

ORGANISATION OF AGRICULTURE IN KARNATATAKA AFTER THE FALL OF SERIRANGAPATANA

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Abstract

There are not many books on economic history of Karnataka and rarely we find a detailed account of agriculture in the available books. Dr. Francis Buchanan's travelogue provides excellent material for this. Dr. Buchanan traveled through the Mysore State after the fall of Tippu Sultan with a mandate from the British Governor to understand the people, culture and agriculture of the region under the Sultan's reign. Buchanan being a Botanist and medical practitioner, had a penchant for details and the three volumes he drafted during the year of his travel bring out large details. These are about agriculture, people and culture of the erstwhile Mysore State. This paper is an attempt to understand agricultural organisation prevailing during that period through a lens of present day's agriculture. It brings out quite a few interesting issues like land tenure, organic farming, crop diversity and learning from the history of agriculture.

Introduction

Economic history has three important functions as an important branch of knowledge. First, it reveals the genesis and development of the society through different social situations. Such knowledge provides learning to manage situations in real life through regression. Second, it tells us the wrongs and rights committed in the past but probably with a strong limitation of being guided by the circumstances prevailing then. Third, historical reading also acquaints us with the probable wrongs being conducted in the current situations. All these factors make it necessary to understand and analyse historical events. There are quite a few good references available on economic history of Karnataka. (Kamath, 1980, Salethore et al, 1983). Among these the writings of Buchanan hold a distinct position.

After the fall of Serirangapatana and defeat of Tipu Sultan, on 24th February 1800 the Governor General of British India commissioned Dr. Francis Buchanan to survey and report the conditions of country acquired from the Sultan. Probably it was well known then that the Sultan had introduced many new initiatives in his kingdom and it was necessary to understand these. The mandate essentially included reporting on agriculture in the country acquired by the British that

covers Esculent Vegetables that are in common use. The modes of cultivation machinery, manures, methods of tillage, food and vegetables used by the population were to be the main components of his reporting. He was also to provide account of the commercial crops like cotton, pepper, Sandal wood, cardamom and nature and extent of the trade. The natures of tenancy, land use, irrigation are the integral parts of his reporting. But probably the important point of the Governor General's mandate was to look for commodities that could be traded outside India. It is stated that "The next immediate object of your attention should be, those natural productions of the country, which are made use of in arts, manufactures, or medicine, and particularly those which are objects of external commerce." (p.vii) . Francis Buchanan made an elaborate report, starting his journey on 23rd April 1800 and going through today's South Karnataka towards Madras, from Kaveri Pura to Coimbtore on October 11th 1800. He entered Mysore territory from Catcolli and reached Serirangapatanam. He visited surroundings of Bangalore to reach Dodda Ballapur and Sira to reach back to Serirangapatanam. From there on he traveled towards South Canara and to Kaveri pura to enter back into Madras presidency. His descriptions are quite vivid and tell us volumes about the region but imbued with the fact that the some of the descriptions are season specific.

Before getting into the details of the report provided by Buchanan, and picking from his account about agriculture in Mysore state it is necessary to understand of a few important components. First, Francis Buchanan was to report on the country , which British acquired from Tipu Sultan after the fierce battle, as a result the Ryots were under fear. Therefore what was probably discussed or talked must have been reported under pressure. But that does not deride the in-depth understanding of Dr Buchanan. The devastation due to the war gets clearly reflected when he writes "*Owing to the devastation of war the people near Priya Pattana are at present so poor that they are cutting off the unripe ears of corn and parching them to satisfy the cravings of appetite*" (p 367). Second, Francis Buchanan was a representative of British Raj, which essentially was viewing the countryside as a revenue generation region. Therefore, his understanding of the production relations was imbued by the fact of revenue generation. Third, he was a medical practitioner as well as a botanist therefore, it was quite expected that his report will be toned by his academic bend. This is visible when he writes "*I transmitted a considerable number of seeds to Dr Roxburgh, and made a collection of descriptions and drawings of the more unknown plants. These are published in Exotic Botany by Dr James Edwards Smith*" (page 11). But we hardly come across Buchanan reflected as the medical practitioner through his

observations. He rarely makes any observations about the medicinal properties of a few plants but does not deal with that elaborately.

