of Asoka's *Dhamma*. Employment of new officials, undertaking of *Dhamma Yatras*, establishment of religious monuments including monasteries naturally involved huge money. This money could only be gained not only by exploiting existing resource base but also by creating new resource bases and restructuring the economic programmes. The economic programmes were however more government or administration oriented.

The enormous resources from agricultural and non-agricultural sectors led to the formation and development of urban centres. Mauryan levels from excavations of urban centres show an improvement in the standard of living. We have a frequency of ring wells and soaked pits. Apart from the towns in the Ganga plains like Pataliputra, Rajagriha, Kausambi, etc. the other major towns were Taxila (in Pakistan), Ujjaini (in Madhya Pradesh), Mahasthan (Bogra district of Bangladesh), Shishupalgarh (Orissa), (Amaravati (in the Krishna delta), Sopara (near Mumbai) and Kandahar (in Afghanistan). Shishupalgarh is identified by some with Toshali and shows evidence of careful planning. The urban centres were however not of uniform size and pattern.

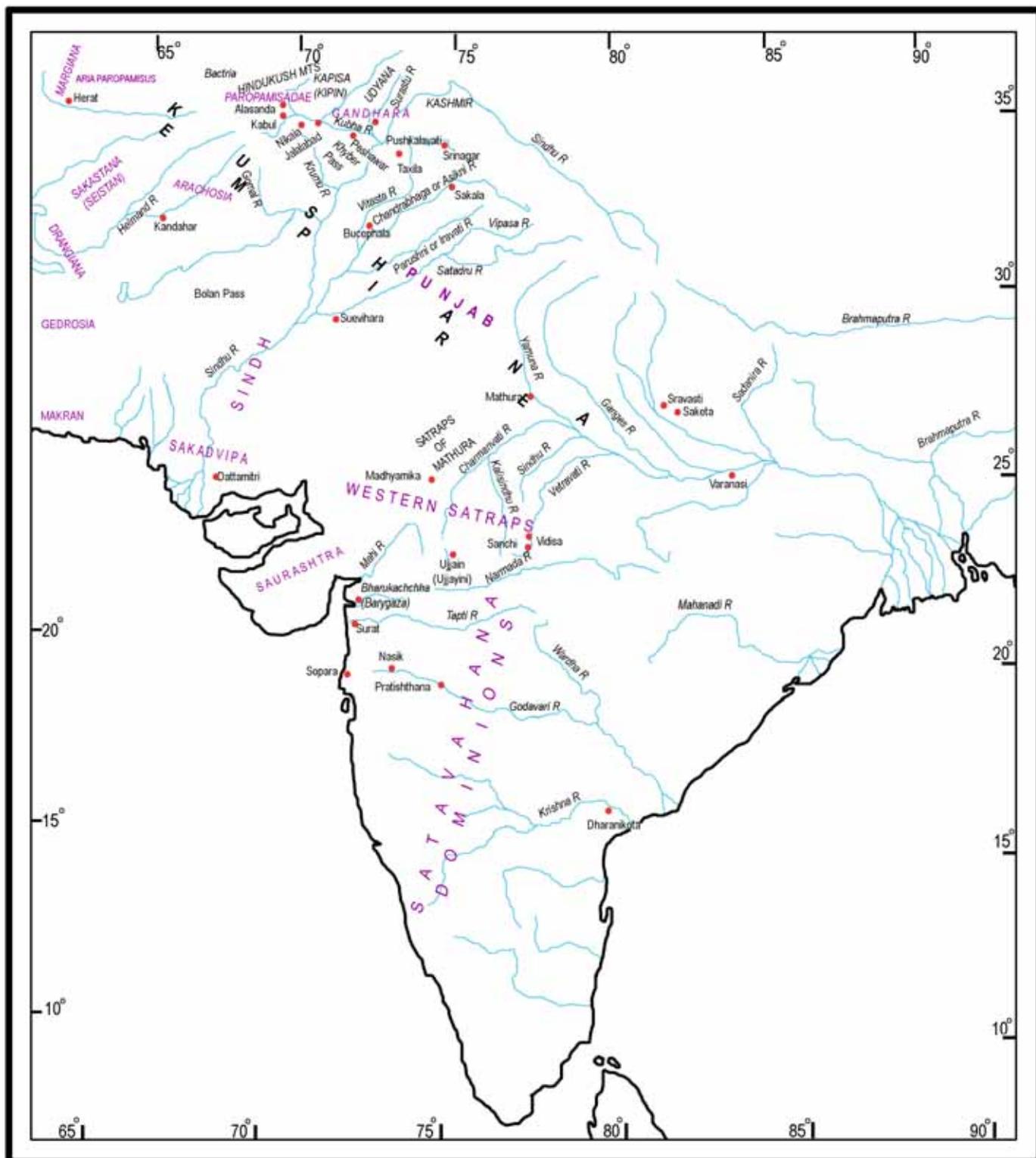
7.3 ECONOMY OF THE KUSHANA EMPIRE

Archaeology of excavated and explored sites together with literature, epigraphy and numismatics form the main source for the study of the economy of the Kushana empire. The period has yielded numerous inscriptions, most of which are donative in nature, as also a huge number of coins issued by the Kushana monarchs. The important literary sources are the *Periplus of the Erythraean Sea* (c. late 1st century AD), Pliny's *Naturalis Historia* (about AD 79), Strabo's *Geographikon* and *Geographike Huphegesis* by Claudius Ptolemy (c. AD150). Chinese historical works like *Hou Han-shu* (the official history of the Later or Eastern Han Dynasty (25-220 CE), compiled in the fifth century by Fan Ye) and *Chi'en Han-shu* (the official history of the Later or Eastern Han Dynasty, generally attributed to Pan Ku, was begun by his father, Pan Piao, and completed by his sister, Pan Chao) also throw ample light on the economy of the period. Though Indian literature does not directly enrich us with information about the economy of the period concerned, some of them like the *Jatakas*, the *Angavijja*, the *Lalitavistara*, etc. enlighten us with some reflections of the economic condition of the Kushana times.

7.3.1 Agrarian Economy

We possess very little information on the land system under the Kushanas. State initiative in agricultural production is not much evident. Large area of land tilled by the administration is hardly seen in the Kushana realm. However due importance to irrigation for the expansion of agricultural production was given at least in the northwestern part of the empire. A survey of the Peshawar region has enabled scholars to locate remains of old canals, indications of agricultural land on the river courses, and traces of fields on hill terraces with devices to channelise rain water from fields at the top to those at the bottom, the origins of which can be dated to the Kushana age. Private donative Kharoshti

inscriptions of the Kushana period are replete with references to digging of wells. This may suggest that in the regions concerned, a well was looked upon as another important source of water which could be used for irrigation and hence an attempt to create water reservoir was considered as an act of merit. The excavation of one such well at Sorane in the Varter area to the east of Dargai (now in Pakistan) has been dated to the same period. The Kushanas, though having natural granaries in the fertile valley of the Indus and in a part of the Gangetic valley did their best to boost agricultural production in areas which did not receive bountiful supply of rainfall.



Map 2 : Kushanas and Satavahanas (based on K. A. Nilakanta Sastri, *A Comprehensive History of India, Vol. II The Mauryas and Satavahanas 325BC-AD 300*, Calcutta, 1957, facing page 288)

7.3.2 Trade, Merchants and Monetization

Agriculture, however was not the mainstay of the economy in the Kushana realm. The Kushana monarchs mobilized huge amount of resources, primarily, through trade - internal and external. The other financial and fiscal sources of the empire were gaining control over areas which were of utmost economic importance, crafts production, mining and different kinds of taxes were imposed on the subjects.

Trade within the empire is indicated by substantial archaeological data. Excavations at Begram in Eastern Afghanistan have brought to light a store house of the Kushana period consisting of wares from different countries as well as from areas within the Kushana realm itself. Thus we have plaques of carved bone and ivory which display figures carved out on the style of Mathura art. Pottery recovered from a Kushana stratum at Ahichchhatra (Uttar Pradesh) shows a preference for a stable base in pots by making them flat based or ring based which certainly was a feature of Sirkap (Taxila II) pottery. This innovation in Ahichchhatra pottery was the result of the local potter's knowledge of earthen wares from Taxila which had been an important trading centre from a pre- Kushana age. Some new types of pottery found at the Kushana levels of occupation at Kausambi (Kosam in eastern Uttar Pradesh) is also said to have been inspired by potteries from Taxila. Certain incised designs on pottery at Kosam are comparable with those on the pottery of some nomadic tribes of Central Asia. The source of inspiration of some stylistic traits of Mathura art may be traced through Taxila (Gandhara) to west Asia. Again north Indian sites of this age have produced terracotta human figurines with non Indian features, head dresses and costumes. This was only possible when the artists came into contact with people having such features. We have epigraphic data from Taxila and Mathura to suggest that people from western part of the empire visited those cities. Thus there were movements of ideas and people in the form of merchants, artists, etc. between the far flung localities of the Kushana empire. This movement was possible as the strong central authority of the Kushanas over an area from the Oxus territories to the Arabian sea as well as interior of northern India offered security and freedom of movements to traders of different parts of a vast territory.

