### APPENDIX

## Coinage, Weights and Measures

The Kākatīyas, after attaining sovereign power attempted to standardise land measures, coinage, weights and measures. They adopted earlier units but standardised them and enforced uniform usage throughout their kingdom. Pavuluri Mallana, who lived during the 11th c.A.D. described several units and measures in his <u>Ganitasāra sangrahata</u>, a Telugu translation of sanskrit work by Mahāvīrācārya. The Kākatīya standards were generally designated by the prefix <u>Kesari</u>.

# Kesari prefix

The Kakatiya kings had the titles arigajakesari, rayagajakesari and dayagajakesari. Prola I built a tank called Kesarisamudram, Inscriptions from Ganapatideva's time frequently refer to Kesarigadyanas. It may thus be said, as P.V.P. Sastry pointed out that the Kesari prefix indicated Kakatiya units.

#### Land Measure

Among the many types of land measure, the Martur was the unit widely employed in Andhradesa and Karnataka. It was used to measure both wet and dry lands in earlier times. As more and more wet land came into use, martur was used

for the measurement of wet land and Khanduga became the unit of dry land. The area denoted by martur is not clear. In contemporary Tamil epigraphs veli was the land measure and it is nearly equal to 6.6 acres. It may be said that marturu denoted the same area. Nivartana was the Sanskrit word used for martur.

Though Khanduga was used in measuring dry land it was also a measure of grain, equal to Putti in Telugu. In some records, Khanduga was used to denote a land yielding one Putti of grain. Other records indicate that the seed sowable in the land was one putti. The area denoted by Khanduga is therefore not clear.

During the Kakatiya period, a standard pole was employed to measure both wet and dry lands. This was known as the <u>Kesaripatighada</u>. The suffix, as noted above, indicates that it was a Kakatiya standard. The length of the <u>kesaripatighada</u> is given several inscriptions.

## Coinage

The gadyana and dramma were the coins in use during the Rastrakuta period. During the time of the Calukyas of Kalyan, gadyana continued to be in currency. The sanskrit word gadyana can be derived from the Telugu words, Gadde + ane, meaning the coin issued from the seat of royal authority. Gadyana was a gold coin. Mada and tanka were the other words used to mean the coin (or the same amount of gold).

The Kakatiyas issued two gold coins: kesari

gadyānam and kesari cinnam. The kesarigadyāna was nearly

3.5 gms. in weight and circular in shape with approximately

1 cm. in diameter. The cinnam was a fraction of the gadyāna

and sources are at variance as to its value ranging from

1/8 to 1/14 of a gadyāna. Other gadyānas referred to in

contemporary epigraphs are tyāgigadya and birudugadya.

other coins that were in wide use was the ruka and viscol made of silver. Gokarnaruka, most probably issued by the dodas of Kandur, was in currency till the end of the 13th century. The Kakatiyas appear to have issued coins for fractional value of a ruka such as the kesaripati adduqu (½ ruka) and kesari visam (1/16 ruka). No reference is found to kesariruka.

An inscription from Bollapelli and another from Bapatla indicate that one gadyana was equivalent to 10 rukas.

## Grain measures

Putti, tumu, kuncamu and manika were the standard measures for grain. Same measures were used for oil and ghee.

Kesaripati putti, Kesaripati tumu and Kesaripati manika are referred to in inscriptions. Evidently, these were the standard units adopted during the Kakatiya period. The following table shows the relation between these measures.

# 4 manikas = 1 kuncamu

4 kuncamu = 1 tumu

20 tumus = 1 putti

The manika also had fractions as follows:

1 manika = 4 solas

1 sola = 4 giddas

# Weights

The <u>mada</u>, the equivalent of <u>gadyana</u>, and <u>cinnam</u>, its fractions were also used to weigh articles such as sandal powder.

Some standard weights were also referred to in inscriptions.

They are <u>visa</u>, <u>tula</u> and <u>pala</u>. The relation between these can be given as follows:

30 cinnams = 1 tula

3 tulas = 1 pala

40 palas = 1 vise

'8 vise = 1 manugu or tumu

20 mangus = 1 putti
or tumus ;

The above summary on coinage, weights and measures is based on the following:

Arudra, Samagra Andhra Sahityam, Vol.I, Madras. 1965.

P.V.P. Sastry, Kakatiya coins And Measures, Hyderabad, 1975.

Y.Gopala Reddy, Some Measures and Weights in Medieval Andhra,
JAHRS, Vol. XXXII, pp. 102-114.