CHAPTER V

LAND ADMINISTRATION - LAND REVENUE - TAXATION - COINAGE

WEIGHTS AND MEASURES

Section I: Land Administration

Land and its proper management, as it is true of the present day, constituted a very important aspect of administration. Inscriptions provide some light on the ownership of land, land-tenure, kinds of land, revenue, taxation and other allied matters.

(i) Ownership of Land

There was a general belief in ancient times that the king (= state) held the ownership of all land including cultivable one. According to Manusmriti the "king was the owner of the treasures buried underground, because he was the owner of land". According to Bhattasvamin, the commentator on the Arthasastra it is stated that "Private ownership can have no application in the case of land, tanks and water pools". This belief has been supported by even foreign writers like Diodorus. Again according to an Indian account, namely, the Purvavimasa "a king cannot dispose of the lands of private individuals, where he is called upon to gift away all
his possessions in charity at the end of certain sacrifices". These evidences are enough to show that the king was the owner of all public and private lands in theory. However, in practice we are to point out as stated by Kautilya, Harada and Nilakantha that "although an emperor is the lord of the entire earth, the ownership in different fields belongs to their several private owners and not to the state". Hence the differentiation in land administration between crown lands and private lands came up since the 6th century.

In this regard it may also be convenient to point out that in pre-historic times ownership in land was regarded as vested in the whole community. This theory of communal ownership of lands has continued in modern times as far as state's claim to turn out land owners who do not pay the land tax which is similar to that of the landlord to evict a tenant who does not pay the house rent. This implies clearly state's ownership in land. In addition to this implication, the state continues to be the owner of waste-lands, forests and mines.

Thus we may conclude without entering into the details connected with ownership of lands that after 600 B.C. the ownership in cultivable lands was vested in private individuals. The state was not to interfere with it except for the non-payment of the land-tax.
Ownership of private individuals in their cultivable land could not be affected by the action of the state except when there was a failure to pay the land tax. Individuals could freely gift away their lands in charity, mortgage or sell their lands. Inscriptions do record numerous gifts of land made by private individuals without any restraint by the state. Sometimes the state also made grants of lands and villages to temples and individuals. But this did not apply to state ownership of the arable land. All inscriptions relating to state grants emphasise that the state has a right to receive the various taxes including the land tax but never effect any change in the private ownership of the landed property including the village. In a few cases the state grants gave gifts of land exempting the donors from paying the taxes.

From a general study of the inscriptions of the Vānkalukyas, we may conclude that the basis of ownership of land conformed to the normal practice prevailing in ancient times as described above.

(ii) Kinds of Land

On the basis of the nature of soil of the land it was divided into Khañjana, Vāgulakahsha-Kaññatra, galde and helluga. ‘Gale’ is same as Khañnanda galde (wet-land) and helluge (rice-land). Vāgulakahsha refers to a marshy
land with plants. The meaning of Khajjana cannot be definitely ascertained.

One of the inscriptions of Vijayaditya makes a reference to registration of land of 20 mattar of black soil, 50 Mattar of red soil, a Mattar of wet land and 2 Mattars of garden land. That a flower garden was given by way of a gift to a temple is known from an inscription of the Bhojeswara temple at Chippergari, Adur taluk.

(iii) Land Tenure

Several systems of land tenure were followed in ancient times. For instance Sarvamanya, tribhoga, bittukattu, Kere-kodage, Katta Kodage and Sivane.

Sarvamanya lands were exempted from payment of taxes. Such lands could be not only arable lands but an entire village. These lands were based on the principle of free tenure.

Tribhoga lands were held by joint tenure. They were held by the Brahmanas or a private person and the gods.

Bittu Kattu refers to 'a portion of the produce derived from the lands irrigated by tanks or wet lands irrigated by a tank granted to the person who built
the tank or repaired it. This is also called kuttuvatta or a gift of land for repair of a tank. Kerekodage refers to rice lands or arable lands under the tank.

