1. Land Reclamation and Tenures:

It is an admitted fact that population in general was not so dense in the ancient and middle ages as at present. The feature is more predominant in the central Deccan, the Dandakāranya of Rāmāyana; than any other part of South India, the reasons being the rocky nature of the soil and inadequate rainfall. Villages were scattered at places where Providence bestowed sufficient water resources, the rest of the country being left uninhabited and covered with unproductive vegetation like shrubs. Kondapur in the Medak district, Pedabankur in the Karimnagar district, Bodhan in Nizamabad district and the like throw some light about the Sātavāhana occupation of the region. Leaving some records of the Badami Chālukyas in the Mahabubnagar district the history of Teliṅgaṇa in general begins with the Chālukyas of Vemulawada who ruled over Pōdana-nādu and Sabbi-nādu comprising the present Nizamabad and Karimnagar districts along the river Gōdāvari. After the advent of the Western Chālukyas of Kalyāṇa more settlements and a form of more systematic government seem to have come into being in Teliṅgaṇa with powerful subordinates and governors under their control. Their endeavour for reclamation of vast areas of forests into arable lands is fully attested by epigraphs. Most of the villages in those days were primarily the settlements of peasants who under the concerned chief's benefaction could
as much land as possible under the plough. The topography of Telengāna region provided innumerable streams, small and big, which were harnessed to fill the tanks for irrigation purpose.

In Telengāna, therefore, unlike the coastal region of Andhradeśa, the kings and their dependents had necessarily a tough task before them, of clearing the jungle for cultivation with the co-operation of certain groups of people who obviously became the inhabitants of such areas. Founding of new villages in Telengāna at suitable places with water resources, became more necessary during the Kākatiya period than in the preceding regimes, till then it formed a part of the great empires of the Nāstrakūṭa and Western Chālukyas successively. The Kākatiyas, on other hand being indigenous rulers of the land for generations strove hard for its development by harnessing all natural resources and brought as much land as possible under the plough. A large number of villages were founded either by themselves or by their subordinates. Most of the present villages in the forest tracts of Manthena-Kāleśvaram, Chennur Narasampet, Achchampet and the Khammammet-Kottagudem in Telengāna were founded in the Kākatiya regime as evidenced by the epigraphs.

There are handful instances which refer to founding of new villages and excavating tanks by the Kākatiya rulers and their subordinates. The Manthena epigraph dated in the first regnal year of Ganaṅapatidēva records that a chief named Allum-
prolārāja who was ruling Chennūrūḍēśa made with the consent of the king a gift of vast area of land to a brāhmaṇa Manchībhaṭṭopādhyāya, the priest of the king in order to found a village and excavate a tank. The donee accordingly founded the village and excavated a tank in it and gave house sites to brāhmaṇas of Mantrakūṭa. A record from Kālēśvara of the same king states that king Buddhayadeva son of Rudra made a grant to the god Kālēśvara of four nivaratnas by the side of a tank in Buddhapura. Here also it is clear that Buddha son of Rudra, probably of the Natavāḍī family founded the village Buddhapura after his name and furnished it with a tank and lands only by clearing the forest area. Another instance where certain Bairisetti of the Vīrabalaṇḍa community is stated in the Chittapur epigraph to have excavated a tank near the village Pedda Pariyala during the reign of Prataparudrādaṇḍa and one third of the irrigated land under it is donated to the god, the remaining two thirds being allotted as the share of the king. It is clearly stated in the record that irrespective of the height of the dam and the extent of the land irrigated the said proportion of 1:2 between the temple and the king should apply. It is very interesting to note in this connection, that the donor out of his religious zeal caused the tank to be dug, the entire benefit accrued from it being given to the god and the king. The king got this two-thirds share because the entire land irrigated under the tank belongs to the king. Towards the cost of digging the tank the merchant got one-third of it which he donated to the god. This indirectly
furnishes the clue that the entire land in the kingdom cultivated or uncultivated, particularly the latter variety belongs to the king alone. For reasons of varied nature like the present one, the kings used to encourage the subjects to bring as much land as possible under the plough. Several villages in Andhradēsā named Gaṇapurās or Ghānpurs after Gaṇapatiḍēva, Rudravarams after Rudradēva and Mahādevapura after Mahādeva have come into being by reclamation of the waste and forest lands. Similarly village Kundavaram in the Chemnur taluk, Adilabād district is stated in an inscription found there, that the village with a tank Kunda-samudra was built by Kundamāmbā, sister of Gaṇapatiḍēva. The villages Bayyarams in Khammam and other districts were constructed by the Kākatīyas after Bayyaladevi, mother of Gaṇapatiḍēva. To construct a village in those days was a pious deed. Similar was the case with digging of a tank. King Gaṇapatiḍēva's preceptor Viśveśvara Sivāchārya according to one of the Tripurantakam inscription purchased some forest land for 850 ādāvānas (or ādās) and after clearing the trees constructed a village named Viśvanāthapura with a tank for the worship and offerings to the god. An inscription found in the village Parada in Nalgonda district, datable to A.D. 1144 records the creation of an agrahāra of the same name where shares of land were assigned to several brāhmaṇas, setṭi, hōya, and some to the god and condition was made that the donees should neither leave the place nor sell away their shares; but they themselves should remain there and
see the village prosper. The lands in the village were exempted from siddhāya, ari and kōru. Such was the motive in those days to promote habitational facilities.

Tenures:

Proprietorship of the land: It is a long standing controversy among scholars whether the proprietorship of the entire land in a kingdom rests with the king or the individual who owns it. The Hindu lawgivers like Manu, Nārada and Kautilya say that the king was the owner of the land. There were arguments and counterarguments on this vital issue of the absolute ownership of land. That the basic proprietorship rests with the king while the individual owner possesses only secondary ownership, seems to be the best and simplest solution for this strifing problem. It is an admitted fact that all the uncultivated waste land and forests in a kingdom belong to the king or State, but none else. When a village is newly constructed in such areas by clearing the forests, as an incentive to the new settlers it is the king who extends several privileges like remission of some taxes for some years, construction of tanks, allotment of house sites free of cost etc. An epigraph at Mellacherruvu in Nalgonda district, datable to A.D. 1311 refers to a gift of tax due from all kinds of government land, rācha-volamu, lying on all sides of the village, whether it be rēṣāḍu or valızāḍu or sandy oil. This is a clear indication that the entire land in the village belonged to the king who distributes it among the cultivators now and then. Even in our
days we notice that waste lands are distributed to the poor by the government. Again, if a nidi or valuable deposit of treasure or mineral is detected in a land of the private owner the king had every right to acquire that land offering due compensation to the individual. However, for any simple reason the king is never interested to deprive the individual of his hereditary right of ownership on a particular land. As far as the State is concerned, it is the due share of yield either in the form of kind or coin that is required from a particular piece of land but not the individual. It is immaterial for the State whether the land is cultivated by this person or that. Only for the sake of peaceful administration the king never, as a rule disturbs the cultivators so long as he gets his annual revenue regularly. Therefore the ryot can either sell, donate or mortgage his land with the same rights what he is hitherto enjoying over it. The king or his government is least worried with such kind of transfer, because it is all the same for it whether the old owner pays the dues or the new owner. This is what I mean by the word superficial ownership of the land which lies in the individual. Even if the king wants to acquire a land from the individual, the latter must be provided with a compensatory benefit.

Deva-vrittis and Agrahāras: As regards the deva-vrittis or agrahāras, a second type of tenures, some specification like mānya or sarvamānya or with ashtabhūka-tāagas-svāmya or sarva-kara-parihāra or sarva-bādhāparihāra or only with certain
limited privileges etc. is invariably noticed in the grants and such terms must be properly understood according to its existing usage in that particular period. In some cases of these dēva-vṛitti and agrahāra tenures also some primary taxes like siddhāya are to be paid. The holders of agrahāra and the temples possess more rights than other owners of lands.

Service Tenures: For service tenures, that is, lands or villages granted to the warriors, nāyakas, ministers, generals anga-raksha-tantrapalas (body guards), karaṇās, and other several officers who serve the king in his administration, almost all the taxes are collected. Instead of paying the officers in coin, it was the custom in those days to bestow on all the officers big or small, some villages or lands according to their service. They never possess any absolute right on those villages. Dēvari nāyaka for example who led an expedition successfully over the Pāṇḍyas during the reign of Pratāparudra, while granting the village Salakalavīdu included in his appanage to the Śrīrāganātha of Kēveri at the command of the king. This indicates that the said dignitary had no absolute right of granting villages as agrahāra or dēva-vṛitti in his appanage.

The rights of the king over these lands are some times merely transferred to the donee without even changing the cultivators. The recently discovered Mogalutla grant of Gaṇapatidēva's daughter Gaṇapābā can be illustrated with much advantage in this regard. It is expressly stated in the record that all the
village servants like the smiths, potters, washerman etc. and the arha-sirins have to pay hereafter the taxes and other levies due to the king, to the donee alone. Arha-sirin here means the cultivators who have to pay half the gross produce to the king or his nominee in the present case the donee. The grant does not effect the lease set up of the cultivators. The only change is they have to pay the half share along with the other taxes to the donee instead of the king. There is another example in this regard. The Peda-Gašjam inscription of the time of Rudramedēvi dated 6.1192, A.D.1270, records the gifts of a garden land is also donated by him entrusting its cultivation to certain Kommereddi on condition that he should share half of the produce with the temple. From these examples we can infer that all government lands or deva-vritti lands unless stated otherwise are leased away to the cultivators on almost permanent basis on condition that they should pay half the gross yield. As regards other lands the government used to collect paňgaamu in kind and coin.

King’s lands: The lands which are not allotted as agrahāras or vrittis naturally belonged to the king and they are called rācha-polamu as noticed in the Mellacheru epigraph referred to above. Such lands were leased out to cultivators on almost on permanent basis, the rent being half or one-third or one-fourth or one-sixth of the gross yield according to the nature of the land.
2. Irrigation:

All the arable land in the kingdom comes broadly into two distinct varieties, 1) the lands which are irrigated by rivers, rivulets, tanks and canals there from, and wells which are called nadi-mātrikas, and 2) the lands which purely depend on rains are called nature fed (or dēva-mātrika) lands. Forests and pasture lands (bīdu) were rather more proportionate in extent than the two types of arable lands, for the obvious reason that the population in the Deccan was not so dense in those days as it is at present. Leaving vast stretches of land covered by hills, dense forests and rocky soil which are altogether uneconomical for cultivation, there are still large areas in Telengāna along the courses of big rivers and small streams for easy and profitable cultivation. The average rainfall not being very low many of the streams in the region receive good quantity of water in rainy season. The freshes being very momentary lasting for only few days much of the water in the streams generally goes waste. Spring wells in the beds of the streams and small canals along their banks at some places are the only means for utilization of the rivers from times immemorial. The rulers of the region prior to the Kākatīyas did not pay proper attention towards the irrigational facilities. It was in the Kākatīya rule that Telengāna received proper attention in this aspect. They realized that vast areas of fertile land were left uncultivated owing to lack of adequate irrigational facilities. The tanks,
though existed even before their advent they were small in their capacities and the area irrigated by such tanks was very limited. They conceived the idea of harnessing the big streams by constructing huge dams at suitable points along their course to form large reservoirs in which water sufficient to irrigate vast areas of land could be stored up. It was a technique by itself in those days to build good tanks. Divine prosperity was always there in Hindu ethics attached to the construction of tanks which in several codes is mentioned as one of the sapta-santānas or seven deeds of great virtue. The Karimnagar inscription of Gangādhara, minister of Rūdradēva, the Ganapēśvaram inscription of Ganapatideva and several other inscriptions allude to sapta-santānas namely, his own son, a temple, a garden, a tank, an agrahāra, a literary work, and a treasure.

Tank digging was generally preceded by the installation of Varuna, the god of waters in order to ensure good supply of water by the grace of that god. Along the course of a river a point will be chosen where it passes between two hills and a dam connecting the two hills will be constructed with mud and stone, so as to form a big reservoir. The land that would be irrigated by the tank water must be also fertile.

In the Kākatīya administration however, there seems no special department or an officer to look after the works of irrigation. Most of these works like construction of temples, tanks and buildings were generally looked after by the ministers
and subordinate chiefs. The Kakatiya kings themselves constructed some tanks. Prōla I according to the Motupalli and Bayyaram inscriptions, is stated to have excavated a tank named Kesari-tatāka after his famous title ari-raja-kēsari (lion to the elephant-like enemies). This tank is identifiable with the one which is near the village Kesaurdra (Kēsari-samudra) in the Mahbubabad taluk, Warangal district. His son Bēta III, is stated in one of the Hanumakonda inscriptions to have begun the digging of two tanks Sētti-Kereya and another Kesari-samudra on which occasion he installed the god Varuna. The same record states that Prōla II also had caused some irrigational tanks to be dug under which he made some gifts of lands.

Rudradēva according to his Anumakonda inscription, caused a big tank to be dug in the town of Udaya Chōda after capturing it. Rudra's minister Gangādhara according to his Hanumakonda epigraph is known to have constructed the big tank which near the present Hanumakonda bus stand. Gaṇapatiḍēva according to the Telugu work Pratapacharitra built several tanks at places like Nellore, the Telugu Chōla capital, Ellore in Krishna district and at Gaṇapuram. References to the tanks named Gaṇapa-samudra are of frequent occurrence in the inscriptions of this period and such tanks are to be believed to have been constructed by the king himself or by his subordinate chiefs. During the reign of this monarch several great tanks worthy of mention were constructed and they irrigate some thousands of acres in Telengāna even today. The following account of some
of these magnificent tanks will show the magnitude of their role in the present irrigational work of Andhra Pradesh.

1. *Pakhala lake*: Situated about 50 K.M. east of Warangal, in Narasampet taluk, the lake lies in the basin of Krishna and Manair rivers. On either side of the tank there is a far stretching jungle. The combined drainage area of the lake is 80 Sq. miles. The annual rainfall in the basin is 40" and the yield from the catchment amounts to 2987 Mc. ft. The capacity of the tank is 2452 Mc. ft. capable of irrigating about 17258 acres. The present extent of land irrigated by the tank is 9037 acres. The huge dam built of laterite pebbles and red-earth is one mile long with 40 artificial channels. The width of the dam on the top is 30 to 50 ft. The lake is not known to have dried up and crocodiles are said to be living in it. According to the inscription set up on the bund it was constructed during the time of Ganapatidēva Mahārāja by Jagadāla Mummādi son of the minister Bayyana nāyaka and Bāchamāmbē.

2. *Ramappa lake*: It is in Mulug taluk, Warangal district, about 42 miles from Warangal. According to the inscriptional pillar set up in the Śiva temple near it, the lake is excavated by Rēcherla Rudra, the general of Ganapati’s armies in Śaka 1135, A.D. 1213, probably simultaneously with the construction of the famous Ramappa temple at Palampet. The length of its bund is 2000 ft. Its height is 56 ft. Depth of the water above the silt is 35 ft. Extent of the total land irrigated is 4350 acres.
There are four channels of 5 miles 4 furlongs, 2 miles 5 furlongs, 2 miles 7 furlongs and 5 miles four furlongs.

3. Ghanapur tank: It is also of the same period as that of Ramappa lake. Extent of the irrigated land under this tank is about 350 acres.

4. Laknavaram tank is another big tank of the Kākatīya period. This and the Bayyaram tank in Khammamet District along with the Pakhala lake are fed by three big streams which flow in three directions of large plateau which forms the catchment area. Bayyaram tank was constructed by Gaṇapatidēva's sister Mailāmba wife of Natavāḍi Rudra. Kundamāmba another sister of the same king had constructed a tank Kundasamudrām after her name near the village Kundavaram. Malyāla Chaunda-sēnāpati, the commander of the armies of Gaṇapatidēva excavated a tank called Chaundasamudra in Kondaparti, about 8 miles from Warangal. His wife Mailama caused a tank to be dug at Katakuru in Karimnagar district. The Pillalamāṃḍi chiefs of the Recharla family excavated several tanks in their fief, the present Nalgonda district. Certain chief named Bollaya-nāyaka of Madapalli is credited with the digging of not less than seven tanks in different places. In short there is hardly a village in Warangal, Khamma, Karimnagar, Nizamabad and Nalgonda districts in Telīṅgāṇa without a tank and several villages have more than one tank. These five districts generally receive more rainfall than the other districts of Telīṅgāṇa and the storing up of water for irrigational purpose by constructing tanks at proper places.
Along the streams proved to be a successful endeavour for the promotion of agriculture which in turn resulted in the economic prosperity of the kingdom.

Besides tanks, canals fed by the sub-soil water along the sandy banks of the streams form another important irrigational source. They are generally called ūṭa-kāluva. A good number of such canals are noticeable in the inscriptions. Reference to Gonugu- kāluva in Karimnagar district which went under dispute between two villages was made in a copper plate record\(^{21}\). Museti-kāluva is the canal fed by the river Müsi; Ālēṭi-kāluva is the canal dug along the river Ālēru near Kolanupākā\(^{22}\). Kūchinēni-kāluva\(^{23}\), Rāvipāṭi-kāluva\(^{24}\), Bommakanti-kāluva\(^{25}\), Uttama Ganda-kāluva\(^{26}\), Uṭum-kāluva\(^{27}\), Chintala-kāluva\(^{28}\) are some examples of such canals.

