

Irrigation in Medieval Karnataka

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INTRODUCTION

India has been, through the centuries, mainly an agricultural country. She is said to have plenty of water. But, water shortage has been the main problem confronting her people. Such being the case, the problem of supplying water to the agricultural fields becomes all the more acute and vitally important. In short, successful cultivation round the year is possible only through irrigation, i.e., artificially supplying water drawn from rivers, wells and storage tanks. Indeed, the Indian cultivators have been irrigating their fields for two thousand years and more.

The idea of acquiring religious merit (Punya) has always been a powerful urge for, and a driving force behind, all acts of public good. The gift of Water (udakadana), for drinking as well as agricultural purposes, has been extolled as an act of great piety.

The State as well as local bodies and institutions, as also many individuals, came forward to undertake the construction of irrigation works, such as wells, tanks, dams and the like.

The Vijayanagara rulers, for instance, like their predecessors, had fully realised the great significance of irrigation. Krishnadevaraya, in his well-known work 'Amuktamalyada', observes that the State should create irrigational facilities and thus help the cause of agriculture. Sir Thomas Munro, referring to the possibilities for irrigational works in the districts of Bellary, Anantapur, etc., remarks that any attempt to construct new tanks would be perhaps a more hopeless experiment than the repair of those which have been filled up; for, "there is scarcely any place where a tank can be made that has not been applied to this purpose by the inhabitants". This may speak volumes for the irrigational policy of the rulers of the times.

Sewell³ refers to the construction of a huge dam across the Tungabhadra by Bukka II; as also to the formation of an aqueduct, fifteen miles long, from the river into the city. He remarks that this dam "is one of the most remarkable irrigation works to be seen in India. Numiz⁴ gives us some interesting details about this dam constructed by Bukka II.

One of the great works of Krishnadevaraya, the celebrated Vijayanagara emperor, was the construction of an enormous tank, or dammed-up lake, at the capital, which is now dry. We come across the description of this tank in the accounts of both Paes (A.D. 1520-22) and Numiz⁷ (A.D. 1537), the well-known Portuguese travelers. It is Numiz who tells us that the emperor was assisted in this work by a Portuguese engineer, Jao Della Ponte.

The private initiative in the construction of such irrigation works was often encouraged by way of landgrants, called in the records *dafavanda*, *Kattu-Kodage* i.e., a plot of tax-free land, watered by the irrigation works constructed by them, individuals or institutions.

An epigraph of A.D. 1410 refers to an agreement (Vyavahdra-nirnaya) settled by the emperor Devaraya II, for the God Harihara and 108 Brahmanas of the Harihar Ksetra. These Brahmanas, we are told, at their own expense, erected a dam (Katte) across the river Haridra, leading a channel through the God's land. The record stipulates that of all the lands thus irrigated by that channel, two-thirds should belong to the God, and one third to the Brahmanas, free of all imposts.

Another record of A.D. 1496 (Kolar District) refers to an agreement between two persons (named) regarding a *Kattu-Kodage* land-grant, in connection with a virgin tank that was formed, putting up an embankment with plenty of earth, building it up with

stone, fixing a stone-sluice, and making it-secure with bricks, mortar and lime.

There is reason to believe that the technique of tank-build-ing and of erecting dams was much advanced and the science of Hydraulics (Jalasastra) was studied by the professionals during the period.

Indeed, the unique record¹ of 1369 A.D., referring to the formation of the Porumamilla tank, enumerates not only the 12 essentials required to construct an excellent tank, but also 6 faults in this regard. An epigraph of 1388 A.D. refers to one 'Jalasiitrada' Singeya-bha^a, a master of ten sciences (dasa-vidya-cakravarti), who, as per the orders of the emperor Bukka II, led the Henne river to Penugonda, constructing a channel to the Siruvera tank, which was named Praddpa- Bukkardya- mandalada-kaluve.

Maintenance of such irrigation works is as important as their construction. A record of 1413 A.D. states : "Whoso-ever restores or repairs a breached tank or pond, acquires great religious merit".

For the removal of silt from the tank-beds, provision was often made for the buffaloes, carts and cart-man. The Maha- janas of the agrahara Hariharapura agreed to pay for the maintenance of the buffaloes, cart-man, oil for the wheel- grease, crowbar, pick-axe, etc. [Kereyabhandiya-Kona-ala-jivitakke, hereya-ennne, hare, guddali.....]

In A D. 1424, the dam across the Haridra was restored by Bullapa Camupa, a minister under Devaraya II. When the Mahajanas of an agrahdra village restored a breached tank, they were granted lands by the temple authorities of the place.

It thus becomes clear that great significance was attached to the irrigation work, their construction as well as main-tenance.

REFERENCES

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- [3] Robert Sewellj A Forgotten Empire [First Indian Edn.. Delhi 1962], P. JO.
- [4] Ibid., P. 289.
- [5] Ibid., P. 156.
- [6] Ibid. P 237.
- [7] EC, MI, My. 77 (reign of Devaraya II).
- [8] Ibid., XI, Dg. 23.
- [9] Ibid., X, Mb. 172.
- [10] El XIV, pp. 97 fT.
- [11] Ibid., VII, Sh. 30;
- [12] EC, V. AK. 115 (1367 A.D.); also, sec IX. Cp 156(1531 A.D.) Bn. 80 (1575 A.D.), etc.
- [13] Ibid., X, Mb. 7 (1417 A.D.).