Channels of communication connecting far flung provinces of the empire were many and varied. The *Periplus* alludes to transit of articles of commerce from Thina (China) and through Bactria, north India and Ozene (Ujjain), to Barygaza, the famous port in western India.

Besides internal trade, the most significant aspect of commercial activities of this period is the brisk participation of India in long distance international exchange network- both overland and maritime, particularly with the Roman empire. Roman empire had trade links with China and there was a great demand for Chinese silk in Roman market which was supplied together with other items along the famous overland Silk Road. This was not a single linear route for it incorporated a number of branches. The route began from Loyang in China and reached the two Mediterranean ports of Antioch and Alexandria by traversing through Central Asia, West Asia and Eurasia. A passage in the Hou Han-shu, which gives information datable to c. AD 105 or even to c. AD125 refers to commercial communication between Ta-ch'in (Roman Orient) and Shen-tu (the lower Indus area) which was under the Yueh-chih (or the Kushanas). According to Pliny, Indian wares were sold in the Roman empire 'at fully one hundred times their prime cost'. From the *Periplus of the Erythraean Sea*, Pliny's *Naturalis Historia* and Strabo's *Geographikon* we learn that increasingly better knowledge and the utilization of the monsoon wind system greatly facilitated oversea contacts with India, especially its west coast, through the Red Sea channel. A ship sailing from the Red Sea port of Berenike or

Myos Hormos or Leukos limen could reach the western sea board of India in less than forty days if not in twenty days. This naturally facilitated an alternative and faster communication between India and eastern Mediterranean areas. Thus the establishment of the Kushana power resulted in the movement of commodities through the north western borderland of the subcontinent to the western coast of India. (for map of the network see Maps 3, 4 & 5 Unit 8 of the present Block)

Two major ports of north India, namely Barbaricum at the mouth of the river Indus and Barygaza (Bhrigukachchha) on the mouth of the river Narmada in Gujarat figure prominently in the *Periplus* and Ptolemy's *Geography*. The Hou Han-shu stated that after conquering the Lower Indus area the Kushanas became extremely rich and powerful. As lower Indus area had regular commercial relations with the Oriental possessions of the Roman empire, this statement of the Hou Han-shu may suggest that the advent of the Kushanas in the lower Indus region (Shen-tu of Chinese records) was motivated mainly by the prospects of gain offered by its thriving commerce with the Roman empire, in which the balance of trade was in favour of India. Recent petroglyphs, discovered in the Karakoram highway demonstrate the use of a shorter, perhaps more dangerous, Chi-pin (Kashmir) route to reach north India from Central Asian region. The occasional depiction of horses would suggest a strong possibility that Central Asian horses reached north Indian plains through this Karakoram route. This is evident from the fine representation of horses with men wearing Yueh-chih (Kushan) dress in painting and etchings on rock. The cities of Taxila and Pushkalavati, acting as gateways to overland access to Central and West Asia, and the famous city of Mathura, a major political centre of the Kushanas, gained much out of this international commerce. The items of export and imports in this international trade, as gleaned from Hou Han-shu, *Periplus* and Pliny are many and varied.

Such commercial prosperity naturally called for extensive monetization. This was an important aspect of Kushana economy. Provenances of a great number of Kushana coins, including some hoards, may suggest their circulation in parts of India and Central Asia even beyond the limits of the Kushana dominions e.g. a hoard of Kushana gold coins was found in Ethiopia. This is a pointer to the international value of Kushana gold coins. Large influx of Roman gold pieces into India as a result of the trade with the Roman empire perhaps influenced the decision of the Kushanas to strike gold coins. Roman coins however were mostly used as bullion in India. From the *Periplus* we learn that the Indian subcontinent, a substantial part of which was in the Kushana empire, was favourably placed in terms of exchange of goods with the Roman Orient and some other countries of Asia and Africa. The balance was received among other things in Roman gold. So the Kushana empire was not required to export her gold coins in any great quantity. This caused Pliny to lament for the drainage of a great number of Roman coins from the empire. The Kushanas, themselves, struck silver coins only in the lower Indus area. However an inscription from Mathura of the year 28, suggests that silver coins struck by private agencies were allowed to be circulated in the Kushana empire. Another significant aspect of coinage was the availability of a large number of copper coinage. Copper coins generally used for petty transactions indicate an impact of monetization even on the daily life of the common people. Copper coins were truly meant for circulation throughout the empire and did not have any local character. The system of barter, however, was very much in practice. Pliny alludes to the system of barter followed in Seres (Kashgarh). Gold needed for the numerous gold coins probably came from Bactria, which was famous from an early age for the availability of gold in its markets and in certain gold producing areas of the Indian subcontinent. The mint masters of the Kushanas also could have procured gold by melting down imported Roman gold coins and gold objects (*Periplus*, sections 39 and 49.).

In a period, which is characterised by booming trade, we are surely to come across different categories of merchants. Epigraphic data available within the limits of the Kushana empire and during the Kushana times refer to *vanik* (petty merchant), *sarthavaha* (caravan trader), *vyavahari* (a trader) and *sreshthi* (rich trader and leader of a mercantile guild). In the Pali canonical text and the *Jataka* stories, a *sreshthi* appears as one of the closest friends and associates of the king. Immediately before the reign of the Kushanas, during the time of the Indo-Parthian ruler Gondophares (c. AD 20/21-AD 45/46), we find reference to *raja sreshthi* (royal merchant). The various terms used to designate different types of merchant obviously indicate their difference in economic as well as social status. Some of the merchants were rich enough to make magnificent donations.

7.3.3 Craft Production, Guilds, and Urbanization

Another remarkable feature of economic life was proliferation of crafts which is closely related with expanding trade. Sifting through the epigraphic material of the Kushana period particularly from Mathura we get an idea of the occupation and crafts in practice at that time. Thus we come across superintendents of constructions (*navakarmikah*), actors (*sailakah*), carpenters (*vaddhaki*), perfumers (*gamdhika*), goldsmith (*suvarnakara*), clothmakers (*pravarika*), *lohakara* (ironsmith), jewellers (*manikara*) and so on. The archaeological material discovered from the sites of the Kushana period in the form of pottery, terracotta objects, metal, stone, ivory and bone objects, plaques and sculptural pieces, beads, etc. indicates the existence of potters, smiths, sculptors, weavers and similar other craft groups in the material milieu of the Kushana period. The working of bone and ivory also developed during the Kushana times. These were used for manufacturing luxury goods, domestic objects and weapons. The best specimens of ivory work are found at Begram and Taxila. Craftsmen of different categories produced articles of daily necessities and also luxury items.

However, one sector of industrial production where state control is evident is the mining industry. Wealth of the state was augmented through mining. Epigraphic and literary materials, including the *Geographike Huphegesis* of Ptolemy, may indicate that the Kushanas took initiative to work out diamond mines in eastern Malwa (variously called Dasarna, Akara, Purva Malava and Kosa). It appears that rich diamond mines might have lured the Kushanas into Akara (which may be identified with eastern Malwa on the basis of some literary sources). The Kushana administration must have exercised some control over mining and marketing precious stones, which were important articles of commerce. The *Naturalis Historia* of Pliny refers to crystal like astrion stone found on the shore of Patalene (in the Indus delta). The Hou Han-shu indicates that the lower Indus area produced (or rather made available in its markets) gold, silver, copper, iron, lead, tin, etc. At least some of these articles must have been acquired from mines situated in the Kushana empire. The *Naturalis Historia* of Pliny refers to the practice of salt quarrying Mount Oromenus (Salt Range in Pakistan), the author says that political authorities derived greater revenue from salt mines than even those of gold and pearls. The importance of salt manufacture has been rightly assessed from the point of view of its revenue yielding potentials.

Guilds (mostly called Srenis) were gaining importance in this period. Almost every industrial activity and major profession were organized under their respective guilds. The guilds' activities were many and varied. They acted as somewhat like an early form of bank. In a number of cases the guilds accepted permanent deposits of money (*akshayanivi*) on condition that the principal would be kept intact and only the interest would be utilized. This ensured supply of capital to expanding craft activities and traders. (For further details on guilds see Block 1 Unit 4 of our course EHI-03).

The economic prosperity of the empire facilitated brisker rate of urban growth. Important cities like Bactra, Peucolaotis (Pushkalavati), Taxila, Modoura (Mathura), etc. which had already been in existence prior to the Kushana rule, blossomed further. Taxila (Sirkap) was a fully planned city. Residential houses were laid out in a well-defined manner. Such planned urban centres are a novelty and the influence of foreigners is quite unmistakable. In Ahichchhatra, a concrete road was found from a layer assignable to about 200 AD. Mathura witnessed a remarkable growth first under the Scytho-Parthians and later under the Kushanas. The ground plan of level 16 at Sonkh near Mathura shows the most developed and systematic phase of urban lay out. Remains of residential houses made of mud and burnt bricks of diverse sizes have been unearthed. Fortifications at Mathura were revived, enlarged and repaired. Traceable ruins of fortifications indicate that Mathura of the Kushana age was a fairly large city. Thus Mathura emerged as a large and prosperous urban centre in the age of the Kushanas. Mathura's prosperity depended on trade, transit trade in particular, as it emerged as a nodal point where several important overland routes converged. The singular commodity that Mathura could really boast of was its textile products. (See also Unit 8 of the present Block).

