Chapter-3

Agrarian Relations and Land Revenue

The Village Community

The village was the basic fundamental socio-economic unit of any society in ancient times. It still to a great extent plays a significant role in the Indian socio-economic spheres. It has always been the backbone of Indian rural economy.

The villages usually had a self-sufficient economy. People were closely connected to each other by the fundamental economic and social needs. Their requirements were fulfilled within the village. Apart from the farmers, the village population comprised people engaged in different professions such as the potters, the blacksmiths, the carpenters, the cobblers, the washer men, the sweepers, the basket makers, the weavers, the cattle keepers or the dairy men, the barbers etc. These people used to exchange their goods and services which made the village economy self-sufficient.

To study the village community and the agrarian system during the Kušāṇa period we shall be surveying the literary sources compiled before the coming of the Kuśāṇas, and during their period. The Śmrī texts are very important sources of information to study the village community, the agrarian relation and the land revenue. We shall here make a survey of the Śmrī texts such as the Manusmṛti (c. 200 B.C. - 200 CE), the Yājñvalkyasmṛti (c. 100- 300 CE), the Viśṇusmṛti (c. 100- 300 CE), the Nāradasmṛti (c.100- 400 CE), the Brhaspatismṛti (c. 300- 500 CE) (Kane, P. V. 1941, vol. II, pt. I, p. XI) which provide valuable information of the contemporary social and economic conditions. The other works compiled during the early centuries of the Common Era such as the works of Patañjali, works of Aṅgavaḥoṣa, i.e., the Buddhacarita and the Saundarananda; the Mahāvastu, the Milindapañho and the Jātakas etc. comprise valuable data regarding the agrarian system during the Kuśāṇa period. The Arthaśāstra of
Kauṭilya, though an earlier work is still definitely an important source of information.

The inscriptions of the Kuśāṇas and their contemporaries such as the Western Kṣatrapas and the Sātavāhṇas will be studied and analysed thoroughly as they are more reliable source of information as the Sātavāhṇas were the contemporaries of the Kuśāṇas and the Western Kṣatrapas were the subordinates of the Imperial Kuśāṇas. The accounts of the foreigners are of course to be analysed. The secondary works on the Kuśāṇa history lack adequate information regarding the land and land revenue during the Kuśāṇa period. It has even skipped the attention of the great scholars like B. N. Mukherjee, B. N. Puri, Bhaskar Chattopadhyaya, Kameshwar Prasad and many others who have worked extensively on various aspects of the Kuśāṇa history. All of them just refer to the land and land revenue but do not elaborate it.

Village

The term grāma was used for village. We find references to this term since the Vedic Period. The term however also was used for men or a group of men, a group of families or a tribe. The term grāma may be taken as an intermediate term between the kula or family on the one hand and the tribe or viśa on the other. It should hence be called an aggregation or combination of families. According to the Śatapatha Brāhmaṇa, the villages were often built in close juxtaposition to each other. The Aitareya Brāhmaṇa talks of villages lying in the western and eastern directions. It says that if the rites of the evening libation of the Agniṣṭoma are performed in hurry, then the villages lying in the eastern direction become largely populated, whilst all that is in the western direction becomes a long tract of deserts and the sacrificer dies suddenly.

The villages are mentioned quite frequently in the Jātaka stories. The population of the village varied from one village to village. The Kalāvaka-Jātaka, for example mentions a village having just thirty families where as the Losaka-Jātaka refers to a village having a thousand families.

The houses were nowhere isolated rather were altogether in a group, separated only by narrow lanes. The sacred grove of trees of the primeval forest,
left standing when the forest clearing had been made was immediately adjoining. The wide expanse of cultivated field was beyond this. Each village had grazing ground for the cattle, and a considerable stretch of jungle, where the villagers had common rights.7

Manu in this regard states that on all sides of a village a space, one hundred dhanuṣa or three samyā-throws (in breadth), shall be reserved for pasture, and thrice of that space round a town. Dhanuṣa literary means ‘a bows length’= 4 hastas or about six feet. The samyā is a short, thick piece of wood, used at sacrifice.8 Yājñavalkya also states that a distance of a hundred should be kept on all sides between a village and fields and that of two hundred between a village covered with thorn and fields and that of four hundred dhanuṣa between a city and fields.9 Nārada too talks of a village with its pasture grounds.10 Brhaspati mentions wells, tanks, pools, large trees, gardens, temples, mounds, channels, the course of a river, reeds, shrubs, or piles of stones etc. as the boundary lines of a village.11

The Arthasāstra contains a lot of information regarding the villages and village community. It says that the king may construct villages either on new sites or on old ruins. Villages consisting each of not less than a hundred families and of not more than five hundred families of agricultural people of the śūdra caste, with boundaries extending as far as a krōṣa or two and capable of protecting of each other, shall be formed.12 Krōṣa according to R. Shamasasty is equal to 2250 yards.13 Boundaries of the village, according to the Arthasāstra shall be denoted by a river, a mountain, forests, bulbous plants (grṣṭi), caves, artificial buildings (setābandha), or by trees such as śālmai (silk cotton tree), śamī (acacia suma), and kṣūrvṛksa (milky trees) etc. It further states that there should be a sangrahaṇa (a fortress of that name) in the midst of a collection of ten villages, a khārvāṭika in the midst of two hundred villages, a dronamukha in the centre of four hundred villages and a sthāṇīya in the midst of a collection of eight hundred villages.14

The Arthasāstra categories the villages in first, middle and lowest ranks which were brought under different heads such as the villages that are exempted
from taxation (parihāraka); those that supply soldiers (āyudhiya); those that pay their taxes in the form of grains, cattle, gold (hiraṇya), or raw material (kupya); and those that supply free labour (viśī), and dairy produce in lieu of taxes (karapratikara).

Setting up of the boundaries to the villages, numbering plots of grounds as cultivated, uncultivated, plains, wet lands, gardens, fences (vāṭa), forests altars temples of gods, irrigation works, cremation grounds, feeding houses (śattrā), water stalls (prapā) where water is freely supplied to travelers, places of pilgrimage, pasture grounds and roads was the duty of gopa. Apart from the four castes, the Arthśāstra also mentions cultivators, cowherds, merchants, artisans, labourers, and slaves etc. as the residents of villages. Kauṭilya has suggested to avoid the interference in the village and its functioning. He states that no ascetic other than the one of local birth (sajatadanyassangah), and no guilds of any kind other than local co-operative guilds (sāmutthāyikādanyassamayānubandhah) shall find entrance into the villages of the kingdom. The village buildings (sālāḥ) shall neither be intended for sports and plays nor, in view of procuring money, free labour, commodities, grains, and liquids in plenty, nor shall actors, dancers, singers, drummers, buffoons (vājīvana) and bards (kuśilava) make any disturbance to the work of the villagers; for helpless villagers are always dependent and bent upon their fields.

The Baudhāyana Dharmasūtra states that a righteous man shall seek to dwell in a village where fuel, water, fodder, sacred fuel, kuśa grass and garlands are plentiful, access to which is easy, where many rich people dwell, which abounds in industrious people, where Āryans form the majority, and which is not easily entered by robbers. Gautama states the same thing. He suggests that a man after having fulfilled the law regarding studentship, take unto him a wife, and fulfilling the duties of a house holder shall seek to dwell in a place where firewood, water, fodder, kuśa grass, materials for making garlands and roads exist in abundance, which is chiefly inhabited by Āryans, which is rich in industrious men and which is governed by a righteous ruler. The Āpastamba Dharmasūtra makes it lawful to a brāhmaṇa to dwell in a village, where there is plenty of fuel and water and where he may perform the rites of purification by himself.
Hence our Dharmasūtras suggest that righteous men should dwell in the village where fuel, fodder, water and other necessary things for use are easily procurable and hard working people reside and are protected from any external danger.

The Rāmāyāna and the Mahābhārata also refer to the villages and their importance. In Ayodhyā Kāṇḍa of the Rāmāyāna it is said that it the duty of the king or the prince to protect the city or the village when they are in danger. In the Sabhā Parva of the Mahābhārata, Nārada asks Yudhiṣṭhira to take care of the villages and make them safe and prosperous like the cities. Thus the villages appear to be quite significant for a state as appropriate attention was paid towards their security and prosperity.

Patañjali has mentioned villages (grāma) and stations of herdsmen (ghoṣa) along with the cities (nagara). He refers to bigger villages such as vāhikagrāma and udīchya-grāma.

The Milinda-Pañño, the Mahāvastu and the Saddharma-Pundrikā etc. too refer to the villages, the overseers and heads of the villages which turned into town with the passage of time, rich and wealthy villages, villages belonging to the people of a particular caste or profession and the donation of the villages by the king.

The foreigners who came to India during the early centuries of the Common Era have mentioned villages in their records. Strabo, for example, states that there existed five thousand cities between the Hydaspes (Jhelum) and the Hypanis (Beas). The number of nations and tribes mentioned by him is nine only. The excessive number of cities hence he has mentioned seems either to be an exaggeration or he had mistaken the large sized and prosperous villages to be the cities. Pliny also refers to the campaigns of Alexander which mention that the tract of India which was subdued by Alexander had nine nations which comprised five thousand towns. Diodorus, while referring to the second caste of the whole population of India, states that it consists of the Husbandmen who appear more in number than the others. They, according to him, devote the whole of their time to...
the village. They with their family live in the country and avoid joining into
town.  

While going through the literary sources, we find various types of villages
in India such as the villages where the people of various castes lived and were
engaged in agriculture. There were villages where people of same profession or
craft such as smiths, potters, weavers, carpenters and hunters etc. inhabited.  
There were villages which were on the borders. These were prone to the raids by
the robbers which caused heavy losses to their economy. The Jātaka stories refer
to many such villages and their conditions. Kauṭilya also indicates such
villages. Sometimes these villages were inhabited by the robbers and burglars
who used to plunder the traders and even the common men. Apart from these
there were also the villages which were inhabited by one caste such as the villages
inhabited by the brāhmaṇas only.

The village was composed of many families. Each family (kula)
represented the smallest and the most important social unit. The Indian family
was usually composed of great number of individuals. It comprised brothers,
uncles, nephews, and cousins etc. In early India, the family might include adopted
children and it was further augmented by servants of the family could afford. This
was known as the ‘joint family’ which was under the sole authority of its head.
All the members of the family observed the same rules and obey the authority of
the grhaṣṭha or the head of the family. Several such families comprised a
village.

The epigraphic records, belonging to the Kuśāṇa period refer to ‘grāma’ or
‘gāma’ which possibly should be the smallest unit of administration. Various
inscriptions from Sānci Stūpa mention the gift of gāma or village. An inscription
belonging to king Kṣaṭrapa Svāmi Rudrasinха, son of the king Mahākṣaṭrapa
Śvāmi Rudradāman, grandson of the king Kṣaṭrapa Śvāmi Jayadāman and great
grandson of the king Mahākṣaṭrapa Śvāmi Caṭana, discovered at Gunda in
Kathiavad, belonging to year 102 according to Bühler and 103 according to
Rapson, refers to throwing up an embankment for a tank in the village Rasopadra
(grāmarasopadre) for the welfare and comfort of all living beings.
inscriptions from Karle refer to the gift of gāmo or gāma (village) to the brāhmaṇas and monks. Many inscriptions of the Sātavāhanas and the Kṣatrapas from the Nasik Caves also refer to the gift of gāmo or gāma. A few inscriptions from the stūpa of Jaṅgavaspatī were found by Burgess. Bühl er, on the basis of epigraphical grounds places these documents after the inscriptions of Gautamiputra II Śrī Yajña Sātakarṇi. These also refer to the term gāma used for the village.

These villages were under the authority of a headman. He was known as grāmāni in the Vedic literature, grāṃbhōjakā in the Jātakas. Manu and Viṣṇu call him grāmika or gāmika. He has been named as gāmika, grāmika, grāmakutā and grāmasavāmin in the Arthaśāstra, gāmika in the Mahāvastu and grāmasāmika in the Milindapañho.

He was appointed by the state. Manu states that a king should appoint a lord over each village, as well as lords of twenty, lords of a hundred and lords of a thousand. Visṇu too states that a king should appoint chiefs in every village, also lords of every ten and every hundred villages and of a whole district. It has also been stated in the Āpastamba Dharmasūtra that the king should appoint men of the first three castes who are pure and truthful, over villages and towns for the protection of people. The Milindapañho also refers to the appointment of the officer by the king for the village. Kauṭilya too approves his appointment by the state.

We also find the references to the headman in the epigraphic records of the Kuśāna period. He has been mentioned as grāmika in the inscription from Mathurā belonging to year 40 of the time of Huviṣka. The inscriptions from Bhattiprolu mention him as grāmani.

The headman was the most important officer of the village. Kauṭilya testifies his importance when he says that when the headman of a village has to travel on account of any business of the whole village, the villagers accompanied him. Those who did not accompany him were fined 1½ panas for every yojana. In pre-Mauryan and Mauryan times, the defense of the village was an important duty of the grāṃbhōjakā or the grāmika. But later, as Manu states that the king
should place a company of soldiers (*gulma*) under the command of a trusty officer on the midst of two, three, five or hundreds of villages (to be) a protection of the kingdom.\textsuperscript{58} He makes him i.e., the lord of the village (*grāmika*) responsible to report any kind of troubles or disturbances committed in his village to the higher authority.\textsuperscript{59}

It is implied that he had to maintain law and order in his village. The collection of the revenue was another very important duty. Manu in this regards states that the lord of the village shall obtain those articles which the villagers ought to furnish daily to the king, such as food, drinks and fuel.\textsuperscript{60}

The lord of the village used to enjoy a share of the royal revenue as their emoluments which they used to collect for the state. Manu in this context allows the officer over ten villages to enjoy one *kula* (as much land as supplies for one family, or land cultivable by two ploughs)\textsuperscript{61} that over twenty villages to enjoy five *kulas*, the superintendent of a hundred villages to enjoy the revenues of a town.\textsuperscript{62} He suggests a check over the village. He opines that a minister who is loyal to the king should inspect the affairs of these officials who are connected with their villages and their separate business. In each town a superintendent of all affairs should be appointed who personally shall visit all those officials and explore their behaviour in their districts through the spies.\textsuperscript{63}

Under the guidance and control of the *grāmika*, a body of village elders used to take care of the affairs of the village such as disputes of fields, land sale, public festivities, temple management and property of minors etc.\textsuperscript{64}

Thus the villages used to manage most of their local affairs themselves. Besides producing the daily use items for themselves the people of the village cooperated in the village activities of common interest such as construction of roads, halls, wells and determination of boundaries etc.\textsuperscript{65} The activities such as collection of taxes, construction of irrigation work, assessment of irrigated lands, land survey and public roads, gardens and security of village etc. were still very significant. At the time of natural calamities and any other emergency they depended on the state.\textsuperscript{66}
The village community thus comprised the land owners or what is known as peasant proprietors, people engaged in various crafts and the labourers. The common occupation of the villagers was the agriculture.

Agriculture

While discussing vārtā, we have already discussed agriculture as its first constituent. The history of agriculture in India goes back to the pre-historic period when man invented polished stone implements and discovered agriculture and domesticated animals. Till then it had developed with the passage of time. Among the earliest literary evidences of agriculture, we may trace one from Ṛgveda where Asvins are said to be causing the barley to be sown in the fields that had been prepared by plough. In another instance in the Ṛgveda a man is advised to pursue agriculture and acquire wealth instead of playing with dice. The main agricultural operations such as ploughing, sowing, reaping and thrashing etc. are discussed in the Satapatha Brāhmaṇa. The Baudhāyana Dharmasūtra makes the Vedas and the agriculture compatible and interdependent. It says that the study of the Vedas impedes the pursuit of agriculture; the pursuit of agriculture impedes the study of the Vedas. He who is able to do it may attend both; but he who is unable to attend to both shall give up agriculture.

The Jātaka stories contain references to the agriculture as an important source to support the family along with trade and money lending etc. Kauṭilya considers agriculture, along with cattle-rearing and trade as an important constituent of vārtā. Vārtā, according to him is most useful as it was a source of grains, cattle, gold, and forest produce (kupya). The literary works corresponding to the Kuśāna period too acknowledge the significance of agriculture. Manu has given importance to agriculture. Patañjali gives information regarding different types of lands, methods of sowing, agricultural implements, seeds and crops, grain storage and animal husbandry. The Milinda-pañho too acknowledges the significance of husbandry, merchandise and the care of cattle for the vaiśya and śūdra caste. The Angavijjā places the agriculture and animal husbandry (kasi-gorakkha) among the five kinds of
professions as one very prominent profession. Agriculture along with trade and cattle-rearing has been given due importance in the Epics too.

The task of agriculture, trade, cattle-rearing and money lending was assigned to a vaisyā. Manu has very specifically mentioned that to trade, to rear cattle and agriculture are the means of subsistence for vaisyās. A vaisyā, according to Manu must be acquainted with the manner of sowing seeds and of the good and bad qualities of fields and should perfectly know all measures and weights. He further states that the king should order a vaisyā to trade, to lend money, to cultivate the land, or to tend the cattle. He generally has forbidden the great families (brāhmaṇa and kṣatriya) to engage themselves in the pursuits of agriculture and trade. A brāhmaṇa has also been forbidden to pursue agriculture in the Mahābhārata.

Although there were restrictions on the upper two castes, i.e. the brāhmaṇas and the kṣatriyas so that they do not engage themselves in the agriculture, yet on certain circumstances they were allowed to subsist on agriculture. Gautama, for example states that agriculture and trade are lawful for a brāhmaṇa provided he does not do the work himself. Manu suggests that a brāhmaṇa, unable to subsist by his peculiar occupations, i.e., teaching, studying, sacrificing for himself, sacrificing for others, making gifts and receiving them etc. among which there are his means of subsistence, i.e., sacrificing for others, teaching and receiving gifts from pure men etc. may live according to the law applicable to kṣatriyas, i.e., to carry arms for striking and for throwing. If he cannot maintain himself by either of these occupations, he may adopt a vaisyā mode of life, employing himself in agriculture and cattle-rearing. In a similar way if a kṣatriya was unable to subsist by his peculiar occupation, i.e., to carry arms for striking and for throwing, he too may adopt the vaisyas mode of life. Both the brāhmaṇas and the kṣatriyas, living by vaisyas mode of subsistence, shall carefully avoid the pursuits of agriculture which cause injury to many beings and depends on others. The Baudhāyana Dharmasūtra too allows a brāhmaṇa to adopt agriculture as a mean of subsistence. He suggests that if he lives by agriculture he shall plough before breakfast. Brāhmaṇa has been referred to as an agriculturist in the Jātaka stories.
Kauṭilya mentions the corporations of warriors (क्षत्रियस्वरूप) of Kamboja and Surāstra and other countries living by agriculture, trade and wielding weapons. He also mentions the families of agricultural people of śūdra caste while talking about the formation of the villages. A brāhmaṇa farmer has also been referred to in the Milinda-panha.86

Thus the agricultural population mainly consisting the vaisyās, also included the brāhmaṇas, kṣatriyas and śūdras.