Drawing water by means of ēṭamu or mōṭa was quite in vogue in those days. They were called rāṭanaś. Bullocks were generally used to lift the water from deep wells. An inscription at Dosapāḍu dated S.1176, records a gift of five rāṭanaś with necessary wood and bullocks\(^{29}\). But where water is not very deep men also used to lift it from canals and wells. Reference to rāṭanaś that is, lifting water by pulley device is not uncommon in the inscriptions. It seems that these rāṭanaś were let out for rent by the owners of the wells to the neighbouring landowners who do not possess wells. This we can infer from the gifts of rāṭanaś referred to in the inscriptions. The
Sanigaram inscriptions of Kakatiya Beta II and Prōla I record gifts of rātanas to Yuddhanalla-Jinālaya, and Madhupesvara. Similarly another inscription at the same place dandamayaka Kondamayya is said to have made a gift of rātana to the god Bhīmesvara. These and other references clearly indicate that the money or grain collected towards the cost of the water supplied by means of rātanas was given as gift to the said deities. Whether they used to charge the rent per day or for the extent of land watered by the rātana, we have no means to know. It is certain that this system of letting out rātanas and the water by the owners of the wells was in vogue in those days. Similarly small ponds or kunṭas of water were granted as gifts to the gods. Mahāmandalesvara Jagadevarasa in his Vemulavāda epigraph dated A.D. 1108 is said to have granted the gift of a small tank called Illendu-kunta to the god Harikesvāradēva. The Magatala inscription records the gift of Baddirāju tank to the god Svayambhu Mallinātha-deva. One of the epigraphs at Amarabad, Mahbubnagar district dated A.D.1290, registers the gift of a canal, dug from the stream named Pogasirivāgu, as vṛitti to the god Mallāradēva of that village. This indicates that the income derived by supplying water to the neighbouring fields through the canal is endowed to the god. The canal therefore happens to be a source of regular income. From such evidences we can understand that irrigational wells, small tanks and canals were managed by private individuals for business
purpose also. Small farmers who could not afford to excavate a tank or well used to purchase water from such well-owners. It is also possible that when wells or ponds could not be easily dug in some land for want of adequate sub-soil water resource, such land-owners would naturally go for purchasing water from a nearby source of water.

Another record in the same Amarabad village datable to thirteenth century A.D. states that a tank belonging to the temple of Svayambhūdeva was repaired by way of raising its bund (and increasing the capacity of the tank) by a certain Mallisetī. Thereby he irrigated new land and paid 30 mādas towards the cost of the land, 25 (mādas) for acquiring nīri-mudī, the right of using water from the tank and 10 vīsas as recurring annual water cess, all the three items being paid to the temple treasury. It is interesting to note here that a private individual on his own accord raised the tank bund and got the land irrigated paying the amount to the temple under the above heads. The individual as well as the owner of the tank i.e. temple are benefited. This is a fitting example to illustrate how irrigational facilities in those days were carried on.

Maintenance of Tanks and canals: The government also took sufficient care in the proper upkeep of the tanks and canals. Annual repairs of the bunds, removal of silt deposits on the bed and repairs of the canals and sluices are main items of maintenance. We find numerous records which appoint certain
persons for this purpose. That person is granted particular income called dasavandha levied on the cultivators generally at the rate of one kuncha per each putti of the gross yield. It is generally called putti-kuncha or chervu-kuncha. There is another kind of remuneration dasavandha-māṇya. Some land irrigated under the tank is assigned to the tank-keeper as māṇya.

AGRICULTURE:

Cultivated land is mainly classified into two varieties, wet land and dry land. Wet land is again subdivided into nir-nēḷa or paddy growing land and toṛa or garden. Dry lands are those where crops like millet, Sesamum, indigo, mustard, castor etc., are grown which depend only on scanty rainfall. Forests and pasture lands are left for grazing the cattle. Lands brought under the plough are called acchukāṭṭu lands which included both wet and dry lands. The term acchukāṭṭu denotes, that the lands was liable for levy of tax generally called ari by the government. An inscription at Kataguru dated 6.1225 records a monetary gift at the rate of one vīsa or 1/16 of a rūkaon every mārtura included in the acchukāṭṭu land as god's share. Here the levy is specified for each Kāru either it be in Kārttiṅa season or Vaiśākha-season. Indirectly the specification furnishes the information that acchukāṭṭu lands are those which are brought under the plough and surveyed systematically for the purpose of taxation. There is a similar term known as adapagāṭṭu the meaning of which is not clear. The term occurs in
the Gudur epigraph of A.D. 1124 and in the Uppunutula epigraph of the thirteenth century. In both the cases the income is given as gift to the gods. In an early record found at Kondaparti near Warangal a term tambula-sravambu, conveys the sense in that context that at the time of leasing out the lands for cultivation, the owner of the land and the tenant undergo an agreement by exchanging betel leaves. Perhaps the tenant has to pay some thing on that occasion to the land-owner. As the word adapamu in Telugu means betel leaves or tambula, adapamu may mean the lands which are leased out for cultivation, by the government.

Agricultural festivals:

Methods of agriculture were almost the same as we find them till recent days before the introduction of mechanized farming. The indigenous tools and bullocks were used. According to the harvest the lands are called Kartika and Vaisakha. Some lands are cultivated in the first season of the South-west monsoon which yield the crop in Karttika and the second type of lands in the winter season to yield the crop in Vaisakha or summer. But there are instances which refer to the lands cultivated in both the seasons. They are called ipu-garu or ipu-upu lands. The Kuchimanch, Govindapuram and several other records distinctly mention these three varieties of lands. Auspicious occasions for sowing the seeds or commencing the new agricultural year, or beginning the year with the new harvest
with regard to wet as well as drylands, have been ceremoniously observed from early days. The Koravi epigraph\textsuperscript{42} datable to C.A.D. 935 levies certain taxes on the cultivators of the village in connection with the commencement of paddy crop, dry crop and \textit{Āmaṇi-Punnama} that is, the full moon day of the month of Vaiśākha. The former two occasions generally fall on Ēruvāka Punnami or the full moon day of the month of Jyēśthā (in the month of June) when the South-west Mansoon sets in and the season becomes suitable for sowing the seeds. This is the main festival for the cultivators to begin the new year. On that day they use to perform certain worship at a common place like a tank bund, a hill or a temple. In the Upparappalli inscription of Gaṇapatidēva's reign dated A.D. 1235 mentions a hill named Ēruvāka-kubbali\textsuperscript{43}, the hillock where the villagers perform the Ēruvāka worship. They come there with their bullocks and ploughs decorated and seeds and worship the deity and proceed to the fields to sow the seeds.

Similarly \textit{Agrahāyanī} or the harvest season commences with the full moon day of the month of Mārgaśira when the new crop of paddy is brought to home for storing. On this occasion also they perform some worship. But this festival is merged with \textit{Uttarāyana-saśkrānti} in the Telugu country, although a nominal worship is done in the harvesting days.

Crops:

Coming to the agricultural crops of the period under study,
among the wet crops paddy was the staple crop as it is today. Even in the absence of huge dams across the great perennial rivers Gōdāvari, Kṛṣṇa and Penna and their present multiple canal system the irrigational facilities provided by the numerous tanks, canals of small magnitude along the stream was by no means insignificant in those days. Every village in fact was self sufficient with regard to food grains rice as well as other grains like millet, rāgi, and other varieties. Abundance of rice is attested by several records of this period. Mention may be made of the incomplete kāvya of an unknown author, found on the hillock near Hanumakonda which describes the lands of Andhra as golden in colour with the riped paddy fields looking like the Mēru mount of gold. All kinds of millets (jowar) were grown in the veli or dry lands. Wheat, green-gram, black-gram, horse-gram and some of the other husked grains (or busi-bhandālu) that were cultivated and grown in the fields. Among the oil seeds, sesame, was the main crop. Muster and pepper, areca-nut, coconut, betel leaves, sugar cane, were other important agricultural products in that period. Handloom industry, in general is basically depended on cotton which is largely produced in vast areas from times immemorial. Mention of tamaric is noticed among the merchandise. Vegetables including root-vegetables are mentioned in inscriptions. Jaggary as well as sugar (dēsi sakkar) were largely produced as evidenced by taxes levied on them in the towns where markets were held. Indigo was another important agricultural product. Onions, ginger, tamaric are also cultivated.
ii) TAXATION

The main source of income for any Government is the revenue by taxes. This aspect of the administration in the mediaeval period of the Indian history was the most complicated affair. Although the Kakatiyas inherited the system from the well established Chalukya administration we notice considerable differences in many places. It seems more number of taxes were introduced by the Kakatiyas than in the preceding regimes. Reclamation of waste lands and providing irrigational facilities perhaps necessitated introduction of new taxes on the lands. We come across in inscriptions large number of terms denoting a variety of taxes many of which are very difficult to interpret. The following pairs will give an idea in this regard. Sunkamu and pannu; Sunkamu and Sunka-kanika; Pullari and Pullarikanika, talari-pannu and talari-kanika. When such terms occur in the same record it becomes very difficult to know the exact nature of the tax. All the above terms occur in the Salakalavïdu epigraph dated A.D. 1317 which we shall take up later for detailed study. Secondly we have no direct evidences to know the exact value of the levies particularly the land taxes. They are to be inferred only from the remissions or gifts of such taxes on brāhmaṇa-vrīttis and temple lands. An attempt is made in the following pages to collect as much information on the subject as possible and offer a coherent interpretation.
During the Kākatīya period the taxes were broadly of five categories viz.,

1. Land taxes
2. Industrial and Property taxes
3. Profession taxes
4. Commercial taxes
5. Miscellaneous taxes

As in the case of other aspects of administration of the Kākatīyas, in the policy of their taxation also we have to depend mainly on the inadequate and undefinable terms that occur in the epigraphs. Added to this the replacement of Kannada terms by Telugu words which at times seem to be vague and inconsistent makes our task still complicated.

I Land Taxes

All the lands which are assigned to private cultivators, temples, brāhmaṇas and nobles or chiefs are invariably subjected to taxation. Only the unassigned lands called rūcha-bhūmi in villages, the waste lands and the forests, hilly tracts, river courses and the like do not come under taxable lands. Even the brāhmaṇa-agrahāras and deva-vṛittis or temple lands which come under sarvamāna tenures are also levied with a concessional rate of tax. More land in Telengana was brought under cultivation during this period than in the previous regimes. In order to encourage new settlements in the reclaimed lands the king or the concerned chief used to grant special privileges to the emigrants. They were allowed to cultivate as much land as
they could without paying any tax in kind or coin for a period of three or more years according to the nature of the land and its resources. When the families settle firmly the cultivable land was demarcated for the purpose of taxation. Such land was called acchukatta or ayakatta where the government was entitled to levy aya or tax both in kind and coin. Some officers in the administration named ayagaadru like karapams were appointed to collect the government share of grain and monetary taxes from the cultivators or owners of the lands as the case may be. The term ayagaadru in the later Vijayanagara period was applicable to the village servants like annual the karanam, talari or watchman etc. who used to get/renumeration generally in kind from the cultivators. But it seems in the Kakatiya period the officers who used to collect the government share of grain were called ayagaadru. A similar word in the compound words tuvu-nyayagaadru and trasu-nyayagaadru the officers who collect levies in measurable grains and weighed articles respectively occur in the records. As both the words ayagaadu and nyayagaadu indicate the same officer and both the words were in vogue in literature and inscriptions of the period, we have to believe that ayagaadru or nyayagaadru were officers like karanams.

The term siddhayamu in the early medieval period used to denote taxes both cash and kind. The epigraphs of the Rama Chodas indicate cash levies as siddhayas. In a 10th century
epigraph found at Kondaparti near Warangal states one putti of grain as siddhāya. There are instances in the Chālukyan records where the word conveyed the meaning of levies both in cash and kind. Coming to the Kōkatīya period there is clear evidence that the word was used for monetary levy on lands. In one of the epigraphs at Matedu in Warangal district dated 9.1232 A.D. some local contribution is assessed on the siddhāya in mādas. About the collection in kind the word does not occur. But in its place there is another word called paṇgu or paṅga.

The following are the more important terms denoting land taxes occurring in inscriptions.

1. Pannu. This is the primary tax levied on all kinds of lands, irrespective of the crops grown in it. Simply for possessing the land one has to pay this tax, because the proprietorship of all lands in the kingdom rests with the king. On which basis it is assessed we have no evidence. On properties other than land also pannu is levied. With a slight difference the word ari as property tax occurs in some records which will be taken up later.

2. Paṅgamu or Paṅga. As noticed above, the ancient term siddhāya is replaced by this term, the meaning of which is nowhere stated clearly. Our inference is merely based on its usage in the epigraphs. Dr. D.C. Sircar has discussed at length about this word and came to the conclusion that paṅga after indicated a levy in general and that there were various
kinds of it. In that connection he quoted from Brown's Telugu-English dictionary 'a tax in the shape of one-fourth of the produce collected in olden times by the government on lands in the possession of gods and brāhmanas' (Deva-brāhma-vṛttula,mīda pūrvapu sarkāru-vāru tiśikonē chaturthāṅśam sina kappamu). At times the term is used as paṅga-tappu which is also equally unintelligible. The word tappu in Telugu means offence which does not convey any sense in the present context. Dr. N. Venkataramanaiah, in our oral discussion expressed the view, that any tax levied on lands which are irrigated or cultivated in excess beyond the authorized area may be called paṅga-tappu that is, the levy imposed as fine for the offence of cultivating unauthorized lands. So far as the literary meaning is concerned it is quite acceptable. But its usage in the records is in a general sense where inflicting of fine for offensive deed is not concerned. Moreover, when this paṅga or Paṅga-tappu is used no other term like siddhāva to indicate king's share in the produce does not occur.

The Durgi inscription, for instance, of the time of Rudramadevi, A.D. 1269, records some grants of lands as dēva-vṛttī to the god Gopinātha and states that the levies paṅga-tappu, paṅga-suśkamu, pannu, kānika, darśanamu are remitted to the kāmpus who cultivate the dēva-vṛttī lands. Here, the dēva-vṛttī lands are already demarcated as arable lands and the kāmpus or cultivators have no opportunity to cultivate
additional land for which offence they have to pay paṅga-tappu. The opinion of the learned scholar, though apparently meaningful does not find proper applicability. The Koccherlakōta record of Pratāparudra's general Devarināyaka dated Ś.1232, A.D.1310 while recording a gift of land to the god clearly states 'paṅga tappu āsvi, pannu sarvamānyamurā icchāna vṛitti' which means that making paṅga exempted and pannu as sarvamānyya the vṛitti or grant was made. It seems therefore, reasonable to take the word tappu to mean 'excluding' or 'remitting' or 'exempting'. Even then the interpretation is not satisfactory.

Leaving its etymological derivation which we do not know, let us try to explain the applicability of the terms paṅga-tappu and paṅga-suṅkamu in the said Durgi epigraph. As noticed before it is the other name for siddhāya of both kind and coin. Occasionally it applies to the levy in cash only, the other levy in kind being represented as kolchu or kolugu. The unpublished Salakalavīḍu epigraph of Devarināyaka dated A.D. 1317 mentions both the terms paṅga-tappu and koluchu as two of the several remissions granted. Similarly the term stands for koluchu or kind only in some cases. An epigraph at Edlapalli in Guntur district records among others the remissions of paṅgamu and puṭṭi-māḍalu, the later term being cash levy, paṅgamu must be in kind. To add to our ignorance there is another term in the above cited Durgi epigraph and that is paṅga-suṅkamu.
So, in connection with pāṇgu or pāṇga or paṅgamu we have to explain three terms in all pāṇga-tappu, pāṇga-sunkamu and koluchu. All these items indicate the king's share in the gross produce of the cultivated land. It is collected in kind and coin on all lands wet as well as dry. Another term para a similar levy is noticed in slightly different sense and explained by Dr. N. Venkataramanayya and M. Somasekharasarma. But its usage is very rare and seems to have merged with paṅgamu.

The rate at which the king is entitled to have a share in the produce is theoretically known from the time honoured scriptures and Manu and others, to be one-sixth of the gross produce. But the kings in all times of history used to collect one-fourth, one-third or even half as is noticeable from some of the records of our period. We notice some interesting records in this regard. An epigraph at Akunur in Warangal district dated A.D. 1172 records that Rudradeva, being pleased with the ekkaṭias or warriors of the place who constructed a temple to the god Rudrēśvara after the king, granted along with others the remission of rāsi-tūmu of Kolchu which was due to the king. Similarly a record at Koccherlakota village in the Prakasam district dated Ś.1232, A.D. 1310 and at Panyam in the Kurnool district dated Ś.1243 refer to rāsi-tūmu and santa-rāsi-tūmu, as the share of the chiefs on all kinds of crops. So we can generalize the system of the levy in kind at the rate of one tūmu per each putti of gross produce analogous
to the words putti-śānīka, putti-kunčamu which occur in the
epigraphs as the levy towards dāsavandha or maintenance of tanks.
One tūmu per putti means 1/20 of the gross produce. This is
what is called Koluchu. Officers called tūmu-nāyāgaśadru or
simply āyagāmāra will visit each land at the time of harvest
and assess the king's share in the produce. In an earlier
record datable to 10th century A.D. found at Kondaparti an
officer named Dhanañjaya-phaladhāru is entrusted with the
collection of Kolugu fixed by the chief. Phaladhāra here
means who assesses the produce and the king's share thereon.
Dhāraṇa or nirdhāraṇa in Sanskrit is to fix or assess.