Burgeoning trade and proliferation of crafts and industries offered enough opportunity to the Kushana monarchs to fill their exchequer by imposing different form of levies on traders, industries and crafts mainly run by private enterprises. Testimony of large number of Kushana coins may indicate that taxes were primarily paid in cash. However, archaeological excavations suggest that these were also paid in kind. Excavations at Begram in Eastern Afghanistan have brought to light a store house of the Kushana period comprising wares from different countries. Mortimer Wheeler has suggested that this store house was probably a customs depot for receipt of dues in kind collected from traders participating in international trade. Begram was very much within the Kushana empire and so this evidence might indicate that the Kushana officials also collected taxes in kind. The heaviest amount of taxes levied on industrial products, agricultural products and other articles of trade was apparently paid by the rich and large scale entrepreneurs. It is evident that the traders helped the empire in augmenting its financial resources. However concentration of wealth was naturally in the hands of the comparably small number of people of the society and that a section of this class made a vulgar show of wealth is indicated by Bardesanes in his 'Book of the Laws of the Countries' where he refers to the Kushana habit of getting their horses adorned with gold and precious stones. Such extravagant show of opulence, should have accentuated the distinction between classes on the basis of the possession of wealth or monetary power. That this perhaps was the case is suggested by a passage in a Chinese translation of the Assalayana Sutta, which refers to the society of the Kushanas as consisting of two classes, masters and slaves. In the original Pali text the terms concerned are ayya and dasa. Slavery was very much present. Prisoners of wars could have been condemned to slavery. Hard pressed members of the 'servant' class could have resorted to slavery for food. Slaves were probably regularly imported into the Kushana empire. Slaves were perhaps appointed for domestic purpose as well. Growth of slavery was advantageous to the ruling class and commercial enterprisers, since slaves constituted a source of cheap labour. In the Kushana domain there was probably the system of imposing 'forced labour' on people who were theoretically free. The Junagadh inscription of Rudradaman of c. A.D. 149-50 refers to the prevalence of vishti or forced labour in the empire. Since the family of RudradamanI probably held the territory on behalf of the Kushanas for a period not much earlier than c.A.D. 149-50, the system of compelling people to do forced labour might have been in vogue in the Kushana empire or at least in its Indian provinces.

The rule of a central authority over a large empire should have allowed unhindered movement of at least the free people, rich or poor, in a vast territory. The secure political climate was instrumental in the efflorescence of trade and crafts.

7.4 ECONOMY OF THE SATAVAHANA EMPIRE

The major sources for understanding the economy of the empire were the epigraphs of the Satavahanas and their contemporary rulers the Saka Kshatrapas of western India, the coinage of the Satavahanas, the Graeco-Roman literature like the *Periplus Of the Erythraean Sea*, Pliny's *Natural History*, Ptolemy's *Geographike Huphegesis*, etc. The indigenous texts which historians have used are the *Gatha Saptasati* of the Satavahana ruler Hala, the *Jataka* stories and so on.

7.4.1 Agrarian Economy

During the time of the Satavahanas, the potential of some parts of the Deccan as a rich agricultural zone was realized. In the inscriptions as well as in literature, we have references to a large number of crops that were grown in the region. Several new crops appear on the scene along with the new ones. These include two major cash crops, coconut, in northern Konkan and pepper in the Malabar coast. The availability of pepper in the Malabar coast is reported in the *Periplus of the Erythraean Sea* and Pliny's *Natural History*. Inscriptions speak of plantations of no less than 8000 seedlings of coconut trees.

PLINY'S ACCOUNT ON PEPPER

The pepper plant grows everywhere (in India), and resembles our junipers in appearance, though some writers assert that they only grow on the slopes of Caucasus, which lie exposed to the sun. The seeds differ from the juniper by their being enclosed in very small pods such as we see in kidney beans. These pods make what is called long pepper, if, before they burst open, they are plucked and then dried in the sun. But when they are allowed to ripen, they gradually split open, and at maturity disclose the white pepper, which then by exposure to the heat of the sun changes its colour and becomes wrinkled. These products, however, are liable to a peculiar disease, for if the weather be bad they are attacked with a smutty kind of blight, which makes the seeds nothing but rotten empty husks, called *bregma*, a term which in the Indian language signifies *dead*. Of all the kinds of pepper this is the most pungent and the lightest, while it is also distinguished by the extreme paleness of its colour. The black kind of pepper is more agreeable to the palate, while the white kind is less pungent than either. The root of this tree is not, as some have supposed, the article called by some writers, *Zimpiberi* while others call it *Zingiberi* (i.e. ginger), although its taste is very similar. For ginger is produced in Arabia and the Troglodyte country, in the cultivated parts being a small plant with a white root. It is liable to decay very quickly, notwithstanding its extreme pungency. The price it fetches is six denarii the pound. Long pepper is very easily adulterated with Alexandrian mustard. It sells at fifteen denarii the pound, the white kind at seven, and the black at four. It is surprising how it has become such a favourite article of consumption; for while other substances attract us, some by reason of their sweetness, and others because they are of an inviting appearance, pepper has nothing to recommend it either for fruit or berry, its pungency being the only quality for which it is esteemed; and yet for this it must be fetched from far away India. ... Both pepper and ginger grow wild in their respective countries, and yet here we buy them by weight like gold and silver. ...

John W. McCrindle, *Ancient India as Described in Classical Literature*, Westminster, 1901, Reprint, 1971, pp. 121-122

The riparian tracts between Godavari and Krishna became particularly prosperous for rice cultivation. As a result of the abundant production of rice, it was an important item of export. Other agricultural products were wheat, barley, millet, lentils, oilseeds etc. Of the various kinds of oil seeds, *tila* (sesame) was extensively cultivated. The region of the Narmada yielded sufficient quantity of sesame and sesame oil was exported from Barygaza. The formation of the guilds of *tilapeshakas* (oil pressers) in the Deccan points to the commercial value of sesame oil. Mustard was another important oil seed. The *Gatha Saptasati* refers to the cultivation of the *rajika* variety of mustard in the Godavari valley. Excavations at different sites also indicate cultivation of wheat, rice, barley, millet and lentils. The black soil in the valleys of the Tapti, Godavari, Narmada and Krishna provided the congenial atmosphere for large scale cotton plantation. Sugarcane and Palmyra palm were also cultivated in some areas of Deccan. The *Gatha Saptasati* refers to *Guda-yantrika* which was perhaps used to extract juice of sugarcane. From an inscription in Junnar we learn that a field was granted for plantation of palmyra palms.

Considerable attention was paid to irrigation. We have reference to water wheel with pot garland (*rahatta ghadiya*) in the *Gatha Saptasati*. An inscription from Kanheri dated to the second century AD records the construction of a tank (*talaka*) by *setthi* Punaka of Sopara. The most famous example of irrigation project in this period is undoubtedly the repair and renovation of the Sudarshana lake by Rudradaman I (c. AD 130-150), the Saka ruler. Irrigation facilities were controlled both privately as well as by the royal authority.

The Satavahana period saw the existence of smaller agricultural holdings which came mostly under private proprietorship. This is clearly corroborated by epigraphic evidence of gift/sale of plots to religious groups and persons. Ushabhadatta (or Rshabhadatta), son-in-law of the western Kshatrapa ruler Nahapana (c. AD 105-125) had to purchase a plot of land from a Brahmana owner and then donated it to the Buddhist *Samgha*. Epigraphs at Junnar mention gifts of land situated in different villages. State ownership of land was however very much in practice. Thus the Nasik cave inscription of Gautamiputra Satakarni of the year c. 130 AD refers to the grant of a royal land (*rajam khattam*) to some Buddhist monks. It further states that 'if the land is not cultivated the village is not settled'. Thus here we find an indication of the fact that some grants were made to get the land cultivated thereby implying that agrarian expansion was a part of royal policy.