Megasthenes has mentioned the people engaged in agriculture. He states that the second caste among the Indians consists of the husbandmen, who form the bulk of the population and are in disposition most mild and gentle. They are exempted from military service and cultivate their lands undisturbed by fear. They never go to town, either to take part in its tumults or for any other purpose. It therefore not infrequently happens that at the same time and in the same part of the country, men may be seen drawn up in array of battle, and fighting at risk of their lives, while other men close at hand are ploughing and digging in perfect security having these soldiers to protect them.88 Arrian,90 Strabo90 and Diodorus90 etc. have narrated the same story about the seven castes among the Indians and the caste of the husbandmen. The mild and gentle disposition of the husbandmen is also talked of by Kauṭilya. He states that the agriculturists should be of good and active character.92 He suggests to keep the villagers away from all the troubles and disturbances.93

Crops

Rice perhaps was the most important crop grown by the cultivators. In the Jātaka stories we find references to the cultivation of only rice by a brāhmaṇa on his whole land of one thousand acres.94 Kauṭilya also refers to the rice cultivation and states that the rice crop and the like are the best.95 Rice was the staple food of the people throughout the country according to Megasthenes96 and Strabo.97

We find literary references to various types of crops during the Kuśāṇa period. Patañjali mentions various types of rice. He states that boiled rice was the favourite vegetarian food.98 The Mahāvastu mentions more than twenty five varieties of rice in Vaiśālī.99 The Milinda-panha states that of all kinds of grain, rice
is acknowledged to be the chief. It is considered the best.\textsuperscript{100} The Saundrananda too records rice cultivation.\textsuperscript{101} Barley (\textit{vava}) was the other important crop. Kauṭilya\textsuperscript{102} and Patañjali\textsuperscript{103} have mentioned it. The Mahāvastu refers to the wild barley.\textsuperscript{104} The \textit{Milinda-pañho} mentions the barley reapers.\textsuperscript{105} The wheat (\textit{godhuma}) has been in the Arthaśāstra\textsuperscript{106} and in the \textit{Milinda-pañho}.\textsuperscript{107} The pulses included chiefly \textit{mudga}, rājamāśa and māśa according to Patañjali.\textsuperscript{108} Kauṭilya refers to \textit{mudga}, māśa, \textit{śaibya} and \textit{masura}.\textsuperscript{109} Edible and non edible oil seeds like mustard (\textit{saršapa}), sesamum and linseed (\textit{atasī}) were cultivated.\textsuperscript{110} Sugarcane also appears to be an important crop. It has been mentioned in various literary sources such as in the Arthaśāstra, the Mahābhāṣya, the Mahāvastu, the \textit{Milinda-pañho}, the Saundrananda and even in the accounts of the foreigners\textsuperscript{111}. Cotton was one of the most important crops of India. Kauṭilya states that the cotton fabric those of Madhura, of Aparānta, western parts of Kalinga, of Kāśi, of Vanga, of Vatsa, and of Mahiśa are the best.\textsuperscript{112} Patañjali also has referred to the cotton.\textsuperscript{113} Various types of fruits such as palms, fig, coconut, grapes, dates, mango, jambu, myrobalan, cucumber etc. were grown.\textsuperscript{114} Apart from this the vegetables\textsuperscript{115} and medicinal plants (herbs) are also referred to in various literary sources.\textsuperscript{116}

Regarding the crop seasons Kauṭilya informs us that the crops such as \textit{sāli}, \textit{vrhi} (varieties of rice), \textit{kodrava}, \textit{tila} (sesamum), \textit{priyaṅgu} (ponic seeds), \textit{dāraka} and \textit{varaka} were to be sown at the commencement (\textit{pūrvāvāpah}) of the rainy season. \textit{Mudga}, māśa and \textit{śaibya} were to be sown in the middle of the season and \textit{kusumbha} (safflower), \textit{masura}, \textit{kuluttha}, \textit{yava} (barley), \textit{godhūma} (wheat), \textit{kālīya} (leguminous seed), \textit{atasī} (linseed) and \textit{sarshapa} (mustard) were to be sown last.\textsuperscript{117} He further states that according as the rainfall is more or less, the superintendent should sow the seeds which require either more or less water. The superintendent should grow wet crops (\textit{kēdāra}), winter crops (\textit{haimana}) and summer crops (\textit{graismika}) according to the supply of workmen and water.\textsuperscript{118} Strabo too states that during the rainy season, flax, millet, sesame, rice and bosmorum are sown and in the winter, wheat, barley and pulses etc. are sown.\textsuperscript{119}

For a rich and high quality crop three elements are significant such as a potential seed, a well-prepared field and a suitable season. Manu states that the
production of all corporeal beings takes place through the union of the soil with the seed. When both are equal, the offspring is most highly esteemed. On comparing the seed and the receptacle of the seed, the seed is declared to be more important by him because whatever kind of seed is sown in the field, prepared on due season, a plant of that same kind, marked with the peculiar qualities of the seed, springs up in it. The earth, indeed, is called the primeval womb of created beings, but the seed develops not in its developments any properties of the womb. In this world seeds of different kinds, sown at the proper time in the land, even in one field, come forth each according to its kind.\textsuperscript{12} Patanjali refers to the custom of sowing seeds on an auspicious day (\textit{aśvayujī paurṇamāśī}).\textsuperscript{121} From the \textit{Milindapañha}, we get references of mixed crops. It talks about five kinds of seeds to be sown in one field. The produce of those various seeds would be of different kinds.\textsuperscript{122} Transplantation of crops was very much there as Strabo quoting Megillus states that the rice is sown before the rains, but requires irrigation and transplanting being watered from tanks.\textsuperscript{123}

The natural fertility of the soil diminishes due to continuous cropping. So in order to restore the lost part of the fertility, the cultivator has to use the manure. The origin of the manuring of the soil, a necessity for the nourishment of plants can be traced as early as in the \textit{Atharvaveda}.\textsuperscript{124} Manuring of the fields, the seeds and the plants has been referred to by Kauṭiliya. He states that the seeds of the grain are to be exposed to mist and head of seven nights; the seeds of kośī (such as \textit{mudga}, māṣa etc.) are treated similarly for three nights; the seeds of sugarcane and the like are plastered at the cut end with the mixture of honey, clarified butter, the fat of hogs, and cow-dung; the seeds of bulbous roots with honey and clarified butter; cotton seeds with cow-dung; and water pits at the root of trees are to be burnt and manured with the bones and dung of cows on proper occasions. The sprouts of seeds, when grown, are to be manured with a fresh haul of minute fishes and irrigated with the milk of \textit{snuhi} (euphorbia antiquorum).\textsuperscript{125}

Fertilizers consisted of the dung of goats, sheep and cattle and flesh rotten in water. The \textit{Vṛāha} and the \textit{Agni Purāna} prescribe composts made of various substances such as pulses, sesameum, barley, goat’s and sheep’s dung, fish, flesh of cattle and hog fat etc.\textsuperscript{126}
Before sowing of the seeds, the field was to be ploughed. Manu talks of the wooden implements with iron points. Vasishtha states that the plough attended by strong men and bullocks, should be provided with a useful share and handle for such a share would pierce deeper. The Baudhāyana Dharmasūtra refers to spade, ploughshare or a pointed piece of wood to dig the soil.

Kauṭilya states that the weighing balance, weights, measures, mill stone (rocani), pestle, mortar, wooden contrivances for pounding rice etc. (kaṭṭakayantra), contrivances for splitting seeds into pieces (rocaṇyantra), winnowing fans, sieves (cālanika), grain baskets (kandoli), boxes and brooms are the necessary instruments. Patañjali states that before the sowing of the seeds, the field was ploughed with the plough called hala or śira. The area ploughed was called halya or śīya. The ploughing of the field was done through oxen called goh. The stumps in the ground were weeded out by a hoe, known as stambaghna.

It was necessary to remove the weeds, thorns and stones before the actual ploughing of land. The required number of plough depended on the fertility of the land and its dimensions. The maximum noticed in the Mahābhāṣya are five. After ploughing of the land the next stage was the sowing of the seeds which naturally varied according to crops and seasons. As regards the required quantity of seeds for sowing, the kāśikā refers to prāstikam, dранikam and khārikam fields, that is those requiring one prastha, drona or khari weights of seed; but according to Patañjali, there were fields requiring a hundred khari (khārasatika) or a thousand worth of seeds (khārasahasrika).

The success of agriculture was dependent mainly on rain with its timely onset, proper quantity and distribution in the season. Kauṭilya states that when one third of the required quantity of the rain falls both during the commencement and closing months of the rainy season and two third in the middle, then the rainfall is considered very even (susumārāpam). He further states that three are the clouds that continuously rain for seven days; eighty are they that pour minute drops; and sixty are they that appear with the sunshine. This, according to him is termed as rainfall. When rain, free from wind and unmingled with sunshine, falls so as to render three turns of ploughing, the reaping of a good harvest is certain. Hence according to the rainfall, whether it is more or less, the superintendent
shall sow the seeds which require more or less water.\textsuperscript{133} He further suggests that in order to ascertain the exact amount of rainfall in front of the store house, a bowl (\textit{kunda}) with its mouth as wide as an \textit{arani} (24 \textit{angulas}) should be set up as rain gauge (\textit{varsamana}).\textsuperscript{134} Manu considers the rain as source of food from which the living creatures derive their subsistence.\textsuperscript{135} Patanjali too mentions that the crop was expected to be good if there was adequate rainfall.\textsuperscript{136} The \textit{Mahāvastu} refers to a husbandman who longs for a big cloud of rain.\textsuperscript{137}

The \textit{Milinda\textsuperscript{\textit{pā\mathsurdf{\text{a}}\text{n}}ho}} refers to the five qualities of rain. Making all vegetation to grow is mentioned as one of the five qualities.\textsuperscript{138} The \textit{Mahābhārata} also talks about the essence of the rain for prosperity. It says that when the abundant rain is there the kingdom grows in prosperity.\textsuperscript{139} It also states that if the deity of the clouds pour rain seasonably and the kings acts virtuously, the prosperity that ensues maintain the subjects in felicity.\textsuperscript{140}

The foreigners have also recorded the importance of rain for agriculture in India in their records. Diodorus records a double rainfall in the course of each year; one in the winter season, when the sowing of wheat takes place as in other countries and the second at the time of the summer solstice, which is the proper season for sowing rice, bosporum, sesameum and millet.\textsuperscript{141} Strabo, quoting Eratosthenes, says that India is watered by the summer rains and that the plains become marshes. In the rainy season, flax, millet, sesameum, rice and bosmorum are sown and in the winter season wheat, barley and pulses are sown.\textsuperscript{142} Quoting Aristobulus, he says that only the mountains and their foothills have both rain and snow but the plains are free alike from rain and snow and are inundated only when the rivers rise.\textsuperscript{143} Nearchus, according to Strabo, does not agree with Aristobulus regarding the summer rains saying that the plains have rains in the summer but are without rains in the winter.\textsuperscript{144}

Apart from the natural sources of the irrigation, there were artificial sources in existence. Manu talks of wells, tanks, cisterns and fountains on the boundary lines which may have been used for irrigation.\textsuperscript{145} Kauṭilya, while referring to the good qualities of the country specifically mentions the country as a good country which does not depend upon rain for water. According to him
irrigational works (*setubandha*) are the source of crops, the results of a good shower of rain are ever attained in the case of crops below irrigated works.\textsuperscript{146} Patañjali acknowledges the requirement of periodical supply of water for the fields after sowing the seeds.\textsuperscript{147} The *Milindapañho* refers to well and artificial lake.\textsuperscript{148} Nārada mentions two types of dikes or water courses, one called *khaya*, which is dug into the ground and another called *bandhya* which prevents the access of water. A *khaya* dike serves the purpose of irrigation; a *bandhya* dike serves to keep the water off. He further states that no grain is ever produced without water but too much water tends to spoil the grain. An inundation is as injurious to growth as a dearth of water.\textsuperscript{149} Brihaspati states that that man will enjoy produce who sows fertile land, which has many holes and is wet, capable of irrigation, surrounded by fields on all sides and cultivated in due season.\textsuperscript{150} Viṣṇu considers the digging of dikes a meritorious act.\textsuperscript{151} In the *Mahābhārata* the construction of large tanks and lakes at proper distance are considered essential for the sake of agriculture.\textsuperscript{152}

Irrigation was specially taken care of during the Kuśāṇa period as we come across a large number of literary and epigraphic records referring to the irrigation facilities during the Kuśāṇa period.

Diodorus records that the greater part of the soil is well watered and consequently bears two crops in the course of the year.\textsuperscript{153} Megasthenes,\textsuperscript{154} Arrian,\textsuperscript{155} Diodorus\textsuperscript{156} and Strabo\textsuperscript{157} in their accounts record that India has been blessed with a large number of rivers. The major portion of the land, especially in the lower Gangetic basin and the valleys of the Peninsular India was watered the perennial rivers and streams etc. which largely contributed to the prosperity of the people. Patañjali mentions that the periodical supply of water for irrigation of the fields was done through canals.\textsuperscript{158} Strabō too talks about the closed canals.\textsuperscript{159} Kaṭhila has fixed the rates of water for irrigation. He says that those cultivators who cultivate irrigating by manual labour (*hastapravartimam*) shall pay (1/5 th) of the produce as water rate (*udaka bhāgam*); by carrying water on shoulders (*skandhapravartimam*), 1/4th of the produce; by water lift (*srotovamtrapravartmam*), 1/3rd of the produce and by raising water from rivers, lakes, tanks and wells (*nadisarasatātakākāpadghātam*), 1/3rd or 1/4th of the
produce.160 We also get references to the wells, tanks and reservoirs in the
Milindapañho,161 the Mahāvastu162 and the Buddhacarita.163

Apart from the literary sources, we have some epigraphic evidences
providing useful data on the irrigation in ancient India. King Khāravela of the
Ceta dynasty in the Hāthigumpha inscription (2nd half of the 1st c., B. C.) records a
canal to be brought to his capital from Tanasuli in the fifth year of his reign which
was originally excavated by the Nanda king.164 The Junagarh Rock inscription of
Rudradāman, belonging to the Kuśāṇa period, talks of the repair of the lake
originally built by the first Mauryan king Candragupta Maurya. The inscription
records that the lake had strong embankments and was suitably provided with
conduits and drains for proper distribution of water to the cultivated fields.165 The
Nasik Buddhist Cave inscription of Usavadata, son of Dimka and the son-in-law
of Nāhapāna, (c.2nd c.C.E.) refers to the arrangements made by him for the
distribution of waters of the rivers, Iba, Pārīda, Damaṇa, Tāpi, Karabēṇa and
Dāhanukā.166 The record is very significant from our study point of view as the
Kṣatrapas were the subordinate of the Kuśāṇas.

Along with these, we have various epigraphic records, belonging to pre-
Kuśāṇa and Kuśāṇa period, referring to tanks, wells and reservoirs. Aśokan Rock
and Pillar Edicts refer to digging of wells on highway at an interval of every half
a krośa (ardha krośa) from each other.167 In the Hathigumpha inscription, king
Khāravela talks of tanks and cisterns in Kalinga which he claims to have repaired
in the first year of his reign.168 An inscription from Mathurā, belonging to the
period of Mahākṣatrapa Śoḍāsa refers to the construction of a tank (pushkarini)
the western tank of the twin tanks and a reservoir (udapāna) by his treasurer.169
An inscription of year 8, referring to mahārāja rājātirāja śāhī Kaniṣka, mentions
the donation of a tank (pushirini) for the welfare and happiness of all sentient
beings.170 A colossal seated image Kaniṣka-1 has been found from Mathurā
bearing an inscription on the top of the base between the feet. It talks about the
construction of a temple (devakula), a garden (ārāma), tank (pushkarini) and a
well (udapāna).171 An inscription belonging to the time of Huviṣka refers to the
grandfather of Huviṣka who had constructed the temple (devakula) and the tank,
which are in disrepair and broken.172 Another inscription of the time of Huviṣka,
belonging to year 40, refers to a tank (пу́шака́рани). Aра inscription, belonging to year 41, during the reign of Кани́шка-II, records the digging of a well (ќа́па). In an inscription at Junnar, Ayama, the minister of the lord Нахапа́на, the great кшатра́па, is mentioned as having caused a tank to be dug. As far as the tanks, wells and reservoirs are concerned these may have been used as sources of water for drinking and other uses yet we cannot rule out their use for the purpose of irrigation too.

During the excavation of ancient sites, belonging to the Кушан period such as Satauj in district Sangrur (Панjab), Bras in district Patiala (Панjab), Mathurā in district Mathura (Uttar Pradesh), Hastināpura in district Meerut (Uttar Pradesh), Ayama in district Bareilly (Uttar Pradesh), Śringaverapura in district Allahabad (Uttar Pradesh), Śrāvasti in district Śrāvasti (Uttar Pradesh), Siswania in district Bastī (Uttar Pradesh), Mundiar in district Bastī (Uttar Pradesh), Hulas in district Saharanpur (Uttar Pradesh), Batesvar in district Agra (Uttar Pradesh), Raja Vishal- Ka- Garh in district Vaiśālī (Bihar) and Kolhua in district Muzaffarpur (Bihar) etc. we come across many wells, tanks and reservoirs which could have been used for the irrigation purposes. The construction of brick wells which were used for irrigation was an agricultural innovation attributed to the Кушанas.

Thus the irrigation was an important thing for agriculture. The state was directly involved in the creation, maintenance and control of the sources of irrigation. This is evident from the Arthaśāstra where the officers supervising the rivers were called nadīpāla. It further mentions that the superintendent of agriculture (śīrādhyaκaśha) used to exercise control over state owned irrigation works and collect revenue accruing from them. The rivers (nadi), lakes (saras), tanks (та́така) and wells (ќа́па) etc. were under his control as he used to levy taxes on them.

