CHAPTER III

AGRICULTURE

Agriculture was carefully pursued with due attention to horticulture. The Kadamba dominion was in the safe zone of rainfall, as it comprised of the Komka country from the Western Hills to the sea and the up-ghat only up to Khanapur, Bailhongal (southern parts), Dharwar, Hubli, Kalghatgi, Yallapur, parts of Udgoda, Halli and some taluks. The rainfall in this area was more than thirty inches.

The principal crop was paddy. Other crops may have been jowar, wheat, ragi, cotton, gudi, gram, topi, karai, allu and beans such as urda, hesanu, etc. We get mention of wheat, gudi, allu, urda and hesanu. Paddy and rice are mentioned several times. We get reference to jowar in the phrase jospa-valiya.

(a) Irrigation

Paddy was grown both as a rainfed crop and under irrigation from tanks. In better lands superior paddy called gantak-sali was grown. Special attention was paid to construction and repairs to tanks. At least we get three inscriptions referring to construction of tanks and grants for their maintenance and repairs. The first is the brikat-takkala built by Nimbarka Dasa in Gudikail; the second is the one constructed by Karitanga in Mudd and the third one is the Singeyeragatte referred to in the Muttage tank-band inscription. Grants were made in all the three cases for the maintenance and repairs to the tanks. It was also expressed in the last two cases that the grants were...
not to be used for any other purpose. All these were considerably big tanks and are still existing and used for irrigation. Besides these tanks, we get references to a number of tanks scattered over the records. Thus, in the Dēgāve boundary inscription mention is made of a tank called Koliṣhge, and of two other tanks without names. In the Gōlihalli inscription, we get a bagali-gere. In the Dēgāve inscription we meet with a devi-gera. In the Kирналади grant, the following tanks are mentioned:

(1) valli-jalasaya 2) tadage 3) Kundal-akhȳ sarab 4) Sarasvati-tadage 5) Palask-grama-viput-tadage. In the Goa plates (A.D. 1250) we come across a Sivachīttā tadage. In Tambir we meet with 1) hogar 2) akkaśali-gere 3) pega-gere 4) adva-gere and 5) bag-gere. In the Narasira inscription we find 1) ara-ker 2) Sattikabba- kere 3) kumbara-gere 4) bag-gere. In Managund, mention is made of Boranahalli kere. In Harāmbi there was a salla-ker. In Sadaśiagad plates we meet with an ikah-tadage. In Sengesvar there was Belligaddinskere. In Nulvi there was a gadiya kere. Two tanks are mentioned in Madakbonihalli. In Tarāskor, there was a tank to the south of the village. Gandāpāla constructed a big tank in Goa under his name. In Mādagi we come across a biryā kere. We come across a tank in Bālgad. Belvantar had a tank called Suriga-gere. In Jinnur there were two tanks named hosaker and araker, which are still existing under the same names. In Siddhanahalli there was a big tank called

Kutaya- māyakame kere.
and another called daveya-gatte. In Halayal there was a devimgera, for which a grant was made for maintenance. We also get mention of canals (nir-vvaru, upper reaches of tank (kabu-vaal)), kalve), waste-wells (bhashchala), gates (tumbu), kod (outlet for excess water), etc.

In the rubili charter we find the description of fields as follows:

Bha halu haralu tomatat
bavolu kaluvayamaha gaddagilma
pira= Ella a Purvvaliya
dharey = allas hala= kalasawitt= thirum II
Kanda

'With various kinds of soil, such as black, time-worn and gravel, with gardens and paddy lands fed with canal water, great Ella Puruvalli looked like having put on pinnacles in the form of ears of grain all over the land'.