7.4.2 Crafts, Industries and Trade

The most remarkable feature of economic life was, however, proliferation of crafts and expanding trade. The Satavahana period yielded epigraphic evidence of a large number of craftsmen, who left their names, traces of their occupation and religious leanings in the course of making donations to various religious groups and persons. Such records are available from western Deccan caves and Buddhist sites of Bharhut and Sanchi. Sifting through the epigraphic evidence one comes across carpenters (*vaddhaki*), bamboo-workers (*vasakara*), reed makers (*konachika*), braziers (*kasakara*), potters (*kularika*), weavers (*kaulika*), perfumers (*gamdhika*), cloth makers (*pravavrika*), oilmen (*tilapishaka*), garland makers (*malakara*), jewellers (*manikara*), ivory workers (*dantakara*), goldsmiths (*suvarnakara*), blacksmiths (*lohikakaruka*). Excavations at Paithan (old Pratisthan, 56 km from Aurangabad), Maski (Raichur, Karnataka) and Kondapur (90 km from Hyderabad, Andhra Pradesh) have yielded beads of lapis-lazuli, agate, crystal, carnelian, onyx, amethyst and ruby. Some of them however were not local products. The presence of nodules, unfinished beads and bead moulds suggest that bead making was a local industry at several sites such as Bhokardan (district Jalna, Maharashtra), Nevasa (district Ahmednagar, Maharashtra), Ter (Osmanabad district,

Maharashtra), Paithan, etc. The *Periplus of the Erythraean Sea* (assignable to middle or late 1st century AD) speaks of two active textile centres in central Deccan, namely Tagara (Ter) and Paithan (Pratishthana). Excavations at Ter have yielded a number of vats for dyeing cloth which corroborate the evidence of the *Periplus*. Similar dyeing vats are also reported from the excavations at Arikamedu (near Pondicherry). These structures belong to the 1st–3rd centuries AD, during which handloom industry flourished.

Guilds (*srenis*) were a special feature of trade and industry in the Satavahana period. These organizations enhanced production essential to commerce and became an important factor in urban life. The *srenis* fixed rules of work, as well as the quality of the finished product and its price in order to safeguard both the artisan and the customer. Almost every industrial activity and major profession were organized under their respective guilds. A large number of epigraphic documents from western, eastern or central Deccan and central India leaves little room for doubt about their economic importance. Their importance is also recognized in diverse literary sources e.g. the *Jatakas*, *Avadanas*, *Milindapanho*, *Manusmriti*, *Yajnavalkya smriti*, *Mahabharata*, etc. The leader of the guild was known as a *jetthaka* or *pramukha*. The legal literature of this period refers to executive officers (*karyachintakas*) thereby indicating growing complexities and expanding functions of guilds. In this period guilds began to function as banks. Guilds also helped in public welfare activities. An inscription from Junnar records the excavation of a seven celled cave and construction of a cistern by an association of corn dealer (*dhannikas*). In an ambience congenial to flourishing trade it was very natural that merchants would occupy a position of considerable eminence. Satavahana inscriptions indicate merchants by the use of terms such as the *setthi*, the *vanij*, the *sarthavaha* and the *negama*. These merchants are often found to have been organized under commercial guilds e.g. *Vaniggrama* in an inscription from Karle. It has been effectively argued that these occupational and commercial guilds had close association with religious establishments and monasteries and guilds in the Satavahana territory played a significant role in the expansion of commerce. Monasteries acted as agencies which furnished information on cropping pattern, distant markets, organisation of village settlements and trade.

It is important to note that there was a lesser degree of state control on craft and industry except viewing them as major revenue earners. This becomes evident from the imposition of levies on craftsmen (*karukara*) in an inscription from Karle. As there were tremendous growth of crafts and industries in this period, so naturally a tax on the craftsmen earned huge revenue for the royal coffer. Mining was however a royal prerogative. Epigraphic references to remissions from salt tax (*alonakhatakam = alavanakhadakam*) from the Satavahana records suggest prevalence of salt tax in the said period. That salt manufacturing was important from the point of its revenue earning potential was perhaps realized also by the Satavahana rulers. We find the expression ‘*deya meya*’ in the Karle inscription which was imposed on *Karukara* (artisans). *Deya meya* probably implied tax which were to be given (*deya*) and which were to be realised in some forms which were measurable (*meya*). It appears that Satavahanas realised taxes both in kind as well as in cash. From the Junagadh inscription of Rudradaman I (AD 150), the western Kshatrapa ruler, we learn of the usual *bali* (a kind of compulsory tribute or contribution from the subjects), *sulka* (ferry dues, tolls, duties on merchandise, etc.) and *bhaga* (royal share, generally one sixth of the produce). According to the same inscription, Rudradaman I caused the rebuilding of a dam ‘without oppressing the inhabitants of the town and country’ by *kara* (periodical tax or some other kind of tax), *vishti* (forced labour) and *pranaya* (benevolence tax of non recurring nature). Since the western Kshatrapas and the Satavahanas were contemporary powers exercising authority over more or less the same region, it is quite probable that the nature of taxation of these two powers would be similar.

Large scale monetization was a part of the economic programme of the Satavahanas. Their coins have been found in lead, copper, potin (an alloy of copper, zinc, lead, and tin) and silver. It is interesting to note that in the Satavahana empire the coinage of lead predominated. Silver issues of the Satavahanas are comparatively much less in number. Several Satavahana coin hoards have so far been found and apart from the Jogalthembi hoard which consisted of silver coins, all the other hoards comprised coins of copper, potin, or lead. Satavahana coins have a marked regional distribution and in many cases the influence from the preceding coinage system is undeniable. The provenances and some other considerations show that coins bearing a particular type might have been meant for circulation in a particular area. Thus a coin type of the Satavahanas has the lion as the prominent symbol on the obverse. This type is known from Gujarat, though a variation of the coin type is found in the Krishna Godavari districts of Andhrapradesh. The ship type of coins of the later Satavahanas with the Ujjain symbol on the reverse have been found mainly on the Coromandel coast. Some ship type of coins have also been found in the Guntur district and some other places of Andhrapradesh. The use of the ship symbol may suggest flourishing coastal trade network. That the entire east coast from the Bengal delta to the Tamil coast formed a part of a single network is evident from the distribution of Rouletted Ware sherds. The largest number of Satavahana coins have the elephant on the obverse and either the Ujjain symbol or the tree in railing on the reverse. The first group of coins with the Ujjain symbol on the reverse have been found extensively in the Deccan, while the second group is largely restricted to northern Maharashtra. The main source for lead was perhaps Agucha and Zawar mines of Rajasthan which contain the largest reserves of lead in India and which show traces of old workings. However, the lead isotope analysis of the Sadakana and Kura coins of the pre Satavahana period is significant. These coins have lead isotope ratios different from those of any known Asian source of lead, but closely match those of the Sardinian and Spanish lead sources exploited by the Greek and the Romans up to AD 50. In contrast, the lead isotope ratios of the coins of the later Satavahanas would suggest the exploitation of local sources such as the Zawar mines. Silver coins of the Satavahanas, known in small number, were perhaps meant for circulation throughout the empire. These had an imperial significance. Insignificant number of the known specimens indicates that these coins formed a sort of token currency. The Satavahana kings might not have found the necessity of striking silver coins in great number due to the fact that the bulk of local demand for silver coins was perhaps met by the Kshatrapa silver coins current in the Satavahana dominion.

Satavahana Coins



Proliferation of crafts, craftsmen and coinage was matched by spurt of trading activities in the Satavahana empire. It appears that by the early decades of their rule, the Satavahanas were in a position to control important trade routes leading from central India and the central Deccan to some of the ports situated in the north western Deccan. There was an expansion of long distance overland trade both within the subcontinent as

well as to central Asia and China. Maritime trade extended from the Mediterranean region in the west to the Southeast Asia in the East. It has been argued that one of the contributing factors may have been the encouragement and liberal environment provided by Buddhism. It appears from the *Periplus* that commercial connection between the Deccan and the Roman Orient resulted in the establishment of a lawful market town at Kalliena (Kalyan, near Bombay) during the time of an early Satavahana ruler. From *Periplus* again we come to know that during the rule of 'Sandanes', the port of Kalyan faced an economic blockade by the western Kshatrapa ruler and the Greek ships which by chance entered there were sent under guard to Barygaza (Broach). Thus apart from territorial control, lure of the profit in the trade between the Roman empire and India made these powers hostile to each other. *Periplus* has vividly described how western coast was humming with trade in the Satavahana period. The Roman ships were anchored in the ports of Barygaza, Kalyan and Chaul (15 km from Alibag, Raigad district, Maharashtra). In the Satavahana empire, two important ports of the eastern sea board were Kantokasylla and Allosygne of the Andhra coast. The importance of this coastal tract is evident from the Satavahana ship type coins and an inscription from Ghantasal (75 km from Vijayawada, Andhra Pradesh) referring to a *mahanavika*.

PERIPLUS' ACCOUNT OF THE BLOCKADE

52. The local ports [sc. Of Dachinabades], lying in a row, are Akabaru, Suppara, and the city of Kalliena; the last, in the time of the elder Saraganos, was a port of trade where everything went according to law. [Sc. It is so no longer] for, after Sandanes occupied it, there has been much hindrance [sc. to trade]. For the Greek ships that by chance come into these places are brought under guard to Barygaza.