The exact meaning of Kattakodage cannot be ascertained. However the term kodagi means fixed rent of land or "land granted for service in connection with restoration or construction of tanks." So Kattakodage must have some bearing on land tax. Similarly the meaning of divane, an other tax on land cannot be known with certainty.

Under the Chalukya of Bāśāna the most common types of land tenure as indicated in their inscriptions were 1) Sarvamānya (2) Devadāna (3) Brahmādeva and (4) guttiga (leased out estates). Inscriptions of the Chalukya kings often mention Sarvamānya, Brahmādeva and devaralēkabhumi systems of holding lands. For instance, the yakshi rock inscription mentions the term 'Devaralēkabhumi'.

The relevant portion of the record reads thus: "in the village of Nemira - 8 nivartanas of the town of Ghulipura; 3 nivartanas and 5 jack fruit trees at the town of Agariyapura and at (the town named) Krishnapura, 50 nivartanas with land called Devaralēka Bhumi, which were granted for accumulation of religious merit for the parents of Hari-sena".
Section II: Fertility of Land and Irrigation

A general study of the economic conditions which prevailed in the dominions of the Thalukyas shows that agriculture was in a prosperous state. It was also a very common occupation of the people. Yuan-Chwang the Chinese pilgrim says that the soil was fertile, cultivation was carried on a extensive scale and that famines were rare.

Agriculture, the main occupation of the people depended on rainfall for its main support and also water provided by rivers and tanks.

The chief features and means of irrigation and water supply in ancient Karnatak were -

1) construction of big tanks (tataka)
2) Channels
3) Water sheds
4) Water troughs
5) Large number of wells (vāpi)
6) Picootah and baskets

(1) Tanks: Tanks were large reservoirs constructed between two mountains. Fress were planted on the banks of the tanks which helped to preserve fertility of the soil adjoining the tank and also yielded fruits.
Sometimes a tank on a big scale was constructed in the middle of a village or by the road side. It was known also as 'tataka' and had springs of good drinkable water. These types of tanks provided good water for the people living within the village.

(2) **Channels:** It was also a practice to construct channels and feeder sluices of brick, stone and mortar to talk so that arable land could get the facility of water for cultivation. These channels required great care in periodical cleaning to see that they were maintained in good condition.

(3) **Water-sheds:** To provide water facilities for wayfarers and travellers provision was made by the state or the community for erection of water-sheds. They were put up temporarily to serve as centres of free distribution of cool water, thin butter milk to weary pedestrians and travellers. This facility was quite refreshing to eyes dried and lips parched by hot winds in summer season.

(4) **Water-troughs:** Water troughs were erected by the community to provide water for cattle. They were erected on both sides of the road.

Erection of water-sheds and water-troughs were mainly for domestic purposes and not for irrigation.
But it is worthwhile to point out here that it was a common custom among the people of ancient to provide drinking water freely both to human beings and bears. The importance of this ancient custom is explained in the Mahabharat which says that "the person in whose tank the thirsty cows, bears and birds and men drank water, obtained the fruit of performing the Asvamedha sacrifice".

(5) **Wells** (Yapi):— Innumerable wells were constructed both for irrigation and domestic purposes. Along with tanks for irrigation, a large number of wells were dry up in Deccan and southern India and they constituted foremost method of irrigation particularly in areas with scanty rainfall. This feature is to be seen even to this day in our country.

Smaller tanks which were known as Yapi were constructed and they were enclosed by square walls. It had springs of water on all four sides. They also served as bathing ghats in addition to other domestic purposes.

Maintenance and repair of tanks and wells were the concern of the state and local government. The former constituted the king, ministers and top-ranking officials and the latter, the Assemblies and the Village bodies. These authorities provide many incentives for the upkeep of tanks particularly by the people. For
instance collection of Paddy, gift of land for repair of tank (bittuvatta), Land for maintenance of tank (Kodage) etc. Lands belonging to temples were irrigated on the basis of agreements among the villages and the village assemblies.