One more proof of government officials associated with the lakes and rivers we get from the history of Sudarśana lake with which many officials such as Pushyagupta, the viceroy of Candragupta Maurya, Yavanrajā Tuṣaspa, the
Protection of the crops, reaping of the crops and their storing were other important functions which the agriculturists had to perform. The literary works belonging to the Kuśāṇa period throw a welcome light on these functions. Patañjali states that the standing crop needed protection from animals, as well as from the robbers. For this there was the need for an overseer (chāvaka). A shadow figure, made of straw (chanchabhirāpah) was placed in the field to frighten crows and birds causing destruction to crops. Other dangers were from mole (ākhu), locust (śalabha) and hawk (śyena). When the crop was ready, reaping or cutting (lavana) with a sickle (dātra) was the next step. The reaper was called lāvaka who probably was an agricultural labourer.

The process of reaping is described in the Milindapañho. It is stated here that with the left hand the reapers grasp the barley into a bunch, and taking the sickle into the right hand, they cut it off with that. After the cutting of the crop, the produce was stored on the threshing floor according to Patañjali. Manu also refers to the threshing floors. Patañjali states that to separate the grain from the chaff, a winnowing fan (śūprā) was used by the winnower (tanḍulīka) who possibly was a labourer.

After the separation of the grain from the chaff, storing of the grain was the next step. Manu talks of the granary. Patañjali states that the grain after separation from the chaff was stored in a granary, called koshṭha or kuśāla. Grain was stored in jars and a person so doing was called kumbhidhānya. Regarding the storing habits of people, Milindapañho refers to a rich man, great in wealth and property, one who had stores of all kinds of wheat, rice, paddy, barley, dry grain, oilseed, beans, peas, edible seed, ghee, oil, butter, milk, curds, honey, sugar and molasses and put away in store rooms in jars, pots, pans and every sort of vessel.

During the excavations at Taxila, Marshall has found many agricultural implements of iron such as spades, hoes, weeding forks and sickles etc. Various stone objects such as pivot stones, querns, mullers, grinding-mills, pestles and
mortars etc. have also been excavated from Taxila. A scene of a farmer belonging to around c. 200 CE, ploughing with the bullocks has been depicted in the Gandhāra relief. A number of agricultural implements such as blade-harrow (bhakhar), sickles with curved blades, iron trowels, possibly used as hoes have been discovered from Sāñci.

**Types of land**

The land with its various types has been referred to in the *Arthaśāstra* and other literary sources belonging to the Kuśāna period. The land of a village has been divided or categorized by Kauṭilya into many categories such as cultivated (krṣṭa), uncultivated (ākrṣṭa), plains (sthala), wet lands (kedāra), grove (ārāma), vegetable gardens (ṣanḍa), fences (vāta), forests (vāna), area covered by houses (vāstu), caitya (?), temples of gods (devagrha), irrigation works (setubandha), cremation grounds (śamaśāna), alms-houses or feeding houses (sattra), places where drinking water is supplied (prapā), sacred spots (puṇyasthāna), pasture grounds (vivita) and roads (pathi) etc. Manu too has referred to barren land, pasture land, kṣetra, tilled (kṛta) and untilled (akṛta) lands, jāṅgala (gangalah) i.e., land having an open and a dry climate with little water but having abundance of grain etc. Patañjali mentions various types of lands. He says that the arable land was called kṣetra which was carefully measured off and fit for cultivation. He mentions pasture lands (gocara), barren land (ūśara) and the wet land (kedāra) etc. The area brought under cultivation, according to him was known as halyā or sīyā. The *Mahāvastu* too mentions such types of lands.

The terms such as kheta, kṣetra or kheticīya has been referred to many a time in various inscriptions belonging to the period of our study. In these epigraphs it is generally stated that such and such field (kheta) is being donated for the maintenance of monks and ascetics residing in the nearby monasteries. It appears to be a fertile land as has been indicated in various other literary works such as the *Gautama Dharmasūtra*, the *Arthaśāstra* and the *Manusmṛti* etc. The arable land (kṣetra) was most preferred land than others. Kauṭilya states that a limited tract of land with water is far better than a vast plain as the former is conducive to the growth of crops and fruits throughout the year. Akriṣṭa, āśara,
anurvarā, bhauma and khila etc. terms were used usually for uncultivated, barren, fallow, dry and salty types of land.\textsuperscript{218} This type of land was not under plough for a certain period.

Kauṭilya refers to the forest land. The forests, according to him are used for pastures, soma plantation by a brāhmaṇa for religious learning, for the performance of penance, for king’s sports etc. The forests were also reserved for timber and elephants.\textsuperscript{219} These tracts, if required, could have been used for cultivation after making them fit for it.\textsuperscript{220} The other types of lands such as rocky, miry, uneven, desert and full of pebbles etc. were not fit for cultivation.\textsuperscript{221} The term pārvata in the Arthaśāstra denote upland or high ground.\textsuperscript{222} These uplands were suggested by Kauṭilya to be used for habitation during rainy season.\textsuperscript{223} The pasture lands were usually in the outskirts of the village which were used for the grazing of cattle.\textsuperscript{224}

Thus the land had been categorized into various categories on the basis of vegetation, climate, human utilization, cultivation or fertility etc.

**Land Ownership**

Various theories have been put forward by various scholars to sort out the problem regarding the question of the ownership of land in ancient India. Different types of ownerships of land such as private, royal and communal etc. have been discussed by the scholars. The following discussion will show that all the three types prevailed during the period of our study though with certain variations as to their applicability.

**Private Ownership:** The concept of the private ownership of the land has its genesis in the Vedic Period. A hymn in the Rgveda states that wide fields, vast treasure, (spacious) pastures has the much-knowing (Indra) bestowed upon his friends; the radiant Indra with the leaders (of rites, the Maruts) generated the Sun, the dawn, the earth and fire, bestowing the wide fields, vast treasure and pasture upon his friends is the indication of the private property received by the fellows who were friends of Indra.\textsuperscript{225} later the Āpastamba Dharmasūtra states that if a person who has taken (a lease of) land (for cultivation) does not exert himself, and hence (the land) bears no crop, he shall, if he is rich, be made to pay (to the
owner of the land the value of the crop) that ought to have grown. The land here is mentioned as the property of an individual. There is another reference in the same text where it is referred that a land owner could let his land possibly on rent or a share of the produce. A legal son, according to the text can inherit the landed property of his father. Various rules have been laid down in the text to safeguard the rights of legal or lawful owners to the property.

The Gautama Dharmasātra mentions that a man becomes owner by various ways such as by inheritance, purchase, partition, seizure or finding etc. The text recommends that the property of infants must be protected until they attain their majority or complete their studentship. The reference to the private ownership of land is further indicated in the Gautama Dharmasātra when it is said that if the cattle, attended by a herdsman have done the damage in an enclosed field near the road, the responsibility falls on the herdsman and on the owner of the field. The text further states that the property of a person who is neither an idiot nor a minor, having been used by strangers before his eyes for ten years, belongs to him who uses it. It too has laid down various rules regarding the inheritance of property by the lawful successors (owners) and the partition of the property was regarded as an increaser of spiritual merit.

Kautilya advises the king to keep away from hurting the property of others. He refers to the right of ownership. Elaborate rules have been laid down by him regarding the division of inheritance and shares of a particular person and special shares in inheritance. He makes it the duty of the king to see that a man should divide his property among his sons before becoming an ascetic. If he does not, he should be punished. It is suggested by him that the king shall beneficially distribute among others those holdings which have no boundary marks or which have ceased to be enjoyed by one person. The disputes concerning shall be decided by elders of the neighborhood village. If they failed to decide, the holding under dispute shall be taken possession of by the king. In case of a holding for which no claimant is forthcoming, it may be taken possession of by the king or it may beneficially be distributed among the people. Occupation of a holding by force shall be punished as theft. If a holding is taken possession of by another on some reasonable grounds, he shall be made to pay to...
the owner some rent, the amount of which is to be fixed after mature considerations of what is necessary for the subsistence of the cultivator of the holding by him.\textsuperscript{242}

Kautilya has framed elaborate rules regarding the sale and mortgage of land. He states that the tax payers shall sell or mortgage their fields to tax payers alone. Brāhmaṇas shall sell or mortgage their brahmadeya or gifted lands only to those who are endowed with such lands.\textsuperscript{243} If a person cultivates an inalienable land of another person who does not cultivate it, such a person shall restore the same after five years enjoyment on taking a certain amount of compensation equivalent to the improvement he made on the lands.\textsuperscript{244} Persons who are not tax payers and who sojourn abroad shall retain the right of ownership of their land.\textsuperscript{245} He says that if the owner of the property has quitted his country where his property lies, he shall continue to have his little to it. But if the owners except the minors, the aged, those afflicted with diseases or calamities and those living abroad etc., neglect their property for ten years and allow others to use it without taking any legal steps to recover the same, their rights to ownership are ceased.\textsuperscript{246} All these references from the Arthasastra fully recognize the concept of the private property.

The literary works corresponding to the Kuśāṇa period such as the Manusmṛti, the Yājñavalkyasmṛti, the Viṣṇusmṛti, the Mahāvastu, the Milindapañho etc. as well as the epigraphic records belonging to the Kuśāṇa period too recognize the concept of the private property. Manu, referring to the sages states that a field belongs to whom who cleared away the timber and a dear to him who first wounded it.\textsuperscript{247} He too advises the king to protect the inherited and other property of a minor, until he has returned from his teacher’s house or until he has passed his minority.\textsuperscript{248} He prescribes seven lawful modes of acquiring property such as inheritance, finding or friendly donation, purchase, conquest, lending at interest, the performance of work and the acceptance of gifts from virtuous men.\textsuperscript{249} He has specifically laid down the rules to safeguard the rights of the lawful owners to property and division of property among them as the separation was meritorious.\textsuperscript{250} A gift or sale of property made by anybody else but the owner, must be considered as null and void, according to the rule in judicial
proceedings where the possession is evident, but no title is perceived, there the title shall be a proof of ownership, not possession; such is the settled rule. He who obtains a chattel in the market before a number of witnesses, acquires that chattel with a clear legal title by purchase.251

The protection of the property was one’s own responsibility. Manu in this regard states that the owner of the field shall make there a hedge over which a camel cannot look and stop every gap through which a dog or a boar can thrust his head.252 If the owner of the field has done all this but still the damage has been in that case each head of the cattle shall pay a fine of one pana and a quarter and in all case the value of the crop destroyed shall be made good to the owner of the field; that is the settled.253 Setting up of the boundaries is a clear indication of private property.

There are various references to the owner of the field, his position and rights in the Manusmrti. A man is said to be the owner of the fields, wells, tanks, gardens and houses etc.254 These rights could be ceased under certain circumstances. Manu, like Kautilya, too states that in general whatever chattel an owner sees enjoyed by others during ten years, while, though present, he says nothing, that chattel he shall not recover. If the owner is neither an idiot nor a minor and if his chattel is enjoyed by another before his eyes, it is lost to him by law; the adverse possessor shall retain that property.255 Regarding the donations Manu states that the acceptance of an untilled field is less blamable than that of a tilled one.256 Thus Manu provides ample evidences of the private ownership of land.

There occurs a reference in the Mahāvastu which talks of the private ownership of the land. It states, “What if we were now to divide the rice fields and set boundaries to them? Let us allot this field to you and this to ourselves.” 257 The text too lays down the rules to safeguard the rights of the lawful owners to property.258 The Milindapañho too acknowledges the system of private ownership.259 Yājñavalkya opines that enjoyment of a certain property at least for three generations constituted legal ownership. The possession according to him is valid only when it is accompanied by a clear title.260 Sale, mortgage, gift of land
and setting up of the boundaries are associated with the ownership of land.\textsuperscript{261} He also lays down certain rules to safeguard the rights of lawful owners to property.\textsuperscript{262} But the enjoyment of land by force was held null and void.\textsuperscript{263} He, however, has extended the period of adverse possession to twenty years. He states that the right of a person to a land (immovable property), when he (the owner), seeing his property encroached by another, does not question or does not take any legal steps to recover it, extends over twenty years and the right in such a case for movable property is limited to ten years.\textsuperscript{264}

Viṣṇu advises the king to protect the property of minors, of blind, lame or other helpless persons who have no guide, and of women without a guardian.\textsuperscript{265} Regarding the possession and inheritance of the property, he states that where land or other property has been held in legitimate possession by the father or grandfather, the son’s right to it, after his death, cannot be contested for it has become his own by force of possession. If possession has been held of an estate by three successive generations in due course, the fourth in descent shall keep it as his property, even without a written title.\textsuperscript{266} What according to him has been possessed in order and with a legitimate title such as purchase, donation and the like, the possessor may keep; it can never be taken from him.\textsuperscript{267} But in regard to wealth inherited of the paternal grandfather, the ownership of father and son is equal. Sons who have separated from their father, should give a share to a brother who is born after partition.\textsuperscript{268} His reference to the unenclosed field indicates towards the setting up of the boundaries to one’s private property.\textsuperscript{269}

Nārada refers to three types of pure wealth such as property obtained by inheritance, gifts made out of love and what has been obtained with a wife as her dowry etc.\textsuperscript{270} But mere possession, according to him, is not sufficient to create property right. In his opinion where there is enjoyment but no title of any sort, there a little is required in order to produce proprietary right. A clear title having been produced, possession acquires validity. Possession without a clear title does not make evidence of ownership. He, who can only plead possession without being able to adduce any title, has to be considered as a thief, in consequence of his pleading such illegitimate possession. He, who enjoys without a title for ever so many hundred years, the ruler of the land should inflict on that sinful man the
punishment ordained for a thief. The last rule, however is contradicted by Nārada himself. He states that when possession has been successively held even unlawfully, by the three ancestors of the father of the present possessor, the property cannot be taken away from him, because it has gone through three lives in order.

Bṛhaspati has also mentioned almost same rules regarding property. According to him immovable property may be acquired in seven different ways, i.e., by learning, by purchase, by mortgaging, by valour, with a wife (as her dowry), by inheritance (from an ancestor) and by succession to the property of a kinsman who has no issue. He states that it is not by mere force of possession that land becomes a man’s property, a legitimate title also having been proved, it is converted into property by both (possession and title), but not otherwise. He further states that not to possess landed property, not to show a document in the proper time, and not to remind witness (of their deposition). This is the way to lose one’s property. The acquirer of landed property should establish the written title under which he is holding it. His son should establish the fact of possession only. If the father has been impeached in a court of justice, the son also should be required to prove the written title. Therefore evidence should be preserved carefully; if this be done, lawsuits whether relating to immovable or movable property are sure to succeed.

Immovable property obtained by a division of the estate among co-heirs, or by purchase, or inherited from a father or other ancestor, or presented by the king is acknowledged as one’s lawful property; it is lost by forbearance in the case of adverse possession. He who is holding possession of an estate after having merely taken it, occupying it without meeting with resistance, becomes its legitimate owner thus; and it is lost to the owner by such forbearance. He, whose possession has been continuous from the time of occupation, and never been interrupted for a period of thirty years, cannot be deprived of such property. A house, field, commodity or other property having been held by another person than the owner, is not lost to the owner by mere force of possession, if the possessor stands to him in the relation of a friend, relative or kinsman. Brihaspati further lays down that when enjoyment of property extending over
three generations has descended to the fourth generation, it becomes legitimate possession, and a little should never be enquired for. When possession undisturbed by others has been held by three generations in succession, it is not necessary to produce a title; possession is decisive in that case. The Śānti Parva of the Mahābhārata too contains references to the private ownership of the property.

We have some epigraphic evidences of the private ownership of land belonging to the Kuśāṇa period. In an inscription from the Nasik Cave, it is recorded that Dhamanandin, son of the lay worshipper Bodhiguta has donated a cave and a field in western Kaṇhahini for ascetics with its income from its produce. In another instance Uṣavadāta, the son-in-law of Nahapāna is referred to have purchased a field from a Brāhmaṇa for four thousand Kaṇhapanas. The epigraphs are significant as they were issued by the Ksatrapas who were subordinates of the Kuśāṇas for some time.

Both these references proving the purchase, sale, transfer and donation etc. give an impression of the private ownership of land.

Royal Ownership: Numerous literary and epigraphic records corresponding to the Kuśāṇa period testify the existence of royal ownership of land. Initially, as Mnaus has stated and we have discussed earlier that the right to individual property or private ownership was derived from the occupation of land. With the passage of time when the population increased, agriculture became more settled and advanced a demand for certain rules and laws which shall govern and safeguard was perhaps felt. That’s why the law givers framed certain laws and regulations regarding the ownership of land. To implement these laws and to protect the owners an absolute power was required which was filled by the king. Who was considered as the absolute lord of the soil?

The king’s claim of a tribute (bali) from the people of his state and his share in the villages, horses and cattle etc. in the Vedic Literature indirectly indicates his authority over movable and immovable property. Gautama states that the king is the master of all, with the exception of brāhmaṇas. Mnaus also calls him the lord of the soil. Bühler interprets it as the king is the lord of the
earth and the ownership of all land is vested in the king.\textsuperscript{287} In the \textit{Mahabh\ärata} there is a similar reference where it is said that all property belongs to the king except that of the \textit{brāhmaṇas} and he can confiscate anybody’s wealth.\textsuperscript{288} But from these references we cannot definitely say that the whole land of the kingdom or state was the property of state or it was under the royal ownership.

Diodorus states that the husbandmen pay a land tribute to the king because all India is the property of the crown and no private person is permitted to own land.\textsuperscript{289} Strabo too mentions that the whole of the country is of royal ownership and the farmers cultivate it for a rental in addition to paying a fourth part of the produce.\textsuperscript{290}

The statement of both Diodorus and Strabo are almost similar to that of Megasthenes when the latter states that the whole of the land is the property of the king, and the husbandmen till it on condition of receiving one-fourth of the produce.\textsuperscript{291} R. C. Majumdar, however, contradicts with Schwanbeck and McCrindle on the point that the work of Diodorus according to both of them is an epitome of Megasthenes.\textsuperscript{292} There may be some similarities or differences in the works of Diodorus and Megasthenes but here on the point of the second case and the ownership of land, Diodorus appears to have very closely followed Megasthenes. Arrian, however, has skipped the question of ownership of land. He merely refers to the tillers as the second caste that used to cultivate the soil and pay tribute to the kings and the independent cities.\textsuperscript{293} From his work \textit{Indika} it appears that he too has followed Megasthenes regarding the caste system in India.

To Follow Megasthenes means talking of the Indian society, economy and polity during the Mauryan period. Kauṭilya, who was contemporary to Candragupta Maurya, has dealt with political and socio-economic scenario of the period quite elaborately. His references may sort out the confusion created by the statements of the foreigners. He has very specifically referred to the crown lands\textsuperscript{294} and private lands\textsuperscript{295} which indicate both royal and private ownership of land. It appears that they may have referred to the crown lands.