Lionel Casson, *The Periplus Maris Erythraei*, Princeton University Press, New Jersey, 1989, p.18

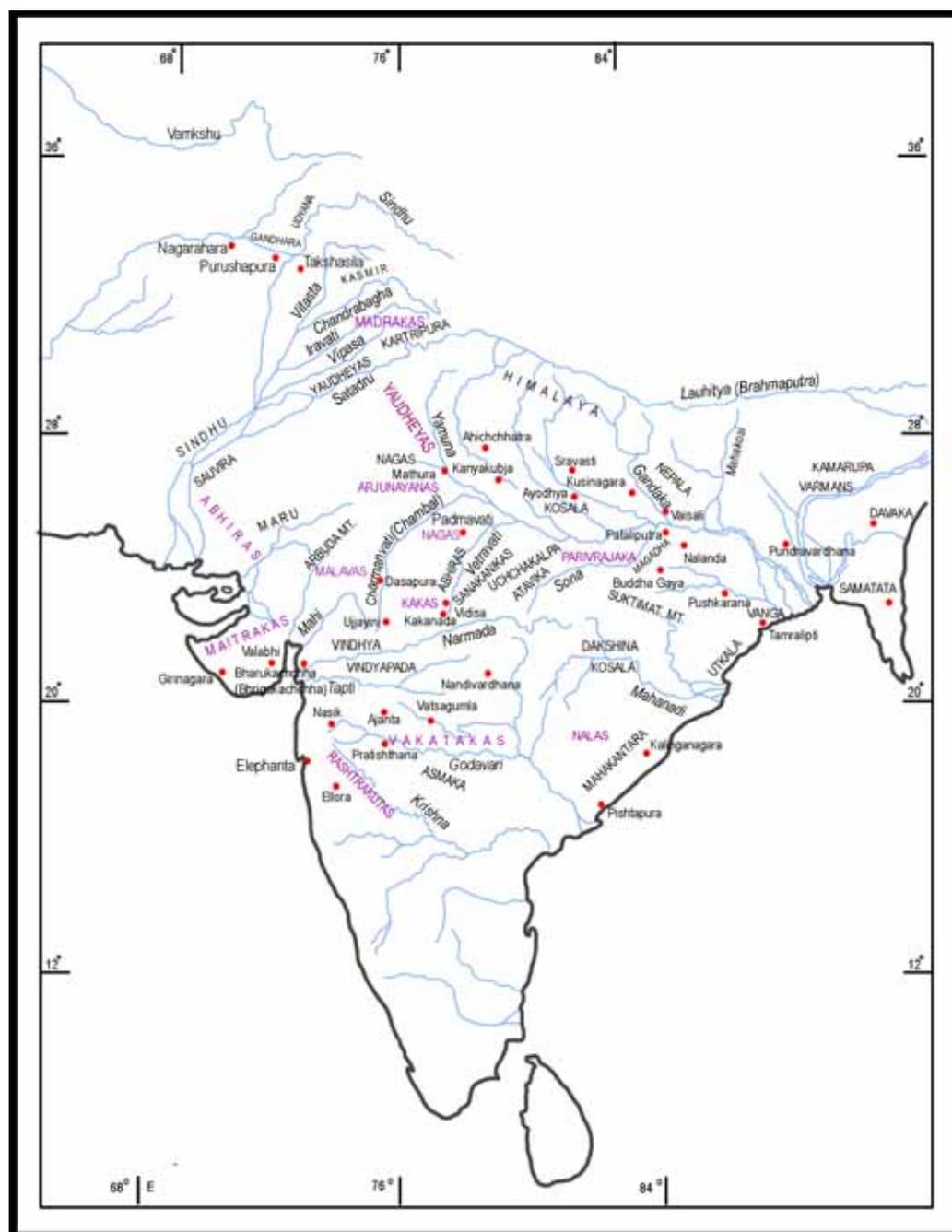
Reference to different craftsmen and merchants residing at Surparaka, Vaijayanti, Dhanyakataka, Kalyana, Nasik, Bhriugachchha, Ghantasala in the inscriptions at Karle, Kanheri, Junnar, Amaravati show that there was a network of roads connecting all the important cities of Deccan. The overland route from Paithan to Maheshwar, Ujjain, Sravasti and Vaisali was full of traffic. This route had off-shoots going into the lower Krishna valley as well. One of these extended towards Surparaka on the western coast. Of all the branches, the most important was the one that went from Ujjayini to the famous port of Bhriugachchha. Connecting the most important sea-port on the western coast with the inland marts, this route was very important to the traders. The Nanaghat, the ancient trade route also played an important role in the economic activities of the Satavahana empire. It served as the outlet for the products of the fertile tract around Junnar and other inland areas and the transportation of commodities and goods from the ports of Kalyan and Sopara to the inland areas. There was a route which ran from Ter towards the south where Kondapur is located and proceeded via Akkenpalle, Nalgonda district to Nagarjunakonda.

An environment which experienced agricultural expansion, proliferation of crafts and craftsmen, booming trade along with different categories of merchants and circulation of coins, would naturally have growth of urban centres. Thus several urban sites are reported from the western and central Deccan of which Nevasa, Ter and Satanikota are of outstanding importance. The eastern Deccan also came under the impact of growing urbanism on being an integral part of the Satavahana empire. Several excavated sites

like Amaravati, Bhottiprolu, Salihundam, Nagarjunakonda, all situated in the Krishna delta, show urban dimensions. Their importance was enhanced due to their close proximity to the eastern sea board which was dotted by a few important ports. The site of Dhanyakataka served as an inland port town, upto which the Krishna was navigable. Epigraphic records too speak of growth in urban centres. Thus we have inscriptions which speak of *nagara* (urban centres) and *nigama* (market centres).

7.5 ECONOMY OF THE GUPTA EMPIRE

For a proper understanding of the economy of the empire, we have to rely on both the archaeological as well as literary sources. The many epigraphs of the period of the Gupta rulers and their extensive coinage are extremely important. Apart from the *Smriti* texts, the *Brhatsamhita* and *Brhajjataka* of Varahamihira and works of Kalidasa , the most useful literary work is the *Amarakosha* of Amarasimha which gives us a mine of information regarding the economic life of the period.



Map 3 : Guptas and Vakatakas (based on R. C. Majumdar (ed.), *A Comprehensive History of India*, Vol. III, pt. II AD 300-985, New Delhi, 1982, p. 1483)

7.5.1 Agrarian Structure

The Gupta period is marked by creation of *agraharas*. The term *agrahara* stands for the donation of plot(s) of land and/village(s), which were exempted from revenue and granted generally in favour of religious persons and/or institutions (a Brahmanical temple/*matha*, a Buddhist *vihara* or a Jaina monastery), by issuing copper plate charters under the instruction of the ruler. These charters play a very important role in our understanding of agrarian history as these records the transfer of landed property. Besides they also provide us information regarding the socio-economic, political and cultural conditions of India.

Copper plates from Bengal provide us with valuable information on the types of land, systems of measurement of the plots, price of plots and the procedure of land transfer to a donee.

DAMODARPUR COPPER-PLATE INSCRIPTION

In the year 100, (and) 20 (and) 9 (=129), on the 13th day of **Vaisakha**, while *paramadaivata*, *parrama-bhattaraka*, *maharajadhiraja* **Sri-Kumara-gupta** was the ruler of the earth and *uparika* **Chiratadatta** was the receiver of favours from him (lit. was accepted by his Majesty's feet) in the province (*bhukti*) of **Pundravardhana** and *kumaramatya* **Vetravarman**, appointed by him (Chiratadatta), was, in the *vishaya* of **Kotivarsha**, which was ever prospering under (Chiratadatta's) rule, administering the government of the locality in the company of Dhritipala, the guild-president of the town, Bandhumitra, the merchant, Dhritimitra, the chief artisan, and Samba(?) pala, the chief scribe, (whereas) thus addressed (them)—“Deign to make a gift (of land) according to the established rule . . . (for disposing of lands) by destroying the condition of *apradakshaya* [*nivi*]¹ (non-transferability), for the conducting of my five daily sacrifices² (*panch-mahayajna*).” When, after receiving this petition, it was, according to the determination of the record-keepers, Risidatta, Jayanandin and Vi[bhudatta?], ascertained thus—“Land may be given,” land measuring five *dronas* (?) with *hatta* and *panaka* (?) in the west of Airavata(?) Was given after two (?) (*dinaras*) had been received at the established rate of three *dinaras* for each *kulyavapa* of land. Hence, considering the religious merit (of such gifts), this (grant) is to be respected by the administering agents in the future. And there occur also these two verses with regard to grants of land:- (1) “O Yudhishtira, best of land-holders, preserve with care lands already given to the twice-born (Brahmanas); for the preservation of land-grants is more meritorious than the making of a grant.” (2) “Land has been given by many (persons) and will be given by many (in future); (but) the fruit (of land-grant) belongs to whosoever at any time possesses the earth.”