In addition to government's encouragement for irrigation methods there was the practice of inflicting capital punishment on those who attempted to destroy the tank.

The observance of positive and negative means to protect and maintain tanks and wells properly shows the great importance attached to irrigation and water supply in ancient times. A passage in one of the inscriptions may be cited here to show the importance attached to maintenance and repair of irrigation works. The relevant portion of the inscription reads thus: "A ruined family, a breached tank or pond, a fallen kingdom, who so restores or repairs a damaged temple, acquires merit fourfold of that which accrued from them at first".

(6) *Piscotah and Baskets*: In addition to irrigation methods described above there was another one very common in the rural parts of the country. It is sapping on irrigation by Piscotah and baskets. Lands which were not situated on the side of or near a river or tank could be irrigated by these methods. Such methods were
very ancient ones which find a reference even in the Arthasastra. The Arthasastra of Kautilya makes mention of four types of irrigation. They are "irrigation by hand, irrigation by water carried on shoulders, irrigation by some mechanical contrivances and irrigation by water raised from tanks and rivers". ¹⁰

Section III: Land Units, Measures etc.

Land Units were called by the terms 'Nivartana' and 'Matter'. Invariably a large number of Chalukya records make mention of these two terms. For instance, the Yakkeri rock inscription of Pulakesi II, Kopparang plates of Pulakesi II, Dhamadjuna plates of Vinayaditya make mention of the term 'nivartana',¹¹. Inscriptions of Vijayaditya speak of the term 'matter',¹².

The terms Nivartana and Matter refer to land-measures. Though measurement of land differed from time to time and place to place, measurement by the units Nivartana and Matter was popular. Generally speaking, the term 'nivartana' stood for one area of land measuring 210 x 210 square cubits.¹³. The term 'matter' (mattal) was another land measure approximately equal to three and a half acres of land.¹⁴ There was the use of another term also in ancient times which was known as 'Kabham'. Evidently this term refers to a lower unit of land.
A reference to the existence of the system of measuring land is made in an inscription on the Kalte-bandana rock in the Hanuman temple at Korugodu in Bellary taluq. Though the record is not dated it belongs to a Chalukya king and specifies the land measure (and the coin) to be used at Korugodu. The practice of measuring land by a specified measure also receives support from another inscription from Adur which mentions the term “rajamana." (Royal-measuring rod).

Besides the system of measuring land there was also a method of pointing out the boundaries of a land in clear-cut terms. Description in the inscriptions of the Chalukya kings may be cited which definitely proves the efficiency of land administration. The details available in some of the records regarding boundary of the land show, conclusively, that the lands were not only properly measured but were systematically recorded. The purpose of indicating the boundary of the land in question is self-evident. Further, the details helped to settle disputes which may arise in later times. We have already pointed out that the preservation of land records proves the existence of a regular department dealing with transactions of land.
FIXATION OF BOUNDARY

The British museum plates of Pulakesi I describes the boundaries of land given as gift to a Jaina temple. A few lines may be quoted as an instance in point. "On the day of the full-moon of the north vaishaka, when Rehu had entered the orb of the moon— the king, Sri Satyasraya gave a field to the 'ornament of the three worlds. The famous Jinanandi who was a very ocean of meritorious qualities and who was acquainted with all the sacred writings— he gave towns and enjoyment of sites and land (to excellent master Jinanandi).

There he declares the boundaries of the (right of) enjoyment of sites of land on the north-west of the chaitya hall, there is a tank going in a straight line, in the middle of which there is a stone set up. Going to the south from that, along the road, there is a stream in the middle of which there is a stone set up. Going to the east (from that) as far as tamarind tree and then going to the north there is the tank mentioned above. That which is thus situated is the field of the entrance of the village.

