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"IRRIGATION SYSTEM OF DAVANAGERE REGION DURING SANTHEBENNUR NAYAKAS PERIOD"

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ABSTRACT :

Karnataka, the Epitome of India has 2000 years of its ancient history. From Mouryas to the Wodeyars many dynasties ruled here. Post Vijayanagara period is regarded as the period of political and cultural transition in the history of Karnataka. After the battle of Talikota, big empires lost their existence and the regional rulers called Nayakas- Amaranayakas- Palegars rose up their heads in South India. These local chieftains took the responsibility of continuing the Vijayanagara culture and managed it according to their resources. The period where Palegars ruled was a volatile political period. It is very important to know how they survived and tried to continue the Vijayanagara culture in that turbulent political period. It is also interesting to know the irrigation system and extension of the agricultural area. On the other hand it resulted in the development of the society and economy. In this backdrop present article deals with the irrigation system and extension of the agricultural land under the Santhebennur Nayakas.

KEY WORDS : *ancient history , volatile political period , society and economy.*

INTRODUCTION :

Karnataka has divergent culture. Here every elements of the nature are worshipable. Ex;- the sun, the moon the air, water, tree etc, Since time immemorial we Indians worshipping the water as Mother, Goddesses, Jeevadate (the giver of life) etc, There must be a well or pond close to the temples. Construction of the water works has been practiced from the ancient period. It was a part of the life of Karnataka people. For ex; Hampi inscription of Lakshmadharamathya quotes "Kereyam Kattisu, Baaviyam Todisu, Devalayam Nirmisu[1] etc……. Like this the mother used to sing to her child who is playing with her and prepared him to took up the public works. So that the dynasties that ruled over Karnataka either build new tanks or repaired the old tanks. Santhebennur Nayakas also continued this tradition.

Vijayanagara Empire that ruled between 14th and 16th centuries established a vast empire and created the Amaranayaka system. Being an Amaranayakas of Vijayanagra Empire, Sathebennur Nayakas extended the agricultural land, provided the irrigation facility, built many forts, palaces, organized the people, maintained the army, stood in the side of vijayangara and become a cause for its glory. Vijayanagara emperors called Santhebennur Nayakas as "Dakshina

[1] Lakshmadharamathya's Hampi inscription.

Bhujabalaru". There was a mutual binding between them. So Santhebennur nayaka state may be called as the infant of Vijayanagara Empire. After the decline of Vijayanagara Empire Santhebennur Nayakas became independent and ruled over central Karnataka region.

Today Santhebennur is a Hobli head quarter in Chennagiri Tq of Davanagere District. Earlier it was a part of Kadambalige1000, Uchhangi 30, Nolambavadi 32000, Gangavadi 96000. Hoysala and Vijayanagara emperors also ruled here. During Vijayanagara period it was called as Bennur[2] (14th century inscription located near Santhebennur tank bund). This family had an independent existence from 1500 A.D. to 1780. Later it came under the control of Hyder Ali. Inscriptions play an important role in the study of Santebennur nayakas and their irrigation system by providing a lot of information. Though the inscriptions are important to study about the economic condition of this state, the information provided by them is not sufficient. But Colonel Mackenzie and Francis Buchanan, who visited this area, met Amaldars, Shirastedars and other officials, collected authentic information. I tried to give the picture of irrigation system of paleyagaras by using these work also.

Since time immemorial earth has been the abode of all living beings. As man power amalgamated with the earth, it has got the value. Thus earth is the source of all resources. Earth comprising of natural resources like mountains, minerals, soil, water etc, and human activities on these natural resources became the source of the Nayakas. In the processes of making the earth productive, 'forest area' turned into 'human residence' that helped the rise of local chieftains called Nayakas. For ex; - Harihara, the ruler of vijayanagara came to present Harihara of Davanagere region, stayed at Madakari, a deep forest area, cleared the forest, built a temple for the God Ranganatha swamy[3] (Topina ranga), donated surrounding area to this temple. Later a settlement rose up its head there. As time being this place came to be called as Thopinahalli.[4] Like this the process of extension of agricultural land has been commenced, along with this palegars tried to extend the irrigation facilities by constructing a number of Kere, Katte, Kunte, Kapile, Kalyani and digging wells, Canals etc.