Rradhagovinda Basak, 'The five Damodarpur Copper-Plate Inscriptions of the Gupta Period', *Epigraphia Indica*, Vol. 15, 1982, New Delhi, Plate No. 2 (tr.), p. 113

We learn that the cultivated area (*kshetra*) was differentiated from habitational plots (*vastu*) and forest (*aranya*). A fallow plot was known as *khila* and the term *khila kshetra* has been interpreted as an arable plot now kept fallow. Fallow plots were

further explained specifically as *aprahata* (never tilled before), *adyastamba* (covered with original shrubs and bushes never cleared before), *aprada* (unyielding) and *apratikara/ utpratikara/ sunyapratikara* (meaning the plot did not produce any revenue). The size of plots is determined in terms of *adhavapa*, *dronavapa*, *kulyavapa* and only once *pataka* (Gunaigarh copper plate of Vainyagupta of AD 507-8). *Pataka* was perhaps the highest unit of land measurement. The terms *kulyavapa*, *dronavapa* and *adhavapa* signify etymologically the area of land that was required to sow seeds of the measure respectively of one *kulya*, *drona* and *adhaka*. The land grants also refer to the fact that two rods or *nalas* were used in turn for the measurement of the plot. We have such expressions as *astaka-navakanalabhyam* (8×9) *nalas*, *sadkanavakanalabhyam* (6×9) *nalas* and *navaka-navakanalabhyam* (9×9) *nalas*. The exact interpretation of these expressions has been debated. It is probable that these rods were used for linear measurement of the plot. Arable plots naturally fetched high price. The cultivated plots in Vanga (Dhaka-Vikrampur-Faridpur regions of Bangladesh) were priced at the rate of four *dinaras* (Gupta gold coins) per *kulyavapa*, during the second half of the sixth century AD while in the region around Kotivarsha within Pundravardhanabhukti (ancient north Bengal), a plot of fallow, uncultivated and unyielding variety fetched the price of three *dinaras*. In other areas of the same bhukti, the same type of plot was transacted at a lower price, two *dinaras* per *kulyavapa*. Inscriptions show that the price of land in Kotivarsha remained static from AD 443/444 to AD 543/544. These charters from Bengal were sale-cum-gift deeds. In other parts of the subcontinent land was donated directly by royal proclamation.

The instances of purchase of plots indicate that the system of individual ownership of the soil was current in ancient Bengal. Though brahmanas became owners of land as land was generally granted to religious personages, we have examples of non-brahmana villagers as owners of land. A sixth century copper plate from ancient Samatata area show that the carpenter (*varddhaki*), mechanic (*vilala*) too had land in their possession. Lands granted to brahmanas were obviously not tilled by them. They employed agriculturists who were not owners of plots. In the hierarchical organization of land economy, Yajnavalkya introduces three stages, namely *mahipati* (king), *kshetrasvami* (land owner) and *karshaka* (cultivator), which is roughly corroborated by Brhashpati. Thus the *karshaka* is differentiated from the owner and the *svami* assumes the position of landed intermediaries. Hence there was an appreciable rise in the position and material condition of the donees who were by and large brahmanas. These donees enjoyed revenues and cesses by royal order.

The rise in the position of landed intermediaries has been interpreted by a group of scholars as an indicator of a major change in the material life which became rooted to the rural agrarian economy by relegating the non-agrarian sector of the economy into background. The vibrant urban economy of the early historical times, according to them, was beginning to be replaced by a self sufficient enclosed village economy in the Gupta period due to the preponderance of copper plate charter. It is, however, important to note that most of the lands granted in Bengal were fallow and uncultivated lands belonging to the royal authority. Therefore sale of these lands not only inflated the treasury, but also made the uncultivated lands gradually fit for cultivation. In the epigraphs of the Gupta period we find the *pustapalas* (record keepers) giving permission to land transfer as it did not affect the economic interest of the ruler. In some inscriptions from Pundravardhanabhukti (ancient north Bengal) we find two categories of representatives of the important social groups at rural levels, viz. the *kutumbin* and the *mahattara*. Both the terms meant well to do agriculturists. The *mahattaras* enjoyed greater social status than the *kutumbins*. The importance of the *kutumbin* and the *mahattara* in the rural society of early Bengal is evident from the fact that they were not only addressed in

the applications for land transactions, but oversaw the proper demarcation of plots when such transactions were complete.

In an economy, which was based mainly on agriculture, arrangements for irrigation were a necessity. Need for artificial irrigation was comparatively less in areas which were favoured by rainfall and rivers. Bengal being one of those regions, here we find abundance of tanks and ponds, marshy areas and ditches and embankments along rivers. Similar tanks are reported from various parts of the subcontinent. The most celebrated example of irrigation project is that of the *setu* (irrigation project) called Sudarshana situated in Gujarat. Though built originally during the time of Chandragupta Maurya in the later half of 4th century BC and further developed by Asoka, it underwent repair during the time of the Saka ruler Rudradaman I. During the reign of the Gupta monarch Skandagupta this *setu* was once again damaged and the Gupta provincial governors of Saurashtra (Parnadatta and Chakrapalita) repaired the same. Meagre archaeological traces of this large irrigation project have been found in the vicinity of Girmar (ancient Girinagara) in Kathiawad. Canals were constructed from the rivers or tanks and were taken to distant fields for irrigation. The canals also helped to stop inundation by rivers, for they are also referred to as *jalanirgamah* (drains) in the *Amarakosha*. Considering the economic importance of irrigation and agriculture, irrigation works were duly protected by the state. Fines and punishments were imposed on those who caused damage to them.

Establishment of irrigation works gave impetus to agriculture. The most important crop was of course rice (*dhanya*). Kalidasa in his *Raghuvamsa* gives us a list of diverse varieties of rice produced. They are *sali*, *nivara*, *kalama*, *uncha* and *shyamaka*. Of these *sali* was the best variety. Peasants are referred to as replanting the seedlings of *sali* paddy. Besides rice we have a large variety of other food crops mentioned in the *Amarakosha*. These are barley, peas, lentil, beans, wheat and pulses. Kalidasa mentions sugarcane plantation and especially those of Pundra (north Bengal). Sugarcanes were generally cropped during the winter. This is an indication of the cultivation/plantation of cash crops in this region. However, cash crops mentioned in earlier sources figure in the *Amarakosha*. They are cotton, oilseed, indigo and mustard seeds. Amarasimha informs us that the far south was famous for the cultivation of betel nuts and plantation of spices like pepper and cardamom. Kalidasa refers to coconuts of Kalinga. The Konkan coast appears to have continued the regular plantation of coconut. It was a very useful fruit as it provided in the form of a by product the coir which was indispensable for the construction of the stitched variety of traditional Indian water transports. Diverse types of crops produced indicate mature knowledge of different types of soil, conducive to their cultivation.

7.5.2 Non-Agricultural Production

The non-agrarian sector of the economy of the Gupta empire was equally important. Prevalence of a large variety of crafts is evident from the *Amarakosha*. A distinctive feature of craft activities is the growth in metal based industries, especially iron. Useful iron implements such as spades, sickles, ploughshares, chains, iron plates and pans, swords, other iron weapons and instruments for cutting and working on wood, bamboo and leather are known. However, the most famous example of the excellence of iron working is certainly the inscribed iron pillar at Mehrauli in Delhi, which remains free from rusting since the fifth century. Epigraphic references to the *karmakara* and *lohakara* speak of the presence of blacksmiths. In the *Raghuvamsha* there are references to working in iron by heating and beating piece of iron with the help of a steel hammer (*ayoghana*). The working of other metals such as gold, silver, copper, bronze and brass was well developed in the Gupta empire. After iron, copper was possibly the most

useful metal at that time. The *Amarakosha* also refers to coppersmith along with goldsmith and blacksmith. Copper plate charters of the empire indicate the high degree of technical efficiency of the copper smiths as well as the engravers. Copper and bronze were also used for making utensils and statues. From Bhita near Allahabad, numerous copper utensils like cooking pot, circular lid, cup, shallow saucer etc. have been excavated. The process of manufacturing in most cases was casting, though a few objects were hammered after heating. The colossal copper statue of Buddha from Sultanganj is an example of excellent standard of copper casting during Gupta times. The craft of the potter (*kumbhakara*) was inseparably associated with the daily life of the people. The profuse number of pottery manufactured is clearly evident from the excavated materials from Rajghat, Ahichchhatra and Bhita, the outstanding archaeological sites. Potters of this period showed much skill and efficiency in moulding colouring and burning pottery. The pottery includes cooking vessels of different sizes, different types of bowls, jars of many sizes, pot lids, a cloth dyer's mould and so on. The large varieties of textiles known from literature and also from sculptural representations amply bear out the flourishing condition of this craft. In the *Amarakosha* details of silk weaving are referred to. The most eloquent testimony to the silk industry is furnished by the Mandasore inscriptions of 436 and 473 AD.

GUILD OF MANDASORE SILK WEAVERS

(Verses 4-5) From the province of **Lata**, which is lovely in consequence of choice trees, bowed down with the weight of flowers, temples, assembly-halls, and *Viharas*, (and) the mountains of which are covered with flora, there came to (the town of) **Dasapura** those (people) of well known craft, first with their mind full of regard (for it), and afterwards (bodily) in a band, together with children and kinsfolk, disregarding the unceasing discomforts of journey and so forth, being manifestly carried away by the good qualities of the ruler of the country.