While reading history of agrarian economy we need to take note of a few important landmarks. First it is essential to understand land and land relations in the Sultan's territory. That is naturally followed by the land use and crop production process. The labour and productions relations get reflected as and when these appear in the descriptions of Buchanan. We have not followed the chronological approach here but a structural description in aggregate. Dr Buchanan entered Mysore province around Bangalore after traveling from *Catcolli* and *Tayculum*. It was a summer season, fields were parched, barren but some of the irrigated fields had some crops. That was beginning of the crop season and hence tillage operations had begun in most of the regions. Therefore, the observations recorded have to be understood from this seasonal perspective.

Land Relations

During British regime land revenue was the major source of income for the state. Therefore, land became one of the important components of enquiry by Buchanan. He observed wetlands, dry fields and garden lands in the region. Largely it was a feudal countryside with the State appointed officials governing the land revenue and through that exercising control over the ryots. The land distribution is also mentioned by Buchanan. He mentions that a person owning one plough land (2.5 acres) was considered as poor, whereas, for a family he records five plough land as the basic requirement. He mentions that a farmer who had two ploughs of land owned 40 oxen and 50 cows in addition to the four buffaloes, three male buffaloes and 100 sheep and goats. Whereas a rich peasant would have 200 cows and other cattle in proportion (p 367). A clear indication of inequality in access to land was revealed and that was further strengthened by the ownership of cattle. Land revenue collection was operated in the same system as in the north established during Akabars' kingdom. The state appointed an *Amildar* who was responsible to collect the revenue from the village headman *Gauda*. Farmers were required to pay the land revenue to *Gauda*. But in addition to that the village headman received payment from the Sultan. Buchanan writes, ““The *Gaudas* are not here hereditary, but are appointed by the *Amildar*, with the consent of the farmers; for the *Amildar* never attempts to put in any person contrary to the wishes of the people. These *Gaudas* receive a fixed pay of 20 *Fanams*, or 13s. 5 ¼ d. a month, and perform the sacrifices, which in other places are usually offered by the hereditary chiefs of villages. (P.85).

Tenancy Relations

Land was assumed to be rented out by the State and the land revenue collected by the agents of the State was considered as rent. Besides this, renting out land was quite prominent during Tipu Sultans period. The *Gauda* or chief of the village preferred to get the rent (revenue) equal to one third part of the crop. Both cash and fixed tenancy were prevalent and land was rented in from the *Gauda* (cultivating castes), Brahmins or *Amildars*. The village *Gauda* also acted as a State intermediary to manage the land revenue and hence vested with the revenue collection powers. The rent paid to the landowner was always greater than the land revenue to be paid to the *Amildar*, in the process the landowner became richer by appropriating the additional rent received. In every village, a piece of ground was allotted to the village *Gauda*, and he is not expected to pay land revenue for this land to the *Amildar*. Interestingly, if the crop is deficient the renter was not expected to pay any rent to the landlord, and that was one of the reasons through which cultivators continued in agriculture as profession. The property rights of the farmers were fixed until the farmer continues to pay land revenue to the state fixed in the matter of valuation made by *Jagdeva Raya*.

Interestingly, in Tipu Sultan's kingdom there is a mention of a new method of valuation devised; however this seems to have been never implemented. Usually the Paddy tenants paid share of the crop as rent, whereas in the dry lands it was fixed money rent. That fixed the responsibility of facing the risk on the cultivator in the dry lands but landlord shared the risk with paddy growers. The ground that has not been occupied by anybody earlier attracted no land revenue during the first year of cultivation (by a new cultivator) but the revenue started accruing during subsequent years in such a way that by fourth year the cultivator pays full rent. Buchanan writes elaborately about the change in the accounting of land revenue from the old system (*Vir Raya Fanams*) to the new system (*Canter'-Raya Fanams*). The description suggests high land revenue in Sultan's regime but by the end of the description quite contradictorily he adds "My informant does not think that the land tax under that judicious prince was by any means exorbitant" (p 438).