The second aspect of Pāga-mu is the levy in cash, also
assessed on the gross produce. The above cited Edlapally record
in Guntur district records the remission of pāga-mu as well
as putti mādalu which mean levies in kind and cash respectively.
The levy in cash is evidently māda on each putti of the gross
produce. This is also called putti-pahindr i.e. one gold coin
(māda) per putti. When the assessment is made by the āyagaśadru
the Karanam collects the amount and keeps the account to that
effect. So far we can explain the two aspects of the term
pāga or pāiga-tappu, the levy in kind being also termed as
Koluchu.

In the Salakalgvādu inscription of Devarināyaka dated
A.D. 1317 and the Yelgedu epigraph of roughly the same
period it is termed as kari-kolchu of which the meaning of kari
is not understandable. For the present, I take it as simple
koluchu or levy in kind.
The method of assessment in both the ways is generally based on the quantity of the gross produce. The extent and nature of the land and the crop grown in it are taken into account for certain special or additional levies as we see presently.

The third aspect of the term paṅga-suṅkamu is not easy to understand. As it occurs along with the other word paṅga tappu, it must necessarily be a different levy. The component word suṅka indicates that the levy is on sales. We have to suppose that when levy in kind is collected it is to be sold in the village itself, as the government in those days do not seem to have maintained public granaries for the storage of all the varieties of levy collections and their proper disposal. Perhaps they used to dispose of the daily collections of grains on the spot at the rates current in the local markets. The Vardhamanapura inscription of Ganapatideva's vassal Gāona Gaṇapāyya dated A.D.1224 states that at the place where Kolchu is sold a gift of 2 maṇikas to the god is made. This is a clear indication that Kolchu or the levy collected in kind is generally sold in the markets. Now, arises the occasion for the levy of toll called suṅka. Who has to bear this? The ryot has naturally to incur the suṅka on behalf of the government. The purchaser has also to pay some suṅka on the same article. On deva-vṛtti lands the ryots are sometimes exempted from paying the suṅka on the sales of the paṅga-levies. Whenever we come across the remission of
suṣka on dēva-vṛitti lands we have to understand this import. Otherwise suṣka on such lands has no meaning. Under other heads like pannu, kānīka etc. also the cultivators in those days used to pay in kind. All that grain is to be sold in the market locally. The government at the same time cannot forgo sales tax or suṣka on the sale of those large quantities of grain thus collected towards various taxes. The ryot has to bear it. In support of this view there is an instance in the Garla Epigraph of A.D. 1287 set up by Rudramadēvi's subordinate Bopparāya of the Rēcherla family. It is stated that he made a grant of 15 nivartanas of wet land in addition to the suṣka of the village to the god. Among the remissions of levies on the gift land, ammadikālu is also included. The term ammadikālu is obviously the tolls levy on the sales of the produce collected in kind towards pannu, koluchu, kānīka and the like. Therefore this, item of levy is an indirect tax unduly imposed on the cultivators towards the convenience of exchanging kind into cash.

The fourth item among the land taxes mentioned in the Durgī inscription is
4) Kānīka: Obviously it is the tribute payable to the king, because the proprietorship of the land primarily lies with the king. All the cultivators in general have to pay this tribute to the king or his representative. A number of inscriptions record the remission of kānīka on dēva-vṛitti
lands. On other lands it is a compulsory item of taxation. If the land is in the fief of a subordinate chief, he collects this tax from the cultivators and in his turn pays in lump sum to the king. This kānika is levied not only on cultivators but also on men of other walks of life.

5) Darisanamu: Like kānika, this is also a compulsory payment due to the king or his subordinate chief when the ryot goes to see the king or chief. Even if he does not go to see the king the payment is made compulsory. Otherwise there is no purpose in remitting it on the temple lands. Here also the subordinate chief collects it from the cultivators and others and in his turn pays a fixed amount to the king on this account called dariśana-kānika. The Salakalavīdu inscription mentions both dariśanamu and dariśana-kānika among the remissions.

The above five kinds of land taxes occur in other records also, besides the Durgi and Salakalavīdu grants. The Penuvīli inscription of Pratāparudra’s nagari-vākili (palace-gate-keeper) Errayalekka records the remission of putti-pahinḍi, putti-kolupu, upakshiti (pannu?), snākamu, kānikalu on the lands of the mahājanas or brāhmaṇas and kānika, gadduva mādas (puṭṭi-mādas?) on temple lands. The term upakshiti which occurs also in the Edlapalli inscription of A.D.1311 may mean panna or ari, the primary land tax, because the ownership of the land owners in general is of a secondary nature (upā), the primary
proprietary or kshiti-pati being the king. So the upakshiti-pati or secondary land owner, the cultivator, had to pay the king or his representative a tax called upakshiti which in other terms is called ari or pannu (item No.1 in the above order). In the present record Erraya-lesaka, the fief-holder remitted that upakshiti in the case of mahājanas. The meaning of gaddugama is not known. It occurs also in the Pedakondur inscription of A.D. 1317 as one of the remissions on temple lands. The Kannada word radda and gadduva in Telugu indicate a kind of land similar to nirnela or wet land. Whether it has any connection with this tax is not known.

In this connection the unpublished inscription recently copied in the village Salakalavīdu, in Giddalur taluk, Prakasam district will help us in comprehending the multitude of the taxes of the Kakatiya period in general. The Kakatiya general Devarināyaka on his return from the victorious campaign over the Pāṇḍyas, in A.D. 1317 at the command of the king Pratāparudra grants the village Salakalavīdu in Errva-bhūmi to the god Śrīrangānātha the presiding deity of the two rivers of the Kaverī. The grant includes, it is stated, all the incomes paṇga-tappu Kapi-kolchu, pannu, kānika, pullari, sādamu, suvakamu, talari-kānika, suṣa-kānika, pullari-kānika, dariśana-kānika, pavitra-kānika and ashtabhūsa tājas-svānyatas and sakal-āyās. The village is made a sarvamānyā dēva-vṛitti and handed over to two representatives of the temple named Chittaru and Tirukūra Perumāl. The record mentions as many
as twelve kinds of taxes of which pānca-tappu, kari-kolchu pannu, kānika, pullari, pullari-kānika and daridana-kānika have been explained above as land taxes. But the terms Pannu sumika and kānika are not exclusively applicable to land taxes. They are taxes in other aspects also, as we shall see presently.

6) Additional taxes on land: Besides the above levies of compulsory nature, the cultivators had to pay some additional taxes for the extra benefits and privileges they derive from public sources. The following items come under this category.

(a) Niruvidi: The term occurs in the Akunūru epigraph of Rudradēva dated A.D. 1172 wherein it is stated that niruvidi and other items of income due to the king are granted as vrittis to the dēva-brāhmaṇas, probably in the context the priests who conduct daily worship to the god. Similarly in the Garla epigraph cited above nirudi is also included in the remissions of the vṛttī lands of the temple. It is an additional tax towards the cost of water drawn from a tank or well or rātana or canals from streams. This applies to wet lands only which require water frequently. In the chapter under irrigation it is said before that even private individuals used to maintain tanks and wells with rātanās for the main purpose of selling water to the cultivators. Otherwise, the numerous gifts of tanks and rātanās to the gods in
the inscriptions cannot be explained of meaningful purpose.
If the tank or canal belongs to the king as in the case of the
Akunuru epigraph the income goes to the king. If on the other
hand the water source belongs to the private individual the
levy is collected by the owner, who in his turn pays to the
king a fixed amount for possessing the tank. Same is the
case when the tank belongs to the god. Our present concern
is that the cultivator of the wet lands had to pay this addi­tional levy to the owner of the tank. In one of the inscrip­tions at Amarabad, Mahabubnagar district it is stated that a
setti repaired a tank and got some land in ḍīrī-mūdi, that is
within the area of the irrigable land by paying 25 nādas. The
recurring annual water tax is stated to be 10 ḍīga. The
extent of land is not given. The record is undated, but seems
to be of the Kākatiya period.

(b) Vennu-pannu or Ennu-pannu: This term occurs in the Elgedu
inscription of Pratāparudra's queen Lakshmādevī dated 1301
wherein she grants this income in favour of the local god.
Similarly it occurs in an unpublished inscription found at
Patarlapadu, Nalgonda district, datable to A.D. 1291 wherein
too it is included in the remissions on the lands of the
temple. It is a tax levied on the crops when they are ready
for harvest, the amount being assessed on the appearance of
corn (vennu). If there is a good crop the cultivator is
liable to a levy of additional tax apart from what is stipulated
originally. Dr. N. Venkataramanayya told me that this levy
was in practice in the old Venkatagiri state of Nellore district. The officers of the Mahārāja used to come every year when the corn is reap and ready for harvest and fix the additional levy of tax. We now really surprise to note that such a practice was there even till twentieth century.

c) Bantela-āyānu: This is also one of the remissions granted to all the temple lands of the Kondūri-stala consisting of 18 villages, by Pratāpa-rudra's general Mayidēva-leśka in A.D. 1317. As indicated by the word Bantela it may possibly be a levy intended for the maintenance of bantus or warriors. The general is supposed to maintain a fixed number of bantus or warriors to serve the king in times of war. For their maintenance the general naturally has to raise extra funds within his fief. The only source of fixed income is the tax on land. Perhaps this additional tax in the account of warriors occurs in the fiefs of the generals only who maintain special battalions for the king's use. It is interesting to note that near the village Pedakonduru, in Guntur district where this inscription is found a hamlet named Vīrulapālemu and some vīrakala still exist suggesting its being the residence of warriors in the past. Conspicuously the entire village of Vīrulapalem even now consists of exclusively reddi families whereas the main village Pedakonduru is a composition of all caste Hindus. It is stated in the
Yeḍlapalli epigraph of Mayidēva-leśka’s son Rudradēvanimgāru that Kondūr was in those days a nāyaṇākara village. Now we can say for certain that in all the nāyaṇākara villages in the kingdom the cultivators are subjected to the additional levy of kānteḷa-ñayamu.

d) Ardhāva: Government lands are generally leased out to cultivators on condition that half of the total produce is to be surrendered to the king. Such system is also called Kōru in Telugu. An unpublished copper plate charter of Gaṇapetīdeva dated A.D. 1219 while recording the grant of the village Mogalutla in Guntur district to a brāhmaṇ-Rudrapeddi states that ardha-sīrīnga also should hereafter submit the king’s(half) share to the donee. So all the lands which are not assigned to others on permanent tenures come under this ardhāva tenure and the king gets half of its produce. Similarly there are some lands where the king is entitled for two-thirds share of the produce. A settī or merchant is stated in an epigraph at Chittapur, in Karimnagar district of the period of Pratāparudra, to have constructed a tank and donated one-third of the produce in the irrigated land to the local god leaving two-thirds to the king, because the whole land belongs to the king. Although these lands come under separate type of tenures they decidedly fetch considerable income to the Royal exchequer. We have no knowledge whether on such lands also the cultivator had to pay any tax, and if so at what rate he has to pay.
e) **Pullari**: This is a compound word consisting of **pulu** (grass) and **ari** (tax), which means the levy imposed on the cattle-breeders for grazing the sheep, goats, oxen, cows, buffaloes and other domestic animals in the pasture lands and forests the proprietary of which rests with the king. From the unpublished Salakalavīdu epigraph it is seen that the levy on this account is two-fold, **pullari** and **pullari-kānīka**, the former being the tax paid by the cattle-breeders to the subordinate chief whereas the latter, a tribute in lumpsum paid to the king by the subordinate. It is obvious that the subordinate chief collects large amount and submits a fraction of it to the king. This system is still in vogue in the present democratic age. The village **panchayats** purchase the pasture lands in the village, from the government and allot them to the cattle-breeders at higher rates.

Although in outline, we have dealt with some of the available items of levies on land, the main point regarding the exact monetary value of those taxes and the proportion in which the king and the subordinate chief share that income still remain unknown. As our information is mostly drawn from the records where remissions of taxes are granted as gifts to temples, we lack direct evidence in this regard. An inscription at Dākshārāmam in the Godavari region dated in the 47th regnal year of Kulottunga Chōda I, A.D.1117, shortly earlier than our period roughly furnishes an idea in this regard. It may not be
out of place to note down some of the items given there. Prince Parāntaka son of Kulottuṅga Chōda I, as Governor of Vēṭti issued this charter to the temple authorities.\textsuperscript{79}

### Items of taxation

<table>
<thead>
<tr>
<th>Item Description</th>
<th>King's Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Per one putti of paddy</td>
<td>[1] tūmu of paddy</td>
</tr>
<tr>
<td>2. On cash value of putti-rukas</td>
<td>1 Chinna</td>
</tr>
<tr>
<td>3. On each of the perpetual lamps in the Bhimēśvara temple (other than those of . . . . . . )</td>
<td>3 Chinnas per lamp</td>
</tr>
<tr>
<td>4. On the internal consumption of paddy</td>
<td>3 &quot; per putti</td>
</tr>
<tr>
<td>5. On Śrīmangalis</td>
<td>6 &quot; per head</td>
</tr>
<tr>
<td>6. On pōdu type of lands</td>
<td>6 &quot; per item</td>
</tr>
<tr>
<td>7. On green grams, black gram, anumu, and the like pulses</td>
<td>6 &quot; per putti</td>
</tr>
<tr>
<td>8. Garland makers</td>
<td>4 &quot; per head</td>
</tr>
<tr>
<td>9. Potters' wheels</td>
<td>8 &quot; per wheel</td>
</tr>
<tr>
<td>10. Gingily</td>
<td>4 &quot; per putti</td>
</tr>
<tr>
<td>11. erakatti (meaning not known)</td>
<td>4 &quot; per (head?)</td>
</tr>
<tr>
<td>12. cultivated land in Dakshāramam</td>
<td>5 &quot; per putti</td>
</tr>
<tr>
<td>13. Devill (meaning not known)</td>
<td>5 &quot; per each</td>
</tr>
<tr>
<td>14. millets like korra, ārṇa, variga</td>
<td>6 &quot; per putti</td>
</tr>
<tr>
<td>15. Other crops in wet lands</td>
<td>8 &quot; per putti</td>
</tr>
<tr>
<td>16. Jowar</td>
<td>8 &quot; per putti</td>
</tr>
<tr>
<td>17. Itarat (other lands)</td>
<td>8 &quot; per putti</td>
</tr>
<tr>
<td>18. Dry paddy land</td>
<td>10 &quot; per putti</td>
</tr>
</tbody>
</table>
19. per 100 areca trees .. (figures missing)
20. pannasa (tax on gift lands) .. in full
21. ardhāyamu (half sharing tenures .. in full of lands)

22. Some other items of professions will be taken at proper place.

In the above list the king's share of the dues collected under various heads are shown. The remaining share which is credited in the temple treasury is not known. This gives us the picture how kings used to collect their shares of taxes from temple estates. In the case of the subordinate fiefs one can suppose higher rates. The main item namely how much gross amount the cultivator had to pay under several heads of taxes is not known.

2. INDUSTRIAL TAXES: The oilman and the weaver are the common industry holders, of course small scale, who occur frequently in the inscriptions as tax payers. They have to pay more than one tax on this account eg. for setting up the industry, for running the industry, for selling the product in the market, to the local god, to the samaya or guild of their community and so on. The same inscription at Durgi of the reign of Kākati Rudraṇadēvi, Ś.1191 while registering the gift of a gānavu or oil mill to the god records the remission of certain taxes, named ari, swikasu, pannu and kānika, and states that all these mēras or remissions are sarvarānya. The remissions were granted by Bālanāyini Mallikārjuna the nāyakapūru that is the holder of that nāyakara to whom the said taxes were due. Secondly,
the remission were stated as sarvanānyā. To define the above four types of taxes, ari means the property tax, phannu means the tax on the industry. It is levied in two ways. The licence tax and the recurring periodical tax. The Velpuru inscription of Gaṇapatiśāva dated 1169 refers to the gift to the temple of Nāmēśvara, of the mudra-suṅka, varusa-rūkas levied on oil-mills or gānuvus. Mudra-suṅka seems to be analogous to registration fee of the present days levied at the time of installing the oil mill. Varusa-rūkas is the subsequent periodical tax on the industry. Suṅka is not exactly understood. Perhaps it may mean toll-tax on the sale of the oil which he produces in the gānuvu. Generally donations in the shape of oil mills etc. are made for the regular supply of oil to the temple. And the miller is also supposed to earn his livelihood from the gift mill itself. So he has necessarily to produce some additional quantity of oil beyond what required in the temple and sell it in the market to earn his livelihood. On such sales he is exempted from paying the toll tax. Kānika means the tribute to be paid to the king or his representative, in the present case Bālanāyuni Mallikārjuna. These four types of levies were from the side of the rulers of Government. Besides these he has to pay the samaya-suṅka or the tax to the guild called Teliki-vēvuru or oilmen's association and lastly to the local god or gods. Sanaya-sunka or guild-tax perhaps he has to pay from his personal income.
From this instance of the oil mill or gāmagu we have to infer that irrespective of its nature, any cottage industry whether it be handloom, salt pans, rātana or water pulley for supplying water to the fields for cost from a stream or well, tapping of toddy, pot-making etc. is subjected to a series of taxes.