IRRIGATION SYSTEM;-

From the beginning Davanagere region farmers cultivated the land with well irrigation facility. Irrigation system means, stop and store the running water for a while, and then let it run further. The water that stored artificially was called as Samudra, Kere etc, and supplied to the cultivation through the canals. It is an attempt to get more than expected yield.

Irrigation system of Davanagere region was in two different forms i.e., tanks and open wells, through which the Nayakas encouraged the agricultural activities. All most everyone who ruled over Santhebennur, either built some new tanks or repaired the existed tanks. For example, Kengappa nayaka of Santebennur had constructed a lake called "Ramatheertha" at Santhebennur in1558 AD. This pond has an area of 235 x 245 square foot and has the steps around it. "Vasantha Mantapa" built in the middle of the Ramatheertha, is very attractive and centre of attraction. It is built out of red granite[5]. Even today there is water in this pond. People have told during fieldwork as Kengappa Nayaka also built the Yalavadakatte and Gonikatte tanks.

The tanks of this province are big as well as small in size. The large tanks are called as "Mydala". In the ancient time, they were called as 'Oceans' (Sagara or Samudra). It has been mentioned in one of the contemporary inscriptions that the water stored in the tanks was provided to the field through canals. For example Immadi Kengappa nayaka had constructed the tanks at Hirekogalur, Santebennur, Medikere, Thanigere, Siddara mutt[6] etc. Nichamaduvaniga kenga hanumappa nayaka had built the

[2] Santhebennur Sumateendra Nadiga , Santhebennur Nayakaru, Directorate, Karnataka State Archives, B.lore 2008 P 164

[3] Mackenzie Collection – Santhebennur Kyfiath, Vol. 160

[4] Ibid

[5] Santhebennur Sumateendra Nadiga , Santhebennur Nayakaru, Directorate, Karnataka State Archives, B.lore 2008

[6] Mackenzie Collection – Santhebennur Kyfiath, Vol. 160

tanks at Belliganur, Kulenur villages[7]. Even today these tanks are useful for agriculture. Nayakas also built many tanks. I have collected a list of such tanks from different sources, has been given in this table.

Slno	Name of the Tank	Builder/ Constructor	Period	Source
01	Hirekogalur kere	Hanumappa Nayaka II	1567 -70	Santhebennur Seeme Kyfiath
02	Medikere	Hanumappa Nayaka II	1567 -70	Santhebennur Seeme Kyfiath
03	Tanigere	Hanumappa Nayaka II	1567 -70	Santhebennur Seeme Kyfiath
04	Santhebenur kere	Hanumappa Nayaka II	1567 -70	Santhebennur Seeme Kyfiath
05	Siddanamata kere	Hanumappa Nayaka II	1567 -70	Santhebennur Seeme Kyfiath
06	Sulekere	Basava Kumararu	1777	EK 7 Honnali 34
07	Kankanahalli kere			EK 7 Honnali 34
08	Tarikere kasaba dodda kere	---	1814	Collections of Kudli Sringeri Mutt
09	Santhebennur kere	Nichha Maduvaniga Hanumappa nayaka	1570 - 1580	
10	Belliganur kere	Kenga Nichha Maduvaniga Hanumappa Nayaka	1570 - 1580	Mallur Sasve halli Kyfiath Santhebennur Seeme Kyfiath
11	Kalenur Village tank	Kenga Nichha Maduvaniga Hanumappa Nayaka	1570 - 1580	Mallur Sasve halli Seeme Kyfiath
12	Tarikere tank	Chikka Kenga hanumappa Nayaka		
13	Basavapattana tank	Chikka Kenga hanumappa Nayaka		
14	Kanchugarana halli (Giriyavva nagathi kere)	Giriyavva Nagati		Mallur Sasve halli Seeme Kyfiath
15	Sasvehalli kere (Veeranayakara kere)	Hanumappa Nayaka II		Mallur Sasve halli Seeme Kyfiath
16	Hodigere kere			
17	Harnahalli kere			
18	Amaragiri kere			
19	Hosahalli kere (Balanayakara kere)	Havale Balanayakaru		
20	Ramenahalli Doddakere	Hanumappa Nayaka II		Hodigere Seeme Kyfiath