An interesting property relation was observed by Buchanan, where it is not customary to change any man's possession of land, so long as the person pays a fixed rent to the government. However, if a person is not able to pay such rent and finds himself in utter poverty may seek

permission from the state, represented by the *Amildar*, who in turn will provide such permission or loan to purchase stock and seeds. The method of collection of rent was not exploitative as was prevalent then in Bengal, where the landlord prevented even cutting of the crop until the rent was not paid. In Sultan's kingdom the crop was allowed to be harvested and the grains collected in stacks or heaps. Several clay stamped pieces were put on the surface. The grain used to be in that position till the cultivator satisfied the renter (p2). This indicated a mutual trust between the renter and the cultivator. At the time of sowing the *Amildar* or *Gauda* used to offer *Tacavi* loans to the farmer so as to meet the current expenses. Buchanan writes "During Tippu's reign, *Tacavi* loans were advanced to the farmers and they were expected to repay immediately after cutting down the crop. Some farmers received such advances and not all and Buchanan writes "They are, however, a favourite maxim of Indian policy; partly as having a popular appearance of liberality, and partly as opening a great field for corrupt partialities" (P. 421). These loans continued further during British Raj. The system's metamorphosis could be seen in crop loan system in independent India and the concept of the favourite maxim also applies today in totality..

Soils and Productivity

The soils were categorised into four broad components, namely, Dark Black Soils (*Eray, Crishna, Mucutu*), Red Soils (*Cabbay, Kempu Bhumi*), Light Brown Soils (*Marulu*) and Sand and Angular Nodules (*Darays*). Use of farmyard manure was quite common, and every farmer maintained a *Dunghill*. This was a large pit that near the farm and animal dung as well as other waste material was dumped in this *dunghill* that provided manure for the field. Buchanan puts the cultivated land at about 30 per cent of the total land mass but also observes large pressures and 40th part of the cultivated land being under irrigation (page 22). He also noted garden lands irrigated through well irrigation and usually cultivating *betel leaves*. He also observed patches of saline land locally called *Soulu munnu*. These were described in two types one impregnated with carbonate of soda and another with the muriate of soda and magnesia (p.98). The land was treated with green manure, taking branches of *Euphorbium Tirucalli*. A large number of green manures are used in paddy cultivation, and Buchanan mentions quite a few such manuring plants. He recorded *Cogay Soppu, Hongay Soppu, Tumbay Soppu, Ugany Soppu, Atty Soppu, Umatty Soppu and Yeccada Soppu*. It comes clearly that land was largely maintained with organic manures and therefore the productivity was also better in Mysore province compared to the other region he traveled through. That clearly indicates a strong animal husbandry sector along with agriculture. He observed largely huge patches of barren land, but probably it was because of the season, and not necessarily to indicate lack of cultivation.

Land Use Pattern

The land use pattern during the British regime was dominated by large spans of uncultivated barren and pasture lands. The paddy fields are separated not only by the bunds, as practised today, but about eight to 10 ft. land was left uncultivated between two fields. In between the fields, trees were planted. This was observed as a common practice in the Serirangapatanam and other regions. The trees planted in the wet hinterland between two fields were *Mimosas and Elate sylvestris*. Irrigation was not very common and largely depended on the local tanks. Paddy was the main crop in the irrigated region, whereas the dry land was utilised for many crops. Buchanan makes specific mention about the forest and shrub forest, on his way to Serirangapatanam. Tenancy was very much prevalent in the region and he clearly brings out the land relations observed during his travel.

Irrigation

The cultivation of crops was mainly rainfed and irrigation was available in sporadic patches. Largely, the fields were irrigated with canals generated from a reservoir. Buchanan also mentions well irrigation as another important source of irrigation. He writes “The watered lands receive a good supply from reservoirs, constructed like those below the *Ghats*. The rice on the fields looks well, but cannot occupy more than a twentieth part of the arable lands. At present the dry fields look very ill, being quite parched up; for the want of water seems to be the predominant feature of the eastern part of the Upper *Carnatic*”. (P. 20). He clearly observed the irrigated lands on Mysore side whereas around Kolar (colar), he came across dry parched fields and very little vegetation. He passed through Kolar region on 8th July 1800, and by then cultivation had begun in the other parts of Mysore State. He found the country side as ‘poorly watered’ and often suffering from want of rain. Further states that Famines were quite common in this region. (p193). Very interestingly, like elsewhere in the country, the drought prone areas have their own mechanism of adjusting to the natural calamities. Here too Buchanans’ observation is quite interesting. He observed that weaving is the main profession (agro-processing) and the farmers have constructed small tanks and water bodies which collect the rainwater. There is an evidence of individuals constructing tanks and he writes, “In the country around Colar, the irrigated land is watered entirely by means of reservoirs. When any rich man builds one of these, in order to acquire a name and reputation, it is customary to give him and his heirs, free of rent, one-tenth part of the land, which the reservoir waters, and also for every *Candaca* of watered land thus formed, he obtains, free of rent, six *Seers* sowing of Ragy-land, which amounts to about 146 acres