The unoccupied waste land was under crown or state as Kauṭilya states that the king shall make provisions for pasture grounds on uncultivable lands.\textsuperscript{296}
He further states that the lands prepared for cultivation shall be given to tax paying and unprepared lands shall not be taken away from those who are preparing them for cultivation. The lands may be confiscated from those who do not cultivate them and given to others; or they may be cultivated by village labourers (grāmabhṛtaka) and traders (vaidehaka) lest those owners who do not properly cultivate them might pay less (to the government). Shamasastry corrects it as those who do not cultivate well shall pay the loss.

The village overseer, supervising the work in the fields in the Mahāvastu indicates the royal land. In the Mahāvastu the king is held responsible to protect his kingdom comprising towns and countryside and make his realm prosperous, developed and populous by arranging rightly for the protection of his people through righteousness. The Milindapañho states that when a man clears away the jungle, and sets free a piece of land, and the people use the phrase: “that is his land.” But that land is not made by him. It is because he has brought the land into use that he is called the owner of the land.

The king, according to Kautilya could construct villages on new sites. The forests which fetched timber and elephants and were used for royal hunting were also under state’s ownership.

The disputed lands over which no agreement could be reached despite various methods and the holdings for which no claimant is forthcoming could be held by king into his possession. Our ancient law givers too suggest that the king may take the ownerless property of all the caste except that of the brāhmaṇa into his possession. The treasure troves are also called the property of the king or he used to get a certain share in that property.

P. V. Kane states that Manu provides that in ancient treasure trove found underneath the ground and in mines, the king is entitled to a share because he affords protection and because he is lord of the earth. This, according to Kane, militates against the view that the king is the owner of all lands; since if that were so, Manu would have declared that the king took all the mines and treasure trove.
in a cultivated field. Manu prescribes a fine for a cultivator not cultivating the field in time or allowing the crops to be eaten up. But this would not make the king the owner, since the fine is imposed because the king is deprived of his share of taxes by the action of the cultivator. All these passages show that Mna held that the ownership of arable land was in the cultivator himself and the king was only entitled to demand a certain share of the produce (which is designated as bhāga or kara by Manu. This is further supported by the conduct and practice of powerful but good kings who purchased lands from their holders when they wanted to donate lands already cultivated. It may be conceded that the land that was waste or not cultivated by anybody was deemed to belong to the king.

Various epigraphic records, belonging to the Kuśāṇa period also testify the ownership of the property by the state. The Nasik Cave inscriptions of Uṣavadāta (c. 2nd century CE) record the donation of villages to the brāhmaṇas. The Nasik Cave inscription of Gautamiputra Sātakarni records the donation of a field belonging to the king in the village of western Kakhaḍi which means there were fields in the same village which belonged to others also. Another inscription of Gautamiputra records the donation of a field from the royal village of kakhaḍi to the ascetics. It mentions a grant of 100 nivartanas of crown land from the above said royal village. The Nasik and Karle Cave inscriptions of Vāsiṣṭhiputra Pulumāvi (c.123-147 CE) record the donation of the village to the monks. The Mallavalli Pillar inscription of Vishnukadḍachuṭu Sātakarni II (end of 3rd century CE). The donees enjoyed the revenues accruing from such grants.

**Communal Ownership:** Regarding the question of the communal ownership of land, Keith and Macdonell are of the opinion that neither the communal property in the sense of ownership by a community of any sort, nor is there mention of communal cultivation in the Vedic literature. There is however reference to the herdsman who used to take care of the cattle and take them to the pasture lands for grazing. But in our period of study as discussed earlier, they were under the control of the state. In the Jātakas there is a reference to the tribal land held in common and the uncleared and waste land and the forest land used by the villagers in common.
The *Arthashastra* refers to an agreement between two parties to colonize a waste land. It is termed as interminable agreement. He further talks of the agreement between two parties to colonize a fertile land, reaping the harvest earlier and over-reaches the other. In case of violation of the agreement the lands could be resumed by the state and given to others for colonization. The chances of the failure of agreement were due to the fact that the colonization required a large amount of men and money. Kautilya states that the king shall make provision for pasture grounds for grazing cattle. Manu, Yajñavalkya and Viṣṇu also make provision for the common pasture ground which are indivisible. Regarding the disputes over landed property, Manu, Nārada and Brīhaspati state that these were settled on the evidence and division of the neighbours and the elders of that district. This was due to the fact that these people were well acquainted with the boundaries and titles etc. of the disputed land. This may be considered as the consent of the village which gives an indication of the communal property.

Kautilya refers to the works of public utility such as reservoirs, roads, temples etc. He calls them the co-operative constructions (*sambhuya setubandhāt*). Strabo, while quoting Nearchus, states that there were certain tribes in the north-west who used to cultivate the crops in common on the basis of kinship and when they collect the produce, they each carry off a load sufficient for sustenance during the year but burn the remainder in order to have work to do thereafter and not be idle.

Thus it appears that the three types of ownerships existed in India during the period of our study. K. P. Jayaswal, rather opined that it was private ownership of land which actually prevailed in ancient India. He said this on the basis of *Mīmāṃsā-sūtra* of Jaimini and the commentary of Śabara-Svāmin. He also argued on the basis of a reference of Bhaṭṭa Śvāmin, a commentator of the *Arthaśāstra*, that the king is the protector and not the owner of the soil. But this has already been refuted by U. N. Ghoshal and A. L. Basham. Ghoshal, in this regard states that three out of the texts quoted by Jayaswal to disapprove the kings ownership of the land do not support this case, but prove just the contrary. The seeker of the truth need not indulge in the hasty generalization, doubtless
prompted by political prejudices, that agricultural land in India has always belonged to the crown, nor should be considered it as ‘sacrilege’ to be told that the theory of the king’s ownership of land was not altogether unknown to some schools of Hindu legal opinion. Basham too argued regarding the right of the individual ownership that most of the villagers were free peasants and their land was to all intents and purposes their own, though the king claimed its ultimate ownership.

U. N. Ghoshal talks of the villages in which the land was held in collective ownership by the tribe or the clan. Such types of villages according to him were already in existence among the non-Vedic people. Among the Indo-Āryans, however, the arable land in the village and doubtless the homestead lands as well were held in individual or family ownership, while the grass lands were probably held in common. R. G. Basak is in favour of the corporate ownership of the land by the villagers. He refers to three grants of East Bengal which Pargiter has categorized into three categories (1) individual private ownership in plate “B”, (2) joint family ownership in plate “C”, and (3) joint village ownership in plate “A”. On the basis of these plates Basak argues that in plate “A” it is recorded in very clear terms that the one sixths of the proceeds of the transactions will go to the state according to the law. This, according to him, seems that the remaining five sixths of the price used to go to the funds of the village assemblies.

Majumdar and Altekar agree with Basak. Majumdar opines that the absolute proprietorship of the village lands rests with the village corporations. Altekar states that the cultivable land was owned by private individuals. The state could not dispossess them, but could only direct them to pay the usual taxes to the donee. The fallow and waste lands belonged to the state, but their disposal was made with the assent and through the agency of local village Pañcāyat or town council. In several villages, the state owned small fields of cultivable land which are expressly described a rājyavastu, i.e., crown lands or the property of the state. These fields used to come under the state ownership usually on account of want of heirs or failure to pay the land tax. Kings often are seen granting them in charity.
Although the above discussed plates belong to a late period yet they are significant as they refer to a system which might has evolved through the ages. The statement of Altekar talks of the Gupta period but is quite significant from our point of view of the ownership of land as the system was in continuity since a long period.

Thus from the literary and epigraphic records of the period under discussion it is evident that the concept of individual or family, communal and royal ownership of land seems to have gone hand in hand for a long time in ancient India and this too applies to the period of the Kuśāṇas as the literary and the epigraphic sources belonging to their period throw light on this issue.

**Land tenure**

We have discussed the types of ownership of land in detail which prevailed in India during the period under discussion. Now we shall be discussing the land tenures. The term “tenure” is derived from the Latin word “*teneo*” which means “to hold”. The term “land tenure,” therefore, is used to refer to the terms and conditions on which the land lords hold land from the state, such as, whether they are recognized as complete owners or not and how much annual payment they have to make to the state. Such tenures are called proprietary tenures. Secondly, the terms and conditions on which the actual cultivator takes out land from the land lord. These are called cultivation tenures.333

The peasant proprietorship prevailed in ancient India. The hereditary occupation of landed property was generally the prevailing practice in the settled and organized villages. The people were allowed to use the adjacent waste land which to all intents and purposes, remained the property of the crown. The joint tenure system, along with this was also prevalent as is evident from the records of the Greek writers and the *Arthaśāstra* of Kautilya.

The state as stated earlier, had both direct and indirect rights over the lands in the realm in ancient India. It used to donate land to the various types of donees out of the land under its direct control. The direct and indirect rights of the state over the land appear to have caused the various systems of the land tenure came into prevalence.
We possess some literary and epigraphic records which provide valuable information regarding the system of land tenure during the Kuśāṇa period. Various terms such as brahmādeya, ātithya, āyudhīya and akṣayaṇīvī etc. have been referred to in the literary and epigraphic sources of the period under review.

The brahmādeya lands granted to the brāhmaṇas were exempted from taxes and fines. Kautilya states that those who perform sacrifices (ṛtvik), spiritual guides, priests and those learned in the Vedas shall be granted brahmādeya lands yielding sufficient produce and exempted from taxes and fines (adaṇḍkarāṇī). He further mentions that brāhmaṇas shall sell or mortgage their brahmādeya or gifted lands only to those who are endowed with such lands. The statements of Kautilya make it clear that the brāhmaṇas were the owners of the brahmādeya lands possessing the rights of sale, gift and mortgage etc. but they were not the absolute owners. They could only sell or mortgage the lands within their caste community. This status of the ownership has also been referred to in the epigraphic records. The Nasik and Karle Buddhist Cave inscriptions of Uṣāvadāta (c. 2nd century CE) record the gift of a number of villages to the brāhmaṇas.

The term ātithya in the Arthaśāstra has been explained as the land gifted to the officials for public charities and pious acts. The term occurs with the brahmādeya. U. N. Ghoshal traces the continuity of this type of revenue free land even with Muhammadan times when, according to him, it was the frequent practice for rulers to grant small holdings of land free of revenue for the support of mosques, schools, bridges or tanks and these grants etc. which were usually hereditary and permanent as long as the object of their endowment was observed.

Āyudhīya refers to the lands granted on condition of a regular supply of troops. Ghoshal suggests that the term āyudhīya which figures in the revenue-roll of the samāharta is usually taken to refer to the contribution of troops supplied by the villages concerned.

The term akṣayaṇīvī has been referred to in various epigraphic and literary records of the Kuśāṇa period. The term nīvī has been interpreted differently by various scholars. K. P. Jayaswal considers it a technical term referring to Hindu
secretarial practice. To him it means a dispatch, document, record or file and *aksayanivi*, according to him is a kind of permanent document. The views of Jayaswal have been refuted by R. G. Basak. He, on the basis of references of Kauṭiliya quoted by Jayaswal and on the basis of the several literary and epigraphic references including the explanations given by Amarsimha and Hemcandra concludes *nīvi* means permanent endowment. The term *aksaya* literally means indestructible or perpetual. Hence the lands or money endowed according to this principle could not be destroyed in any circumstances. Kielhorn interprets this term as permanent endowment and his interpretation is being supported by Bühler and Barnet.

In such type of endowment the grantee could not destroy the principle land or money, but had to make use of income accruing from it.

Various epigraphic records belonging to the Kuśāṇa period refer to this land tenure. It is evident from the Mathurā stone inscription of Huviśka of the year 28 which refers to two gifts to a hundred *brāhmaṇas* one of the *punyaśālā* and the other of 500 *purāṇas*, according to the *aksayanīvi* system. In the Nasik Buddhist Cave inscription of Uṇavadāta, perpetual endowment of 2000 and 1000 *kārṣāpaṇās* were made to two different guilds of weavers for the cloth money and the expenses for outside life of the Buddhist monks of any sect or origin. The record says that the *kārshapanas* were not to be repaid and only the interest was to be enjoyed by the donees. In the same way the Nasik Buddhist Cave inscription of Vāsiṣṭhiputra Śrī Pulumāyi (c.142 CE) records the donation of a village to the *bhikṣus* dwelling in the Queen’s Cave for producing perpetual rent for the care of the cave. The donees had rights of enjoyment and the state relinquished many administrative privileges to them. But they did not have powers to transfer, sell and destroy the tenure.

Apart from the royal houses we have numerous references to the money endowments on *aksayanīvi* tenure made by the lay worshippers. The Nasik Buddhist Cave inscription, for example, records a perpetual endowment of a cave (*lena*) by the merchant (*nēkama*) Rāmaṇaka to the community of monks (*bhikṣusamgha*) along with 100 *kārṣāpaṇās* as cloth money to the ascetics.
The Junār Buddhist Cave inscription records the gift of a cave (lēna) and a cistern (pōdhī) by Patibadhaka Giribhūti Sakhuyāru and endowment of these establishments and the nunnery (bhikkhunīupasaya) of the Dharīmutariya (dharmottariya) in the town (nakara). The inscription seems to mention also a nunnery of Śivapālitanikā (Śivapālītā), wife of Giribhūti, in the town. The Kuḍā Buddhist Cave inscription records the gift of a capital invested in the Cemḍīna field for the expanse of lams to Buddha. Kanheri Buddhist Cave inscription records the gift of a cave (lēna) and a cistern (pōdhī) and endowment of a field in the village (gāma) of Saphāu for the support of the monk and repairs of the porch (maṭapa) and the pavāḍa (?) by a merchant (nēgoma) Isipāla. Another Kanheri Buddhist Cave inscription records the gift of a cave (lēna), a hall (kodhi) on the mount Kṛṣṇāśāla and an endowment with money and the field of a half-pana-owner (āḍhapanaḥkhetiya) in the village (gāma) of Magalathana (Maṅgalasthāna) by the lay worshipper (upāsaka) Aparēṇu, the son of Aṇada (Ānanda), a merchant and his family. A number of inscriptions in the Junār Buddhist Cave record the donation of fields for plantation of different types of trees such as karāṇja, banyan, jambu, palmyra, sāla and mango etc.

Thus it appears that the land tenures discussed so far were in practice in the Deccan, Western and Northern India during the period of the Kuṣāṇas.

**Land survey**

The land survey becomes essential mainly for two reasons. Firstly for appropriate assessment of the land revenue and secondly to avoid the boundary disputes. Kautilya has mentioned it in a very great detail. While referring to the survey of the land and setting up the boundaries, he directs the revenue collectors that by setting up the boundaries to the villages, by numbering plots of grounds as cultivated, uncultivated, plains, wet lands, gardens, vegetable gardens, fences (vāta), forests, altars, temples of gods, irrigation works, cremation grounds, feeding houses (sattrā), places where water is freely supplied to travelers (prapā), places of pilgrimage, pasture grounds and roads, and thereby fixing the boundaries of various villages, of fields, of forests, and of roads, he shall register gifts, sales, charities and remission of taxes regarding fields. Regarding the
boundaries, he states that the boundaries shall be denoted by a river, a mountain, forests, bulbous plants (grsti), caves, artificial buildings (setubandha), or by trees such as sālmali (silk cotton tree), šami (acaciasuma) and kṣravrksa (milky tree) etc. Manu too states that the boundaries of the villages should be marked by the trees, shrubs, bamboos of different kinds, samis, creepers and raised mounds, reeds, thickets of Kabgaka, tanks, wells, cisterns, fountains and temples etc.

Regarding the boundaries of the individual fields, Manu states that the stones, bones, cow’s hair, chaff, ashes, pot-sherds, dry cow dung, bricks, cinders, pebbles and sand etc. should denote the boundary. Yājñavalkya states that the boundary should be determined by elevated lands, charcoal, chaff, huge trees, bridges, out hills, ditches, bones and piles of stones etc. Nārada and Brhaspati too recommend that by wells, tanks, pools, large trees, gardens, temples, roads, mounds, channels, the course of a river, slopes, reeds, shrubs, piles of stones, dry cow dung, bones, chaff, charcoal, stones, pot-sherds, sand, bricks, cow’s tail, cotton seeds, ashes and hills etc. A boundary line should always be caused to be marked. Brhaspati states that the determination of boundaries should be settled at the time of foundation and it should be marked by visible and invisible signs so as to dispel doubts.

The epigraphic records, belonging to the Kuśāna period also refer to such types of boundaries. The Junar Buddhist Cave inscription (c.1st century CE) records the donation of the field located to the east of mount Mānamukaḍa and another field within the boundaries of a town. The Nasik Buddhist Cave inscription of the queen Gautami Balaśrī, belonging to the period of king Vāsishthiputra Śri Pulumāyi (c. 142 CE) records the donation of a village Pisājipadara (Piśacipadraka) on the south-west side of mount Tiranhu (Trirāśmi). The Nasik Buddhist Cave inscription of king Gautamiputra Satakarni (c.123 CE) records the donation of a field in the village of Kakhadi at Govardhana on mount Tranhu (Trirāśmi). Uṣavadāta is said to have donated a field on the boundary of the town towards the north-western side.

Thus the boundaries of the plots or fields and villages were properly marked in order to distinguish the land held by different owners. Gautama and
Manu talk of partition or separation of property which they consider meritorious. Thus it appears that the boundaries were considered sacred also. They were not to be violated. Any violation was severely dealt with. Kauṭilya prescribes a fine of 1000 *panās* on the misleading or guilty person. Manu advised the king to make the person pay the middle most amercement as a fine if he gives false evidences. Yājñavalkya states that if the settlement of the boundary proved false each implicated person should be punished by the king with the second of the three penalties, i.e., with a fine of five hundred forty coins. He further states that in case of the destruction of landmarks, transgression of the boundary lines and misappropriation of fields, one should be punished with the lowest, middling and highest penalty. Viṣṇu states that the destroyer of landmarks shall be compelled to pay the highest amercement and to mark the boundary anew with landmarks. Nārada and Brihaspati too prescribe the fines on the false evidences and destroying the landmarks.