**Taxes on other property:**

Now let us consider about some more items which come under property. In those days cattle including sheep and goats form one of the main possessions of all classes of people. The rulers invariably used to levy tax on them. We have no knowledge whether they levied a single phased tax in case of those kept for domestic and multi phased taxes on the cattle kept for business purpose. An inscription at Peddaganjam dated 6.1192, of the time of Kakatiya Rudradēvi states that the sheep of a certain shephered who supplies ghee to the temple are exempted from ari, appamanu and pullari. We know about only the grazing tax or pullari which is levied on cattle-breeders for grazing their cattle in the govt. pasture lands. In the present case it is seen that two more taxes called ari and appamanu the former being property tax and the latter perhaps a tribute to the king assessed thereon, the term being a derivative of the Sanskrit word aparmanu. Similarly an inscription from Tripurantakam records a private gift of 50 cows and while handing over the cattle to a cowherd states that he should supply daily one māna of ghee for maintaining one lamp in the temple and pay a tax (ari).
amounting to gadyas 2 and rukas 5 perhaps per annum. Here, 25 cows are generally sufficient for supplying one measure of ghee as was the custom in those days. The remaining 25 cows are intended to meet the tax ari and maintain his livelihood. Even the temple sheep or cows were subjected to property tax. But in some cases it seems such cattle were exempted from taxation. We can understand from this example that the property tax on 50 cows is ga 2, ru 5, per annum that is 25 rukas for 50 cows, for 1 cow 1/2 ruka. When ari is not exempted, the gift of cows or sheep consists of a bigger number in order to meet the government property tax on the cattle. The donor has to provide such facility to the cowherd. Another inscription at the same place records 25 cows for only 1/2 mana or tavva of ghee. In usual terms, only 12 cows are sufficient for the supply of 1/2 measure of ghee. One of the Draksharama inscriptions of an earlier period specifically states kileranu, that is, the levy on the herds of cows and sheep as a separate tax.

**House tax:** This is called in the inscription as ilari (illu= house, ari= ari = tax), illadi and ilu-tera, tera being tax in Kannada. On what basis they used to assess the tax on houses is not known. It seems that merchants and weavers are charged more than the shepherds and other village servants. Our inference is merely from gift records which divert the house taxes to the temples. This tax need not be mistaken with profession tax, because in the case of shop taxes or madiga-sumka
it is clear that shop is different from the business conducted in it. The assessment of the house, as at present, is made on the economic status of the owner. For instance, an undated Perur inscription\(^{88}\) of Kanduri Bhima Chōda records house-wise contributions by the local nakara of merchants depending on three classes of houses. Those houses which are above average are levied with 2 rūkas per house, average house 1 1/2 rūkas and below average houses 3/4 rūka. An inscription at Kokkireni in Krishna district dated A.D. 1314\(^{89}\), some officer of Pratāparudra grants the house taxes of the village to the local god. Details are not clear. The actual rate of house-tax is not known.

3. PROFESSION TAX:

That there existed the system of levying tax on various professions during the Kākatīya period is borne out by more than one evidence. Profession in general sense includes not only castewise livelihood but also some minor industries. Existence of major industries in those days can be safely ruled out. Even the production of yarn and cloth, an essential item of universal consumption was also confined to cottages. So was the case with the production of oil. Regarding the castewise levies it is the general belief among scholars that the system was introduced by the Vijayanagara kings. A copper plate grant of the time of Ganapatidēva dated 6.1141 and issued by his second daughter Kōta Gaṇapāmbā to a brāhmaṇa Rudrapeddi, throws...
much welcome light on this aspect. While granting the village Mogaluțla in the Palnadu-sīmā, to the brāhmaṇa, the record states two important points. 1. The king Gaṇapatiḍēva who was also present at that time granted his share of income in the village to the donee. 2. The dues payable by the village communities takshaka (carpenter), ayaskāra (blacksmith), kumābhakāra (potter), suvaṁnakāra (goldsmith), rajaka (washer), nāpita (barber), chaṇḍāla (pariah), ardha-sīri (cultivator who shares half the produce with the owner of the lands) (and the like) are also granted to the donee Rudradevārgya. The first point indicates that even in the villages of his own daughter, let alone those of other mahāmandaḷēśvaras the king used to have his share, i.e. one-sixth of pannu and other kāṇikas, sumkas etc. which in the present case he granted to the donee. In the Salakalavidu grant also with the express permission of the king Pratāparudra the village with all its incomes was granted to the god Śrī Ranganātha.

Although it confirms the system of taxation on professions we have meagre evidence as to what extent that tax used to be. A damaged record from Kokkireni in Krishna district dated 1314 A.D. mentions in its later portion some taxes on each house of certain castes

- on each house of a Kōmāṭi or setṭi: 1 = 1 rūka
  - Kāṇpu = 1/2 "
  - Brāhmaṇas = 1 rūka per possessing
    - of 1 nartur of land
    - 1 rūka per the grain of 1 puṭṭi
Perhaps the *brahmanas* had no other livelihood except the yield on their gift lands.

One each house of & Weaver& = 1/2 *ruka*

" Karanams = 1 *gadya*

We have no knowledge whether these levies are to be paid to the government or intended to any temple. It seems these taxes due to the government are donated to a temple by the local chief. The record unfortunately is badly damaged.

The Akunuru epigraph of Rudradeva dated 5.1095, A.D.1172\(^4\) is also a good example in this aspect. The king grants to the gods certain levies due to him from industries like *rātanas* and professionals.

<table>
<thead>
<tr>
<th>1. Owners of <em>raṭnas</em></th>
<th>[4] <em>maḍas</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>2. garden <em>raṭnas</em></td>
<td>3 <em>sinnas</em></td>
</tr>
<tr>
<td>3. <em>tammadi</em> (temple priests)</td>
<td>8 <em>gadyas</em></td>
</tr>
<tr>
<td>4. <em>golla caste</em></td>
<td>2 <em>ga</em></td>
</tr>
<tr>
<td>5. <em>anāmiklu</em> (miscellaneous sets)</td>
<td>4 <em>ga</em></td>
</tr>
<tr>
<td>6. Potters</td>
<td>1 <em>ga</em></td>
</tr>
<tr>
<td>7. Barber</td>
<td>5 <em>rukas</em></td>
</tr>
<tr>
<td>8. <em>vasadi</em>-dwellers(Jains)</td>
<td>5 &quot;</td>
</tr>
<tr>
<td>9. <em>samkaṭalu</em> (?)</td>
<td>5 &quot;</td>
</tr>
<tr>
<td>10. Garland makers</td>
<td>5 &quot;</td>
</tr>
<tr>
<td>11. <em>Ilāḍi</em> (house tax)?</td>
<td></td>
</tr>
<tr>
<td>12. <em>Chākale-rūkālu</em> (<em>Washerman tax)</em>?</td>
<td></td>
</tr>
<tr>
<td>13. <em>Aṅgāḍāla mandalu</em> (the cattle sheds in the outskirts of the village)</td>
<td>2 <em>herōś</em> 2 <em>rukas</em></td>
</tr>
</tbody>
</table>
and other levies like tolls, shop taxes and water tax, are stated to have been donated to the gods and brāhmaṇas as vṛtti. And in lieu of these levies the king had made the remission of tūmu-nyāya i.e. King's share in kind on all crops and suāka taxes in coin, of all varieties it seems, in that village. It is why the profession taxes in this case are very high when compared with the previous record of Kokkireni where the people are not granted any other remissions. They have to pay in addition to these taxes based on castes and livelihood, other duties like suāka, kānika etc.

The recently published uttaraśvara grant of Pratāparudra dated A.D. 129095 and the unpublished Khandavalli plates of the same king also state that whatever the eighteen castes of people had to pay to the king should hereafter pay to the donee alone.

The Makthal inscription of the time of Pratāparudra indicate the professional tax on military people. Accordingly each rautu (horse-trooper) has to pay 1 1/2 rūka, tami-gādu (foot soldiers?) has to pay 1 1/2 rūka; ĺite-bantu, (soldier riding on camel) has to pay 1/4 rūka; palan-palamu (?) 1 1/4 rūka.96 Another record at the same place and of the same period records two more taxes namely, each soldier has to pay 1/2 (sinnam) and each dhora (or master of a group of soldiers) has to pay 2 sinnas per annum in both cases.

From these records it seems that Magatal on the bank of Krishna in the Mahbubnagar district was in those days a cantonment. Raichur is on the other side of the river and hence it forms the border town within the Kakatiya territory.
Even the wage-earners are not exempted from profession tax. Some of the employees of the village Kopparam, in Guntur district are stated in a record of the place to have made some gifts to the god out of their payments for the merit of the King Pratāparudra. There is an explicit statement in one of the post-Kākatiya records found at Sarpavaram in East Godavari district datable to A.D. 1404 about vṛitti-panna or profession tax. A time indicator or watch is said to have been installed in the temple of Bhāvanārayaṇa, by certain Sōmāreddi who appointed some brahmanas for its up-keep and gave them lands as remuneration. In that context it is stated that vṛitti-panna (profession tax) and the tax on their lands (para-āya) should not be levied on their families. On the same analogy and the evidences drawn from the Kākatiya inscriptions we can say for certain that there existed in the period under study imposition of taxes on all walks of life.

The Daksharamam inscription of Parāntaka datable A.D. 1117 gives the following rates of taxes on professionals of the village:

1. Śri mārgaḷi 6 chinnas per head
2. Garland maker 4 " "
3. Potter's wheel 8 " per wheel
4. Vaddari 8 " per head
5. Kamaṛi (smith) 8 " "
6. gold smith 8 " "
7. Kāmā chari (carpenter?) 8 " "
8. Koda Maṅgaḷi(?) 6 " "
9. Washerman 8 " "

In the unpublished Patarlapādu inscription dated 3.1212, of Prataparudra's reign also gives such taxes as donation to the god.

Gollavāru (cowherds) 1 Chinna per house
Weavers 1 " per magga or loom
Pregāde 1 " per house
Śrī māmgali (barber) 1 " per locality
Potter 1 " per house
Warriors 1 adduga per head
Pattalavāru 1 " per peta
Ayagamāda 2 chinna
Karanams 1 chinna

4. COMMERCIAL TAXES:

Like Pannu, Suśka is again a general term which has a wide range of application from tolls on merchandise to tax on marriages. It is levy tolls on articles of trade in general. During the Chālukya administration it is called vaddaravula-suśka which formed a major source of revenue. Dignitaries like Anantapāla Dandanāyaka with the designation Suśka-hērgāda were entrusted with that branch of administration. The Kākatiyās adopted the same system of toll collection on all kinds of merchandise. The term vaddaravula was replaced by the Telugu term adda-vattu or simply adda, a word which indicates a place where business transactions are conducted, or a place where things temporarily stay (majili). The word adda-vattu or
addapattu means to take on lease or contract the right of collecting tolls in a particular adda or market. These private contractors are generally called suṅka-sanyasāndru or toll-farmers. They have to pay in return a proportionate income regularly to the king or his representative in addition to the initial cost for purchasing the licence. In this case also we have no-direct evidence to know on what basis these toll fees were levied. Only from gifts made to gods out of the tolls collected in a market place we have to infer the nature of these taxes. On almost all varieties of articles of merchandise tolls were levied. Even the articles which were brought to the market but could not be sold for various reasons were also subjected to partial taxation towards the rent of poṇita or market which belonged to the government. How much they actually used to collect and how much they donate to the gods out of it we have no definite knowledge. Further, some records simply state that the merchant guild or the administrators of the region made certain gifts to temples, of money or rice or oil collected as tolls on the articles in the poṇita. Such gifts at times seem to be voluntary contributions in addition to the Government levies. The sellers have to pay the poṇita-suṅka in as many markets as they take the articles. If the article was not sold in two or three or more markets, the owner had to pay tax in every market till it was disposed of. The rate of levy is also changeable from market to market.

All the gift records in this regard are not useful in our present investigation of toll assessment. But, we can say for
certain that there existed some kind of assessment of the toll tax and special officers in this regard were appointed by the Government. First to name was the Suňka-mañyaśādu or tax-farmer who purchases the right of collecting the suňka in an adda. He remits the government share then and there to the Karanam whose responsibility is to receive all remittances made to the credit of the Government account and to maintain proper accounts of all transactions. The third officer is perhaps the tirpari who makes the assessment, that is, the value of the commodity and the tax fixed by the government thereon. His responsibility is to see that neither the government nor the owner of the article is subjected to any loss by undue taxation either lower or higher than the fixed rate. So it is interesting to note that this important aspect of the collection of suňka locally managed by tax-contractor (suňkari) and the tirpari. The fourth officer is the Kolagāđu or the person who measures or weighs the articles. The tolls at the fixed rates are thus assessed and levied by these four officers of whom three namely the Karanam and tirpari are government officers whereas the tax-farmer and the Kolagāđu are private contractors who purchase every year the right of collecting suňka. His profit depends on the quantity of goods sold in the adda in the year. He is permitted to take his prescribed share of the suňka and nothing more. This is the general procedure in collecting the addavattu-suňka. One of the Tripurantakam inscriptions dated 5.1218, A.D. 1296 can be with much advantage taken as a fitting example in this connection.
A gift was made to the goddess Tripurādevī for the merit of king Prataparudra, the commander of his armies named Rudradevani, and his (king's) mahāpradhāni Pochirāju, by the nānadeśi salt merchants and the local officers Karanams, tirphris and the Kola-kāndru. It is specified that taking five perukas or bags of salt as a unit they should assess the value of the salt in all the salt aṅgas or viḍus (shops), and the mānyazāndru or tax—farmers should pay at the rate of one chinnamu per māda value of the salt towards the above said gift. Here it is only the government share of the toll is specified. Otherwise there is no need for the said officers to assess the amount of tax. This assessing is particularly stated in the record as dharapamūsa. It is interesting to note in an epigraph datable to A.D. 10th century found at Kondaparti near Warangal an officer Dhanaśayja designated as Phaladharu was entrusted with the duty of collecting certain tax. Here Phaladhāru means who makes the final assessment of the value of the agricultural produce for the purpose of taxation. Though obscure, the word dharapamu sāsi is immensely useful in the present context to explain the duty of a tirparī who assess the tax without being detrimental to the producer or the owner of the article on one side and the suṣkari or tax—farmer on the other.

Another inscription of Gaṇapatidēva's reign mentions certain tirparī an officer of two districts namely Gudrāraṇu and Velanādy who makes a gift of aṅgadi-suṣka to the god
Kundesvara of Gudivada, the headquarters of Gudrara-region.

From this we can understand that like the present village, firka, taluk and district level revenue officers, the tirparis of those days were also village, firka (or sthala), and district (or nādu) level officers. They were similar to the marketing officers of the present day. Really a highly responsible officer he was in the administration of the Kākatīyas. The importance in this case lies that the rulers were very keen in seeing that the interest of the producer or owner is not adversely affected at the hands of the suṅkari or tax collector and at the same time without causing any loss to the government exchequer. For every sthala or a group of villages there seem to have been more than one karanaṃ, one tirpari and one kolakādu. Tirparis of higher rank were places in charge of one or more nāduś as noticed in the Gudivada epigraph cited above. The duty of a kolakādu is to measure the grain (busi-bhandalu or Kolcu-bhandalu) which is brought to the market for sale. Articles which are generally weighed by means of trāṣu (or balance) are also to be weighed by him. Some other articles like mango fruits, and those which are to be reckoned as card-loads or pack loads etc. for the purpose of levying the tolls their quantity is to be decided by these authorized Kolakāyas. These officers are generally chosen from the setṭi or merchant communities as the reason seems to be that they know well the honest and deceptive ways of measuring and see that the latter methods are not adopted in the market. Two epigraphs from Ipuru dated 8.1200 register the gift of gadyas for the lamps to the god
Allāḍāḍāṭha made by certain Bacchu Nārapāsetṭi, out of his income derived by trāsu-nīṇā (or balance weighing). The gift is intended for the merit of the king Rudradēva mahārāja. It is obvious that this Āsettī is newly appointed for the post of Kolagāḍu and on that occasion he made this gift out of his professional income for the merit of the king. The measuring or weighing job in any village is also put to auction every year and the highest bidder will be given that opportunity. A single broken record from Nadigudem village, Krishna district furnishes a bit of evidence in this regard, stating that the amount realized as auction proceeds towards the measuring would be donated for the offerings of the god. However, this system of selling lease of the kolchu-job in an open auction, though it is not unlikely needs further conclusive evidence. In such a case, only the karāṇam and tīrpāri are the two regular officers whereas the Kolagāḍu and the sunkari (toll farmer) are on contract basis or semi-government officers.