of dry field for every 1000 acres of that which is irrigated”. (P. 194). Largely irrigation was carried out with the help of Yetam or Pacota . A land measuring one *Canay* (1.18 acres) required about four labourers to supply water. He describes the sources of irrigation and specifically writes about *Gunta* (A well from where water could be taken out easily for drinking purposes). This is quite similar to the *Bavadi* (*Boudi here*) construction in *Adilshahi* kingdom. Buchanan describes: “The reservoirs are numerous, but small; many of them are designed for supplying cattle with drink, and not for cultivation, and are of the kind called *Cuttay*. “The tank formed, like those in Bengal by digging a square cavity into the ground, is here called *Gunta*. Above the *Ghats*, however, this manner of procuring water is not very common; but the most usual manner of coming at a spring is by digging a large square pit with sides almost perpendicular, and called *Boudy*. The workmen dig till they find the water which is often twenty or thirty feet from the surface. Afterwards, a narrow passage, with a gentle slope, is cut in one of the sides and a stair is formed in it, by which the women descend to bring up the water in earthen pots. It is from these wells, chiefly, that water is drawn by the *Capily*, or leather bag wrought by two bullocks descending on an inclined plane (P. 132)”.

It is quite evident that among the crops Sugarcane and Paddy were taken as irrigated crops but usually irrigation is used for cultivation of horticultural crops. The horticultural fields were called *Tota*. ““In the *Ashta Gramas* there are four kinds of *Tota*, or gardens, cultivated. (i) *Tarkari Tota*, or kitchen-gardens; (ii) *Tayngana Tota*, or orchards, literally Coconut gardens; but many other kinds of fruits-trees are planted in them; (iii), or orchards, literally Coconut gardens; but many other kinds of fruits-trees are planted in them; (iii)*Yellay Tota*, or Betel-leaf gardens; (iv) *Huvina Tota*, or flower-gardens” (P. 76). The land revenue for irrigated land was fixed at a higher rate than the other lands and *Gauda* was responsible to collect this rent to be forwarded to the *Amildar*. “Instead of dividing the crops, as usual in most parts of the country, the farmer here cultivates his watered land as he pleases, and pays for each *Candaca* of ground ten. *Candacas* of paddy, which are equal in value to 1120 *Seers* of rice. The average price of this is about 20 *Seers* for a Rupee. For this ground, therefore, he pays to the government 66 Rupees, which is at the rate of 11.3s. an acre” (P.85). The management of tank was vested with the village headman and a person designated as *Neeraghanti* assisted the *Gauda* in water distribution.

Crop and Cultivation:

In a year two crops were cultivated known as Hainu and Caru crop each at rainy and dry season respectively. It is also referred as Male and Female crop. Paddy and ragi dominate the

crop pattern and this was noted even during Neolithic age. These grains were found at Tekkalakota remains (Kamath, 1980, p.3). But diversification was noted in the entire Mysore region. For these three different methods was used for sowing the rice; 1) dry seed cultivation, 2) sprouted cultivation and 3) transplanted cultivation. First method of sowing was suitable for booth Hainu and Caru crop. Whereas, other two for Hainu crop. While selecting the mode of cultivation, high fields are cultivated after the dry seed sowing. On other hand, lower grounds are reserved for sprouted and transplanted cultivation. Sugarcane is taken as a crop on irrigated lands and there was a rotation between sugarcane and paddy. Two varieties of sugarcane were cultivated namely *Puttaputti and Restali*. *Puttaputti* is planted in the month of *Shravana on Magha nakshtra* whereas; *Restali* was planted in the month of *Chaitra (P 65)*. Crop rotation was followed between sugarcane and paddy and informers told Buchanan that sugarcane is never repeated in the following year. Nearly eighteen varieties of rice were cultivated here (p195). Buchanan gives the span of the crops as shown in table 1.