From these texts, it appears that the disputes over the boundary were very common. These disputes were resolved by the neighbours, the village elders, the members of the same community, the guilds and corporations and the outsiders normally having full acquaintance with the place etc. if the disputes could not be resolved by them, the boundaries were fixed by the king himself. The proper account of the villages and districts was maintained. Kauṭilya, for example states that after setting up the boundaries to the villages, by numbering the plots of grounds, it is the duty of the *gopa*, village accountant, to attend to the accounts of five or ten villages and likewise of a *sthānīka*, district officer to attend the accounts of one-quarter of the kingdom. The land survey appears to have continued since a long time even before the compilation of the *Arthaśāstra*. The *Kurūdharma-Jātaka* tells us the story of measuring of the field by a driver (*rajjugāhaka amacca*) an official. It says that the driver one day was measuring a field. Tying cord to a stick, he gave one end to the owner of the field to hold and took the other himself. The stick tied to the end of the cord which he held came to a crab’s lurk hole. He then thought that if he puts the stick in the hole, the crab in the hole will be hurt; if he puts it on the other side, the king’s property will lose;
and if he puts it on this side, the farmer will lose. Kāma-Jātaka refers to the king’s officers coming to the village for taking a survey of the fields.

Thus these references show that proper arrangements were made to survey the fields and it was particularly taken into account that neither the king nor the peasant should suffer the loss.

**Land Measurement**

The literary and epigraphic sources belonging to our period of study provide a valuable data regarding the different linear measures used by the people as well as by the state. The smallest unit of length is a *paramānu* the atomic length. It is 1/8th of an *āṅgula*, i.e., of an inch approximately. The *Arthasastra* gives a detailed account of the linear measures of different types. It has given the following table of measures:

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 atoms (paramāṇavah)</td>
<td>1 particle thrown off by the wheel of a chariot</td>
</tr>
<tr>
<td>8 particles</td>
<td>1 likṣā</td>
</tr>
<tr>
<td>8 likṣās</td>
<td>the middle of a yāka (louse) or a yūka of medium size</td>
</tr>
<tr>
<td>8 yūkas</td>
<td>1 yava (barley) of middle size</td>
</tr>
<tr>
<td>8 yavas</td>
<td>1 āṅgula (three-fourth of an English inch) or the middle most joint of the middle finger of a man of medium size may be to be equal to an āṅgula</td>
</tr>
<tr>
<td>4 āṅgulas</td>
<td>1 dhanurgraha</td>
</tr>
<tr>
<td>8 āṅgulas</td>
<td>1 dhanurmuṣṭi</td>
</tr>
<tr>
<td>12 āṅgulas</td>
<td>1 vitaste or chāyapaurusā (length of the shadow cast by a Śanku or gnomon, twelve āṅgulas high)</td>
</tr>
<tr>
<td>14 āṅgulas</td>
<td>1 śama, śala, pariraya, or pada</td>
</tr>
<tr>
<td>2 vitastis</td>
<td>1 aratni or 1 prājāpatya hasta</td>
</tr>
<tr>
<td>2 vitastis plus 1 dhanurgraha</td>
<td>1 hasta used in measuring balances, cubic measures and pasture land</td>
</tr>
<tr>
<td>2 vitastis plus 1 dhanurmuṣṭi</td>
<td>1 kisku or 1 kamsa</td>
</tr>
</tbody>
</table>
42 aṅgulas = 1 kisku according to sawyers and blacksmith and used in measuring the grounds for the encampment of the army, forts and palaces.

54 aṅgulas = 1 hasta used in measuring timber forests

84 aṅgulas = 1 vyāma used in measuring ropes and the depth of digging in terms of a man’s height

4 aratnis = 1 danda, 1 dhanuṣa, 1 nālika and 1pauruṣa

108 aṅgulas = gārhapatya dhanuṣa (i.e., measure used by carpenter called gṛhapati) This measure is used in measuring roads and fort walls.

The same (108 aṅgulas) 107 = 1 pauruṣa, a measure used in building sacrificial altars.

6 kamsas or 192 aṅgulas = 1 danda, used in measuring such lands as gifted to the brāhmaṇas. It, according to R. Shamasstry, was a measure used in measuring the lands gifted to priests and others, also such lands are given to the officials entrusted with the management of an alms house and other charities.

10 danḍas (one danda=4 hasta) = 1 rajju

2 rajjus = 1 parideśa (square measure)

3 rajjus = 1 nivartana (square measure; it, according to Shamasstry was used in measuring squares).

3 rajjus plus 2 danḍas on one Side only = 1 bāhu (arm)

1000 dhanuṣa = 1 goruța (sound of cow)

4 goruța = 1 yojana

Thus the smallest unit of linear measure was an atom. The other units such as likṣā, yūka and yava etc. appear to have been used to measure small articles rather than the land. Aṅgula, which Kauṭiliya states three-fourth of an English
inch, appears to be a definite unit of measure for the land. The units of measures such as the dhanurgraha (4 angulas) and the dhanurmuṣṭi (8 angulas) were three inches and six inches respectively. Vītāsī is referred to be of 12 angulas by Kauṭilya which is equal to 9 inches. The śama, the śala, the pariraya or pada are mentioned equal to 14 angulas which is almost 10.5 inches. 2 vītāstis were equal 1 artani or 1 prājāpatya hasta which is equal to 18 inches. 1 hasta used in measuring balances and cubic measures and pasture lands was equal to 2 vītāstis and 1 dhanurgraha which is equal to 21 inches. 2 vītāstis and 1 dhanurmuṣṭi were equal to 1 kīṣku or 1 kamsa. It is equal to 32 angulas i.e., 24 inches. But the kīṣku used in measuring the grounds for the encampment of the army and for forts and palaces, consisted of 42 angulas, i.e., 31.5 inches. The 1 hasta used in measuring timber forest was different from that which was used to measure the pasture lands. The former comprised 54 angulas or about 40.5 inches. 84 angulas were equal to 1 vyāma, used in measuring ropes and the depth of digging in terms of a man’s height which means 1 vyāma was equal to 63 inches. 4 aratnis were equal to 1 danda, 1 dhanuṣa, 1 nālika and 1 pauruṣa which is equal to 72 inches.

Shamasastry suggests that chāyāpauruṣa is to be distinguished from pauruṣa; the latter is used to measure the standard height of a man as 4 aratnis or 96 angulas =96 × 3/4 × 1/12 = 6 English feet, while the former word is used to designate the shadow of 12 angulas cast by a gnomon of 12 angulas in height. In other words, 1 pauruṣa is equal to 6 feet; and 1 chāyāpauruṣa is the shadow of 12 angulas in length and by a gnomon of 12 angulas in height. The word, pauruṣa, is also used to mean 108 angulas when used in measuring the height of a sacrificial altar. 1 danda was equal to 4 aratnis or 96 angulas. 1 danda, used in measuring such lands as are gifted to brāhmaṇas and officials was of 192 angulas which was equal to 144 inches, the double of the usual length of the danda. 1 dhanuṣa (bow) was equal to 4 aratnis or 96 angulas or 72 inches but 1 gārhapatya dhanuṣa was of 108 angulas which was equal to 81 inches. The gārhapatya dhanuṣa was used in measuring roads and fort walls. Both, danda or dhanuṣa, commonly used were generally of a length of 96 angulas or 72 inches or 6 feet. 1 pauruṣa, used in building sacrificial altars was of 108 angulas i.e., 81 inches. 1 rajju or rope was equal to 10 danḍas according to Kauṭilya which means it was equal to 960
angulas i.e., 720 inches or 20 yards (60 feet). The length of 2 rajju i.e., 1440 inches or 20\times20 = 40 yards (120 feet) formed 1 parideśa (square measures) and that of 3 rajjus equal to 1 nivartana (square measure) which shall be 2160 inches, or 60 yards (180 feet). It was a square measure as stated hence its area shall be 60\times60 = 3600 square yards (less than an acre). Nivartana has been interpreted to be equivalent to 20 rods or 200 cubits or 40000 hastas or hands.  

We have some epigraphic records which refer to the term nivartana such as the Nasik Buddhist Cave inscription of Gautamiputra Sātākarni records the grant of fields of 200 and 100 nivartanas.  

At Junar, we come across a gift of 15 nivartanas of land at the village of Puvanada and another of 12, 8 and 4 nivartanas at Vatākaka. Various other inscriptions from Junar show that small plots of land from 2 to 26 nivartanas were owned by individual persons.  

The bāhu was a measure of 3 rajjus plus 2 daṇḍas on one side. Thus the total length of a bāhu shall be 3\times20+4= 64 yards. The goruta or kroṣa was equal to 1000 dhanuṣa or 25 yojana. Bhaṭṭasvāmin, the commentator on the Arthasaśstra records that dvidhanuṣasahasaram and thus takes 2000 dhanuṣa as equal to 1 goruta or 1 kroṣa (gorutam kroṣam) or ¼ of the yojana.  

Regarding the length of a yojana, scholars have a difference of opinion. Barnett and Fleet opine that the Hindus used two types of yojanas, a long and a short yojana. The long yojana contained 9 miles and the short yojana contained 4.5 miles. Fleet named the long yojana as general yojana and the short yojana as Māgadha yojana. D.C. Sircar suggests that 1 yojana was equal to 9 miles which was considered a day's march of an army in ancient India. R. K. Mookerji, however suggests it equal to 8 miles. Rhys Davids too suggests it equal to 8 miles. E. W. Hopkins also considers it equal to 8 miles. D. D. Kosambi, however, keeps it between 5 to 9 miles or 4 ½ miles. J. J. Jones, however suggests that a yojana is equal to 7 miles. Shamasastry states that taking the ordinary dhanuṣa of 96 angulas, one goruta or kroṣa will be equal to 96\times1000\times3 / 12\times3\times4 = 2000 yards, and one yojana to 2000\times4 yards = 4.54 British miles, or say, 4 ¼ for general purpose.  

A measure termed kula has been referred to by Manu. He states that the ruler of ten (villages) shall enjoy one kula (as much land as suffices for one
family), the ruler of twenty five *kulas*, the superintendent of one hundreded villages (the revenue of) one village, the lord of one thousand (the revenue of) a town. Govinda, Kullūka Bhaṭṭa and Rāghavānanda state that it is the double of a *middling plough*, i.e., as much as can be cultivated with twelve oxen, while Nandana interprets it by ‘the share of one cultivator.’ The Monier-Williams dictionary has interpreted it as the ground as can be ploughed by two ploughs each drawn by six bulls. Pran Nath opines that the *kula*-vāpa appears to have represented of between 5 and 6 acres which was thought sufficient for one *kula*. According to A. S. Altekar a *kulyavāpa* was slightly larger than an acre. R. S. Sharma, however states that one *kulya* is equal to eight *dronas* and a *drona* is less than two acres. The area of a *kulya* thus according to him should be around 13 acres. S. K. Maity, on the basis of inscriptions of Bengal belonging to the Gupta period, considers the area of 1 *kulyavāpa* equal to 14.5 to 17.6 acres of land.

As we have already discussed that a family in ancient times in India comprised brothers, uncles, nephews, and cousins etc. In early India, the family might include adopted children and it was further augmented by servants of the family could afford. Hence 5 or 6 acres or 1 acre of land to support such a big family may not be sufficient as considered by the scholars like Pran Nath and A. S. Altekar. Here Sharma and Maity appear correct in calculating the area of a *kulyavāpa*.

Patañjali has mentioned certain units of measurements. These refer to time and space and include *akṣa, pāda, aratni, prādeśa, vitasti* and *diśī*. *Akṣa* was equivalent to 104 *āṅgulas*, *pāda* was 12 or 15 fingers in breadth or 1/2 or 2/7 of a *prakrama*. *Aratni* was a cubit of the middle length from the elbow to the tip of the middle length. *Prādeśa* was a measure of 12 *āṅgulas* and it covered the span of the thumb and forefinger. *Vitasti* was a particular measure of length, defined either as a long span between the external thumb and the little finger, or as the distance between the wrist and the tip of the fingers, said to be 12 *āṅgulas* or about 9 inches.

Thus we may conclude that various types of measures in use during our period of study which were used both by the state and the individuals. These
measures were manufactured under the state control or direction and were stamped with the royal seal as is mentioned by Kautilya that the superintendent of weights and measures shall have the same manufactured.\textsuperscript{403} Manu suggests that all the weights and measures must be marked and once in six months must be re-examined duly.\textsuperscript{402} Strabo too refers to the city magistrates who looked after the measures of all types.\textsuperscript{403} Viṣṇu \textsuperscript{404} and Yājñavalkya \textsuperscript{405} prescribe punishment for forging a balance or a measure.

**Land Grants**

In India we find literary references to land grants from a very early period. Gautama appreciates the gifts as increasing spiritual merit. The gift of the land, he considers an important one which destroys sins.\textsuperscript{406} Āpastamba Dharmasūtra states that a king without detriment to his servants gives land and money to the brāhmaṇas according to their desert, gains endless worlds.\textsuperscript{407} Manu also acknowledges the significance of gift of land.\textsuperscript{408} Viṣṇu suggests the king to bestow landed property upon brāhmaṇas.\textsuperscript{409}

Although the Kuśāṇas had not left any inscription referring to the Land grants by them yet our literary and epigraphic records belonging to the Kuśāṇa period testify various types of donees such as the brāhmaṇas, the Buddhist Saṅghas, crown officers, for expenses of public charities (ātithya), queens and princes, officials, in lieu of their services to the state, as military fief on conditions of supplying troops (āyuḍhāśya), grants in favour of temples and gods and other miscellaneous donees etc. The records were both royal and private. The royal records were issued by the ruler, his relatives, officials and nobles etc. and the private records by some corporations and individuals.

As stated earlier our law givers advocated the grants of lands in favour of brāhmaṇas. Kautilya too mentions that those who perform sacrifices (ṛtvik), spiritual guides, priests and those learned in the Vedas shall be granted brahmadeya lands yielding sufficient produce and exempted from taxes and fines (adandkarāṇī).\textsuperscript{410} He further states that learned men, orators, charitable and brave persons should be favoured with gifts of land and money and with remission of taxes.\textsuperscript{411}
We come across numerous references to the land grants in favour of the brahmānas in the Jātaka stories. Nāṇa-Chanda-Jātaka refers to an incident where a king grants to a brāhmaṇa a village for life. In the Avāriya-Jātaka story; a brāhmaṇa has been offered a boon of village having the revenue of hundred thousand pieces by the king.

There are also certain epigraphic records belonging to our period of study which throw light on this issue. The Nasik and Karle Buddhist Cave inscriptions of Uśavadāta refer to the land grants assigned to the brahmānas. The Nānāghat Cave inscription of queen Nāganikā (c. 1st century B.C.) refers to the grant of an excellent village as a sacrificial fee. The Buddhist Saṅghas were also getting the land grants from the rulers and laymen. The epigraphic records of the Śātavāhanas, such as the Nasik (c.117 CE and c.123 CE) and Karle (c.123 CE) Buddhist Cave inscriptions of Gautamiputra Śātakarani and the Karle (c. 130 CE) and Nasik (c.142 CE and 145 CE) Buddhist Cave inscriptions of Śri Pulumāvi and the epigraphic records of the Śaka rulers such as those of the Nasik and Karle Buddhist Cave inscriptions of Uśavadāta record the grants of land in favour of the Buddhists and Buddhist Saṅghas for their maintenance. They were tax free and enjoyed all kinds of immunities regarding taxes and other state interventions.

We have references to the donation of lands to the Buddhist Saṅghas by the private individuals. The donation of the Jetavana Ārāma by a merchant named Anātha pindika at Śrāvasti, the donation of a Sāl-forest to the Buddha and his monks by Gośṛṅgī at Vaiśālī. Donation of the great grove with its pavilion to the Buddha and his disciples by the Licchavis, and the donation of the Mango-Grove (ambavaṇa) by Ambapāli at Vaiśālī etc.

The literary data has been corroborated by the epigraphic evidences. A Kanheri Buddhist Cave inscription records the donation of a field in the village of Saphāu by a merchant named Rṣipāla (Iśipāla). Another inscription from the Kanheri Buddhist Cave records the endowment of a field in the village of Mangalasthāna by the lay worshipper (upāsaka) named Aparēṇu, the son of Aṇada (Ānanda), a merchant (nēgama).
The land was also granted to the crown officers for the expenses of public charities. The term ātithya was used for such grants. Kautilya mentions ātithya in context of the grant of land made to the officials entrusted with the management of almshouse and other charities.\(^{427}\) U. N. Ghoshal too considers the term used for the lands assigned to government officers for public charities.\(^{428}\) The queen and princes were also assigned the land grants for their maintenance. Kautilya refers to such grants in the Arthasastra.\(^{429}\) The Jātakas also mention such grants. Haritanāțā –Jātaka narrates the story of the assignment of a village by the king of Košala to his daughter on the eve of her marriage to king Bimbisāra. The village in Kāsi was given to her for bath-money.\(^{430}\) In the story of Ghat-Jātaka, a king’s daughter was endowed with a village for her estate by her brothers.\(^{431}\)

The grants of land were made to the officials of the state probably in lieu of their services to the state. There occur various references to such grants in the Jātakas. The Kusanāțī-Jātaka refers to a man having the zamindari of village.\(^{432}\) The Rathalațhī- Jātaka mentions a priest driving a chariot to a village on his estate which indicates the land granted to him by the king in lieu of his services.\(^{433}\) The Hatthi-Pālā-Jātaka refers to a chaplain being assigned a revenue free village by the king.\(^{434}\) The reference to the village of Senāpati (senānīgāma or senāpatigrām) in the Mahāvastu possibly refers to the village granted to the senāpati or commander in lieu of his services.\(^{435}\) Kautilya states that the superintendents (adhyakṣas), accountants (samkhya-yaka), gopas, sthanikas, veterinary surgeons (anīkastha), physicians (cikitsaka), the horse trainers (aśvadammaka) and messengers etc. should be endowed with lands.\(^{436}\)

Lands were also granted to the villages on condition of supplying troops for the army of the state. Kautilya refers to the villages that are exempted from taxation (parihāraka) and he includes the villages which supply soldiers (āyudhiya) in this category.\(^{437}\) Ghoshal mentions them as the lands supplying troops in lieu of tax.\(^{438}\)

The lands were granted to the temples and other charitable institutions also. Kautilya directs the superintendents of religious institutions to collect at one place all the properties belonging to the temples so that they may be utilized in
time of calamity by the state.\textsuperscript{439} The Nasik and Karle records of Uṣavadāta refer to his gifts of certain villages to the gods (\textit{devas}).\textsuperscript{440}

Apart from these the king used to grant lands to anybody with whose services he was pleased. The Jātakas provide ample evidences of such grants. The \textit{Makhādeva-Jātaka} refers to a grant of a village to a barber by the king.\textsuperscript{441} The \textit{Cullahamsa-Jātaka} refers to the grant of a village to a fowler by the king.\textsuperscript{442} The \textit{Mahā-Ummagga-Jātaka} mentions the grant of a market-town as a gift from the king to a merchant.\textsuperscript{443}

The lands granted were of different types such as arable, fallow, forest and garden etc. The grants, however mostly consisted of cultivable lands which provided maintenance to the donees. Only the owner of the land was authorized to make land grants. A grant made by other than its owner was treated as null and void.\textsuperscript{444} Manu, in this regard states that a gift or sale made by anybody else but the owner, must be considered null and void, according to the rule in the judicial proceedings.\textsuperscript{445}

Thus with the help of the above discussion it may be said that during the time period of our study, the states created a large number of donees. The land grants carried with it a large number of immunities in favour of the donees who had the rights over its revenue but the state did not seem to have lost its hold over the land granted to the grantees.