It seems that the usual rate of ammubādi-suṇāka in cash was 1 vīṣa per māda of gross sales. It is at times referred to as māda-viṣālu and viḷchu-viṣānu when purchases are intended. Some records give rise to the curious doubt whether the suṇāka on the articles of merchandise is double phased, namely it is levied both on sales as well as purchases at the same time. For example the Durgi inscription dated S.1191, A.D.1269 specifically states that any article whether sold or purchased is levied with a suṇāka of 1 vīṣa per gadyāṇa. Similarly an inscrip-
tion of Prataparudra’s reign, at Karavadi in Prakasam district, mentions ‘two-phased tax, on the sales as well as purchases. One of the epigraphs at Peruru Nalgonda district dated in 5th regnal year of Chalukya Bhulokamalla records in a specific terms the remission of both su\textipa{ka}s on 30 salt pack loads (\textipa{re\textipa{d}u su\textipa{ka}su\textipa{lu}\textipa{\bar{a}m ba\textipa{ri}\textipa{h\textipa{\bar{a}m}\textipa{\bar{a}}}) That all sorts of commercial transactions are compulsorily subjected to two-phased toll-levies is thus conclusively evident. It is noticed before in connection with the land taxes that even the Government share of the land produce is levied with su\textipa{ka} at the time of selling it. When it happens to be a gift both the seller and the purchaser naturally volunteer to donate to the god. Another point in this two-phased levy of su\textipa{ka} is that it is generally noticed in case of wholesale merchants or guilds and not retail hawkers. In the said Durgi record it is a voluntary levy on Chalumula-ubhayan\textipa{n\textipa{\bar{a}}d\textipa{\bar{e}}si-pekkandru. In some cases it is only on purchases. For example the Velpuru epigraph of Ganapatid\textipa{\bar{e}}va’s reign records the levies on purchases alone made in the add\textipa{a}. It is also interesting to note in the same record that in the case of sheep the levy is on both purchase and sale. A glance at the following items of taxation mentioned in that record gives us the idea of the levy of su\textipa{ka} in general. Dochana-Peggada grants these levies in the adda-vatta-w\textipa{\bar{a}r\textipa{\bar{a}} of Velpuru (in the limits of licensed adda) to the god Ram\textipa{\bar{a}}\textipa{\bar{a}}vara mah\textipa{\bar{a}}\textipa{\bar{e}}\textipa{\bar{a}}va for the merit of king Ganapatid\textipa{\bar{e}}va in the year S.1169.
I. Any thing that is purchased
   1. horse 2. ox 3. cart 4. reins (straps or ropes)
II. Sheep - both purchased and sold
III. Performing marriage
IV. Purchase of sesawum
V. Purchase of kolchu (Government grain collected as tax in kind, sales tax on this item being already collected from the cultivator.
VI. The udra-suśka (Registration fee) and varusa-rūkas (recurring periodical tax) on oil mills

What is more interesting is that Dochana-Peggada seems to have been newly appointed as addavat-ta-suśkādhikari an officer in the rank of a minister and begins his career with this pious deed.

Generally these suśka remissions or gifts of suśkas to the gods are made by officers of high rank. In the above Velupuru record Dochana-Peggada is stated to have made the gift of Suśkas. In the Salakalavīdu record stated in the beginning Devari-nāyaka who was the military general and nayaṁkara-holder under Pratāparudra was the donor. In the Kolavennu record certain Siviri Annaya, a saryādhikāri is said to be the donor.

Adda-suśkas are levied only at the places where government maintains addas. In certain big villages where business used to flourish since olden days, they arrange addas. Such places are called peṭas and weekly fairs were conducted in those peṭas. Those peṭas where suśkas were systematically levied and the
entire transactions were supervised by the government officials, were called *suṣka-peṇtas*. The Koccherlakoṭa inscription dated 61232[^1] refers to such *suṣka-peṇtas*. There is another tax called *āṇgāḍi-mudra suṣka*, perhaps a tax to register the article for taking into the *āṇgāḍi* or *āḍa*, which is different from sales or purchase tax.

There is an interesting record from Panugallu[^2] dated A.D.1122 issued by Mallamā, the queen of Kanduri Tonḍaya chōda, which specifies certain levies on the articles of merchandise. Unfortunately the record is broken and incomplete. Some of the items are as follows:

<table>
<thead>
<tr>
<th>Articles</th>
<th>Suṣka</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Salt <em>nīharava</em></td>
<td>Cash: 1/4</td>
</tr>
<tr>
<td>2. a card load of jowar</td>
<td>Cash: pa 2 1/4</td>
</tr>
<tr>
<td>3. one <em>peruka</em> or two pack loads paddy <em>nīharava</em></td>
<td>Cash: vi. 2</td>
</tr>
<tr>
<td>4. betel leaves for <em>peruka</em> two pack loads</td>
<td>Ru. 2 1/2</td>
</tr>
<tr>
<td>&quot; for head load</td>
<td>Ru. 2 1/2</td>
</tr>
<tr>
<td>5. areca nuts for cart</td>
<td>Ru. 8</td>
</tr>
<tr>
<td>&quot; for <em>peruka</em></td>
<td>Ru. 4</td>
</tr>
<tr>
<td>6. Pepper for cart</td>
<td>Ru. 6</td>
</tr>
<tr>
<td>&quot; for <em>peruka</em></td>
<td>Ru. 3</td>
</tr>
<tr>
<td>7. ginger for cart</td>
<td>Ru. 2 1/2</td>
</tr>
<tr>
<td>&quot; for <em>peruka</em></td>
<td>Ru. 1</td>
</tr>
</tbody>
</table>

[^1]: numbers in parentheses refer to page numbers in the original text.
[^2]: numbers in parentheses refer to page numbers in the original text.
In the table we notice that suāka is collected both in cash and kind on many of the items, except salt, paddy, tamaric, jaggery and cotton on which 1/4 nibarava is levied. The exact meaning of the term nibarava is not known. Perhaps one-fourth of the gross profit might be the intended levy on those articles. The system of levying the tax in kind and cash is perhaps to minimise the loss in government share when the prices of the articles fluctuate abnormally.

In this connection we have another evidence regarding direct levy of toll-tax or customs duty. The famous Motupalli charter of the time of Gaṇapatīdeva records the rates of taxes on some of the articles imported and exported from that sea port. According to this record:

1. the rate of duty is one in thirty on all exports and imports.
2. on one tola of sandal, 1 pagoda, 1/4 fanam
3. on one pagoda's value of country camphor, Chinese camphor and pearls, 3/4 and 3/1 fanam
4. on one pagoda's value of pepper 3/4 and 1/8 fanam
5. on all silks 5 1/2 fanams per bale (? svarūpa)
6. on every lakh of areca-nuts 1 pagoda 3 1/4 fanams.
In some inscriptions we get a clear statement regarding the rate of *sunka* is noticeable. The Nadendla inscription\textsuperscript{116} of Ganapatideva's reign \(\text{S.1180}, \text{A.D.1258}\) states that on the sale of cart horses and other animals 2 visas per māda is to be paid.

\[
\begin{align*}
2 \text{ visas per 1 māda} \\
= 160 \text{ visas} \\
\text{1 visa per 80 visas} \\
\text{or } \frac{1}{80} \times 100 = 1 \frac{1}{4} \text{ per cent}
\end{align*}
\]

Similarly the record at Durgi\textsuperscript{117} states that ubhaya-nānadesi merchants gave on all sales and purchases 1 visa per māda which also gives the same percentage of levy if takes 5/8 per cent on sales and 5/8 per cent on purchases (1 1/4 per cent).

But at the times there is a mention of 1 mānika per māda of sales on which the rate of levy cannot be easily assessed. The Tripurantakam\textsuperscript{118} inscription dated \(\text{S.1214}\) mentions one mānika per māda of gross sales or profit. It is not known how the system suited.

5. MISCELLANEOUS TAXES:

Under the main head of *sunka* we come across a number of taxes of miscellaneous nature.

1. *Burra sumkam*\textsuperscript{119} - occurs in the Kaṭukuru inscription of \(\text{S.1180}\) and it is granted to the god Gōpināthadēva. It also occurs in the Pamapuram inscription of \(\text{S.1200}\). We are not certain whether it means barber tax or the tax levied at the
time of Keshakhandana or the hair-cutting ceremony of boys conducted in temples.

2. Madiga-suukamu\(^\text{120}\) occurs as a gift to the god in the Jadcherla epigraph. It is a tax levied on a shop or angadi. For maintaining a business shop tax is to be paid.

3. Puttuperu-suukamu\(^\text{121}\) - This may not be confused with Perij powsta or herjุnka of the Kannada inscriptions. It is stated in this case that it is in connection with the occasion of naming the child. It occurs in other records also.

4. Marriage tax\(^\text{122}\) - This occurs in the Velpuru inscription of Ganapatideva's time. In the Gudivāda inscription\(^\text{123}\) of the same period it is specified that the party of the bride groom in the case of marriages of the Komatīs should pay 1 rūka. In the Rompicharla epigraph dated Š.1187, only the marriage tax in general is alluded to. The Paidipādu epigraph of Š.1077 also mentions-

5. Gaûdi-suukasu\(^\text{124}\) - The term is not fully available in the record. Gaûdi in Telugu means the hollow basin made of stone or wood in which cattle are provided with water for drinking. If this arrangement is to be made near well some tax might have been levied on the owners of the cattle.

6. Rēvu-suukasu\(^\text{125}\) Levy on ferry. An inscription at Konidena of Ganapatideva's reign states that certain Dochirāju Ganapaya makes a gift of rēvu-suukais of Oṅgōru to the god Chennakeśava of Cherukūru. Collection of taxes on ferries probably by leasing
out the right of maintaining the ferry across the rivers was in vogue.

7. An inscription at Daksharamam of 12th century A.D. mentions (a) Alamu, (b) Siddhāya (c) samāsta, (d) Antarāya (e) abhināvāya (f) salvisampada and (g) gantu etc. of Andanuru village which are donated to the temple of Bhimēśvara.

(a) alamu is according to the dictionary is vegetables - (perhaps a tax on it?) It occurs in a Daksh. Ins. of 49 regnal year of Kula.127 alamu, pannasa, antarāya and kilaramu. Salvi-sampada and gantu not known. pannasa is the concessional low tax on gift lands Antarāya is the tax levied on the gardens of areca trees;128 kilaramu is the tax on the herds of sheep.

It is not known whether these special taxes are limited to the properties of the Bhimēśvara temple or of any sort.

Antarāya, Vannāya and samāsta are stated in one of the Bhīmavaram inscription to have been purchased on lease for mādas 27 1/2 per year.129 It seems therefore that all of some of these incomes due to the king were usually sold on lease to tax-farmer.

8. Madhyaka is an arbitrary term which occurs in the recently published Uttarēśvara grant and Khandavalli plates of Pratāparudra. It perhaps applies to any tax which might be levied on the villagers under any extra-ordinary conditions.
9. **Radchayamu**\(^{130}\) occurs in one of the inscriptions at Palivela, datable to Ś.1345 (A.D.1423). The meaning is clear, the income due to the king, It is granted to the temple by the Reddi queen Anitalli.

10. **Ayavāyamu**\(^{131}\) This occurs in the above stated Polivela record along with Rācha āyam. In a Kakatiya record at Penumūli dated Ś.1236, it is grouped with suvākamu, pullari, kānika. It seems to be the incomes due to the subordinate chief being different from the Rāchāyamu or dues to the king.
Guilds Like agriculture, trade or movement of essential articles from the place of production to that of the consumer, is an age long practice of every country for all times. During the Kākatīya period, as in the preceding regimes trade was conducted by well organized merchant guilds. The epigraphical sources reveal that several kinds of merchant guilds used to carry on the commercial operations in the kingdom. The common term for a trader is behāri and the business he does is called vyavahāra, the former of course being a derivative of the latter. The merchants were broadly of two kinds, svadesi or those who belong to the kingdom and paradēsi or itinerant merchants. It seems the former class of merchants are also called nakaramu and the latter as nānādēsi-pekka andru or ubhaya-nānādēsi-pekka andru. However, there is no hard and fast rule in this regard at least during the period under study. The famous Ayyāvali-500 guild, which practically monopolized the trade in the whole of Deccan seems to have become a nominal institution in the Telugu country during the Kākatīya period. Neither they seem to have had any connection with the main organization of the Ayyāvali-500, nor did they have any religious leanings to the Jaina persuasion as they are supposed to have according to Dr. P. B. Desai. Records which contain the vīra-banca praśasti also occur rarely. Merchants of other guilds do occur in the records, but they were all not of the traditional vīra-banca.
caste, or for that matter not even of the vaiśya or kōnatī community. In this regard, an inscription at Tripurantakam dated 6.1214123 A.D.1292 very interestingly contains two separate eulogies, the former portion being the Telugu praśasti of the local guild and the latter in Kāmada of the Ayyavali-500. It is a record of the mercantile guild which registers some gifts to the god Tripurāntaka. The guild consists of members of not only the setti but several other classes like reddis, nāyudus, bōyas or cowherds and dāsarīs most of them belonging to the villages of the Telugu country only though they call themselves as nānā-dēśi-pekkaṇḍru. This is a clear testimony to the fact that the Ayyāvali tradition of the trading organisation has become mere literary. They were no doubt, conducting trade on large scale in various regions and in various articles. The balaṇja-settis themselves in course of time, probably owing to their religious leanings to Jainism, seem to have been removed from at least some of the business guilds. The Kaṭukuru epigraph of the time of Pratāparudra mentions mahājanas, nakaramu kāṇḍu and balaṇja-settis separately among the donors indicating that the balaṇjas are not included in the other merchant classes included in the nakaramu.124 Similarly the Telugu chronicle Pratāpacharitra while giving the list of houses of the various castes in the capital Oruṅallu makes a clear distinction between vaiśyas and balaṇjas.
The advent of Kakatiya regime in Telangana, brought over a change in the set up of the mercantile guilds. They have become non-sectarian. The trading organisations of the period were mainly called nakaramu, svadāsi, paraddāsi, ubhaya pānādeśi-pekkaṃdru. As in the case of their sects, we cannot exactly define the sphere of activities of these four kinds of guilds. Every sthala or market place like our modern town seems to have a local guild besides the itinerant groups of traders. A vīrabalaṃja guild of Ekanadala-sthala in Guntur district according to an epigraph dated A.D.1269 is stated to have been possessing the trade licence for Pākaṇādu-21000, Vēngi-16000 and Amakonda-pattana-sthala. This guild is designated as ubhaya-gānādeśi-pekkaṃdru of Ekanadala-sthala. The members of the guild are also called prabhu-mukhyas of these trading areas. Probably the organizational body of the guild comprised the prabhuses or nominated heads of the samavas of local merchant. Although the eulogy contains the terms 'pañchaśata-vīra-sāsana-labhānēka gopa ganaśaka kuṇa ganapalakīrta ... vīrabalaṃja' it omits the Ayyāvallai-nūrvaru etc. We can infer from this that there existed in that period that the guilds had to obtain licence from the government with specifications regarding the regions of their business operations and the articles of their trade. This particular guild we have to understand got the licence to carry on the trade in areca, gingili, grain, cotton, betel and oil because on these articles only they made the gifts to the god. The Warangal fort inscription of Gaṇapatidēva datable to A.D.1228
records the gifts made by several beharis dealing in varieties of articles. The cloth merchants were svadesi and paradesi. The areca and indigo merchants were also svadesi and paradesi licence holders. Nakaramu is also stated in the trade of areca. Another guild called sāsirbaru is stated as the dealers in betel leaves, vegetables, coconut, mangoes, tamarind and other fruits and pickles. It seems that these sāsirbaru (thousand) merchants are perhaps the several local merchants who deal in perishable articles. The gingili dealers were svadesi-paradesi. The same merchants also deal in wheat, green gran, paddy, jawar and other grains, salt, oil and ghee, pepper, mustard, honey, metals like zinc, tin, copper, and camphor, musk, silk, precious stones, pearls, beads, tamaric, onions, ginger, and roots, yarn, and so on. This is an important inscription which not only furnishes the names of the guilds but also the articles of their trade. The form of a model market and its business activities can also be known from this record.

Another interesting point to be noted in the Enanadala record referred to above is that the said guild had got the licence to operate its business mainly in the Pākanādu-21000 the present Nellore and parts of Prakasam district, and Vēṅginādu-16000, the present west Godavari, Krishna and Guntur districts (the place of the record). But the guild obtained permission to conduct business in the metropolis town Anumalonda exclusively in the Telīṅgāṇa region. Almost all the merchant
guilds in the kingdom besides their respective regions of business, used to maintain regular contacts with the metropolitan traders.

Several craftsmen or manufacturers of various kinds of commodities also form into guilds and take to the profession of not only manufacturing but also selling their goods in the nearby fair or in their own villages. The Weavers, oil mongers, smiths, potters, jewellers or gold-smiths, basket-makers, mat-makers, and the like come under this class. They form their craft-guilds through which they manage the affairs of not only their society but also their industry and trade. They can also sell their goods in the markets or addas paying the due toll tax. So also is the agriculturist who produces the grain or other products like jaggery, sugar (dēši-sakka) oil from gingili and mustard etc. As far as trade is concerned these producer-cum-traders though organize themselves in guilds do not generally go beyond their native places and the penta or places of fair in their neighbourhood. All these guilds are included for the purpose of trade, in svadēśi-behārulū. In fact they are not regular traders of multiple commodities. Yet they have a place in the adda or market. Their role in the commercial set up of the country is by no means insignificant.

Traders: Although the trade guilds consist of several members drawn from various castes, it is needless to say that the trade in medieval India was dominated by the Vaiśya community. In the Telugu speaking area this community is termed as Konāṭis a term,
according to some scholars derived from the Jain god Gomathesvara, as most of these people followed Jainism in their religious persuasions. A number of epigraphs in the region do bear testimony to this view. However, as Dr. P. B. Desai says further researches are necessary to accept this view as a fact. These Komatis are otherwise called settis (Sreeshthins', Chettis). The importance of a Komati in the economic life of the medieval Deccan is attested by the twelfth century Telugu work Sumati-sataka supposed to be of Baddena the author of Nitisāstra-muktāvali. He says that a Komati is the life of a town, like the trunk to an elephant and water to the paddy crop. Even today in remote villages the petty Komati meets all the daily requirements of the people, of course on payment. In short he is the main organ through which the economy of the state is distributed in its nook and corner. Almost all towns and places of agricultural production in those days were the centres of their activities. All the retail and a fraction of wholesale business was managed by them the rest being handled by the guilds and the producers like the oil-monger, weaver and agriculturist.