With the permission of Santebennur Nayakas, their officials also constructed many tanks, for example;- Immadi kengappa nayaka had appointed his officials called Havale Veeranayaka and Havale Balanayaka to construct the tanks[8]. Havale Veeranayaka had built a tank at Sasivehalli and Havale Balanayaka at Hodigere. Even today these tanks are called after their names and are in good condition. Not only the officials, the royal family women also interested in the construction of the tanks. For ex; - according to Saswehalli Kyfiath, Giriyamma Nagati, wife of Hanumappa Nayaka had built a tank at Kanchugana halli, called Giriyavva Nagati kere[9]. Sulekere is another example.[10] During that period, human sacrifice was in practice, to get water for the tanks. It is termed as "Kerege Hara" in folk literature. Probably, as the folk tales tells that Kerege Hara tradition was practiced everywhere.

[7] Mackenzie Collection - Mallur Sasve halli Seeme Kyfiath
[8] Mackenzie Collection - Mallur Sasve halli Seeme Kyfiath
[9] Mackenzie Collection - Mallur Sasve halli Seeme Kyfiath
[10] EK 7 Honnali 34

Along with tanks, irrigation was also carried out through open wells. In Kyfiaths and inscriptions there are many references about "Kapile Bavi" and "Etha system" of irrigation. In this system farmers used to lift the inner water, collected in the wells using suitable instruments.

The waterman appointed by Government had the responsibility of distributing the water through the canals and pipes. Human power was used for lifting the water from the open wells through traditional 'Etha' system along with Ghateeya yantra or Araghata with animal power and Kapile made out of leather was common. Francis Bucanan has recorded in his works that 26,280 gallon water was taken out by using Kapile for 8 hours continuously[11]. We can assume that the level of underground water was much above as these were a number of tanks and barrages. Now most of them are filled with mud and not in good condition. The open wells have dried up. Inner water level has gone down. This dangerous development can be vanished by renovating these tanks and barrages.

Some villages had Kuntes [a small water body]. The Kuntes were not as wide as lakes. Farmers used to get water to their lands from these Kuntes and lakes through canals. Mackenzie had given the exact number of such canals.[12] From this one can know that Santhebennur nayakas strived hard to improve the economic condition of the people by constructing lakes, tanks and canals digging.

As land revenue was the main income of the state, it is appear that the nayakas brought more and more land under cultivation and irrigation. Buchan informed about the process of lifting water from these kapiles[13]. They used to lift water from the depth of 20 – 25 foots from the land level, through kapiles. Kapiles were made out of skin of animals, or buckets. With the help of a pair of ox, lift the water once in 36 seconds. It was calculated that a person could lift 26,280 gallons of water with the help of a pair of ox, worked for 8 hours continuously. If the well was attached with two kapiles then, one could lift twice the quantity of above mentioned water. He says that while watering the gardens with kapile, for 1 kolaga land, [1 ½ acre] three labourers, a pair of ox and a bison were used[14]. If a farmer was completely depend on kapile for his activities then, he had to give ½ of the production to the government as tax and enjoy the remaining 2/3 part. Thus one can say that the wells and lakes played a prominent role in the irrigation system of this area.

In conclusion the irrigation system had made them self-sufficient in case of food for humans and animals. The inner water level increased. Soil erosion decreased and the atmosphere became cool. People started growing the food grains in Gadde (Wet land), Tota (Plantation) along with commercial crops. As the administration levied more tax on irrigated land and commercial crops, the government got more income. So they were able to renovate and protect the tanks and wells like monuments. Everybody in the society showed interest in agriculture with the construction of irrigation canals. The technology used in irrigation system of the period is alive even today. Thus the irrigation system of the period was responsible for the development of the society.

[11] Francis Buchanan A Journey from Madras through the countries of Mysore Coorg and Canaries2010; p 347
[12] Mechanize unpublished English record-1801
[13] Francis Buchanan, A Journey from Madras through the countries of Mysore Coorg and Canaries 2010; p 387
[14] Frances Buchan, A Journey from Madras through the countries of Mysore Coorg and Canaries. 2010; p 350