(Verse 15) Then having come in contact with constant meetings, and with cordiality augmenting day by day, (and) being honourably treated like sons by the kings, they lived in the town in joy and happiness;

(Verse 16) Some are intensely attached to music (so) pleasing to the ear; others, being proud of (the authorship of) a hundred excellent biographies, are conversant with wonderful tales; (others), filled with humility, are absorbed in excellent religious discourses; and others are able to say much that is pleasing, free from harshness, (and yet) salutary;

(Verse 17) Some excel in their own religious rites; likewise by others, who were self-possessed, the science of (Vedic astronomy) was mastered; and others, valorous in battle, even to-day forcibly cause harm to the enemies;

(Verse 23) While **Kumaragupta** was ruling over the Earth;

(Verse 24) There was king **Visvavarman**, the protector (of men), who was equal to Sukra and Brihaspati in understanding, who was the ornament of the kings on earth (and) whose deeds were like those of Partha in battles;

(Verse 26) His son (was) king Bandhuvarman possessed of firmness and statesmanship; beloved by (his) friends; a friend, as it were, to (his) people; who removed the afflictions of (his) friends; the only one skilful in destroying the haughty partisans of (his) enemies;

(Verse 29) While that same **Bandhuvarman**, a bull among kings, the magnanimous (and) the high-shouldered one, was protecting this (town of) **Dasapura** which was abundantly prosperous, a lofty and peerless temple of the bright-rayed (Sun) was caused to be made by the weavers of silk-cloth formed into a guild, with stores of wealth acquired through (their) craft;

(Verse 44) By **Vatsabhatti**¹ was caused to be made this edifice of the Sun through the order of the guild and in consequences of (his) devotion (to the god), and was composed with care this detailed descriptions;²

¹Mandsor Inscription of Kumaragupta (I) and Bandhuvarman Years 493 and 529', in J. Fleet, *Corpus Inscriptionum Indicarum*, Vol. II, pp. 328-332

It speaks of a guild of silk weavers, originally settled in Gujarat but subsequently migrating to Dasapura or modern Mandasore. The carpenter (*sutradhara* or *varddhaki*) is also known from inscriptions. The ivory industry was also well developed. The excellence of the ivory makers is seen in the excavated specimens from Bhita near Allahabad. Ivory was used for the manufacture of luxury items. Kalidasa refers to seats made of ivory. The manufacture of oil was another essential industry in our period. It was definitely a flourishing industry as we find the existence of guilds formed by oil men. During the reign of Skandagupta, in the city of Indrapura (Indore in Uttar Pradesh) there was a famous guild of oilmen whose head was named Jivanta. Literary texts and inscriptions also throw some light on the distillers industries. The distiller (*kallara*) is found to have been subjected to tax in the charter of Vishnusena (AD 592).

7.5.3 Guilds

Though the profusion of epigraphic references to *srenis* appears to have been less in the Gupta times in comparison to the period ranging from BC 175 to AD 300, yet the limited number of inscriptions are enough to show that they were still quite an important feature of the economic life of the period concerned. The importance of guild like occupational groups can be understood from the clay seals discovered at Basarh (ancient Vaishali in north Bihar). The seals referring to *sreshthi-sarthavaha-kulika-nigama*, *kulika-nigama*, *sreshthi-kulika-nigama* and so on suggest that these guilds had their official seals. Prior to AD 300 we do not find any reference to such seals which implies that the functioning of guilds became more organized and their scope of activities expanded. While the *kulika-nigama* was surely an organization of artisans, the *sreshthi-sarthavaha-kulika-nigama* may be interpreted as an umbrella organization embracing respective bodies of merchants, caravan traders and artisans. The charters of Bengal speaks of *prathama kulika* (chief artisan) and *prathama kayastha* (headman of the organization of scribes). A potter's guild (*kularika sreni*) is mentioned in a fourth century inscription from Nasik. The Mandasor inscription of Kumaragupta I (AD 415-455) and Bandhuvarman shows how a guild of silk weavers build a magnificent temple of the sun in AD 437-8 and repaired it again in AD 473-74. Some of the members of this guild changed their profession of silk weaving after coming to Mandasore and took to such professions as archery, astrology, and story telling, which were not really of much economic importance. The fact that the silk weavers not only changed their place of original habitation but some of them even changed their occupations, suggest, spatial and occupational mobility of a group of craftsmen. However, change of occupation was a threat to the general character of compactness and cohesion of a guild. The picture is different in the Smriti texts belonging to this period. The texts recommend a *madhyastha* (umpire) and a *karyachintaka* (executive officer) in addition to the headman of the guild. This naturally points to the expanding scope of activities of the guilds. Guild laws were recognized in these treatises as somewhat equivalent to the laws of the land. Guilds continued to receive perpetual deposits of cash from individuals and paid annual interests which were generally used for specific religious and welfare purposes. Guilds continued to receive perpetual deposits of cash from individuals and paid annual interests which were generally used for specific religious and welfare purposes.

7.5.4 Trade and Merchants

Proliferation of crafts and industries may indicate brisk commercial transactions during the rule of the Guptas. Literature of the period speaks of regular transactions among people. The term *kraya-vikraya* in the sense of commercial transactions appears in the *Amarakosha*. *Amarakosha* clearly distinguishes between an extremely rich merchant

(*sreshthi*) and a caravan trader (*sarthavaha*). Epigraphs of the period also speak of *sreshthis* and *sarthavahas*. From the copper plates of north Bengal belonging to 5th and 6th century AD, we learn that the *nagara sreshthi* and the *sarthavaha* were prominent members of the district board which indicates the importance of their profession. Kalidasa too seems to be well aware of *vipanis* or shops. Besides other shops, we find reference to liquor shops and of people flocking to drink there. These shops were sometimes arranged on both sides of the street (*apanamarga*). Since the traders were instrumental in enhancing the country's wealth, Kamandaka advises the king specially to patronise the trading class.

The security offered by the strong Gupta rule facilitated easy movements of men and merchandise. The Chinese pilgrim Fa-hsien who travelled in India from c. 399 to 414 AD has also echoed this. Merchants and merchandise moved not only through land routes but also through rivers, particularly in the middle Ganga valley and lower Gangetic areas. In the *Amarakosha*, various terms are found to designate different categories of crafts like *udupa* (rafts), *nau*, *tarani*, *droni*, etc. (boats) and *pota vanik* (merchant vessel). Among the crew of the *pota*, the *navika* (navigator/sailor), *niyamaka* (pilot) and *karnadhara* (operator of the steering oar or the rudder) are mentioned. Reference to various categories of water crafts in such detail obviously indicates knowledge of brisk riverine activities. The Gunaigarh copper plate of Vainyagupta (AD 507) mentions *nauyoga*, which denotes a boat parking station. Similar boat parking stations like *nau-dandakas* / *nau-bandhakas* are occasionally mentioned in the copper plates from Bengal belonging to 5-6th centuries AD. These boat parking stations could have provided facilities of inland movements in a riverine area like Bengal. This riverine area of Bengal was again connected to the Bay of Bengal. In fact it is important to note that the Bengal delta provided the only outlet to the sea for the land locked northern India. The port par excellence in this area was Tamralipta (Tamluk in the Medinipur district, West Bengal), situated on the right bank of the Rupnarayan. It was the chief commercial outlet for the middle Ganga valley and northeastern region of the subcontinent. This extensive hinterland was one of the reasons for its outstanding importance. Gupta period of Tamluk is marked by terracotta figurines, depiction of urban scenes on terracotta plaques, coins and semi precious beads. It was at its height when Fa-hsien visited Tamralipta in the fifth century AD. An inscription datable to sixth century AD from the Wellesly region in the Malay peninsula refers to a *mahanavika* (master mariner) named Buddhagupta who hailed from Raktamrittika, identifiable with Raktamrittika in the Murshidabad area of West Bengal. This naturally underlines Bengal's overseas contacts with south-east Asia and the importance of the Bengal coast in the network in the eastern sector of the Indian ocean during our period. The west coast of India which had somewhat lost its prominence with the decline in the demand for Indian and south east Asian products in the Roman empire since the middle of the third century AD, gradually became vibrant with the rise of Persian gulf as an important sea lane and the interests shown by the Byzantine emperors in Constantinople and the Sasanid power in Iran. The Gupta conquest of Gujarat and Kathiawad could have been prompted by the prospect of gain from trade with the Persian gulf.

7.5.5 Coinage

The Guptas are credited with the minting of superb gold and silver coins. Several hoards of the Gupta gold coins have been discovered. Though the early Gupta rulers followed the weight standard of the late Kushana rulers, it was Skandagupta who raised the weight standard of the Gupta gold coins from 124 grains (there were minute variations in the weight of different coins) to 144 grains (known as *suvarna* standard). It is to be noted that though there was a rise in the weight standard, from about the last quarter of

fifth century AD the percentage of gold in the coins gradually became less. This debasement of coinage indicates economic difficulties in the empire. In spite of the gradual increase in debasement the Gupta rulers continued to strike coins and maintain a uniform standard of 144 grains. As regards the source of gold it has been suggested that the Bihar gold mines were probably worked during this period. The minting of silver coins began during the reign of Chandragupta II (c. AD 380-415), when he conquered the western part of India from the Saka Kshatrapas towards the end of the fourth century AD. These coins were modelled on the silver coins of the western Satraps. Kumaragupta I (c. AD 415-455), the son and successor of Chandragupta II continued the minting of silver coins. These coins were meant not only for the western provinces as was the case of his father but he also introduced silver coins to the central provinces of the Gupta empire. Among the later Gupta emperors, only Skandagupta (c. AD 455-480) and Budhagupta (c. AD 476-495) continued the silver coinage. In addition to the gold and silver coins we have copper coins in the Gupta period which are however less in number. It has been argued that paucity of copper coins was the result of copper being a cheaper metal than gold or silver and hence were not often hoarded. It is to be noted that according to Fa-hsien cowry shells were in use along with gold coins. Thus the monetary history of this period had shades of complexities.