Table No 1: Types of Cultivars Paddy

Sl. No.	Names	Months required to reap
1.	Doda Batta	7
2.	Hotay Caimbuti	5.5
3.	Arasina Caimbuti	5.5
4.	Sucadass	5 .5
5.	Murargilli	5.5
6.	Yalic Raja	5 .5
7.	Conawaly	5 .5
8.	Bily Sana butta	5.5
9.	Putta batta	5.5
10.	Caraculla	5 .5
11	Dodda Caimbutti	4.0
12	Sana Caimbutti	4.0
13	Guti Sanna	4.0
14	Punoe Raja	4.0
14	Garuda Nelli	3.0
15	Toca Nelli	3.0
16	Cari Toca Nelli	3.0
17	Gany Salli	4.0
18	Cali Yuga or Caliga Byra	6.0
19	Gyda Byra	5.0
20	Cari Bolcari	3.0

Source: Page 58 and page 195

Management of Hainu Cultivation:

Hainu formed a principle rice crop. For the purpose of *dry seed cultivation*, the fields were ploughed from 14th February till the 23rd of May. After the fourth ploughing field is manured and after the fifth ploughing field was watered. Three days after that seeds were sowed. Thinning of the crop and weeding was carried out three times; first on 45th to 50th day; 20 days after words; and finally 15 days after the second weeding. For conducting the sprouted cultivation of Hainu crop, ploughing was done in the month of *Ashda* and double ploughing was carried out. By the first of *Sravana*, field is manured and field was ready after the fifth ploughing and there after continuously supplied with water for 24 days.

Caru Cultivation:

Caru crop is divided into three kinds (*Cumba, Tula and Mysha*) according to the time of sowing and the *Nakshtra* at that time. There was no dry seeding for *Tula* crop, whereas for *Cumba* and *Mysha Caru* all three methods were used for cultivation. One of the interesting method of *Caru* cultivation described by Buchanan is the sprouted cultivation, what was known then as *Mola* cultivation. He writes “The manner of preparing which is as follows: The ears must be cut off, the grain beaten out immediately, and then dried in the sun three or four days. It must be preserved in straw or in jars. When wanted for sowing, it must be exposed to the sun for a day, and soaked in water all the following night. It is then put upon a layer of the leaves of the *Yecada*, or *Asclepias gigantean*, or of the *Harula*, or *Ricinus Palma Christi*, mixed with sheep’s dung, and is surrounded by stones, so as to keep it together. It is then covered with *Bandury* leaves, and pressed down with a stone (P. 255)”.

Table No. 2: Three Kinds of *Caru* crops

Caru crop	Kind	Ploughing time
	Cumba caru	If seed is sown at most favourable land
	Tula Caru	If seed is sown too early
	Mysha Caru	If crop is sown too late

The management of *Caru* cultivation has been described in detail as in the *Caru* season rainfall is largely unpredictable and the crop needs supplementary irrigation.

Table No 3: Management of Caru Cultivation by different method of sowing

Kinds of Caru Crop	Different Method of Sowing		
	Dry seed	Sprouted Seed	Transplantated
<i>Cumba</i>	Ploughng season in Bhdrapada and seed is sown by the end of Margashira	The seed is sown about the 16 th of Pushya	The groud is ploughed in the end of Kartika and seed is sown on the 15 th of Pushya
<i>Tula</i>	No Tula Caru is sown in dry seed	The seed is sown on the 1st of Karthika	It is sown about the 30 th of Asuja
<i>Mysha</i>	Ploughing commences on 1 st of Chiatra and seed is sown at the feast of Chaitra Purnama	The seed is sown about the 16 th of Vaishaka	Abot the 15 th of Vaishaka transplanted seed is sown

Source: Page 61

Tarakari Tota:

Along with rice and other food grains Buchanan has recorded good number of gardens existed in this place, specifically *Tara Kari Tota*. Most of which is cultivated either for family use and small amount for supplying to the nearest town. However, he remarked that, the cost of cultivating *Tara Kari* garden is much higher than that for cultivating rice. A variety of vegetables were grown and that shows the diversity even in horticultural cultivation.