That the kings and subordinates of the period patronized State-setti was borne out by several inscriptions. Certain Dāram Govindu setti and his pegra of Kākatiya Rudramadēvi are mentioned in the Mahāmbadābad epigraph dated A.D. 1268. A certain Sūpapā-setti is stated to be the settī of Kulottunga Goṅkara in a Daksharam epigraph. Another setti of the same king is named Raddi Nūskāna son of Ayyapareddi. Here it is doubted
that even reddis were appointed as Settis of the palace or king. Several other settls also claim to have been the royal settis of this king. In every town and business centre, there seems, the kings used to appoint their royal settis, perhaps to dispose of the grain collected as government share from the cultivators. It is also to be investigated whether these royal settis in some, cases act as tirparis whose duty in those days was, as noticed before, to assess the value of the articles of merchandise that are offered in an adda for sale, for the purpose of taxation.

Purchase of licence: The merchant associations purchase the licence for conducting the business in a particular town or adda (fair). The numerous records which register their voluntary gifts to the temples for the merit of the king or the chief bear testimony to this view. A more specific evidence in this regard can be drawn from the Chittapur epigraph of Prataparudra's period. It records that certain Bairi-setti of the Virabalanja community excavated a tank in the village Pedapariyala and donates one-third of the yield from the irrigated land to the god, the remaining two-thirds being left over to the king. It is evident that the merchant purchased the licence of trade from the king or State, the cost of which was paid by digging the tank. Besides trade-licence he could donate one-third of the yield to the god and acquire religious merit. The king in return got some of the waste-land reclaimed in the name of business-cum-religious motive of the merchant. The transaction is very interesting indeed.
Another instance of purchasing trade licence by the guild nanadesi-pekkanagru can be illustrated from a record at Tripurantakas datable to A.D.1282. The record begins with the lengthy eulogy of the guild Ayyavaliya-nivattu-alnurvar and mentions the names of all the members of the guild, some of them being reddis, some nayudus, some settis and others. There it is stated that they have all come there on their samaya-karya or the work connected with their association. It cannot be certainly the routine commercial business. It is definitely the office business of the guild. Had it been a routine business, the names of all the members of the guild need not be mentioned. The donations are generally recorded in the name of the nakaram. So also routine business. For example, another inscription at the same place dated A.D.1270 simply mentions the nakara and records the gift to the god at the rate of one Kesar-visa per mad on the sale produce they get in the pedja or the market town of Tripurantaka. This is a mere gift. But in the present case where the names of all the constituent members of the guild are specified, it is to be inferred that the said members alone forming a guild have come to Tripurantaka on guild business (samaya-karya) perhaps purchase licence from the authorities concerned for conducting trade in the adda or market of that place. This is the import of the words samaya-karyanikai vacchi (having come on the work of the guild). So they have come to purchase the licence for trade. The authority to accord permission was Nandaśiva, the sthanapati or pontiff of the
Tripurantaka temple estate, who was also the administrative officer of all the ḍēvavrīttis of the temple including the town Tripurantakam. In this aspect he is more or less like any other subordinate chief. The terms of the deed include not only gifts to the god but also some other incomes to its treasury which the guild earns in the markets of other towns Veliganḍla and Doranḍla. The record is worn out at places and some points of the terms are missing. Although there is no specific statement in it, the nature of the record clearly indicates that it was a deed of trade-licence. Hereafter any of the above named members of the guild are supposed to have the right of conducting their business transactions in the āddā of Tripurantakam.

A close examination of some of the inscriptions thus, reveals that there existed the system of according trade-licence to the guilds or individual merchants on payment in cash or kind the value of which depends on the nature of the trade.

The nature of their mutual co-operation whether all the constituent members carried on the business collectively or individually or both ways cannot be ascertained from our evidences. So is the case regarding the articles of their trade. However, we can infer from the available sources, that though not all members of a guild, at least some of them could unitedly conduct the trade under the banner of the same guild and share the profits. Their adherence to the laws of the
guild and honouring the various gifts made at several places on the sale produce is invariably observed. The articles of trade also seem to remain the same with regard to a particular guild and its members. The Warangal Fort inscription of Gaṇaṇapatiśeva mentions several groups of merchants and their articles of trade and their respective places in the market yard.

<table>
<thead>
<tr>
<th>Places</th>
<th>Name of the guild</th>
<th>Articles</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Chīre-mathya</td>
<td>Svadēsi-Paradesi</td>
<td>all sorts of cloth</td>
</tr>
<tr>
<td>2. . . .</td>
<td>Vadalavāru</td>
<td>nilī or indigo indigo</td>
</tr>
<tr>
<td>3. Poka-matha</td>
<td>svadēsi-paradesi</td>
<td>areca</td>
</tr>
<tr>
<td>4. Aku-penja</td>
<td>sāsirbaru</td>
<td>betel leaves</td>
</tr>
<tr>
<td>5. Vegetable market</td>
<td>(local) bēhāra or Sāsirbaru</td>
<td>all vegetables, coconut and all kinds of fruits, pickles.</td>
</tr>
<tr>
<td>6. nūvula-penja</td>
<td>Svadēsi-paradesi</td>
<td>gingili, wheat, gram paddy, jowar and oils</td>
</tr>
<tr>
<td>7. uppu-penja</td>
<td>&quot;</td>
<td>Salt</td>
</tr>
<tr>
<td>8. metal ware?</td>
<td>Tagaramvāru</td>
<td>Tin, copper, lead and all other metals</td>
</tr>
<tr>
<td>9. perfume-shops</td>
<td>Udbhaya-nānadesi</td>
<td>Sandal wood, camphor musk and other perfumes</td>
</tr>
<tr>
<td>10. Precious stone-ivory etc.</td>
<td>&quot;</td>
<td>Pearls, glass beads etc.</td>
</tr>
<tr>
<td>11. nūlu-mālīsa \ (yarn and wool?)</td>
<td>&quot;</td>
<td>cotton, yarn, wool etc.,</td>
</tr>
</tbody>
</table>
Fairs: Trade, either wholesale or retail, is generally conducted in select places usually called *pətə*, *adda*, or *sətə*, the former two terms are no longer in usage whereas the word *sətə* is still in vogue in all parts of the Telugu country. Besides this, a number hawkers or street vendors take portable quantities of their commodities carrying them on heads in baskets or bags and *kəvədias*, shoulder-rods with two equal loads hanging on either end of it and sell the articles. For the purpose of taxation it seems the system of trade in select market places was introduced. No doubt it facilitates the business of both the seller and the purchaser. Only some big villages even today are provided with organized *pətəs*. They are called *sthalamu-*pətəs. Most of the village or town names ending with *pəta* or *pətə* in the Telugu or Karnataka regions were in former days, the centres of commercial business where fairs were organised once in a week. *Sthala* in those days was an administrative as well as revenue unit of some villages with an important village as headquarters of the officers like *sthala-Karanam*, *sthala-tpirparis* and *sthala-suṭkarulu*.

The Koccherla Kota inscription of the Kakatiya general Devarināyaka datable to A.D. 1310 furnishes the nature of a public fair or *pətə* of the period. The *pətə* accordingly is provided with thatched sheds (pətkas) where the traders on paying rent can temporarily keep their merchandise. The rent of each shed is stated to be one *sədvəna*, perhaps for a period of one week, the normal duration between two consecutive fair-
days. When the commodity is removed from the shed and put for sale in the market yard he has to pay again one _gadyān_ as yard rent. Thirdly it is stated that merchants had to pay _mudra-suṣṭa_ or registration fee to take the articles into the market yard for sale. Perhaps this item of tax must have been very low, being levied uniformly on all items of sale big or small. In the Koccherlakota record it is stated that the _bacchus_ or _kōmaṭis_ who collect the _mudra-suṣṭa_ should remit the same to the temple as _sārvarāṇya_, without super tax.

Separate levies on hand-bags of salable articles and some other items which is not clear in the record are said to have been donated to the god. From this grant we can infer that the _peṭa_ or _ḍada_ is constructed and properly managed by the State. The items of income thereon are its rent for the sheds and the market yard and the _mudra-suṣṭa_. The initial licence charge as noticed before is also due to the State or the local chief. The actual _araṇabādi-suṣṭa_ or sales tax and _vilchù_ or purchase tax which vary according to the quality and quantity of the article will be collected by the _suṣṭi_ or _suṣṭamāṇyagyādu_, toll-farmer to whom the right of collecting these _suṣṭas_ is periodically leased out by the chief. The merchant who brings the merchandise to an _ḍada_ or _peṭa_ is liable to pay a series of taxes before he finally disposes of his goods. The above described gift, it is stated, is made to the temple from all the _suṣṭa-petās_ or the market places in the region of the chief where _suṣṭa_ or toll regulations are enforced. This
suggests that in small villages the petty merchants or street vendors are not liable for the multiple toll-taxation. However, they are not totally excluded from the primary toils. The unpublished Itikala epigraph of the early Kakatiya chiefs datable to A.D. 1138 records a gift to the local god, of the income derived as toll levied on all the street vendors who sell articles carrying them in baskets on their heads. Each basket carrier has to pay some tax.

These petty hawkers are perhaps subjected to annual tax without taking their monthly or daily sales into account. The wholesale merchants in the addas have to pay the ammubadi-suṣṭka or sales tax only when the sale of his goods is effected. Similarly an epigraph at Pedakonduru, Guntur district datable to A.D. 1317 records the remission of ammukada-suṣṭkas on devavṛtti lands situated in 18 villages. Thus it is to be inferred that ammubadi-suṣṭka or sales tax in some form or other is levied in every village and it forms one of the main sources of income to the government exchequer.

Articles of Trade:

The village during the period were self-sufficient to the extent of food and clothing. However, several articles and cattle are to be transported from one place to other. Even the agricultural products may not be always just sufficient. Besides the surplus production in a place is to be exported to other places. Things like salt, minerals and forest products must
necessarily reach every village. Of these, salt is the most important item of trade as it is needed in all places and in all times. Among the aromatics or spices pepper, ginger (both green and dried), cloves are included. These were imported from other parts generally. Among the animals, horse, camel, cow, oxen, sheep and buffalo, commonly occur in the records of the period. Separate fairs must have been organized for animals as at present. The articles mentioned in the Warangal inscription exhaustive list in this regard. The absence of a similar list for animals in that record suggests that a separate fair for animals was maintained. The Velpuru inscription dated A.D.1247 of Dochana pegaďa Gaṇapaya, mentions horse, ox, sheep, cart, ropes as salable things.

Trade routes and Transportation

The famous Ayyāvali guild, from the beginning of its trade with the Telugu country during the Early Chālukya and latter regimes used to transport their commodities of trade on horses, asses, oxen and carts along certain inter-state long routes. Such routes still remain as national highways connecting important towns of Andhra and Karnataka. The roads between Ballary-Nellore, Ballary-Chittoor, Raichur-Kolanupāka, Bidar or Kalyāṇi-Kolanupaka and Anumakonda are some of these ancient inter-state routes of trade. The sea-port on the east coast is connected with Karnataka through Tripurantakam-Kurnool and Ballary. The road between Koppabal-Raichur in Karnataka and Kolanupāka in Andhra was a fairly traversed highway during the
latter Chalukyas. The road is called dandu-bāta or military route even today, reminding us that during the prolonged military conflicts of Chalukyas and Chōlas the armies were led through that way. It has become an important national highway connecting Andhra and Karnataka to-day. Similarly the road between Bidar-Patancheru-Warangal is one of the ancient routes. The salt producing coastal towns like Pedaganjan and sea port Motupalli are linked with Ballary through Tripuranākan and Kurnool. Anumakonda, the metropolitan city was connected with all other pakṣas or market towns of the kingdom by good communications which have now become the National and State highways.

The two perennial rivers Godavari and Krishna, the courses of which in Andhradēsa are by no means small in length must have played a considerable role during the period under study. The levy of Rēvu-suṅka referred to in the Konidean epigraph of Gaṇapatideva bears testimony to the fact that besides ordinary ferry operations, major transportation of commercial goods was also carried out on rivers. Wherever the boats used to load or unload the merchandise the owner had to pay Rēvu-suṅka in addition to his general way-licence. Similarly along the east coast all the important towns were connected with the sea-navigation. The importance of the famous Motupalli port will be dealt with shortly.

As in the present, in those days also transportation of the merchandise was largely effected by hired means of transport.
Individual merchants and guilds may also at times maintain their own carts, oxen, horses and the like to a certain limit, but that was not always adequate to meet the needs of their trade. In all the market centres, therefore, there used to be some people who maintain carts, oxen, horses, assess and the like for hire and make it their livelihood as the lorry-owners of the present day. They have to pay some kind of suaka to the State or the local chief according to the number of carts or oxen or horses he maintains. An interesting information in this regard is contained in one of the epigraphs at Tripurantaka, of Ganapatidēva’s reign dated 6.1167. It records the remission of suaka on 300 perēka oxen in the town of Tripurantaka which belongs to the god Tripurantaka. The Kaṭapuś who own the oxen for hire are called perēka-vāru and the oxen are called perēka-edlu. The grant was made by Pochana-Peggada-Ganapaya the sarvādhikāri or agent of the king. It seems the oxen used to carry free of hire, all the commodities required in the temple of Tripurāntaka. The Kaṭapuś or owners of the oxen are also permitted to earn their livelihood by hiring the oxen to the general traders. Any way, this record bears testimony to the prevailing custom in the period that some people live on transportation business alone in the market towns and they are called perēka-vāru. It seems this sect of people is included in the list of eighteen castes as noticed in the Lēpakshi copper plate grant of A.D.1680 as perikel-ettuvaru, who transport the perikas or packloads. Thus we can conclusively assert that
trade transportation in our period also was largely handled by perikevāru, who were not altogether of a different caste, but only Kapus. They were levied with sumkas of all kinds including this additional perika-sumka. So far this is what the perikevāru are concerned. The second item in the record is about the benefit for the temple. It is evident that all the goods for the temple use are transported by the oxen free of hire charges. Thirdly, how is the officer Pochena-pergada Gaundapaya is concerned with this affair? Perhaps he might have been newly appointed to the post of sumkarti at this place and as an act of gratitude to the king he granted this tax remission for the merit of the king and made a good beginning of his job with a pious deed. Such is the role of the temple in the mediaeval ages.

Important trade centres: Orugallu the capital town deserves first mention. In those days the market at this place is called Mathiya as the word occurs more than once in the Warangal record of Ganapatideva referred to above. There, seems to have been the saña or peyta of the capital town and that particular place was called Matheya. It is located between the old town Anumakonda and the New town Orugallu fort area, and at present it is called Mathewada which forms the heart of the modern Warangal, where all business activities still take place.

2) Panugallu, near Nalgonda, which was the capital of a branch of the Chōda chiefs of Kanduru was a big trade centre.
3) Jadcharla in Mahbubnagar district, near Gangapuran was another centre of business and this maintains the same status even today.

4) Alampur on the bank of Tungabhadra was another trading centre.

5) Magatala near Raichur, on the left side of Krishna was not only a cantonment or military station but also a trade centre.

6) Manthena in the Karimnagar district is a trade centre

7) Peruru in the Nalgonda district

8) Velpuru in Guntur district

9) Tripurantakam-penn in Guntur district

10) Penugonda in west Godavari district

11) Koccherlakota in the Prakasam district

12) Pedaganjam - salt pans - "

13) Nellore

14) Ghantasāla (SII.X. 264) mentions 120 nakara, probably the licenced traders of that place - Krishna district

15) Durgi - Guntur district

16) Gudivāda - Krishna district

17) Macherla - Guntur district

18) Tangeda - Guntur district

19) Lebāka - Cuddapah district

20) Mandaluru - Cuddapah district

21) Upparapalle - Cuddapah district

22) Enamadala - Guntur district

23) Mopuru - Cuddapah district

24) Dornala - Kurnool district

25) Kopparam - Guntur district.
Measures to be taken by the king: The Telugu literary work on polity named *Nitisara* attributed to Kakati Rudradēva gives us very interesting information regarding the responsibility of the king in maintaining proper conduct of trade in the kingdom. It is disastrous, says the verse, to the people if the king appropriates the articles of merchandise, enhances the *swāka*, refuses permission to *Paradēśi* merchants to carry on trade, keeps himself unconcerned when the merchants enhance the prices as they please and when the weights and measures do not remain standard, allows theft and adultery and allows the use of false balances even at the cost of his income. Again says the writer when a single merchant purchases a commodity and tries to enhance its selling price abnormally, the king has to confiscate the commodity paying the dealer its lowest cost price. This is how the king has dealt with the hoarders and black marketeers.

Foreign Trade: This account on trade of the mediaeval Deccan cannot be concluded without a reference to the Motupalli inscription of Gaṇapatidēva, a unique record which bears testimony to his earnestness towards the economic progress of the kingdom. He issued that charter in the Śaka year 1156, at Dēśuyakkondapaṭṭana otherwise called Moṭupalli. It is said that for the sake of glory and for upholding the cause of eternal justice or *dharma* which is stumbling in the rise of the Kali age he granted certain privileges to the sea-traders. The following is the English translation of the main edict as given by
"By this glorious Mahārāja Gaṅapatidēva the following edict (assuring) safety has been granted to traders by sea starting for and arriving from all continents, islands, foreign countries and cities.