Gupta Gold and Silver Coins



RBI Monetary Museum Gallery-Ancient India Coinage

7.5.6 Extraction of Revenue Resources

For maintaining a vast empire it was very natural that the Gupta rulers took recourse to diverse forms of taxation. Land revenue formed the greatest source of wealth to the treasury as agriculture was the main stay of economy. The principal tax was *bhaga* or share of produce. No Gupta inscription directly states the proportion demanded in practices though the Baigram and Paharpur copper plates give to the king one sixth of the religious merit accruing from a donation of land. From this one may assume that this proportion was the standard rate of the period. That the king was called *sadbhagin* (receiver of the sixth portion) suggests that the traditional rate was also one sixth. Two other common revenue terms were *kara* and *uparikara*. It is not possible to specify the exact connotation of *kara* and *uparikara*. In the opinion of D.C.Sircar these were perhaps the principal and subsidiary tax respectively. Copper plate charters provide us with the names of some other taxes. One of them was *udranga* which was collected by

the *Audrangika*. It is often taken to denote tax on permanent subjects. *Hiranya* is another term recorded in some of our inscriptions. *Dhanya* is another revenue term found in the Maliya copper plate of Dharasena of Maitraka family of Valabhi. The term *halikakara* is recorded in the Khoh copper plate of Sarvanatha. *Dhanya* and *halikakara* were perhaps taxes on agriculturists. *Hiranya* was a king's share of certain crops paid in cash. Epigraphic records suggest that the number of agricultural taxes was much more than taxes on the non-agrarian sectors of the economy. An important fiscal due for the commercial sector mentioned in the *Amarakosha* was *sulka* or tolls and customs. The *saulkika* or officer in charge of the collection of *shulka* figures on a number of inscriptions. A feature of the revenue system of this period was the growing imposition of forced labour or *vishti*. From the *Kamasutra* of Vatsyana we learn that village landlord could force the wife of the peasant to render various services like threshing crops and filling up his granary without any remuneration. The numerous revenue terms enlisted on the copper plates suggest that the fiscal burden was quite high for the common people.

The picture that emanates from the above survey of the economy of the Gupta empire is that of a economy where the *agrahara* system of land grant played a dominant role. It caused the expansion of rural agrarian settlements which, however, did not throttle the lively urban socio-economic milieu. The description of a *nagaraka* in the *Kamasutra* of Vatsyana bears eloquent testimony to the vibrant urban life of the period.

7.6 SUMMARY

The above survey depicts a picture of interesting variations as well as similarities in the economic structure of these dynasties both in terms of region and the changing times. It appears from the available sources that the Mauryan economy was basically a state controlled economy having a strong base in the agrarian sector. The Kushanas, however, maintained a different economic policy. Their rule is marked by lessening control of the state and growing private enterprise. Huge amount of resources were mobilized by the monarchs from the non-agrarian sector, primarily, trade. They never tried to introduce a uniform standard of weights or of measures throughout the empire. The Satavahanas, on the other hand, put more or less equal emphasis on the agrarian and non-agrarian sector of the economy. They realized the potentiality of the region as a rich agricultural zone and at the same time like the Kushanas they were interested in long distance trade with the Roman empire. As for the Guptas, the very basis of their economy was agriculture. The earlier practice of making individual or group donation is replaced by the new practice of *agrahara* system. There is however no indication of decline in the non-agrarian sector of the economy. Circulation of coins could be seen in all the empires. The simple punch marked coins of the Maurya period gave way to the gold coins in the Kushana period. The Satavahanas, however, did not have gold coins. Coins began to be used as an agent of propaganda by the ruling authorities. The Guptas continued the tradition of issuance of diverse types of coins, primarily gold, then silver and also copper. Many areas saw the growth of urban centres during the rule of these four dynasties.

7.7 GLOSSARY

Avadana

In Buddhist tradition *Avadana* is a type of literature consisting of stories of the deeds of Buddhist personalities from the past. It is also known as *Apadana*.

Brahmi Script

A script which may have appeared in India around 4-3rd century BC. Most of the Asokan inscriptions are in Brahmi script.

Byzantine Empire

It is also known as Later or Eastern Roman Empire. The reign of the first Christian emperor, Constantine marks the beginning of the Byzantine empire (AD 312). The empire lasted till 1453 when finally the Constantinople (Byzantium) fell to the Ottoman Turks.

Doab

Land between two rivers.

Gupta Era

Era counted from the accession of Chandragupta I in about A.D. 319-20.

Indo Parthians

A Scythian tribe. The first Indo-Parthian ruler Gondophares in AD 20 declared independence from the Parthian suzerainty and founded an independent kingdom in the south-west Afghanistan. In the history they were known as.

Kanishka Era

An era counted from the first regnal year of Kanishka I. This era is generally identified with the Saka era of 78 AD.

Karakoram Highway

The Karakoram mountain ranges marked the Western end of the Greater Himalayas mountain chain and contain the greatest concentration of high peaks on earth as well as the largest expanse of glacial ice outside the polar regions. The winter snows from these mountains provide the meltwater for the mighty river Indus that cuts through the Karakoram from its source in Tibet. Karakoram pass lies on one of the highest trade routes in the world for Yarkand in Central Asia. The route begins from the Nurbra Valley in Ladakh over the Tuliapati La, and Siser La leading to the pass. The Karakoram Highway in Gilgit, Chilas, etc. has yielded considerable antiquities.

Kharoshti

The Kharoshti script was in use in the northwest frontier regions of India. It was written from right to left. Ashokan inscriptions of Shahbaz Garh Man (8 miles east of Mardan, Swabi) are in Kharoshti.

Megalithic Culture

Megaliths were burials made of large stones hence the name Mega-lith (mega means big/huge; litho means stone in Greek). The culture flourished in the first millennium BC and early centuries AD in peninsular India, particularly in Andhra Pradesh, Karnataka, Tamil Nadu and Kerala.

Prasasti

An eulogy or record of praise for kings or other personalities.

Rouletted Ware

A wheel turned pottery so named because of concentric rouletting in the middle of the dish/pot found in large numbers of sites close to the east coast of India.

Scytho-Parthians

The Parthians defeated Alexander the Great's

successors, the Seleucids, conquered most of the Middle East and South-west Asia, and controlled the silk route. The Parthians at one time controlled the areas now in Iran, Iraq, Turkey, Armenia, Georgia, Azerbaidzhan, Turkmenistan, Afghanistan, Tajikistan, Pakistan, Syria, Lebanon, Jordan, Palestine, and Israel.

Saka Kshatrpa

A Saka ruling house having two branches, one ruling from Mathura for sometime and the other ruling in western India till the 4th century AD.

Sasanid Empire (226-651 A.D.)

They established an empire roughly within the frontiers achieved by the Achaeminids, with capital at Ctesiphon. The dynasty was founded by the king Ardashir I who was the vassal of Parthian ruler. Shapur I (241-272) inflicted a crushing defeat on the Romans twice. Later he also attacked the Kushanas and occupied Peshawar, a centre of the Kushanas. The last Sassanid ruler was Yazdgard III (632-636). The Arabs took Ctesiphon and in 651, the last Sassanian king died as a fugitive.

Seleucus and Seleucid Empire

Seleucus was the founder of the Seleucid Empire (BC 312-65) who ruled over Asia Minor and Syria from BC 312-280. Seleucus accompanied Alexander the Great in his Eastern Campaigns. After Alexander's death he got the Babylonian Satrapy (modern Afghanistan, Iran, Iraq, Syria, Lebanon, and parts of Turkey, Armenia, Turkemenistan, Uzbekistan and Tajikistan) as his share. In 64 BC the Roman general Pompey the Great brought the Seleucid empire to an end.

Stadia

Ancient Greek units of length ranging in value from 607 to 738 feet.

Stitched Variety of Traditional Indian Transport

Ships or boats with sewn planks where nails are not used.

7.8 EXERCISES

- 1) Critically analyse the information provided in the Junagarh *prasasti*. To what extent is it useful for understanding the agrarian economy of the period.
- 2) Analyse the nature of agrarian taxation under the Mauryas on the basis of the information available in the Rumindei inscription.
- 3) Analyse the commercial activities in India during BC 300-600 AD on the basis of the accounts of Greeco-Roman and Chinese authors.
- 4) In what respect was urbanization linked to trading activities? Discuss the issue in the context of the rise and growth of towns during BC 300-600 AD.
- 5) Examine the economy of the empires on the basis of the study of coins.

7.9 SUGGESTED READINGS

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