

## CHAPTER III.

### IRRIGATION.

Irrigation  
Works in  
the State.

THE object of irrigation works is the artificial application of water to the land for purposes of agriculture as a means of supplementing the natural rainfall. The *Imperial Gazetteer of India* referring to irrigation in Native States says that "among individual States, the first place may be given to Mysore." "Almost every valley contains a chain of tanks, the first overflowing into the second and so on until the terminal tank is filled." Irrigation is practised in Mysore from tanks, canals or channels and wells, and to a small extent from the rainfall in the *Mulnād* regions.

Development  
of Irrigation.

The only works before the nineteenth century, which can be classed as having any extensive public utility, are the tanks which stud the whole surface of *Maidān* taluks and river channels. Most of the river channels are in the south of the State connected with the Cauvery and its tributaries.

At what particular period the tank system attained its full development, it is now impossible to say: but judging from the necessary conditions of its growth, the progress could not fail to have been extremely slow, and most probably it expanded with the natural increase of population. It may be conjectured that the first civilized inhabitants, taking possession of the higher grounds, constructed the small tanks or *kattes* on the minor rivulets, and then step by step followed these down to the larger streams, arresting and impounding the water at every convenient site by throwing earthen *bunds* across the valley. As, according to the plan followed, it

was possible to advance only steadily downwards from the watersheds of the various streams to their extremities, it may be conceived how vast a time would be expended in creating a single series of several hundred, and in some cases over a thousand reservoirs, linked together in this fashion, and forming such continued chains of works that not a single drop of water falling on the catchment is lost in seasons of drought, and but little in ordinary seasons. This vast series of works, individually varying in size according to local circumstances, from the great Sulekere tank extending over 14 square miles, down to small *kuttas* or village reservoirs, grew into existence necessarily without reference to scientific principles, and were purely experimental. As instances of large old tanks besides Sulekere, may be cited Ayyankere, Madagkere, Vyāsamudra, Rāmasāgara and Mōtitalāv.

Major Sankey, one of the first Engineers of the State, who devoted his attention to the systematic repairs of tanks, has stated that "to such an extent has the principle of storage been followed that it would now require some ingenuity to discover a site within this great area suitable for a new tank. While restorations are of course feasible, any absolutely new work of this description would, within this area, be almost certainly found to cut off the supply of another, lower down the same basis, and to interfere in fact with vested interests."

Although there are many isolated tanks in particular localities, the vast majority are constructed on a connected system of streams and their feeders which are abundant in this undulating high level country. In fact, most of these tanks have been classified according to the main valleys, sub-valleys, etc. The map shows the country divided into Main River Basins. As an instance of the chain of tanks may be mentioned the Pālār system, which has 1,000 tanks in the valley, the last one being the large Rāmasāgara Tank.

As belonging to the same early period, the channels drawn by means of *anicuts* from the Cauvery, Hemavati, Lakshmantirtha and other streams must here be noticed. The designs of these works are attributed to rulers of olden times, and even to certain beneficent deities and precise dates are assigned for the construction of several of them. But whatever the facts, it is at least clear that they are extremely ancient, and that however defective as tested by modern ideas in these matters, their original construction exhibits a boldness and an appreciation of the conditions of structure, which, in view of the circumstances of the times, excite the greatest admiration. In addition to the *anicuts* now in use, the remains of probably more than three times as many others are still visible when the rivers are low. From some of these, the original excavations made for the old channels are still apparent, while from others, channels do not appear to have been excavated. It is, therefore, clear that the success which resulted from the construction of the works that are still in use was not obtained without a very large proportion of failures, and the perseverance displayed by the constructors in spite of these failures is none the less remarkable, and shows the high value placed in former ages on irrigation works.

The following statement shows the length of the principal streams, the areas of their catchment basins, as also the portions actually utilised under the tank system :—

Mysore river system	Total length of the main rivers with their principal affluents within the State	Area over which the drainage is intercepted by tanks	Total area of each catchment basin	Percentage of whole area under the tank system
	Miles	Sq. Miles	Sq. Miles	
I. Tungabhadra river	611	6,217	11,696	56·47
II. Palar ...	47	1,086	1,115	100·00
III. North-Pennar ...	167	1,946	2,628	85·85
IV. South-Pennar ...	32	1,819	1,424	85·80
V. Cauvery ...	646	5,769	11,340	51·75
VI. Sharavati and west coast rivers.	108	...	1,252	...
Total ...	1,606	16,287	29,455	56·16

It will be observed that of the 29,455 square miles covered by the State, nearly 60 per cent has by the patient industry of its inhabitants been brought under the tank system.