(b) Horticulture

Horticulture was equally popular. We get references such as amura marada tomta (Tarbur inscription A.D. 1144); 1800 marada tomta (Narendra B), etc. The rubili charter describes the Haladige country in the following manner:

'Haladige country is the country par excellence bringing beauty to the entire world. With its creepers of betel-nut leaves, areca palms, mango trees, citron trees, tanks adorned with vast clusters of lotuses, streams and torrents, sandy banks and parks outside the towns, it can be compared to the Nandana gardens of Indra'.
The country as though converted all the times into the spring season to its inhabitants with streams lost themselves in the limpid waters of the pools and flowing on and feeding with their flowing waters creepers, banana plantations, betel plants, coconut palms, citrons, black-sugarcane and so on, laden with fruits and leaves, putting the sky out of sight.

The Mahaṅgaṇḍi inscription 4 describes Manilagandage in the following terms:

'Manilagandage was ever beautiful, surpassing description on the earth with its immensely vast woodlands, with flowing canals, with its groves of trees bearing multitudes of leaves, with its累累 fruits and flowers and with its flower lakes fed by mountain springs refreshing the eyes'.

It would thus be seen that sugar-cane, coconuts, areca-palms, betel-nut leaves, bananas, mangoes, citrons, pomegranates and a host of unnamed fruit trees were reared in those days.

(g) Flower gardens

Flower gardens were equally well attended to and popular. We find arrangements made for flower gardens to several temples. Apart from that, we find several references to parks containing flower plants and creepers meant for the public for recreation. In the Givaladeva inscription of Tambar we get a reference to a pushpa-nandana. In the Mulvī
inscription we find Nalvi charming with a balasa-
upavasa. In Kamadhenu we find mention of a park with
parrots chirping merrily, and also a pu-domas (flower
garden). Tamur is described as

Sogayipa-nuga - samkula = asoka = mahijada
         pemuvetta sam-
pagaya podaldu puta-nava-patala-somina
         nalikerdim i
bagamol = yoppa chuta-late kattalai
alevali-balli ma -
fig gala 1ile kong = esedi tomum = a purum =
entu nompada II
Champaka meda.

Behold that town, pleasing to the eyes with
shining multitudes of areca - uk palms and asoka trees,
beautifully blooming sampaga trees, newly flowering
patala trees (trumpet flower trees), elegant coconut
palms, attractive mango trees, betal -leaf creepers casting
dark shadows and the sportive jasmine creepers.

The Mavalli inscription states that Mavalli had a
park shining with various kings of flower - plants and
trees such as varijata, bakula, jasmine, etc. Ketaka plant
appears in the Patapi plates. Nalkunda (Belayentar) had
mango groves and was growing fragrant paddy. In another
inscription Tamur is stated to be enjoying spring season
at all times with its number of parks surrounding the
town and lakes bedecked with lotuses. Slogallati is described
as surrounded by fields of fragrant paddy, parks with flowering plants and lakes. Likewise Somnukop had parks with clusters of flowers and rows of blooming trees (tumgida namadana-vanadi). Bharasipura was shining with various types of gardens (vaśe-vich-ōdyanadi).

(d) Vegetable gardens

Mention of vegetable gardens and the community dealing with vegetables, viz., malagare is found in some inscriptions. In the Mavlvi inscription we find mention of a malagare tōnts. Likewise in the Tāmūr fort inscription we find a reference to a malagare tōnts. In the Jinnur inscription we learn that malagare Basantikabba made a grant of paddy land to the temple of Graemāṣetra. In the Mavlvi inscription we find mention of grant of five amāta kayiś (cucumbers), five badane kayiś (brinjals) and five hira kayiś (ridged gourds) per day by gardeners from their vegetable gardens (ham-kayī tōṁṭadalu).