Formerly kings used to take away by force the whole cargo viz. gold, elephants, horses, gems etc. carried by ships and vessels which, after they had started from one country for another were attacked by storms, wrecked and thrown on shore.

But we out of mercy for the sake of glory and merit, are granting every thing besides the fixed duty to those who have incurred the great risk of sea-voyage with the ambition that wealth is more valuable even than life.

1. The rate of this duty (is) one in thirty on (all) exports and imports.

2. On sandal $\frac{1}{4}$ rūka per 1 tula or 1 gadyāna value

3. On camphor, Chinese camphor and pearls $\frac{3}{4}$ and $\frac{3}{8}$ of a rūka per 1 gadyāna.

4. On rose-water, ivory, civet, camphor-oil, copper, zinc, mercury (riseya) lead, silk-thread, corals and perfumes $\ldots \ldots \ldots \ldots \ldots \frac{1}{4}$ and $\frac{1}{8}$ of rūka per 1 gadyāna.

5. On pepper $\ldots \ldots \ldots \ldots \ldots \ldots 3/4$ and $1/8$ of rūka per 1 gadyāna.

6. On all silks $\ldots \ldots \ldots \ldots \ldots 5 \frac{1}{2}$ rūkas per svarūpa or bale.
7. On areca-nuts . . . . . . . 3 1/4 rūkas per 1 lakh
or 1 gadyāna value.

The following points may be noted from the above.

1. The king out of mercy granted this to the adventurous traders who were formerly put to harassment by abnormal taxation by the former kings, taking advantage of the helplessness of traders.

2. Gānapatidēva extended his benevolence to them for glory and merit (kṛpavyā kīrtvā and dharvāya) - the great ideals of a Hindu monarch.

3. He assured them that the levy of customs would be very low (klipta).

4. The traders are stated to be arriving and going from and to the various countries. Motupalli, therefore was an important port of international trade.

5. The general rate of levy on all exports and imports is one in thirty.

For example, if 30 elephants are exported 1 elephant is to be given as customs duty.

So in the case of all animals and other articles the value of which cannot be assessed on the spot.

It is clearly stated that Kanaka-kari-turaga, ratna etc. (gold, elephants, horses, gems) also formed items of export and import.
6. On sandal the rate of levy is 1/4 rūka per gadyāna is understandable. But the rate per each tula is quite abnormal. The assessment seems in either way.

7. On the areca-nuts the assessment is made on either 1 lakh nuts (probably measured or assessed according to number of bags). The levy can be also assessed according to the gross value in gadyānas.

8. All other items are assessed in gross value.

9. Textiles are levied according to number of bales (5 rūkas per bale).

10. Among the metals copper, zinc, mercury and lead are included in the general list. Therefore other metals are to be understood as of less frequency in the port.

11. Prof. K.A. Neelakanta Sastri opined that the trade in this port was only one-sided, that is, only controlled by foreigners but not by indigenous traders. His estimate seems to be unreasonable. Traders generally move on both ways, unless the country happens to be ruled by another nation, as in the last few decades when the western monopolized the sea-trade in India.

12. Unlike the usual gift records, the list in this record gives us an idea about the general rate of levy of customs in those days. It is one in thirty, excluding the specified items.

Thus, the sea-borne foreign trade which received a setback in Andhra during the preceding regime owing to the indifference of the Chālukya-Śhōla kings was now rejuvenated
by the Kākatīya monarch Gaṇapatidēva. The great Venetain traveller Marco Polo visited this port Motupalli in the closing years of Rudramadēvi. The exports from this port according to him, were diamonds, best and most delicate buckrams and those of highest price which look like tissue of spider's web. He says about the fine variety of cloth "There is no king nor queen in the world but might be glad to wear them."

Besides Motupalli, in the Prakasam district, few more coastal towns used to serve as ports in those days. Kīshṭnapatnam in the present Nellore district, as evidenced by the inscriptions which record several gifts by makara and parādēśī merchants, seems to be an active sea-port in the 12th, 13th and 14th centuries A.D. The Telugu Choda rulers of Nellore who were subordinates to the Kākatīyas are noticed to have patronized the trade in this town. Similarly Chinaganjam in the present Prakasam district, used to be a sea-port even from the Sātavāhana period. Divī or Hamsala-divī, at the mouth of Krishna, was a port under the Velanāṭi chiefs from whom the town was conquered by Gaṇapatidēva. Similarly the town Bandar is also a port in the Krishna region. Although we lack recorded evidence regarding the activity of those minor ports, their role in the navigational trade during the Kākatīya regime cannot be altogether insignificant. The ports where customs were levied on exports and imports were called Karapattanas and regular warehouses were maintained by the State.
The countries with which the Andhra traders in those days established trade relations can be easily inferred from the Motupalli record. Besides the general mention of all continents, islands, foreign countries and cities a specific mention of Chini (China) is noticeable. It is indicative that all the countries like, Indonasia, Java, Sumitra, Japan, Malaya, Burma, being on the sea route must have also been visited by these traders. Similarly articles like pepper and aromatics indicate the South and South-West regions of India. We have no knowledge about the country or countries from where horses were imported. The large-scale use of horse in wars and transportation of merchandise during our period is borne out by literature as well as epigraphs.

In this connection it is worth noting the various foreign countries with which Andhra maintained trade relations and the imports thence narrated in the Telugu work Haravilasanu of Srinatha (who) flourished in the first half of the fifteenth century. Sri M. Somasekhara sarna has rightly identified most of those places. As the Kâkatiya period is not much earlier than that of the poet those places mentioned by him might have been in trade contracts with Andhra in the early days also.
iv) KAKATIYA COINS, MEASURES AND WEIGHTS

Coins: After a series of researches by several eminent scholars the question whether the Kakatiyas ever had coins of their own remained unsolved till now. The discovery in the recent years of some coins bearing the clear legend in Nagari characters Kakati Pratāparudra etc., made the historians feel relieved of the vexed problem in the history of the Kakatiyas. But thanks to Dr. N. Venkataramanaiah's historical insight the coins were proved to be of the Gajapati king Pratāparudra of Orissa. Basing on the āṅka reckoning and the reference to Kaṭaka, the capital of Orissa he conclusively assigned those coins to Pratāparudra Gajapati, who ruled besides Orissa the entire east coast from the river Ganges to Udayagiri in the Nellore district of Andhra Pradesh from A.D.1497 to 1516. The learned scholar quoted in support of his view the following prāśasti of the Gajapati king Pratāparudra from one of his copper plate grants.

1. Vīraśri Gajapati Gaṇḍāvara navakōṭi karnā-
2. Āta Kalubarīśvara Kākāta Rudra Veṅkka-
3. ṭarāya Śri Pratāparurdadēva sahā-
4. rājāśkaru vijayaraḷē ........................
5. ...........................................
6. sanasta 19 saṃkka śraṇi Makara
7. .............................................
It is not unlikely that this Gajapati king acquired the title 'Veṃkaṭa' by conquering the region up to the Veṃkaṭādri or Tirumala hills and the title "Kakati" by capturing the town Orugallu. Tradition has gone to such an extent that his son Virabhada Gajapati has allegedly treated as the son of Kakati Pratāparudradēva. So also is the case with the coins. The above epigraphic evidence disproved the whole theory. A similar evidence proved the existence of the genuine Kakatiya coins as we shall se presently.

Some years back, the history department of the Andhra University collected a copper plate grant of the time of Pratāparudra. It contains five plates hung together to a ring which contains a seal. The legend on the seal reads Dāyagaja-kāśari in clear Telugu characters of thirteenth century. While editing an article on the grant this writer has to find out to whom the title Dāyagajakesari belonged. There are two grants recorded in the plates. The first grant was made by Induluri Annaya the famous Kakatiya general in A.D.1289, whereas the second was made by Chalukya Induśēkhara, a subordinate of the king. Although the record refers to the Kakatiya Kumārarudradēva a ruling king, without proper evidence it is very difficult to ascribe the seal to the king because the title Dāyagaja-kāśari is not popularly known in relation to him.

On the other hand, there are instances where grants were issued by the subordinates chiefs and princes under the authority
of the seals containing their own names. The seal of the Mallavaram grant of the time of Kulottunga Chōda I contains the legend of the Prince Parāntaka, the donor, although the sovereign king was described in it. Similarly the recently discovered Mogalutla grant of Kōta-Gaṇapāmbā contains a seal with the symbols of sun, moon, vaṛaha and Ganda-bhūrunda, the royal insignia of the Kōta chiefs.

The primary obstacle in assuming that Pratāparudra by virtue of his sovereignty must be the owner of the title, is its rare usage in the prāśastis of his known records. Even literature like Pratāparudra-yaśōbhūṣana, a contemporary work or the later works Pratāpacaritram, Siddhāvara-charitra and the like do not help us in this regard. The uncommon usage of the title makes us doubt whether the appellation really belongs to Pratāparudra. A strenuous search in the available inscriptions however, reveals some stray references to the title, ending with kēsari applicable to the Kākatīya kings. But a careful search in the inscriptions reveals that the Kākatīya rulers bore the titles ending with gaja-kēsari.

The earliest member among the Kākatīyas who possessed a similar title namely Ari-gaja-kēsari was Prōla I. It is said about him in the Bayyaram tank inscription.

Tasmāt Prōla-kṣitīśāḥ=khūṭ khyāṭ-Āri-gaja-kēsari |
yaḥ Kēsari-tadāgaṇā tad chakra bhū-chakra-vallabhah||

[Translation: To him (Beta I) was (born) Prōla-kṣitiśā popularly known as Āri-gaja-kēsari (the lion to elephant-like
enemies) who, the lord of the earth, caused the famous tank called Kesari-tabaka to be dug].

With regard to Rudradēva, a solitary reference is traceable in the Bekkallu inscription of his subordinate Vrekkaśī Mallireddi dated Ś.1097, A.D.1176. The eulogy of the king in it contains the title Dāya-gaja-kēsari, "Tripura Mahēśvara, parākrama-kīśora-kēsari, Dāya-gaja-kēsari, etc. A similar title Rāja-gaja-kēsari referring to Gaṇapatidēva is noticed in the Pakala inscription wherein the verse reads as follows:

Etau-nādyan-maht-Rāja-gaja-kēsari-vihraman
Gaṇapaty-avanIndrasya sāsanam chakravartinah

Although this reference is seemingly accidental, we have to give it the utmost value in our present investigation. The association of the component word Rāja-gaja-kēsari with the words sāsanam and chakravartinah is significantly indicative that the sovereign's authority was being exercised under that title. The importance of this will be further explained in connection with the land measurements.

Another reference to the title Rāva-gaja-kēsari occurs thrice in the Bidar inscription of Rudramadēvi set up by her subordinate chief named Bhairava of the Sinda family. Here Gaṇapatidēva who is stated to be ruling the earth from the prosperous capital town Orugallu is credited with the title twice (1) Rāva-gajendra-kēsari in a metrical verse and (2) Rāva-gaja-kēsari in the following prose passage. Unfortunately some portions of the inscriptive stone are broken.
(1) "\ldots \textit{Rāva-gajendra-keśari dharitri-pājana rājanūti nidhanānam} etc.\" (Text line 7).

(2) "[\textit{Ge}upa-bala-śaḍadhī-hadāvāṇaḥ| sarasāgata-rāya-rakṣānāni]\textit{Rāya-gaja-keśari Śri Svayamūnāthaśadāva-śri pāda-padmā}." (Text line 10).

It is worth noting in (2) that the compound \textit{Rāva-gaja-keśarī} is placed between two vertical strokes as a separate title. It is not even \textit{ari-rāya-gaja-keśari} as in the previous cases.

The same title is attributed to Rudramadevi in a subsequent Chanakamala verse.

(3) "\textit{Adir-daiva vairi-Rāva-gaja-keśari} Rudramadēvi dhirayakā'.\" (Text line 14).

About Prataparudra, fortunately we have a stronger evidence than the above casual references. An epigraph was set up in the Siddheśvara temple, Terala, Guntur district by his \textit{sakala-saṅghādhvapati} (commander in-chief) Sōmayājula Rudradeva's brother-in-law named Rudraya Peddi in the Śaka year 1213, A.D.1292. The kings \textit{prāśāti} in it runs as follows:

\"\textit{Svasti \mid Saradhīrata pañcha-mahāśakda .. dāyagaja-keśari laṅchhana bhrāi (tuḍdunu*)} \nSakala-dāśādhipatiyuno narō[āra cha]kravartiyunun aina Śri Kakati Kumāra-Rudradeva mahārāju\"

That Kumāra-Rudradeva Mahārāja was adorned with the \textit{laṅchhana} or title of \textit{Dāya-gaja-keśari} is in explicit terms.
Very recently while getting this chapter typed the author could identify few sculptures in the ruins of the Orugallu fort and two interesting gaja-kāsari motifs. One of such sculptures represented a lady riding a lion shown standing on the trunk of an elephant. Generally men riding the lions are seldom represented in sculpture, much less a human lady. Only the goddess Durga is shown riding a lion. Thus the motif definitely represented Rudramadēvi as Rāya-gaja-kāsari. Another motif is a gaja-kāsari frieze (lion over the elephant) where a boy is shown playing on the back of the lion. This representation can be easily attributed to Prataparudra who was a young boy. Interestingly these motifs are absent in the early Kākatīya temples at Anumakonda or Palampet. The mandapa containing these pillar motifs must have been constructed by Rudranadēvi to the god Swayambhudeva to commemorate her victory over the Seūnas in about A.D. 1265.

Thus we find clear evidence both epigraphical and sculptural, to ascertain that the Kākatīya rulers bore the titles ending with gaja-kāsari namely,

- Ari-gaja-kāsari by Pōla I and II
- Dēya-gaja-kāsari by Rudra
- Rāya-gaja-kāsari by Gaṇapatiđēva and Rudranadēvi
- Dēya-gaja-kāsari by Pratāparudra.

Thus on the basis of the above findings the author could ascribe the coins bearing the above titles as legends to the respective kings. The results of his research in this regard have been brought out in the form of a monograph under the
Seal on the Khandavalli Plates with Daya-gaja-Kēsari legend of Kakati Pretāparudra

Gold coins with Daya-gaja-Kēsari legend
title 'Kakatiya coins and Measures' by the present author very recently in 1975 and presented before the scholars at the 63rd All India Numismatic Conference held at Indore.

Some gold coins which bear the image of varāha and the legend either Rāva-gaja-kēsari or Dāya-gaja-kēsari are catalogued by Dr. M. Ramarao in his book "Select Gold and Silver Coins in the Andhra Pradesh Government Museum, Hyderabad" published by the same department in 1963. He ascribed them to the Western Chālukyas of Kalyāṇa. But in the light of the present Dāya-gaja-kēsari seal of Kakati Pratāparudra these coins can be safely ascribed to that king.

Denominations of the Kakatiya coins:

From the inscriptions we gather that Kesari gadyāṇa is same as Kōsari-māda. The same it seems is termed as nishka in Sanskrit. King Pratāparudra in the Uttarēśvara grant is stated to have made a gift of 100 nishkas to the scholar Viddanācharya.163 Two inscriptions at Kolluru dated 9.1059 state in Sanskrit 5 nishkas and in Telugu 5 gadyas.164 In a Tripurantakam inscription165 it is stated ga. 850 and nūṭa-fambai mādalu ga. 150, the total amount being equated to ga.1000 mādas. This and similar statements make it clear that nishka, māda and gadya are synonymous. Further, another inscription at the same place166 datable to A.D. 1293 mentions pahīndi ga 156, indicating that the gadyas are gold coins. Another interesting indication for gadya is a vertical stroke |.
which is occasionally noticed in the inscriptions. In the Alugadapa inscription it is denoted in symbols and in words 5 māṇas. Similarly an epigraph at Pedaganjam in Guntur district simply mentions which means 6 gadyas. Basing on these epigraphical references it may be stated that the vertical stroke between the symbols of the sun and moon on the present gold coins is intended for representing gadya or gadvāpā. It is common that rūka is represented by the symbol c.

e.g., the same Pedaganjam epigraph, the Ikunuru epigraph of Rudrādeva. It simply denotes and for 5 rūkas and 2 rūkas respectively. The vertical stroke between the symbols of sun and moon may also represent a sword. In some Kākatiya inscriptions including the seals of Garavapadu and Khañjavalli copper plate sets we notice a sword erected upright before a standing cow. There are instances like the Vardhamanapuram inscription of Malyala Gunda where the sun, noon and the sword are represented even without a cow. Thus it is to be further studied whether the vertical stroke represents the symbol for gadvāpā or a sword.

The next lower denomination is rūka. Ten rūkas make one gadya or māṇa. An inscription at Bollepalli in Nalgonda district specifically states that a māṇa of 10 rūkas. Similarly an inscription at Bapatla, Guntur district dated in A.D.1156 states that five persons were given 25, 25, 25, 25 and 20 rūkas the total amount being 12 birudu-māṇas. These were the māṇas.
issued by the Velanadu kings who bore the title of the Chōla king Kulottunga Rājendra Chōda. Therefore 1 mãda = 10 rūkas. Kesari-rūkas were the Kākatīya rūkas. These coins have not come to light till now.

Kesar-adduga occurs in one of the Nadendla inscription dated Ś.1180 and it seems to denote half rūka.