"There he declares the boundaries of the fields (which are the objects of the right) of enjoyment of sites of land —— starting from the bridge on the south of the city and going along to the stream to the east
as far as the gleaning field, on the west boundary of it there is a stone set up. From that going along the boundary to the north there is an ant-hill near a Feni-tree. From that again going to the east, there is the Sthala-giri. From that again going to the north along the hill, there is the high part of the hill and then to the west as far as the Sthala-giri and then to the south (we come to the place where) the bridge stands. (There is constituted) the field (which is the object of the right of enjoyment of a site of land measuring one hundred and fifty nivartanas by the royal measure and encompassed by its four boundaries.

At the village of Varindaka, in the south-west quarter (there was given) a field (of the measure of) forty nivartanas by the royal measure, in the south quarter, encompassed by its four boundaries and constituted (by a boundary line drawn).

In the village of Karandige, in the west quarter (there was given) a field (of the measure of) 25 nivartanas by the royal measure on the north-west of the tank of the asvattha tree between the roads to the village of Chandavuru and Pandurangavalli.

In the village of Ravanavalli, in the west quarter (there was given) a field (of the measure of) 40 nivartanas by the royal measure, on the west of the grove of the
Pissoha, शीबालया between the roads to the city of Alaktaka and the village of Kumbāyija. And again in the same village, in the south quarter, (there was given) a field (of the measure of) one hundred nivartanas by the royal measure, situated close to the north of Hirīgunti tank.

In the village of Mandirege in the east quarter (there was given) a field (of the measure of) 40 nivartanas by the royal measure between the boundary of (the village of) Baravulika and the road to (the village of) Sripura.

In the village of Sīripatti, in the west quarter (there was given) a field of (the measure of) 40 nivartanas by the royal measure, between the boundary of (the village of) Baravulika and the road to (the village of) Sripura.

In the village of Arjunavada, in the west quarter, (there was given) a field of the measure of 50 nivartanas by the royal measure to the north of the road to the village of Sripura.

He declares the name of the villages -- the first village is Rūvika in the Kumbayija Twelve. The second village is Samarivada. The third village is Lattivada, in the Sadhamala Twelve. The fourth village is Pelli daka,
in the Sripura Twelve. These 4 villages (were given) together with their fields encompassed by the four boundaries and with the udaranga and uparikara and not to be entered by irregular or regular troops. 17

Section IV: Taxation - Revenue - Income of State

It has been rightly stated that "sound finances are absolutely necessary for a stable and prosperous state". 18 Ancient Indian writers on polity very well realised importance of finances for a state. Therefore, they included prosperous treasury and adequate reserve funds as one of the fundamental elements of the state. They have also said that the weakening of finances would be one of the most serious national calamity 19.

Even since the Vedic times there was insistence for regular payment of taxes by the people to the king to enable him and his officers to carry on the government and live in dignity and pomp. Thus the state derived its revenues from the agriculturists and cattle-breeder. Besides collection of taxes from their subjects, the kings often received tributes from conquered chieftains. Any way system of taxation was indefinite in the earlier periods. With the beginning of the Maurya periods.
we get a clear reference to taxes and methods of collection in the Arthasastra, Dharmasutra and Sutras. Greek writers have also borne testimony to this.

According to the Sutras and epics the system of taxation was to be reasonable and equitable. The state and the people who paid taxes were to feel that they have got a fair and reasonable return for their labours. An article was to be taxed only once. Any increase in taxes, if necessary, was to be gradual and not sudden. Additional taxes were to be levied only in times of national danger and when there was no other alternative. Even the Arthasastra enumerated the same principles of taxation. However, a few clarifications were introduced. For instance, if enterprising persons bring fresh land under cultivation or seek to make it more fertile and productive by irrigating it with water from the tanks built by themselves, the state was to charge a nominal tax in the beginning and slowly raise it to the normal rate in a period of 4-5 years. Military villages were not to pay the taxes. The dumb and deaf were exempted from the payment of taxes. Learned Brahmins also were exempted from paying taxes as he taught higher knowledge to the pupils. There are cases where the revenues of entire villages known as agrahara villages were assigned to learned Brahmins for their maintenance. Other Brahmins following
trade or any profitable occupation had to pay the normal taxes. Temples owning large arable lands were not exempted from taxation.