Table No 5: Vegetable Grown

Sl. No.	Tara Kari	Sl. No.	Tara Kari	Sl. No.	Tara Kari
1.	Badana	17.	Davana	33.	Bassalay Suranu
2.	Hiray	18.	Kiray	34.	Taynagana
3.	Somaty	19.	Dantu	35.	Adicai
4.	Cumbala	20.	Mentea	36.	Balay – plantain
5.	Budu cumbala	21.	Columari	37.	Nimbay
6.	Swary	22.	Sopsica	38.	Kictalay
7.	Padawals	23.	Holichicay	39.	Hayralay (Biiter orange)
8.	hagala	24.	Chicotra	40.	Jambu (Guava)
9.	Chick Hagala	25.	Doda Gorai	41.	Dalimbay
10.	Bendy	26.	Mulangay	42.	Halasu
11.	Pudichira Cumbala	27.	Iruly	43.	Mau
12.	Gori	28.	Beluly	44.	Nerulu
13.	Happarada Awary	29.	Arisana	45.	Nelli
14.	Neela Cotalay	30.	Sunty	46.	Hunishay
15.	Meneshena	31.	Ghensu	47.	Ammuttay
16.	Muscuc Jola	32.	Kissu dentu	48.	Humtica

Source: P 76

A few important points emerge out of reading Buchanan's account of crops and cultivation in the period of Sultan. First, there was a good diversification of crops and not only many crops were grown in Mysore territory but the region also had many varieties of the same crop. Paddy, Ragi, Jola, Maize, Save, Bajara, Harica, Navonay, Carlay, Haralu, Huts Ellu, Moong, Uddu, Thogaray are the crops prominently mentioned by him. The diversification of crops in the dry region therefore, is quite understandable but he found this in the irrigated regions also. Diversified crop pattern was also a feature of *Vijayanagara Empire* (Kamath, 1980, p.191). It is known that diversification is practiced as a tool to maximize income but during these days when marketable surplus was negligible it was undertaken as adjustment to risk. Buchanan writes "When ragy succeeds the leguminous plants are oppressed by it and produce only small returns, but when ragy fails they spread wonderfully and give considerable returns. (p69).

He also provided yield of prominent crops of the region after discussing with the locals. These are shown in the table 6.

Table 6: Yield per Hectare of Crops in Mysore Region

Crop	Yield/Acre in Bushels	Increase over Seeds
Rice	31.0	20
Ragy	23.35	52.5
Avaray	0.889	8
Tovaray	0.889	8
Harica	15.56	30
Navonay	15.56	30
Shamay	15.56	30
Chica Cambu	15.56	-
Jolla	15.56	120
Hurali	15.56	30
Huts Ellu	1.12	10
Wullu Ellu	1.334	12

Note: One Bushel = 2219.36 cubic inches. The measurements are 14 seers is One Colaga 20 Colagas is One Candaca and that is equal to 9 Bushels Page. 68

Disposal of Produce or Product Distribution

A very good description about product distribution or disposal of product existed at that time has been provided. This also speaks of religious and social outlook prevailed at that time. Buchanan has observed wide practice involved in the crop storage and processing. 1) Grain is preserved in husk and pits called *Hagay*. They were fifteen to sixteen feet deep. Floors, slides and roofs lined with straw. These pits contain from 15 to 30 candacas or 83-167 bushes. If the paddy is

wanted to be beaten out into rice whole pit is emptied at once. 2) *Canajas*-or store *house*.built in a such a way to protect from Bandi Coots. No opening for air. 3) *Cylindrical Stores*. It is made up of clay, mouth of it covered by an inverted pot.

Table No 7: Manner of Distribution of the produce.