\textbf{Land sale}

Regarding the sale of the land during the Kuśāna period, we have some literary and a few epigraphic evidences which throw light on the practice of the sale of the land. The \textit{Arthaśāstra} and the smṛtis contain certain rules regarding the transactions.

Regarding the sale and purchase of the land, Kautilya states that kinsmen, neighbours, rich persons, shall in succession go for the purchase of land and other holdings, which means that the land for sale was firstly offered to the kinsmen then to the neighbours and at last if both of these are not interested, to the rich persons. He further states that neighbours of good family, forty in number and
different from the purchasers above mentioned, shall congregate in front of the building for sale and announce it as such. Accurate description of the exact boundaries of fields, gardens, buildings of any kind, lakes or tanks shall be declared before the elders of the village or of the neighbourhood. If on crying aloud thrice, “who will purchase this at such and such a price?” no opposition is offered, the purchaser may proceed to purchase the holding in question. If at this time the value of the property is increased by bidding, even among persons of the same community, the increased amount together with the toll on the value shall be handed over into the king’s treasury.446 Manu too states that he, who obtains a chattel in the market before a number of witness, acquires that chattel with a clear legal title by purchase.447 Närada states the same thing.448 The transactions done in seclusion, inside the house, the dead of night, in forests and in secret etc. were considered null and void.449

The fundamental thing regarding the sale and purchase of the land was that the seller, according to Kauṭilya, ought to be the real owner of the land. Regarding the sale without ownership, he says that on the detection of a lost property in the possession of another person, the owner shall cause the offender to be arrested. The judge shall put the question that how the offender came by the property. If he narrates how he got it, but cannot produce the person who sold it to him, he shall be let off and shall forfeit the property. But the seller, if unable to produce another seller who sold it to him, shall not only pay the value of the property, but also be liable to the punishment for theft. Manu too states that if anybody sells the property of the another man, without being the owner and without the assent of the owner, the judge shall not admit him who is a thief, though he may not consider himself as a thief, as a witness (in any case). If the offender is a kinsman of the owner, he shall be fined 600 panas; if he is not a kinsman, nor has any excuse, he shall be guilty of theft. He further states that a gift or sale, made by anybody else but the owner, must be considered as null and void according to the rule in judicial proceedings.450 Other law givers such as Yājñavalkya,451 Nārada 452 and Brhaspati 453 etc. have expressed almost same views regarding the sale of the property without ownership.
Alteration of the prices after sale and selling the property to other than the bidder was a punishable act. According to Kautilya, the bidding for a property in the absence of its owner shall be punished with a fine of 24 panas. Sale of the building to other than the bidder shall be punished with a fine of 200 panas. If the value of the property is increased by bidding, even among the persons of the same community, the increased amount together with the toll on the value shall be handed over into the king’s treasury. The bidder (vikrayapratikroṣṭa) shall pay the toll.454 Nārada, in this regard states that if a man sells property for a certain price and does not hand it over to the purchaser, he shall have to pay its produce, if it is immovable and the profits arising on it, if it is immovable property.455 Yājñavalkya states that he, who, having received the value of a commodity, does not make it over to the buyer (when he demands it) shall be called upon to pay the value with profit or interest. If the purchaser comes from another country, the seller shall be made to pay (to the buyer) the profit that might have been made in that country. He further states that if one re-sells an article, sold (to one) or a defective article for a sound one, he should be punished with double the value of the article in question.456

Manu and Yājñavalkya state that if anybody, after buying or selling anything, repents (of his bargain), he may return or take (back) that chattel within ten days.455 But after the lapse of ten days, according to Manu, he may neither give nor cause it to be given (back); both, he, who takes it (back) and he, who gives it (back, except by consent) shall be fined 600 panas by the king.458

The deals not within the legal jurisdictions were rejected or declared invalid. Manu and Yājñavalkya, in this regard state that a contract made by a person intoxicated, or insane, or grievously disordered (by disease and so forth), or wholly dependent by an infant or very aged man, or by an unauthorized (party) is invalid.459 Manu further states that the agreement which has been made contrary to the law or to the settled usage (of the virtuous) can have no legal force, though it is established by proofs. A fraudulent mortgage or sale, a fraudulent gift or acceptance, and (any transaction) where he detects fraud, the judge shall declare null and void.460 Both, Manu and Yājñavalkya declare that any transaction done by force should be considered void.461
The *brahmanas*, according to Kautilya, were not allowed to sell or mortgage the gifted lands to those who were not endowed with such lands otherwise they were punished. The same punishment was given to the tax payer settles in a village not inhabited by tax payers. If a tax payer took the place of another tax payer, ha was allowed to enjoy all holdings but the house of the latter.462 Same was the case with the state officials. They did not possess the right to sell or mortgage the lands granted to them by the state.463

We come across a few epigraphic evidences of the sale and purchase of land. Anathapindika gives Jetavana to the Buddhist *Samghas*, having bought it by a layer of crores.464 We find Uśavadāta purchasing a field for 4000 *kārṣāpānas* in order to gift it to the monks at Nasik.465 These indicate the sale and purchase of land during the Kusāṇa period.

The price of the land varied according to the type of land i.e. whether it was arable, uncultivable; location and nature and quality of soil.

**Size of Land Holdings and Economic Differentiation among Peasants**

The size of the land holdings during the Kuśāṇa period was not uniform rather it varied from very small area of 2 *nivartanas* to 1000 *nivartanas* or even larger than that. The *size* of the land holdings reflects the economic status of the peasants in the society. The holder of the small land will be a poor man working himself on his fields rather the farmer having big land holdings will be a rich man and will employ labour on his fields.

We may get an idea of the size of the land holding from the Jātaka stories. The *Somadatta- Jātaka*466 refers to a poor family of *brahmana* engaged in agriculture. The poor *brahmana* farmer used to plough his fields with two oxen. The *Uraga- Jātaka*467 contains a story of a poor farmer who with his son goes to the field to plough it with his oxen. The *Mahākapi- Jātaka*468 also talks about a poor farmer who unyokes his oxen after ploughing and begins to work upon his land with a spade. We can say that the land holdings of the poor farmers must be small as they are not getting their land cultivated by slaves or day- labourers. The *Suvannakakkata- Jātaka*469 on the other hand refers to a family of *brahmana* following the occupation of the farmer having a farm of 1000 *karīsās* (1000 acres.
according to Cowell). The farmer goes to his fields with his men and supervises their ploughing. The farmer mentioned in the Sālikedāra- Jātaka\(^7\) possesses a field of 1000 karīṣās where he grows rice. When the crop is standing, he gives one-half of his land in charge of his own men to guard by assigning fifty karīṣās to one, sixty to another and so on. He distributes among them some five hundred karīṣās of his land. The remaining five hundred karīṣās he puts in charge of a hired labourer (bhataka) for a wage.

The Āpastamba Dharmasūtra contains a clear reference to a person who has taken a lease of land for cultivation. The text states that if he does not exert himself and hence the land bears no crop, he shall, if he is rich, be made to pay to the owner of the land that value of the crop that ought to have grown. He also refers to a servant in tillage.\(^47\) The text mentions the persons who live by letting lodgings of lands.\(^47\) The Gautam Dharmasūtra makes the agriculture and trade lawful to a brahmaṇa provided he does not do the work himself.\(^47\) There is no doubt that some of the brāhmaṇas used to be big land lords as they used to get land grants.

Kautīlya has very specifically referred to the kṣetrika, the owner of the field who used to pay taxes to the state, and the upavās, the tenant.\(^47\) He refers to the labourers (karmakara) who were employed on crown lands to sow seeds.\(^47\) The Arthasastra further states that what cannot be directly cultivated by the state should be leased out to crop-sharers. These may be either ardhasītikas who retain half the produce for themselves or svavīryopajīvins who can keep only one fourth or one fifth of what they produce.\(^47\) There is little doubt that in the former case, the cultivators are to bring their own implements, bullocks, seeds, labourers and so on, while in the latter case, the tenants depend on the state for implements, seeds etc. That these rules about lease are stated in connection with the working of crown lands, it may be presumed that similar arrangements could be made by private owners concerning their own lands.\(^47\)

Manu has separately mentioned the owner of the seed and owner of the soil and has referred to both of them as sharers of the crop.\(^47\) He mentions the slaves and the labourers in tillage belonging to śūdra caste.\(^47\) Yājñavalkya also
refers to the contract of owner of the field (plot of land) with the person who sows seeds in that field. He too mentions the sharer of the crop. The later law givers, i.e., Nārada and Brhaspati, while talking of the servants, refer to the soldiers as constituting the highest class, the agriculturists the middle class and the potters the lowest class. Patañjali refers to the ordinary cultivator or agriculturist (lāṅgalagraha). He has also referred to the employment of agricultural labour, which enabled the cultivator to relax himself and do only supervision work. The Milindapañho, as quoted by R. S. Sharma, contains the references to the wage earners (bhatakas) and hired labourers (karmakaras). The Śānti Parva of the Mahābhārata mentions the cultivator belonging to the vaisya caste engaged in cultivation with seeds supplied by others.

The data provided by the literary sources regarding the size of the land holdings and the economic status of the different classes of the peasants is corroborated by the epigraphic records belonging to our period of study. The epigraphic records belonging to the Kuśānas are however silent on the size of the land holdings, yet we may get an idea of the different sizes of the land holdings from the inscriptions of the Sātavāhanas and the Western Kṣatrapas who were ruling in the western and deccan regions when the Kuśānas were there in the northern parts of India.

In the Nasik Cave there is an inscription belonging to Gautamiputra Śri Sātakarni which refers to the donation of a field (kheta) of 200 nivartanas to the Tekirasi ascetics. Another inscription of the same king refers to the donation of an untilled field (kheta) of 100 nivartanas in an unhitched village of Kakhaḍi to the ascetics of Tiranḥu.

From the same cave we come across another donation of a field (kṣetram) by Usavadāta for procuring food to the monks. This field is said to have been bought from a brāhmaṇa named Aśvibhuti for the price of 4000 kāhāpaṇas (kārsāpaṇas). The measurement of the field is not given but the price of the field itself tells its size. The other important thing is that it was bought from an ordinary man which means the ordinary men apart from the kings were also possessing big land holdings. An inscription recording the gift of a lay worshipper
refers to a gift of a field (*khetairh*) for providing of cloths for the ascetics in western Kaṇhahini. The measurement of the field however is not mentioned yet we may say that it should be a field of small size as compared to the earlier fields as it was a donation of a common man rather than a king. From Kanheri we have got an inscription recording the endowment of a field of the half- *paṇa*- owner in the village of Mangalasthāna by a lay worshipper. The epigraph belongs to the period of Yajña Śri Satakarni. Various other inscriptions from Western India refer to smaller fields of different sizes of 2, 3, 4, 8, 9, 12, 15, 20, and 26 *nivartanas*; as well as some other inscriptions refer to a bigger plot of a royal land of 1000 *nivartanas*.

The literary and epigraphic sources thus make it clear that the size of the holdings varied from very small of 2 *nivartanas* to as big as 1000 *nivartanas*. The big land holdings usually belonged to the kings, the members of the royal family, the officers of high rank or the fellows, mainly *brähmanas* who used to get land grants as big as a village or many villages. The common people however had comparatively small holdings on which the whole family used to work for their livelihood. There was also a section of the society who used to work on the holdings of others as tenant or used to get land on lease. The study thus indicates that there were poor, middle class and rich peasants in the society.

**Land Revenue**

The history of land revenue paid to the king by his subject goes down to the Vedic period. In the *Rgveda* we find the payment of the revenue in the shape of *bali*. It was paid to the king by the people for the protection which he provided to them. At one instance, it is stated in the *Rgveda* that the mighty Agni, who by his fatal (weapons) has baffled the devices (of the *Asuras*), who has created the lawns, the birds of the sun, having coerced the people by his strength, has made them the tributaries of Nahuṣa. At another instance in the same text it is said that with a constant oblation we handle the constant Soma; therefore may Indra render your subject people payers of their taxes.

The term *bali* also occurs in the *Atharvaveda*. It is said here that unto you let your fellows come, calling (you), Agni shall go along as speedy messenger; let
the wives, the sons, be well-willing; you, formidable, shall see arrive (prati-paś) much tribute. At another place in the Atharvaveda it is said that what the kings share among themselves- the sixteenth of what is offered and bestowed- yon assessors of Yama; from that the white-footed sheep given (as) ancestral offering releases. It further says that he, who gives a white-footed sheep commensurate with (his) world, he ascends unto the firmament, where a tax is not paid by a weak man for a stronger. In this hymn the term used is śulka rather than bali. Ghoshal takes the term śulka as the amended reading of the faulty sukla and the purport of the whole passage, according to him is that is the sacrifice by offering the sheep is released from the payment that would be otherwise due to Yama’s councilors on his admission into the world. As far as the rate 1/16 is concerned, it is much less than the usual proportion of 1/6 of the produce claimed for the king in later times, but it at any rate points to certain proportion of the property of the subjects as payable to the king for revenue. Ghoshal derives our attention to another passage in the Atharvaveda which refers to a number of distinct sources from which the king derived his revenue. He points out a hymn addressed to Indra which says ‘portion than this man in village, in horses, in kine; unportion that man who is his enemy; let this king be the summit of authorities; O Indra, make every foe subject to him.’ From this passage it appears that the king was deriving revenue from a share of the agricultural produce and a contribution in cattle from the villages corresponding respectively to the later bhāga or bali and the tax on cattle.

A vaiśya is recorded as paying taxes to the king in the Aiterya Brāhmaṇa. The Śatapatha Brāhmaṇa also refers to the tribute paid to the king by the people. The Brāhmaṇas, according to Ghoshal, characterize the king or the kṣatriya as the devourer of his folk. The Rāmāyaṇa states that the king receives one sixth of people’s income in lieu of the protection of his subjects. It is also stated in the Mahābhārata that the king gets one fourth of the share of people’s income because he provides protection to them. Regarding the yield of the soil or we should say the land revenue the share is stated the sixth part of the yield of the soil.
The Jātaka stories also mention the king as the protector of the people and they also talk about the tax to be paid to him. The Arthaśāstra recommends one-sixth of the grains grown to be given to the king in lieu of protection by the subject. The Dharmasūtras have also commented on this. Vasiṣṭha Dharmasūtra states that a king, who rules in accordance with the sacred law, may take the sixth part of the wealth of his subject. The Baudhāyana Dharmasūtra states that let the king protect his subjects, receiving as his pay, a sixth part of their incomes or spiritual merit. The Āpastamba Dharmasūtra states that king only takes care of the welfare of his subjects in whose dominions, be it in villages or forests, there is no danger from thieves. It further states that the king shall make his appointed men of the first three castes collect the lawful taxes (śulka). The Gautama Dharmasūtra recommends that the cultivators must pay to the king a tax amounting to one-tenth, one-eighth or one-sixth of the produce for it is the duty of the king to protect the tax payers.

We also have references to the taxation system in lieu of the protection of people in the Smṛti literature belonging to the Kuśāṇa period. Manu states that king has been created to be the protector of the castes (varṇa) and orders, who, all according to their rank, discharge their several duties. He suggests that the eighth, sixth or twelfth part of the crops may be taken by the king as the highest duty of the kṣatriya is to protect his subjects, for the king who enjoys the reward just mentioned is bound to discharge his duty. Yājñavalkya suggests that by protecting the subjects righteously, a king reaps the sixth part of their virtue, for the protection of subjects is superior to all forms of gifts. Viṣṇu states that to protect his people is the duty of the king and he must take from his subjects as taxes a sixth part every year of the grain. Nārada states that the sixth of the produce of the soil, from the royal revenue, the reward of a king for the protection of his subjects.

The Buddhacarita contains the reference that the king should not exact revenue beyond the amount due to him. Johnston interprets the term bali as land revenue and says that the king takes his one-sixth without adding illegal cesses. The Saundarananda also records the same thing. It states that the king protects his subjects and does not make the land pay anything beyond the legal
revenue. Johnston interprets the legal revenue as the one-sixth share of the crops without the additional cesses. The *Mahāvastu* too talks of a sixth part of the produce from the field to be given to the king as land revenue. The *Milinda pañho* also talks about the tax paid to the king.

Apart from this the foreigners who visited India during the early centuries of the current era, have referred to the revenues paid by the people to their respective king. Megasthenes, while talking about the second caste, i.e. the husbandmen, states that the whole of the land is the property of the king and the husbandmen till it on condition of receiving one-fourth of the produce. McCrindle thinks that this was paid into the royal treasury in addition to the “land-tribute”. Diodorus also states that the husbandmen used to pay a land-tribute to the king along with a fourth part of the produce of the soil. The important thing he states is that all India is the property of the crown and no private person is permitted to own land. This means that he was talking of the crown lands which may have been given to them to till. Strabo’s version states that the whole of the country is of royal ownership and the farmers cultivate it for a rental in addition to paying a fourth part of the produce. R. C. Majumdar interprets it as “the farmers cultivate it for wages, on condition of receiving a fourth part of the produce” whether “wages” and “fourth part” are appositional or “on condition of” means, as it might, “in addition to.” Arrian also like Megasthenes does not mention the rate of payment but merely refers to the second caste as tillers of the soil and paying tribute to the king.

Thus from the above discussed literary sources it appears that the people used to pay the taxes to the king for his service or duty of protecting them.

**Sources of land revenue**

Land revenue constituted the main source of the income of the state in ancient India. The state used to get land revenue from private as well as from the crown property. The taxes from the private lands mainly consisted *bhāga, bāli, kara, viṣṭi, pratibhāga, hiranya, rajjū, corarjī, vivīta, vastu, pranya, pindakara, pratikara, senābhakta, pārśva and paśu* (cattle tax) etc. and the taxes from the
crown lands mainly consisted of pārīhinīka, setu, udakabhāga, kaustheya, vana (forests) and mines etc.