In the field of taxation, Land tax became the main source of income to government. Inscriptions refer to land tax as भागकरा and sometimes as उदराङ्ग. There was no uniform rate of taxation. The rate of taxes varies from 8 to 33 percent. This variation was partly due to the nature of land. According to Manu the rate of taxation could be 8 or 12 or 16 percent. As a general practice the state charged one-sixth of the produce as land-tax. However, during the times of certain rules the rate of taxation was very higher. For instance the Mayurian state charged 25% tax on agriculture income. In a later period, say the 11th century the Chalas for instance levied 20% as land tax. In still later times the percentage increased from 25 to 33. The percentage of land tax could be either of the gross or net produce. Normally the state claimed about 16% of the gross produce and 25% of the net income. In adverse circumstances however, there was the practice of remission of taxes.

Land tax was mainly collected till the 9th century A.D. in kind. Cash taxation became common after the 10th century A.D. when the land tax was collected in kind
the tax was recovered twice a year when the crops were harvested. Under the Anstrakuta administration taxes were collected thrice a year.

Land tax was not on a permanent basis. According to the facilities provided by the government taxes were enhanced and when lands irrigating certain fields dried up, their taxes had to be reduced.

In the case of failure to pay land tax his land was sold away after a given period.

Next to land tax Trade and industry were to bear their own burden. Traders had to pay octroi duties as the government provided transport facilities for shifting goods. Customs duties varied according to commodities. However, commodities used for religious ceremonies were exempted from octroi duties. Ferry tax was collected from passengers, goods, cattle and carts. Besides customs and ferry duties there were sheptaxes and a small tax on weights and measures. Among taxes to be paid by industries, mention may be made of taxes paid by artisans like smiths and carpenters. These taxes were generally collected by local bodies which were permitted to do so by the central government. This tax has been called Kamhara 'the tax on artisans. The taxes on artisans also included certain imposts.
collected from barbers, washerman, goldsmiths and potters. Weavers paid a tax. Trade in liquor was under state control. Mines were owned by state authorities. Excise duty was collected on salt. Cattle-breeding was an important trade on which also there was a tax.

In inscriptions, the customs and excise duties are mentioned as bhutapattapratyāya or a tax on what has come into existence or manufactured (bhūta) and on what has been imported (upātta).

Forced labour or viṇāṭi was common. Poor people rendered free service in return for the protection they got from the state. According to Yuan-Chwang forced labour existed only in a few places and absent in some other places. It was expected only in times of visitors' inspection. Therefore, in certain places like the villages this practice enabled them to get the help and cooperation of a number of labourers, carpenters and smiths in building and repairing roads, rest-houses and tanks. Villagers also collected contributions to provide amenities for inspecting officers and policeforce.

In addition to taxes mentioned already epigraphy refer to collection of extra cesses and benevolences to meet unforeseen calamities or to undertake costly works of public utility or to carry out its plans of ambitious expansion. These are described in the Arthaśāstra as
Praneyas or benevolences. As wars were very frequent between the Chalukyas and the Pallavas it is quite likely that such benevolences were collected to raise and maintain large troops.

It should be pointed out here that though ancient maxims prescribed certain rules of taxation they were not entirely followed. Taxation pressed heavily on the people. Large, detailed arrangements were made for the collection of taxes. However, when the taxes were considered as unjust the people raised a note of protest through the assemblies and either were partly successful if the kings were not tyrants. An instance in the history of Karnatak is available, where in an Assembly met and resolved that taxation on cows and she-buffaloes were not sanctioned by the usage of the district since times immemorial and should not be therefore paid.