Distribution	Quantity (Seers)	Distribution	Quantity (Seers)
Gods (Brahmans, Jangamasa)	5	Measurer	4
Charity	5	Tarugara	7
Priest (<i>Panchanga</i>)	1	Gauda	8
Poor Brahmin	1	Shanbhoga	10
Barber	2	Watchman	10
Cumbara	2	Chief of village	45
Vasaradava	2	Niragunty	20
Asaga or washer man	2		

Source: Page No 185

Table No 8: Manner of Dividing the Ragi

Distribution Among	Quantity (Seers)
Gods	10
Mendicant Brahmans	20
Brahmin	10
Astrologer	10
Accomptant	20
Watchman	10
other	10

Source: Page 186

Lastly *Mudy*, a kind of bag made up of straw. The total produce was distributed as shown in the tables 7 & 8 and at the same time some surplus used to go to the nearby markets. Having assembled the village officers and principal farmers, they informed me that the merchants of Bangalore frequently advance them money to pay their rents, and are afterwards contented to take one half of the crop for the advance, and for interest. These advances are sometimes made six months before the crop is reaped” (P. 185).

Processing of Crop

Two method prevailed for making paddy into rice, one by boiling it previously to beating and other one include beating alone. Further, first method is again done in two different way. The

detailed description about the procedure involved in the two method is provided in the accompanying table 8.

Table 9: Different Methods of Paddy Processing.

Method	Paddy processing
First Method	
<i>Aydu Nagu Aky (Five Piece Rice)</i>	A pot is filled with equal part of water and soaked over night. In the morning it is boiled for half an hour. Then it is spread in the shade for fifteen days after word dried in the sun shed two hours. Thereafter it was beaten. In that process each grain is broken into (five) pieces. The process acquired the name of <i>Aydu Nagu Aky</i> as the grain was considered to be broken into five pieces. This kind of rice was used only in the family of <i>Rajas</i> and high castes.
<i>Cudupal Aky</i>	In this method five parts of paddy were put into one pot and boiled for nearly two hours till a few grains burst. After that it was spread in the sun for two hours for continuously two days and then beaten. About ten parts of paddy gives five parts of rice. One part of the rice was given to the person who beat the paddy. This type of rice was usually used by the other castes and <i>Shudras</i> .
Second Method	
<i>Hashy Akky</i>	In this paddy is a not boiled and directly exposed to sun for two hours. Immediately it was beaten. This kind of rice was generally used by the <i>Brahmin</i> community.

Source: (P.52 and 63)

Control of pests and diseases on the crops is not mentioned elaborately by Buchanan. Probable reason was that the journey was in the early part of the year and the outbreak of pests and diseases occurs only after the rainy season receded. But one interesting occasion he mentions is about the Locust attack. During seventies and eighties we have not heard of instances of Locust attacks and therefore unaware of the devastation these insects used to cause. Buchanan writes 16th May evening, a fight of locusts passed over the town. Buchanan describes, “It extended in length probably about three miles; its width was about a hundred yards, and its height fifty feet. The insects passed from west to east in the direction of the wind, at the rate of six or seven miles an hour. The whole ground, and every tree and bush, was covered with them; but each individual (the insect) halted for a very short time on any one spot”. Further it is stated that “At a distance they appeared like a long, narrow, red cloud near the horizon, which was continually varying its shape. The locusts were as large as a man’s finger, and of a reddish colour” (p39).

In the Footsteps of History

One of the important pursuits of history is learning from the experiences. A prominent branch of economics namely econometrics is a well developed branch and has mathematics and statistics as its roots. But another interpretation of this branch of knowledge is the method of learning from history or what is termed as error learning model. Buchanan's travel and description of Mysore after the fall of Sultan is interesting but reveals quite a few interesting issues in culture of development in this part of the country. First, the region was self sufficient and had diversity of occupations. Innovations and new methods of cultivation and many cultivars indicate the propensity to accept different innovative traits as well as experiment with the new ones. Second, farming was a well diversified profession and strongly supported by allied agricultural activities. Third, farming was totally organic and soil rejuvenation as well as soil health was high on the agenda of cultivation practices. Fourth, as elsewhere in the country the land tenure system provided scope for over-exploitation of the tenants and peasants but the evidence of that happening during the Sultans' regime is not there. Lastly, the organisation of agricultural sector as a whole and the village in particular retained the equilibrium of the production and distribution.

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