**Revenue from private lands**

The revenue from the private lands has been termed as ṣaḍbhāga or ṣaḍbhāgam or ṣaṣṭhaṁsama etc. in our literary texts comprising the Dharmasūtras, Smṛtis and Epics etc. The Baudhāyana Dharmasūtra calls it ṣaḍbhāga.\(^ {525} \) Manu calls it ṣaḍbhāgam.\(^ {526} \) Viṣṇu calls it ṣaṭthaṁsama.\(^ {527} \) The Arthasastra and the Mahābhārata refer to it as ṣaḍbhāga.\(^ {528} \)

The one-sixth share from the land, generally approved by our legal texts appears to be a normal legal share of the king but on certain occasions the rates varied from (one-fourth to one-twelfth).

Gautama mentions three rates, i.e. one-tenth, one-eighth and one-sixth.\(^ {539} \) Haradatta, the commentator on the text states that the amount depends on the nature of the soil and the manner of cultivation.\(^ {530} \) Bhaṭṭasvāmin, the commentator on the Arthasastra of Kautilya as quoted by Shamaṇa states that the word “ṣaḍbhāga” includes one-fourth, one-third portions etc.\(^ {531} \) Manu refers to three different rates, i.e. the eighth, the sixth and twelfth of the crop.\(^ {532} \) But during the time distress, he makes it legal for a king to take the fourth part of the crops.\(^ {533} \) A tenth part of the grain to the king’s treasury is also assigned in the Mahābhārata.\(^ {534} \)

Thus we see that the tax varied from one-third to one-twelfth of the produce. the variation might had been due to the nature and quality of the soil, the facilities provided by the government or the hardships the peasants had to face, certain exemptions due to some specific reasons, or the times of emergency etc. But despite all these, it appears that one-sixth was the general rate.

*Bali* was the next important tax paid by the agriculturists. As discussed earlier, bali has its genesis in the Vedic period. It is the oldest Ind-Aryan term for the revenue. In the Rgvedic period, according to Ghoshal, it comprised the king’s due both from his subjects and from the defeated kings.\(^ {535} \) The term bali finds mention in the Arthasastra where it is interpreted as a religious tax by R.
Shamasastry. Bhaṭṭasvāmin as quoted by Shamasastry considers it a tax which should forcibly be collected by the commissioners (pradeśārah).\textsuperscript{536} Manu refers to bāli along with kara, śulka and danda which he regards identical with bhāga and fixes the rate as one-sixth of the grain.\textsuperscript{537} In the Mahābhārata and sometimes in the Jātakas, bāli is used in the sense of additional and oppressive cesses (balipalita).\textsuperscript{538} In the Milindapañho, bāli is mentioned as emergency tax from which the three chief ministers were free.\textsuperscript{539} The Saundarananda refers to it as a tax at the rate of one-sixth of the crops.\textsuperscript{540}

In the Rummimdei Pillar inscription of Aśoka, it is recorded that the regular taxes has been reduced to one-eighth and the bāli has been remitted on the Lumbini village which is the birth place of the Buddha.\textsuperscript{541} In the Junagarh Rock inscription of Rudradāman-I (c. 150 CE), the term bāli exists as an important item of state revenue along with bhāga, śulka and kara.\textsuperscript{542}

Scholars have interpreted the relationship between bhāga and bāli in different senses. Shamasastry as stated earlier has explained it as portion of produce payable to the government as bhāga and religious taxes as bāli.\textsuperscript{543} Ghoshal states that in the Vedic Samhitas and the Brāhmaṇas, bāli originally was a voluntary gift and later emerged as a compulsory contribution from the subjects to the king. Afterwards the term came to mean tax in general. In due course of time it was regarded as king’s grain-share, identical with bhāga but different from kara in Śmaṣṭis and Epics.\textsuperscript{544} K. V. R. Aiyangar, while analyzing the terms pārthiva and apārthiva of the Arthaśāstra, states that revenue is either derived from land (pārthiva) or derived from sources other than land (apārthiva). He suggests that bāli is the contribution of the crown lands and bhāga is a land revenue paid by private owners.\textsuperscript{545}

At another place, in the same work, however, Aiyangar, while discussing miscellaneous revenues explains bhāga as revenue from private lands and bāli as the special tax demanded from lands for religious purposes. Sīta is explained as the revenue from crown lands.\textsuperscript{546} A. N. Bose takes the term bāli as a group of certain irregular demands of the king on agricultural land fixed at one-fourth and considers bhāga as the regular tax.\textsuperscript{547} G. L. Adhya opines that the term bāli,
etymologically means both offerings to the gods and voluntary contributions. Whatever may be the original form of bali, it soon turned into a compulsory payment. With the passage of time, these real or so called freely given contributions were transferred into legal obligations in most societies.\textsuperscript{548} A. S. Altekar states that the term bali, originally used to denote voluntary offerings made to gods for securing their favour, came to be applied later to the presents and taxes offered to the king, more or less voluntarily.\textsuperscript{549} S. K. Maity states that the term bali can be explained as a sort of religious cess or contribution.\textsuperscript{550}

Finally we may conclude that bali appears to be an extra cess besides the normal share of the produce (bhāga). It may be a religious cess as a whole or may have included in itself some religious contributions by the people but whether it was strictly religious cess in our period of study is rather difficult to say.

The term kara find mention in the Āpastamba Dharmasūtra, in the Arthaśāstra, the Manusmṛti, the Viṣṇusmṛti, the Saundrananda, the Mahābhārata and in some epigraphic records belonging to the Kuśāṇa period.

The Āpastamba Dharmasūtra has used the term kara in the sense of the taxation in general.\textsuperscript{551} Kautilya has used the term in various senses. At many places he uses the term to denote the taxation in general.\textsuperscript{552} He also uses the term for the cesses levied on the people of various professions during the time of financial troubles etc.\textsuperscript{553} R. Shamasstry interprets the term kara at one place as the taxes or subsidies that are paid by vassal kings and others at another place as taxes paid in money.\textsuperscript{554} Bhaṭṭasvāmin as quoted by Shamasstry interprets the term as an annual tax paid during the months of April and May.\textsuperscript{555}

Manu also has used the term at various places.\textsuperscript{556} Bühler reads it as duties and taxes\textsuperscript{557} but Manu has stated kara with bali and śūlka\textsuperscript{558} which indicates that they are not merely general taxes and duties. The term has been used in a general sense of tax in the Viṣṇusmṛti.\textsuperscript{559} The term kara has been mentioned in the Saundrananda\textsuperscript{560} which has been interpreted by Jhonston as taxes in money.\textsuperscript{561} It is stated in the Mahābhārata that taking note of the sales and purchases, the state of the records, the food and dress, and the stocks and profits, of those that are engaged in trade, the king should levy taxes (kara) on them. Ascertaining on all
occasions, the extent of the manufactures, the receipts and expenses of those that
are engaged in them, and the state of the arts, the king should levy taxes (kara)
upon the artisans in respect of the arts they follow.\textsuperscript{562}

In the sixth line of the Hathigumpha inscription of king Khāravela, the
term \textit{kara} has been recorded. It has been read as tithes and cesses by K. P.
Jayaswal and R. D. Banerji.\textsuperscript{563} Jayaswal has suggested the meaning tax money for
the term \textit{kara-paṇa (vana)}.\textsuperscript{564} Shashi Kant reads it as taxes and duties.\textsuperscript{565} The
Kārle Buddhist inscription belonging to the period of Vāsiṣṭhiputra Pulumāyi
contains reference to the land grant which was exempted from taxes ordinary and
extraordinary (sakarukaro).\textsuperscript{566} In the Junāgarh inscription of Rudradāman, the
term \textit{kara} occurs with \textit{viṣṭi} and \textit{praṇaya-kriyā}. Here \textit{viṣṭi} is the forced labour. The
\textit{praṇaya-kriyā} is a controversial term. B. L. Indraji interprets the term as ‘a kind
of tax like the modern \textit{pritidan’} but F. Kielhorn suggests that it may denote
offerings or contributions which nominally are voluntary, but which people feel
constrained to make to please somebody or for other reasons.\textsuperscript{567} Thus the epigraph
mentions \textit{kara} with two other dues which are oppressive or levied during the time
of emergency.

Different scholars have interpreted the term in different ways. K. V. R.
Aiyangar interprets the term as the sundry collection in money.\textsuperscript{568} A. N. Bose
interprets the term as an annual tax as property.\textsuperscript{569} G. L. Adhya states that \textit{kara}
was probably a periodical tax, primarily upon agricultural land, over and above
the king’s normal grain share.\textsuperscript{570} S. K. Maity opines that \textit{kara} appears to be of the
nature of a periodical tax levied more or less universally on villagers which was
perhaps not a part of the regular annual land-tax, but a special tax which might be
remitted by conscientious kings.\textsuperscript{571} R. K. Dikshit takes \textit{kara} as meaning local
taxes, but his interpretation is not supported by any independent evidence.\textsuperscript{572}

Lallanji Gopal, while analyzing the explanations given to the terms by the
commentators of Manu and the \textit{Arthaśāstra} states that the term has many uses and
their difference should be noticed in individual cases. He further states that it
might have been a periodical tax over and above the grain-share and was often
realized from the village people as fixed amount calculated on the basis of
property like land and cows.\textsuperscript{573} Ghoshal interprets the term as tax in general; (1) periodical tax over and above the king’s customary grain-share, or general property tax levied periodically; (2) emergency tax levied upon the villagers over and above the normal grain-share; (3) tax upon merchant’s profits. He further states that \textit{kara} is often used in inscriptions and land grants in the general sense of tax, sometimes it is used along with \textit{bhāgabhoga} but distinguished from \textit{hiranya} (payable in cash).\textsuperscript{574}

Although it is still not very clear that for what the term exactly stood for but we may say that \textit{kara} was a periodical cess levied over and above the state’s share of grain during the Kuśāṇa period.

\textit{Viṣṭi} was forced labour which the people had to do for the state. Kaūṭiliya has used the term \textit{viṣṭi} for free labour.\textsuperscript{575} Bhaṭṭsvāmi interprets it as a due to the government in lieu of taxes which were to be paid by them (\textit{karapatikara}).\textsuperscript{576} It has been mentioned in the \textit{Arthaśāstra} along with other taxes such as \textit{hiranya}, \textit{śulka} and \textit{kara} etc.\textsuperscript{577} Kaūṭiliya has mentioned the term separately from the ordinary labour (\textit{karmakara}).\textsuperscript{578}

The \textit{Arthaśāstra} contains various references to the forced or free labour (where they were) employed at various places in different functions. At one place Kaūṭiliya states that sweepers; preservers; those who weigh things (\textit{dhāraka}); those who measures grains etc; those who supervise the work of measuring grain (\textit{māpaka}); those who supervise the supply commodities to the store-house (\textit{dāpaka}); those who supply commodities (\textit{dāyaka}); those who are employed to receive compensation for any real or supposed error in measuring grains, etc. (\textit{śalākāpratigrāhaka}); slaves and labourers- all these are called \textit{viṣṭi}.\textsuperscript{579} these were also employed in various state manufactories.\textsuperscript{580} Kaūṭiliya refers to the free labour employed even in the army. He states that the instructor (\textit{praśastā}), with this retinue and with carpenters and free labourers, should carefully march in front on the road, and shall take protective measures and dig wells of water.\textsuperscript{581}

It is recorded in the \textit{Gautama Dharmasūtra} that each artisan shall monthly do one day’s work for the king.\textsuperscript{582} Manu states that mechanics and artisans, as well as śūdras who subsist by manual labour, he (king) may cause to work for
himself one day in each month. Visṇu also opines that artisans (such as blacksmiths) manual labourers (such as carpenters), and śūdras shall do work for the king for a day in each month.

Megasthenes records that the fourth class, after herdsmen and hunters, consists of those who work at trades, of those who vend wares, and those who are employed in bodily labour. Some of these pay tribute and render to the state certain prescribed services. Arrian also states that the fourth caste consists of handicraftsmen and (retail dealers) (shopkeepers). They have to perform gratuitously certain public services and to pay tribute from the products of their labour. Strabo too refers to the samething but Diodorus Siculus does not make any references to such free labour by the fourth caste. They (free labourers) are also mentioned as one of eight instruments of the army in the Mahābhārata. It is also mentioned as an obligation of the peasant to cultivate the state land in the same text. We get various references to the viṣṭi in the Jātaka stories as well. The Junāgarh Rock inscription of Rudradāman records the term viṣṭi along with kara and prānava which is also used here in the sense of free labour.

A. N. Bose refers to viṣṭi as impressed labour. To him the viṣṭi was a form of coercion, the additional and coerced labour from which freemen which amounted to gratuitous performance of public or royal services. Aiyangar considers it a compulsory labour (viṣṭi) from those unable to pay in cash. Adhya calls it unpaid labour. Altekar states that viṣṭi or forced unpaid labour was fairly common in ancient times. Poor people could afford to pay a tax neither in cash nor in kind, but it was felt that they also should pay something to the state in return for their protection they got from it. This they could do most conveniently by offering free services to the state. They were not usually employed all through the month and it was therefore felt that it would be put equitable to require them to work for the state free for one or two days in the month. Lallanji Gopal calls it forced labour which, according to him, was a sort of special oppressive tax. Ghoshal calls it forced and free unpaid labour or free service in lieu of taxes or in
addition to taxes; which the villagers were obliged to provide to the king or landlord. Maity calls it forced labour.

Thus it appears that during the Kuśāṇa period viṣṭi was exclusively a levy by the state generally demanded from the people, who could not afford to pay their taxes either in cash or in kind.

Patiḥbāga finds mention in the Manusmṛti. It was the offering of the fruits and the like to the king according to the bhāṣya of Medhatithi. Kullūkabhaṭṭa also interprets it as the offering of fruits, flowers and roots etc. to the king. It was the duty of the village headman, according to Manu, to obtain the articles such as food, drink and fuel etc. which the villagers were to furnish daily to the king. Ghoshal states that the term pratibhāga consists the offerings of fruits, firewood, roots and the like supplied by the villagers to the king as his perquisites.

The term hiranya is frequently referred to in our literary sources. The term literally means gold as is evident from our literary texts. In the Gautama Dharmasūtra, the Arthaśāstra, the Manusmṛti and the Viṣṇusmṛti etc. the term has been used for gold. But in the Divyāvadāna and the Jāta stories the term hiranya and suvarṇa occur side by side. Hence we cannot take both the terms as gold metal even. Kautilya has mentioned it as a levy on the peasants which means it should be different from gold as it is not possible for a peasant of each stratum to pay tax in gold.

In the inscriptions of Uṣavadāta from Nasik and Karle, belonging to the Kuśāṇa period, there is the term suvarṇa used by the donor which Senart takes as gold.

The Gautama Dharmasūtra, the Manusmṛti, the Viṣṇusmṛti and the Mahābhārata have prescribed one-fiftieth (1/50) as the standard rate of hiranya.

R. Shamsastry has used the term in the sense of cash allowances or “coined money” when he talks about the subsistence paid to the government servants as referred to in the Arthaśāstra. D. C. Sircar interprets the term hiranya as a king’s share of certain crops paid in cash. Maity agrees with
Sircar.612 Ghoshal, in this regards states that the term *hiranya* (contribution in cash) has been usually translated both in the present context and that of the ancient Indian land grants as ‘gold’. This translation, however, has been found to be so little satisfactory that various attempts have been made to throw further light upon its meaning. Thus it has been suggested by N. C. Bandhopadhyaya that it was a tax, ‘on the hoard or capital or on the annual income.’ A more desperate explanation that has been offered by Beni Prasad is that it refers to the right of the state to the gold and probably other mines as well. Now this current interpretation of *hiranya* may, according to Ghoshal be shown to be untenable on the following grounds:

(a) In the *Smṛti* texts above referred to *hiranya* is usually joined with *paśu* (domestic animal), and it occurs along with the crops, trees, roots, fruits, flowers, leaves, grass and so fourth among the recognized sources of the king’s revenue. It, therefore, evidently belonged to the group of taxes relating to the simple agricultural and industrial products of the village.

(b) In the land-grants *hiranya* is often conjoined with *bhāg bhogkara* which has to be understood in the sense of the king’s customary grain-share called *bhāga* in the *Arthaśāstra* and *bali* in the *Smṛtis*. In other cases it is joined with *dhānya* or the king’s share of the crops. *Hiranya*, therefore, was a tax of the same nature as the king’s grain-share which was paid in kind.

(c) It is extremely improbable for a state like that contemplated in the *Smṛtis* to draw part of its normal revenue from gold, whether we understand by it a tax on the accumulated hoard of the metal or a tax on the income estimated in gold currency.

He further gives the clue to the proper interpretation of *hiranya* by certain conditions of land-revenue prevalent in later times. In the medieval period, according to him, while payments of the land-revenue before the fiscal reform of Todar Mall were made in kind, certain classes of crops (called by the title of *zabiti*) were always assessed in cash on the ground that it was very difficult to divide them into shares. Hence it may be surmised that the ancient *hiranya* was a tax of this nature.613
The views of Ghoshal are contradicted by Lallanji Gopal. He states that the explanation suggested by Ghoshal ill suits the use of the term in the legal works which speak of the king as receiving specific shares of hiranya along with those of other commodities. Here hiranya would not be a tax but should be translated as 'gold', which in practice might have meant capital in the form of cash. We would not favour the meaning of ‘hoard’ or ‘mine’ for hiranya as the legal texts discuss the question of king’s share in these two separately elsewhere. Hiranya could not be a tax on gold mines because though the term is found in the inscriptions from almost all parts of northern India we do not think so much gold could have been produced everywhere as to form a regular source of revenue.

In the land grants where hiranya has been contrasted with dhānya it may mean cash. Likewise where it is used as opposed to bhāgabhogakara, it is best explained as due paid in cash. We would suggest that it refers to lump assessment in cash upon villages as distinguished from the king’s grain-share assessed upon the individual cultivators. A. N. Bose, however, does not throw any light on the nature of this tax but he is not convinced of the ‘inordinate discrimination’ of one-fiftieth for one crop and one-sixth for other.

Thus in conclusion we may say that hiranya may be taken as some imposition on land in cash with a fixed rate of one-fiftieth.

The term paśu appears to be a tax levied on cattle. Kauṭīlya has specifically mentioned it as a tax levied upon the pastoral wealth of people. He, however has not specified the rates of tax in normal situations but during financial trouble or when the king needs money, he (Kauṭīlya) mentions the rates of the tax. He, in this regard states persons rearing cocks and pigs shall surrender to the government half of their stock of animals. Those that rear inferior animals shall give one-sixth and those that keep cows, buffaloes, mules, asses and camels shall give one-tenth (of their live stock). Thus the rate according to the Arthasastra varies from one-fiftieth to one-tenth.