Besides taxes, the state get income from state properties, industries, proceeds of fines and tributes from feudatories, state properties included crown lands, waste lands, forests, mines, treasure-troves, natural tanks and reservoirs and it yielded large income. Arthasastra mentions administrative arrangements for supervising and collection of income from state properties, particularly, lands.
Although minute details are not forthcoming, the Lakshmeswar inscription of Yuvaraja Vikramaditya defined the duties to be paid by the towns men. The relevant portion of one section of this inscription reads thus: *(1) "a tax that every occupied house shall pay once every year in the month of Vaishaka to the governors of the district, (2) Each several household for festival expenses - the highest households paying ten panas, the intermediate household seven panas, the lower five, the lowest three. (3) All previous usages viz., Pulliga (a tax on mynas, parrots) fines for theft and minor delinquencies (fines for) the ten offenses. (4) Likewise what is known as property of childless persons. - (all these) shall be paid into the guild there in the mouth of Kartika. (5) a gutta shall be paid for the rupe in the mouth of (m) agha*. (6) Besides references to dues the inscription also mentions contributions collected from the people. It says that "every occupied house shall pay for festival expenses - the highest households twenty panas ...... the intermediate fifteen, the lower ten, the lowest fine. (7) Finally the inscription refers to tax which was required to be paid by oil-men."
From the description in the foregoing record we may infer that there was the practice of collecting house-tax in towns. House-tax formed another source of revenue to municipal authorities next perhaps to land tax to the government as a whole. Secondly to meet expenses of festivals in towns, there were specifications of contributions in accordance with the income of different classes of people in society. Thirdly fines were collected for offences. Fourthly a tax was levied on properties belonging to shieldless persons. Perhaps this tax was one which was charged on the produce of lands and property of these who died without proper heirs and the state took up the responsibility of maintaining such property. Fifthly collections of cultivated corn were made from different people on a specified basis for meeting expenses of festivals. Sixthly the inscription clearly denotes that there were specified months like Vaisakha etc. during which taxes were to be remitted. Finally it also throws light on the different rates of payment to be made by the rich, the middle and the lower classes of people.

Thus it will not be an exaggeration if we say that the method of taxation referred to above conformed to certain principles of taxation enumerated in modern times viz., the ability to pay on behalf of the payers and
payment of taxes were to be made in seasons convenient to the people. For instance the month of Vaishaka during which house tax was to be paid was a season convenient for the people because it succeeded the harvesting period when the people would be having stores of corn, collected from their fields. Tributes formed a large source of income for imperial states. This amount was not fixed. If the feudatories were too weak and the imperial army strong enough to enforce the payment, tributes were regularly collected. Similarly fines formed a good share of state's income. Finally state claimed by right properties having no rightful owners and heirs.

Inscriptions of the Chalukya kings contain references to dues, perquisites and taxes and also remission of certain taxes in specified circumstances. For instance, the Toguchade copper plate mentions dues and taxes known as 'Adityasunghumarumauna and Naruncharumauna'. These two terms are dravidian terms and they must have been dues or taxes on oil or offerings made to duties in temples.

Taxes in the following manner of collection were also in vogue. This evident from the inscription from Pakkhan. (no. LIX. I4 Vol. VIII). Aharana (a coin of a certain weight) at the time of feuding a child with
boiled rice, at the time of child braiding, at sacred-thread ceremony and at the time of performance of rites when the religious student returned home after completing his studies. Two gadyanas at marriage and at the ceremony performed on the first sign of completion and at the celebration of an annual sacrifice. Three gadyanas at the celebration of the Chaturmāhja sacrifices and five gadyanas at the celebration of agnisthama sacrifice.

The Ṛadāni pillar inscription in the Jambulanga temple registers gift of several taxes and income in kind. They were made by king vijayaditya for the benefit of the temple of the trio-Brahma, vishnu and Mahēśwara.

Inscriptions make frequent references to two kinds of taxes in addition to other impositions by the state. They are Upanika and Udranga. These taxes were impositions collected on the excess income of the people required to be paid in cash or in kind. In certain cases they were also right to fines and the proceeds of punishments inflicted for the ten classes of officers (Dr. Meer).

Land tax was the main source of revenue. It was one-sixth of the produce, normally, paid in kind.