(e) Kinds of trees

Mention of the following kinds of trees is found in the Kadasa records:

1) Basariya mara (plaksho mahirahab in Sanskrit) s Hasarambli, Degave, Kinnalase.  
2) Kara s Panaji plates.  
3) Vindhyika s Panaji plates, Ballur.  
4) Cinta, lara, Nava (Kannada) s Panaji plates, Degave, Mavlili, etc.
v) Vada, Vata, Alada = Dega, Halal, Pegura, etc.

vi) Malikera, Tenga = Panaji plates, Kamadhenu, etc.

vii) Badra-vasa = Panaji plates.

viii) Punaseya mara = Tagir, Dega, etc.

ix) Mattiya mara = Dega.

x) Munaliya mara = Dega.

xi) Arjuna-madh mahab (some as in above) = Kirthalage plates.

xii) Puga, Akeka, Kaumga = Several inscriptions.

xiii) Coliya mare = Kulvalli.

xiv) Kamalada mara = Kulvalli.

xv) Araliya mara = Muttage.

xvi) Nutha Kae = Dimbavali.

Ketaka, Palala, Ashoka, Samnaga, Bakula and Paradja have appeared as flower plants and trees.

(1) Types of Land

The following types of land are mentioned in the Kadamba records:

i) Gardde or gadde = Wet land growing paddy.

ii) Hakkali = Dry land fit for growing dry crops such as jowar, sajja, navani, sawi, baraga, burali, etc.

iii) Kaliya keyal = Land with black soil, fit for growing jowar, cotton, wheat, safflower, ellu (sesame), groundnut, etc.

iv) Kres = Same as (3)
timeworn soil, suited for ground-nut, jowar, etc, it is particularly suited for orchards.

(6) Haraulu

soil mixed with gravel, suited for all dry crops.

(7) Era bhāga

a field containing partly era soil and partly haraulu soil.

(8) Madas-bhumis

cultivable land.

(9) Pala-galus

timeworn and eat soil mixed with pebbles, i.e., a mixture of (5) and (6) above.

(10) Kharikas

land containing excess salt and minerals near the sea, made fit for cultivation by proper drainage, use of suitable manures, etc.

(11) Kereholage kayi

forsaken tank-bed used for cultivation.

(12) Gavangiervas

land set apart for cattle-grazing.

(13) Moradi

Sandy and poor soil fields, generally not sown with any grains and left for grass to grow.

(14) Khajjana

marshy lands near sea-shore, akin to Khajju lands (No. 10 above), made fit for growing paddy by proper drainage, binding, thatching, etc. For a detailed discussion on the meaning of the term, please refer to Dr. J.C. Sircar in E.I., XXXIII, pp. 54-66

(5) CO-OPERATIVE FARMING

The idea of co-operative farming is found in the grant of Gāndāgōpala Kālima in Goa. He gave lands and
and houses to twelve learned brahmins on special conditions, after having brought the brahmins from different places. These conditions were that the twelve holdings of the brahmins should form a joint undertaking. They should be jointly cultivated and the produce shared equally by the twelve families. The lands and houses being commonly held, should not be sold or alienated. Any one doing so was to be fined five hundred coins. The purchaser was also to be similarly fined. These conditions reveal that the ideas of co-operative farming were known and practised in those days.

(b) Encouragement to Agriculture

Jayakeśa I granted the village Laghu-mōraśīka to Chēhādēma under certain concessions. The village was uncultivated for a long time, the family of its masters having disappeared (chvāsa-ṛavaṇak-ṛnvavah). Chēhādēma was to pay only thirty bhairava-nishkas for the first ten years and thereafter, from the eleventh year he was to pay thirty-five bhairava-nishkas as land revenue. As to other taxes, none except the pāmga was to be paid. These concessions were made apparently as an incentive to bring the village lands under cultivation.

General

The agriculturists and gardeners were well organised. The agriculturists had the root-mentioned organisation 'ānyāttokkalu'. Two organisations of gardeners are not
with one 'The Five-hundred and Four' of growers of
tel-plants and the other 'The Five hundred' of other
xardeners in general. It appears that the wala-garas
were included in the association called 'The Five hundred'.
We meet with both these associations in the Siddhār
inscription (A.D. 1188), while the first association 'The
Five-hundred and Four' is met with quite often. These
associations are discussed under the heading 'Corporate
Bodies'.