The Gautama Dharmaśūtra, the Manusmṛti and the Viṣṇusmṛti refer to this term generally along with hiranya and mention its rate one-fiftieth. It has also been mentioned as one-fiftieth in the Mahābhārata.
Arrian has also mentioned in his account that the third caste among the Indians consists of the herdsmen, both shepherds and neat herds and these neither live in cities. They too are subject to tribute, and this they pay in cattle.\textsuperscript{620}

A. N. Bose states that the \textit{paśu} or tax levied on cattle was a regular tax which fell upon the pastoral wealth as the \textit{bhāga} fell upon agricultural wealth.\textsuperscript{621} Ghoshal also calls it a tax on cattle and Lallanji Gopal too considers it general cattle tax.\textsuperscript{622} Thus \textit{paśu} was a tax levied upon livestock of the people.

\textit{Rajjā}, although, was a unit of measure for measuring lands\textsuperscript{623} but in the \textit{Arthasastra} it has been referred to as a source of state’s income.\textsuperscript{624} R. Shamasatry has interpreted it as ‘ropes’\textsuperscript{625} which does not make a sense as land revenue. T. Ganapati Sastri, however, interprets it as ‘the revenue from district officers.’\textsuperscript{626}

U. N. Ghoshal suggest that in its technical sense it is a fiscal term meaning the cost realized by the state for land survey operations.\textsuperscript{627}

Thus it seems that \textit{rajjā} was a tax collected by \textit{Rajjukas} towards the cost incurred by the state in connection with the land survey and measurement.

Another term like this was \textit{corarajjā} which also denote the revenue coming from country parts. Kautilya states that whatever of trader’s merchandise is stolen or lost in the intervening places between any two villages shall the superintendent of pasture lands make good. If there are no pasture lands (in such places), the officer called \textit{corarajjā} shall make good the loss.\textsuperscript{628} Shamasatry reads the term as ‘ropes to bind thieves.’\textsuperscript{629} A. N. Bose opines that both \textit{rajjā} and \textit{corarajjā} comprised fees levied from villages for the tracking of criminals and the escorting of the carvans.\textsuperscript{630} Ghoshal too states that the term \textit{corarajjā} means ‘rope for binding thieves’ and in its technical sense, a fiscal term probably implying due collected by the superintendent of village boundaries.\textsuperscript{631} Thus it appears that \textit{corarajjā} was a sort of police tax or fee.

\textit{Vivītta}, in the similar way as mentioned in the \textit{Arthasastra} appears to be a fiscal due paid by the people to the superintendent of the pasture lands (\textit{vivītam}) in lieu of protection of their cattle from thieves and other beasts.\textsuperscript{632} A. N. Bose
also calls it a fees levied for protection of cattle.\footnote{Ghoshal, however states that in its technical sense the term denotes royal dues realized for the use of pasture lands.} The term \textit{vastu} in the \textit{Arthaśāstra} is used to denote the income coming from the building sites.\footnote{It, according to Ghoshal, as a fiscal term, denotes the ground rent for buildings, shops etc. in the city. Thus it was probably a tax on private houses, buildings and sites etc. and may have been levied both in cities and in country parts.} According to Ghoshal, as a fiscal term, denotes the ground rent for buildings, shops etc. in the city.\footnote{Thus it was probably a tax on private houses, buildings and sites etc. and may have been levied both in cities and in country parts.}

\textit{Pranya} most probably was emergency revenues levied in the times of financial troubles by the state.\footnote{As mentioned earlier, it has been mentioned in the Junāgarh Rock inscription of Rudradāman along with \textit{visti}. Kielhorn explains it as a contribution nominally voluntary (given from affection) but which people feel constrained to make.}

The term \textit{Pindakara} in the \textit{Arthaśāstra} is used to denote the aggregate taxes that are fixed.\footnote{Bhattasvamin interprets it as taxes levied from the whole village.} A. N. Bose and Lallanji Gopal opines that it was the additional cesses in the list of \textit{rāṣtra} or country revenue.\footnote{Ghoshal too states it as lump assessment upon villages.}

\textit{Pratikara} of the \textit{Arthaśāstra} is interpreted by Ghoshal as contributions payable by the villagers severally and collectively in the form of grain, cattle, cash, unpaid labour and compensation for taxes. The expression according to him is also used in the sense of allowances paid by the state to tenants evicted from lands endowed to temples.\footnote{The term \textit{pārśva} of the \textit{Arthaśāstra} has been interpreted by Shamasstry as taxes that are collected when there is some margin left for such collection. Bhattasvamin opines that such exaction are just, in virtue of royalty.}

The term \textit{senābhakta} of the \textit{Arthaśāstra}\footnote{Bhattasvamin as the provisions paid (by the people) for the army such as oil, rice, salt etc. which are to be supplied while the army is marching or preparing for expeditions. Ghoshal states that \textit{senābhakta} was the contributions of oil, rice and so forth, which the villagers have to pay at the time of march of the royal army.} is interpreted by Bhattasvamin as the provisions paid (by the people) for the army such as oil, rice, salt etc. which are to be supplied while the army is marching or preparing for expeditions.\footnote{The term \textit{pārśva} of the \textit{Arthaśāstra} has been interpreted by Shamasstry as taxes that are collected when there is some margin left for such collection. Bhattasvamin opines that such exaction are just, in virtue of royalty. A. N. Bose suggests that}
the *pārśva* is a super-tax collected on excess profit, a marginal revenue like the land cess in British India.\textsuperscript{649} Ghoshal has termed it as ‘margin tax’; extra charge or levy upon land over and above the king’s grain-share included in the list of accidental or miscellaneous (*anyajata*) incomes within the major head *rāṣṭra*.*\textsuperscript{650}*

Thus we may say that it was a sort of extra charge upon land.

**Revenue from crown lands**

The crown lands along with the private lands were the mainstay of finance in the Kuśāṇa period. The state, as discussed earlier was having land under its ownership. It was not possible for the state to cultivate all its land. Hence it had to get it cultivated from the private individuals which in turn created a class of tenants who took the land on payment of some rent.

As mentioned earlier, the terms such as *pārīhiṇika*, *setu*, *ūdakabhāga*, *kaustheyaka*, *vana* (forests) and mines etc. denoted the income from trade and commerce.

The term *pārīhiṇika* of the *Arthaśāstra* denotes to the compensation levied in the shape of grains for any damage done by cattle to the crops.\textsuperscript{651} Shamasasya opines that these are those crops which grow on uncultivated grounds.\textsuperscript{652} Ghoshal interprets it as damage fee or a cess, an item included in the list of accidental or miscellaneous revenue.\textsuperscript{653} The waste land and the uncultivated lands belonged to the state. Thus the term appears to be a source of revenue from crown land.

The term *setu* literally means an embanked reservoir. In the *Arthaśāstra*, the term has been used to denote the gardens growing various items such as flowers, fruits, vegetables etc. and wet fields etc. were grown. It also included the buildings which may be interpreted as any sort of constructions.\textsuperscript{654} Shamasasya interprets it as buildings and gardens.\textsuperscript{655} Ghoshal renders the term as embankment, embanked water-reservoirs, gardens and fields; a technical term for income and taxes derived from the produce of the embanked lands and waters.\textsuperscript{656} This types of lands were owned by the state as we have discussed earlier. Thus the term *setu* refers to the income from these lands.
The term *udakabhaga* in the *Arthasastra* refers to the water cess from royal irrigation works. Kautilya states that those who cultivate irrigating by manual labour (*hastapravartimam*) shall pay one-fifth of the produce as water rate (*udakabhagam*); by carrying water on shoulders (*skandhapravartimam*); one-fourth of the produce; by water lifts (*srotoyantrapravartimam*); one-third or one-fourth of the produce.\(^{637}\) Bhāṭṭasvāmin interprets the term *skandhapravartimam* as water lifts worked by bullocks and the term *srotoyantrapravartimam* as water supplied by channels (*kulya*).\(^{658}\) Ghoshal reads the term as water rates for supply of water for irrigation at varying rates according to the method of drawal.\(^{659}\)

The term *kaustheyaka* of the *Arthasastra* has been interpreted by Shamasastry as the taxes that are levied on lands below tanks, lakes etc. built by the king.\(^{660}\) A. N. Bose also opines that it is the tax on land below tanks, lakes and other sources of water built by the state.\(^{661}\) Ghoshal calls it earning from the king’s store house.\(^{662}\) Bhāṭṭasvāmin also states that some take *kaustheyaka* to mean the produce from country parts; but it is wrong, since such collection has already been noticed under ‘śādabhāga’, one-sixth portion.\(^{663}\) Bhāṭṭasvāmin appears to be correct. Ghoshal too indicates it different from the interpretation of Shamasastry but he does not make it clear that what sort of revenue it constituted. We may take it to be the type of revenue derived from the sale of the products manufactured in the royal store house, but we are not still very sure.

The forests (*vana*) were sources of income of the state. Kauṭilya has referred to two types of forests such as the elephant forests (*hastivana*) and the timber forests (*dravyavana*) which appear to be economically useful to the state. At one place in the *Arthasastra*, he states that in the extreme limit of the country, elephant forests, separated from the wild tracts, shall be formed. He further states that the victory of the kings (in battles) depends mainly upon elephants; for elephants, being of large bodily frame, are capable not only to destroy the arrayed army of an enemy, his fortifications and encampments, but also to undertake works that are dangerous to life. A good defense system ensures the security of a state which in turn ensures its socio-economic prosperity. Hence the elephant forests were directly or indirectly contributing to the royal treasury.\(^{664}\) The timber forests contributed to the state treasury in the form of useful forest products such
as timbers, firewood, fodder, charcoal, metals etc. and animal products also such as horns, skins and bones etc. The persons doing harm to the forests and forest products were fined heavily.665

Mines were under the direct control of the state. Various types of minerals in different parts of country have been discussed in great detail in the Arthaśāstra. Kautilya states that besides collecting from mines the ten kinds of revenue such as value of the output (mulya), the share of the output (vibhāga), the premium of five percent (vyañjī), the testing charge of coins (parigha), fine previously announced (aryaya), toll (śūka), compensation for loss entailed on the king’s commerce (vaidsaranā), fines to be determined in proportion to the gravity of crimes (danda), coinage (ṛūpa) and the premium of eight percent (rūpika), the government shall keep as a state monopoly both mining and commerce (in mineral). Regarding the importance of mines, Kautilya states that mines are the source of treasury; from treasury comes the power of government; and the earth whose ornament is treasury is acquired by means of treasury and army.666

In the Jātaka stories we get many references to the mineral wealth consisting silver, gold, pearls, diamonds, corals and precious stones etc.667

The Periplus also talk about such mines of minerals and precious metals.668 We come across such wealth in the accounts of the foreigners particularly Diodorus, Strabo and Pliny etc. Diodorus, while describing Indian soil states that the soil bears on its surface all kinds of fruits which are known to cultivation, it has also underground numerous veins of all sorts of metals, which are employed in making articles of use and ornament, as well as the implements and accoutrements of war.669 Strabo talks about the mines of gold and silver.670 Pliny too talks of the gold and silver mines and states that the land is rich in metals.671

Salt (lavanam) was also another important source of the revenue for the state. Kauṭilya states that soon after the crystallization of salt is over, the superintendent of salt shall in time collect both the money rent (prakraya) and the quantity of the shares of salt due to the government; and by the sale of salt (thus collected as shares) he shall realize not only its value (mulyam), but also the premium of five percent (vyañjīm), both in cash (ṛūpa). Imported salt
shall pay one-sixth portion (sađbhāga) to the kings. The sale of this portion (bhāgavibhāga) shall fetch the premia of five percent (vyājī), of eight percent (rūpīka) in cash (rūpa). The purchasers shall pay not only the toll (sūlka), but also the compensation (vaidharana) equivalent to the loss entailed on the king’s commerce. In default of the above payment, he shall be compelled to pay fine of 600 panaś.672

Thus it appears that individuals were also allowed to manufacture salt under state license. Manu states that the king should employ the brave, the skilful, the high-born and the honest in (offices for the collection) revenue, (e.g.) in mines, manufactures, and store houses but the timid in the interior of his palace.673 Strabo states that it is said that in the country of Sopoithes there is a mountain of mineral salt sufficient for the whole of India. He refers to the salt mines in India.674 Pliny states there are mountain also formed of native salt, as for instance, ormenus, in India, where it is cut out like blocks from a quarry and is continually reproduced, whence greater revenue accrues to the sovereigns of the country than they derive from gold and pearls.675 It is also stated in the Mahābhārata that the king should appoint honest and trustworthy officers to look after the gold and salt mines as well as other revenues676 There is also reference of mines in the Rāmāyaṇa too.677 The Nasik Cave inscriptions of Gautamiputra Satakarni and Vāsiśthiputra Pulumāvi, while donating the land, refer to the various immunities to be granted along with the donation. One among these is that the field or land should not be dug for salt.678

Thus there were various private as well as royal sources through which the state used to generate revenue.

Mode of Payment

Whether the taxes were levied on the net or the gross produce during the Kuśāṇa period is a point to be discussed here. The Arthaśāstra, in this regards states that one-sixth of the grains grown is allotted to the king as sovereign dues.679 Gautama states that cultivators must pay to the king a tax amounting to one-tenth, one-eighth, or one-sixth of the produce.680 Manu states that a fiftieth part of the increments on cattle and gold may be taken by the king, and the eighth,
sixth, or twelfth part of the crops. Viṣṇu suggests that the king must take from his subjects as taxes a sixth part every year of the grain. The Mahāvastu also talks about a certain portion of the produce in the fields to be given to the king as tax. It is stated in the Mahābhārata that the state should get a sixth part of the produce of the soil as its share. In the Kurudharma- Jātaka, we come across a reference where the state tax collectors (balisādhaka) divides the produce between the state and the peasant. Thus as far as the private land was concerned the land revenue was paid on the gross produce. Regarding the royal property, Viṣṇu states that the person, who ploughs the ground for half the crop, gives the other half to the king or a private person who is the owner. They have been referred to as ārdhikas by Manu. The foreigner such as Diodorus and Strabo state that besides the land tribute, they (husbandmen) paid into royal treasury, a fourth part of the soil.

A. N. Bose however argues that the land revenue of most probably levied on profit. But as far as land revenue is concerned, we do not get any clear reference of such payment. On the other hand, however, the traders, merchants and artisans etc. used to pay taxes on the basis of their net profit and the capital varying with the conditions involved therein. Manu states that having well considered the rates of purchase and sale, the length of the road, the expense for food and condiments, the charges of securing the goods, let the king make the traders pay duty. After due consideration, the king shall always fix in his realm, the duties and taxes in such a manner that both, he himself and the man who does the work, receive their due reward. He further states that let the king take one-twentieth of that amount which men, well acquainted with the settlement of tolls and duties and skilful in estimating the value of all kinds of merchandise, may fix as the value for each saleable commodity. It is stated in the Mahābhārata that taking note of the sales and the purchases, the state of the roads, the food and dress and the stocks and profits, of those that are engaged in trade, the king should levy taxes on them.

Thus the revenue levied on the profits here appears to be the taxes on the traders, merchants and artisans etc. not on the peasants. A. S. Altekar interprets the term bhāgakara as the tax in the form of a share, which was paid as a part of
what was actually produced in the field.\textsuperscript{694} Ghoshal states that the broad fact is recognized that the state revenues ultimately depend upon the production of wealth by individuals, and that whatsoever tends to diminish the latter is bound to react upon the former. Again it is recognized that while taxation sub serves the essential needs of the king or the state, it involves a diminution of the people’s wealth. Hence the task of the statesman is to reconcile the needs of the state with the interests of the subject.\textsuperscript{695}

The revenue from the agricultural land was paid largely in kind. Kautilya, however refers to different forms of payments such as in grains, cattle, gold (hiranya), raw material (kupya), dairy produce and free labour (viṣṭi) etc.\textsuperscript{696} Regarding the revenue from the agricultural land, he states that out of crops grown by irrigation by means of wind power or bullocks (vātapravartimanandinibandhāyatana) or below tanks, in fields, parks, flower gardens, or in any other way, so much of the produce as would not entail hardship on the cultivators may be given to the government.\textsuperscript{697} We get certain references from the \textit{Arthaśāstra} which indicate that not only the revenue was paid in kind, but some other transactions were also done in kind. It is recorded in the text that sale proceeds of grain, grain purchased and the collection of interest in kind or grain debts (prayogapratyādāna) are termed commerce. Profitable exchange of grains for grains is termed barter (parivarthana). Grain, collected by begging is termed prāmityaka and grain borrowed with promise to repay the same is termed āpamityaka. The Smṛtis, the Jātakas, the \textit{Mahāvastu}, the \textit{Buddhacarita}, the \textit{Saundrananda} and the \textit{Mahābhārata} etc. as stated earlier in this chapter refer to the revenues paid in the kind from the cultivated lands. The Rumindei Pillar inscription of Asoka contains the term \textit{aṭṭabhāgiye (aṣṭabhāgikāḥ)} has been rendered as one-eighth of the land produce.\textsuperscript{698} The Mahāsthāna\textsuperscript{699} and the Sohgaura\textsuperscript{700} inscriptions of the Mauryas refer to the royal store houses (kōṭhāgāle) from where the grain was to be distributed to the people during the time of draught etc. Thus all this suggest that the land revenue was realized in kind.

Apart from this, in the same epigraphic records there are indications that the revenue was also paid in cash. The Hathigumpha inscription of Kharavela records that the king remitted taxes and duties amounting to many hundred
thousand coins. An inscription of the year 28, belonging to the reign of Huviśka, refers to the perpetual endowment given to the rāka-guild, 550 purāṇas and to the flour maker-guild, 550 purāṇas. A few Nasik and Karle Cave inscriptions refer to the monetary endowments which make us to assume that the land revenue in certain cases was also assessed in cash. The term sadeyameya referred to in the Karle Buddhist Cave inscription of king Pulumāvi has been interpreted by Ghoshal, as the taxes in kind and cash imposed upon agricultural land. The term hiranya, as discussed earlier, in technical sense, according to Ghoshal, means king’s share of certain crops paid in cash as distinguished from tax in kind levied on ordinary crops.

Thus we may say that the land revenue was assessed and collected generally in kind but side by side it possibly for the convenience of public was also collected in cash.
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