Besides land tax a few other duties were in vogue. They were hejjunka, perjunka and Vaddarāval which were customs duties on octroi was collected on commodities like arecanut, medical goods, spices, clothes, precious
stones, paddy, saffron, pepper and betel-leaves. Artistic like the oil-men, weavers, cart-drivers were required to pay the specified duties.

Inscriptions also speak of remission of certain taxes. For instance, the Belgaume inscription of Vinayaditya records remission of certain fees and duties by an official named Kaudarba on the occasion of the king's accession to the throne. Another inscription on a broken pillar in the shrine of a linga in Geoty Taluq, Anantapur district, belonging to the reign of Kirtivarman II states that the king remitted certain taxes due from certain gāmundas, named in the record. Remission of taxes in times of inadequate rainfall or draught in a region was also followed.

Exemption from payment of taxes was granted in certain exceptional cases. The Lakshmeswar inscription of Yuvrāja Vikramaditya, while announcing grant of villages mentions certain exemptions of taxes in the case of Charitable activities by individuals or associations.

An inscription of the stone temple at Peddavadagar in Geoty Taluq relating to Pulakesi II makes mention of the Grant of a village, free from payment of taxes.
Section V: Expenditure

We have to admit that very little information on expenditure is forthcoming. Even the earlier sources like the Mahabharata and the smritis do not throw much light on this topic. Inscriptions and Copper plates also do not help us very much in this direction.

The only one source which provides more information on expenditure before the 10th or 11th centuries is the Arthasastra. (Sukra’s writing is slightly later). It refers to expenditure on royal establishments only. It does not inform us about the percentage of income spent on each item of expenditure included in the royal household. It gives us the salaries of ministers and officers. As a general practice officers were paid either by the grants of land or by the assignment of land taxes. Cash pay was a little rare.

Whatever may have been the share of expenditure on royal household the states spent a certain share over items of public utility. It covered expenditure on the works of public welfare like the building of roads, digging of wells and tanks, maintenance of rest houses. Normally a state would spend 8% for the social cultural and nation-building activities of the state. But actually amount spent was more than this percentage because the amounts spent by local bodies are not included in the above percentage.

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It may not be out of place here to mention the percentage of expenditure under king Harsavardhana, the contemporary of Pulakeshi II. According to Yuan-Chwang "Harsa spent 50% of the land revenue on general administration and 50% on rewards for high intellectual eminence and gifts to various sects." Even if 50% is an exaggerated figure on encouragement to learned persons etc., it is definitely certain that the rulers spent more than 8% on patronage of learning, mathas, wells, rest-houses, poor-relief etc.

Another outstanding feature of public expenditure in this period was military expenditure. It was very high. From A.D. 6th century onwards militarism was rampant and warfare very frequent. If a kingdom desired to live and maintain its independence, it had to spend heavily on its fighting forces. The huge military expenditure fostered martial spirit but also indirectly encouraged trade and industry.

It is worth mentioning here that it was a very routine custom for the rulers to maintain a reserve fund to the extent of 16\% of the revenues. Hindu kings had in their possession large treasures bequeathed by their predecessors which they would spend only on very greater occasions. It is a surprising fact that public loans were unheard of and the state could tide over a
a crisis only if it had a rich treasury and full and ever flowing granaries. Thus the practice of reserve funds helped them to face emergencies. Monies were kept in treasuries which were of two types - public and secret. The situation of the secret treasury was known only to a few confidents and it could not be normally taken for use. The public treasury was one the contents of which were entered into the usual state documents and could be utilised at any time for normal current expenditure.