Pādika is one-fourth of a rūka.

Kesari-vīsa occurs in Nadendla, Warangal and several other records of the Kākatīya period. It is generally believed that 1 vīsa = 1/16 of a rūka.

Kesari-chinnamu: The exact value of this is not known. In some inscriptions its value is found to be 1/14 of a mãda. In a record at Palkol of Ś. 1218 another denomination called sana-chinna is equated to 1/10 of a gadya, by stating that the paid amount of 21 sana-chinnas is equal to 2 gadyas and one chinna. An inscription at Daksharamam datable to A.D.1113 mentions 8 chinna and 22 chinna suggesting the existence of a coin of value greater than 22 chinnas. Dr. P. Srinivasachari on the authority of Brown states that 1 chinna is equal to 1/8 of a pagōda.

A thorough examination of the coin cabinet of the State Museum, Hyderabad, Andhra Pradesh may bring some of these lower denominations to light.

Pātī-varāha is probably the coin that bears the emblem of boar or varāha. Its exact monetary value is not known. Sri H. Kribhna Sastry states that in the Kannada inscriptions at Karkala the variants of za or gadyāpa or varāha-gadyāpa or gadyāpaka
are all synonymous with varāha, a pagoda equal to Rupees 3 1/3. Till recent years some old people in the villages of the Telugu country used to take varāha equal to 4 rupees of the British coinage. Mr. Brown in his Telugu-English Dictionary says that varāha is equal to Rupees 3 1/2 whereas a Karaku-varāha is equal to Rupees 4.

It is not known whether these varāhas also belonged to the Kakatiyas. The term pāṭi-varuhā seems to be an abbreviation for Kesari-pāṭi-varāha i.e., the standard varāha of Kesari. Some of the values given above are tentative and need further scrutiny. It is not known whether Birudu gadyas, Gākarna gadyas, Kēsari gadyas etc., issued by different authorities are of the same value or not. If they are equal in value, the fabric and gold content must be also equal. There is no evidence in this regard. But they are noticed in the inscriptions of the Kakatiya period.

Our difficulty in interpreting the exact denomination of a coin is its indiscriminate usage. Even today we use paisa in two meanings, the lowest denomination of a rupee i.e. 1/100 or 0.01 rupee and the general sense 'money'. He has no paisa with him, means he has no money with him. So also all our ancient terms of monetary values were occasionally used in the inscriptions to convey the meaning of money in general. The Velpuru inscription of Gaṇapatidēva's minister Dōchana-pēṣāḍa, for instance, mentions varuṣa-rūkālu which means recurring periodical tax. Its exact value is not known.
Similarly, the terms like aduga, padika, paraka and visa indicate the fractions $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$ and $\frac{1}{16}$ of a standard coin and are denoted by symbols ||, |, = etc. The standard coin is rūka. Some inscriptions clearly state like nāṇaku māda baḍi-visāmu (padika) which means the levy or contribution as the case may be, is at the rate of $\frac{1}{16}$ of a māda per each māda of sales or purchase value. But in some cases it seems only to be of simple visa or $\frac{1}{16}$ of a rūka per each māda of sales or purchases. The former is of value 10 visas per māda whereas in latter case it is only 1 visa per māda. Other terms like dabbu, kāsu, kāni are also of inconsistent values in various regions and times. Therefore any conclusion in assessing the exact values of these coins cannot be better than a conjecture.

**Measures:**

The Kākatiya coins are occasionally noticed in the inscriptions with kēsari prefixes like, kēsari-gadva, kēsari-māda, kēsari-visāmu, kēsari-chinnamu, kēsari-aduga. This is quite analogous to the names of their tanks kēsari-tatākas or kēsari-samudras. Their other standards of measures and weights are also named with kēsari prefixes, like kēsari-putṭi, kēsari-tūnu, kēsari-wānika, kēsari-kunchamu etc. These kēsari measurements were first introduced by the Kākatiyas in the Telugu country. In the former periods there were Gandhabasti-mādas (Western Chālukya), Birudu-gādvas (Velanāṭi Chōdas, because they bore the birudas of Kulōttunga and Rājendra of the Chōla kings); Gōkarna-
Kāsari measures, weights and coins were decidedly of the Kākatiya origin. The seal on such standards contains the same symbols and the legend as those found on the seal of the Khandavellī plates. Scholars, hitherto are of the opinion that the words Kāsari-pāṭi of the measures and weights of the Telugu country originated from the village named Kāsari-pāḍu where according to them, a standard was marked on a stone, and that measurement was used by many. But in Telugu the word pāṭi means a standard and hence the royal standards bearing the legend kāsari are called kāsari-pāṭi-puṭṭis etc. It is also quite possible that Gaṇapatiḍēva marked a standard measure on a stone in a village, on account of which the village was called Kāsari-pāḍu. This assumption further suggests that Gaṇapatiḍēva seems to have started for the first time land survey in the coastal Andhra. Formerly the land measures in that region were simply puṭṭis, tūmuś etc., without any prefixes. Only during Gaṇapatiḍēva’s period we come across in the inscriptions the mention of kāsari-puṭṭis, kāsari-tūmuś etc.

For the purpose of land measurements, rods of standardised lengths called ḍhādas were used. There were some regional variations in the length of the rod, some being of 20 spans length and some of 22 spans, some of 10 cubits and some of 11 cubits. A line of standard mūra or cubit is marked on a stone below the inscription at Penusuli, near Duggirala in Guntur District, dated S.1236 during the reign of Pratāpārūḍra stating
that a rod of such 8 मुरास is to be used for measuring the
house sites and of 24 मुरास for fields. From other sources
it is seen that 112 1/2 square गहादस make one तुमु of land.

As regards the volumetric measures of the Kākatīya period
the inscriptions mention गिड्डा of the lowest denomination and
पुत्ति the highest. The following table gives the relative
values of those measures.

| 4 गिड्डास | = | 1 सोला |
| 2 सोलास | = | 1 तव्वा |
| 2 तव्वास | = | 1 मानिका |
| 2 मानिकास | = | 1 अद्वा |
| 2 अद्वास | = | 1 कुन्चा |
| 2 कुन्चास | = | 1 इरास |
| 2 इरास | = | 1 तुमु (denoted by the letter ना) |
| 2 तुमुस | = | 1 इद्दुमु |
| 2 इद्दुमुस | = | 1 नालतुमु |
| 5 तुमुस | = | 1 इंदुमु |
| 10 तुमुस | = | 1 पांदुमु |
| 20 तुमुस | = | 1 पुत्ति (denoted by the letter खा)

Perhaps the short form of the Sanskrit word Khandāka).

All the above terms occur in the inscriptions. तुमुस and पुत्ति
are the basic measure whereas the remaining units are their
fractions or multiple. Kesari-तुमु and Kesari-पुत्ति are the
general standard measures. These are used for land measurements
also.
We have no means to assess the actual capacities of these units in terms of our present measures. Some inscriptions indicate that for maintaining one perpetual lamp in a temple 1 manika of ghee is required, whereas some records state that 2 sōlas of ghee is sufficient for one such lamp.

In this connection a proper illustration can be advantageously drawn from an unpublished epigraph found in the village Patarlapadu, Nalgonda district of the reign of Pratāpārudra. It is stated that a gift of 13 lamps was made to the gods Sōmanāṭhādēva and some other gods. For maintaining the lamps a quantity of 3 sōlas of ghee per day per lamp is provided. The calculation therein is as follows:

For 13 lamps per day it would be na (1/4 - 1/4 1/16) and sōlas 3

" per 1 month na 18 1/4 and tavva 1
" per 1 year kha 10, na (18 1/4 1/8)

The total quantity is thus given as 24 1/4 1/8 tumus = (1)

These figures enable us to work out the following sum and decide the multiples and fractions of na

for each lamp per day = 3 sōlas

For 13 lamps for 1 day it will be 13 x 3 = 39 sōlas
dqualed to na 11 and sō 3
= 1/4 1/4 1/16 tumus and 3 sōlas
= 9/16 tumus and 3 sōlas
for 1 month 30 (9/16 tumus 3 solas)
= 270/16 tumus 90 solas
= 270/16 tumus (22 mānikas 1 tavva)
= (16 tumus 14 mānikas) (22 mānikas 1 tavva)
= (16 tumus 36 mānikas and 1 tavva)
= 16 " 2 tumus 3 mānikas 1 tavva
= 18 tumus 4 mānikas 1 tavva
= 18 1/4 tumus 1 tavva

for year 12 (73/4 tumus 1 tavva)
= 219 tumus 6 mānikas
= 10 putṭīs 19 tumus 1/4 tumu 1/8 tumu

kha 10, na. (19 1/4 1/8) which is equal to (i) above.

Putṭi is the Telugu word for the Sanskrit Khanduka and it is represented in the Telugu inscriptions by the letter (kha). Its twentieth fraction is called tumu in Telugu and represented by the letter (na), probably the shortened form of the Sanskrit word nalva or nalvāṇa a measurement of length and capacity (Monier William's Sanskrit-English dictionary).

With regard to land measurements, besides putṭi or Khanduka there is another unit called mārturu. It is generally noticed as a measure of the wet lands. But occasionally it is used for dry land also. Its sanskrit equivalent is nivartana as indicated in the Pakala inscription of Gaṇapati-deva. The actual area of either mārturu or putṭi is not clear, because the authorities quote different values. Another unit denoted by the letter re occurs in some records with relation to the garden lands. But we have no knowledge about its exact value.
Weights:

The inscriptions occasionally contain the gravimetric units like tula, pala and visa. The Kulpak inscription of Rudramadevi mentions a bronze vessel of 64 palas and its stand of 18 palas\(^1\) for weighing gold and precious stones Gurisinjas, a seed, is the lowest unit. Four gurisinjas are equal to 1 sinna and 30 sinnas make one tula. Three tulas make one pala and 40 palas are equal to one visa. Two visas are equal to one ettu and eight visas or 4 ettus make one Manugu or tumu twenty of which again make one putti or khandika.\(^2\)

The above units were almost in vogue in the Telugu country till recent period.
References and Notes

1. **III.** XXXIV, pp.65-8 and **IAP.** Kn. No.28
2. Ibid, No.32
3. Ibid. No.38
4. **SII.** X, 340
5. Unpublished
6. Manu
    "bhūr=adhipatīr=hi-sah" VII.39
7. **Corpus** II, p.88
8. The ashta-bhōgas are: Nidhi (a hoard); nikshēpa (treasure hidden); akṣiha (ever lasting benefits) āgāmi (future benefits); sanchita (benefits stored); jala (water); tāru (tree); pāshāna (stones) **JABRS.** X, p.124
9. Appendix 5
10. **EA. IV** (in the press)
    ardha (=half), sērin (=who ploughs) = cultivators who till the government lands paying half of the produce to it.
11. **SII.** X,
12. **II. XIV,** p. 108
    The Porumāmilla tank inscription dated 5.1291 (A.D.1369) gives a detailed account in this regard.
13. **IAP.** Kn. p.71
14. **II.** III, pp.88 ff
15. Ibid, XII, p.193
16. **EA. I,** p.72
17. **IAP.** Wg. p.85
18. *JAHRS* XXXVI-1, Appendix 4

19. *Itihas* (Journal of Archives Dept. A.P.), I, pp.61-62

20. *SII.* X, 472

21. *IAP,* kn. Appendix

22. *Corpus II,* Pillalamarri Inscription  
and Select Epigraphs of A.P., Kolanupak Ins. 8, 9

23. *Corpus II,* p. 70

24. *Ibid,* p. 96

25. *Ibid. ,* p. 133


27. *Ibid,* III, Km. 10


29. *Ibid,* p.111

30. *IAP,* kn. p.36


32. *Ibid,* p.49

33. *Ibid.* p.54

34. *Corpus III,* p.50

35. *Ibid,* p.40

36. *Ibid*

37. *NDI.* II, k. 47, 50

38. *Corpus III,* p.17

39. *IAP.* Wg. p.82

40. *Corpus III,* p.94

41. *IAP* Wg. 26

42. *Ibid.* No. 6
43. Ibid. Kn. p.92
44. Ibid. wg. p.268
"Andrāssanti garīyaṁśaḥ-kāñchana-chhāya-sālayaḥ |
yathā hāṭaka-syūtasya koṭara-ratna-sālīṇaḥ ||
45. Ibid. p.189
46. Ibid.
47. Ibid.
48. Appendix 5.
49. Mitisēra, Chanevarunun āvagāḍrunu
benchina cheḍakumma-yāṭṭi bēhārambul |
50. unpublished Patarlapādu epigraph "tūmāṇāvagāḍrunu,
karanālu" etc. (A.D. 1291).
51. cf. SII.X, 644
52. IAP. wg. No.142
53. Ibid, Kn. No.13
54. Ibid, Wg. No.86
55. EII.XXXIII, pp.54-56
56. SII.X, 422
57. NDI-I, p.340
58. SII.X, 499
59. EHD. p.684
60. Manu Dharmaśstra VII-130-1
61. IAP. Wg. No.37
62. NDI. I, p.340
63. SII.X, 528
64. IAP. Wg. No.142
65. Appendix 5
66. IAP. Kn. No.37
67. Corpus III, p.97
68. Ibid. II, p.6
69. SII,X, 509
70. Ibid, 499
71. Ibid, 521
72. IAP Kn. No.37
73. Corpus II p.6
74. Ibid.III, p.40
75. IAP. kn., No.37
76. SII.X, 521
77. EA. IV (in the press)
78. IAP. Kn., No.38
79. SII.IV, 1384
80. Ibid.X, 422
81. Ibid. 427
82. Ibid. 311
83. Ibid. 319
84. Ibid, IV, 1226
85. Ibid. X, 507
86. Dr.N.Venkataramanayya Peruru Inscriptions p.10
87. IAP. Wg. No.37
88. Dr.N.Venkataramanayya op.cit p.9
89. SII,X, 507
90. EA. IV (in the press)
91. Ibid "
"Ganapatidevedunna tana aśāru dhārvās"
92. Ibid.
"Takshak-āyaskāra, kumbhakāra, suvarṇakāra, rajaka, dāpita,
chanḍāla, ardha-śīrṣādībhū yat karadikam tad api
Rudra dāvārvay-aiya dattam"

93. S.J.II.X, 507
94. IAP Wg. No. 37
95. E.L. XXXVIII, p. 76 ff
96. Corpus III, p. 51
97. S.J.II.X, 533
98. Ibid. V, 28
99. Ibid. IV, 1384
100. Ibid. X, 480
101. IAP Wg. No. 142
102. The word Phala-dharu, though seemingly resembles the modern
    terms Tehsildar, Jamindar, Subedar etc. of the Arabic origin
    is not really of that class. It is a sanskrit derivative
    of Phala and dhūrana, that is the job of assessing the
    yield in a land (cf. nirdhārana).
103. S.J.II. V, 211
104. Ibid. X, 443 and 445
105. Ibid. 508
106. Ibid. 495, 527
107. Ibid. 422
108. N.DI. II, p. 995
109. Dr. N. Venkataramanayya Peruru Inscriptions, 9
110. S.J.II.X, 314
The definition of anti-rāya is given as follows:

"Bhime sa-kramuka-vanāti-pālakair=yo=dēyas=syāt
Pratisaman antaravah"

[Mr: The tax payable every year by the growers of areca gardens of Bhīmeśa is called antarāya]
132. Dr. P. B. Desai, *Jainism in South India* pp. 122-23
133. SII.X, 473
134. Corpus III, p. 16
135. SII.IV, 935
136. IAF. Wg. No. 63
137. Dr. P. B. Desai, *op. cit.* pp. 13-14
138. IAP. Wg. No. 84
139. SII, IV, 1135
140. Ibid. Nos. 1139
141. IAF. Kn. No. 38
142. SII.X, 473
143. Ibid. 429
144. IAP. Wg. No. 63
145. NDI.I p. 340
146. SII.X, 521
147. Ibid. 314
148. Ibid. 304
149. AR 1918, p. 174
150. Madiki Singana, *Sakalaniti Sarratanu*
151. EL. XII, pp. 188 ff
152. JORQ, VIII, p.320
153. Ibid.
154. NDI-I, G. 29,45
155. M.S.Sarma The Reddi kingdoms, pp.407 ff
156. Ibid
157. JNGI. XXX, pp.213-14
158. Pratāpacharitra - pp.78 and 89
159. EBD., p.658
160. a. Dr.N. Ranesan Studies in Medieval Deccan History p.82
161. IAP Wg. No. 38
162. " Kākatiya coins and Measures - Appendix
163. BI. XXXVIII p.89 line 91
164. SII.X, 100 and 101
165. Ibid. 340
166. Ibid. 475
167. Corpus III, p.110
168. SII.X, 427
169. IAP. Wg. No.37
170. B.N.Sastry, ŚāsanasaPati p.205
171. SII.VI, 183
172. Ibid, V, 66 and 1208
173. Ibid. 131
174. Corpus II p.203
175. Ibid
176. El. VIII, p.130
177. SII, X, 314
178. Ibid. 509
179. M.S. Sarma op.cit., p.365
180. Corpus III Mn. 46 and Corpus II, pp.108-9 and p.204
181. Corpus II, pp.133, 141 and 161
182. IAP. Wg. No.67
183. In some cases the area of a marturu is 20 shadas and in some other records it is stated to be of 22 shadas
184. Corpus II, p.85 lines 138-141
185. Ibid. pp.203, 209 and 211