From an overall review of the sources, we can make the following observation in regard to state expenditure under the Chāḷukyās of Badami. The kings utilised the revenues of their dominions for the defence of the country, construction of forts, temples, religious endowments, patronising men of learning and propelling language and literature, art and architecture. The Aihele inscription mentions the construction of a Jīmālaya. We have evidence in the Lakshmeshwar pillar inscription regarding expenditure to be met during festivals in towns. The Adur inscription of Kirtivarman II dated 750 A.D. refers to construction of an alm-house by a āsanga whose name appears as Dharma gāmunda. Similarly other inscriptions refer to defensive arrangements that were made by the Chāḷukya kings, they have been reviewed under Chapter IV. Encouragement to men of letters, art and sculpture also involved quite a good share of public expenditure. They
have been surveyed under Chapter VII. Public expenditure, therefore, was in accordance with the time-honoured principles enumerated in the Arthashastra and the Smritis. The activities of the government and the king were not merely continued to the bare minimum of police and tax-collecting functions. It performed constituent and ministerial functions also which mark, in modern times a 'welfare State' and concerned itself with such activities conducive to consentment and happiness of the people.

Section VII: Coinage

Regarding the coins which were in circulation during this period we have to say that details are not available. However inscriptions give some information.

Pulakesi I issued two types of coins one type known as the double die coins were struck before revive of Punch-marked coins. The coin bears on the obverse caprisoned bear with coin horn, sun, moon and on the reverse eight petalled lotus. The second type is the sun-shaped coins bearing on the obverse the bear and lotus with eight petals, samkha and strong bow and on the reverse lines forming a square.

The earliest specimen of coins issued by Mangeleva were similar to Padmataukas’ of the Kadamba kings. The
'Padma tanks' tear the lotus in the centre round which there are four punch-marks of smaller paddas.

These coins appear to have been continued in later years of the Chalukya rule.

In addition to the above types of coins we have to say that the common specimens of coins which were in use in ancient times were also in use in the Chalukya period. They are gold coins (Suvarna), varying for \( \frac{1}{16} \) (Gadyana) and silver coins (Pana). Copper coins (Niskas) also were in use. Inscriptions of the early Kadamba period mention these terms. The gold coin known as Suvarna was a coin of standard weight.

The council of five hundred of Ayyavole was dealing with coins like a dharana (a coin equal to one-quarter of a henna or Pagoda). According to some authorities this coin is an imaginary one of the value of eight dubs and according to some others it was a coin of varying weights.

Section VII: Weights and Measures

Existence of markets for Purchase and Sale of commodities was a striking feature of economic life of the people. This fact is borne out by the Hemar (copper plate). It states further that privilege of supervision
of eight markets like Poliyama, Adigarika had been given to officers. Although the meanings of the terms are not clear it is evident that supervision of markets by authorities was being made. Again, very powerful commercial organisations like the guilds gave effect to transactions in goods. Hence to facilitate business transactions there were specified weights and measures.

According to Sir Walter Elliot, representations of two iron weights may be noted to have existed in this period. His opinion may be cited to elucidate this point. "One is circular and weighs exactly 31 lbs. 16s. 4 drams. It has on the front the figure of a bear the Chalukya emblem and above it a sword with the sun and the moon; and on the back, the words Prasodicha - Samvis i.e., one visa (stamped in) the Prasodicha Samvatsara. The other is octagonal and weighs 1202 and 2 drams. It has on the front the words Prasodicha Samvi 1/4 i.e., a quarter visa (stamped in) the prasodicha samvatsara. In the modern dialect Sanderson gives one-sixteenth and also visa the five score on the weights of 180 rupees. (31 lbs. 102.8 94 drams). In some early inscriptions visa and later visa) on each bandapera (apparent) and fifty (betel leaves) on each peru of betel leaves whenever the customs duty should come to him. This much proclaimed by the king and by (the people of) the city headed by the mahajanas."
An inscription of 732 - 35 A.D. mentions a list of measures commonly used in those days. They were mana, peru, veesa and bhanda-peru. Mana is still in use and identified with maund (11.2 kg.). Peru is taken equal to 64 seers. Veesa was in use till recently and equivalent to 5 seers. Bhanda-peru may refer to a east-load.

Grains were measured by kula on keleaga (64 seer = 17.28 kgs) sentige was a liquid measure, particularly for measuring oil.
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