During the Regency of Dewan Purnaiya, 312 lakhs were devoted to irrigation works. This sum was to a great extent absorbed in the repair of old tanks and channels, the majority of which had fallen into a ruinous condition during the reigns of Haidar and Tipu. A further expenditure of 172 lakhs was incurred on the project of a canal, now known as Purnaiya's Nāla, whose object was to bring the waters of the Cauvery into Mysore and also Nanjangud, but which entirely failed in its intention.

Restoration  
of works  
during  
Purnaiya's  
time.

From 1831 to 1856, a sum of 304 lakhs was spent on irrigation works. Individual works were much improved, and many almost wholly reconstructed from the ruinous condition into which they had fallen, yet little advance was made on the old method of maintenance, because the interdependence of the tanks, and the necessity for dealing with them in series, were not sufficiently recognised and acted upon. So also with river channels, although some improvements were introduced, such as the construction of brick facings to some of the *anicuts* when under repair, yet most of the radical defects in these works were left without remedy.

Improve-  
ments effected  
during the  
Commission  
Period.

After the formation of the Public Works Department in 1856, the expenditure under irrigation for twenty years was about 523 lakhs, exclusive of establishment charges. The following are some of the principal works that were executed :—

Progress  
since the  
formation of  
the Public  
Works  
Department.

	Cost in Rs.
1. Re-building the Sriramadevar anicut on the Hemavati and improving the chaunel below.	2,78,504
2. Re-building the Maddur anicut on the Shimsha, and improving the channel below ...	85,365

	Cost in Rs.
3. Re-building the Marchihalli anicut on the Lakshmantirtha, and improving the channel below ... ..	29,339
4. Aqueduct over the Lokapavani on the Chik-davara-Magar channel ... ..	99,000
5. Re-building the Lakshmanpura anicut on the Nugu ... ..	12,878
6. Re-building the Halhalli anicut on the Gundal.	10,424

The work of remodelling and improving irrigation works in the State was started about the year 1856, the year in which a regular Department of Public Works was organized under the British Commission. Special attention was directed to irrigation between the years 1872-78, because a separate Irrigation Branch of the Public Works Department was constituted. In 1872-73, a grant of 108 lakhs, inclusive of establishment charges, was assigned for expenditure on irrigation in the next twelve years, namely 72 lakhs for tanks and 36 for channels.

Up to the time of the Rendition in 1881, a sum of Rs. 26 lakhs was spent on original works in the State.

Progress since the Rendition.

Since the Rendition of the State in 1882, grants for this class of works have been considerably increased and a liberal public works policy has been pursued. From 1881-1882 to 1922-1923, Rs. 527 lakhs have been spent on irrigation.

In November 1913, on the recommendation of the Chief Engineer, the Government raised the annual grant for irrigation from 6 lakhs to 10 lakhs for the next five years and its distribution was directed to be as under:—

(1) Major tanks .. ..	4½ lakhs
(2) Minor tanks and Malnād tanks ... ..	3 ..
(3) Canals and channels ... ..	2 ..
(4) Irrigation and investigation ... ..	½ ..

Classes of Irrigation.

Irrigation works may be conveniently divided into three great types, *viz.*, lift, storage and river works, which

are represented by wells, tanks, or reservoirs and canals. In lift irrigation, the water is raised from a lower level to that which will command the area to be irrigated, the raising being effected either by manual labour or by animal or mechanical power. The source of supply is usually the subsoil water into which wells have been sunk, but lift appliances are often erected on the banks of rivers or pools from which water is raised to the lands to be irrigated. Storage works are reservoirs, formed by the construction of dams across streams for the purpose of storing the supply which passes down after every heavy fall of rain, for subsequent use during long breaks in the rains or in seasons of drought. The river works consist essentially of canals drawing their supplies from rivers which are in continuous flow during the whole or greater portion of the year.

The total irrigated area in 1881 was 761,243 acres and the gross revenue was Rs. 34½ lakhs. The area under irrigation in 1923-24 was 11,99,138 acres and the revenue about Rs. 40 lakhs. The expansion of irrigated area during the 30 years ending with 1911 from 1881 was 118,683 acres, the increase of revenue Rs. 5½ lakhs.

On account of the undulating character of the country and side-long ground, the channels generally command narrow strips of country unlike in the deltaic tracts. The length of each channel and the area irrigated by it will be found in another part of this chapter.

The area irrigated by river channels in 1887-88 was 77,832 acres and the revenue was Rs. 4,07,278. In 1916-17 the area was 114,981 acres and the revenue Rs. 6,89,175. During the 30 years ending with 1916-17 and commencing from 1887-88, the expansion of irrigated area was 37,149 acres and the increase of revenue Rs. 2,81,897.

Tanks, as already stated, vary in size from small ponds to extensive lakes. There are in all 24,896 tanks, large

and small, irrigating an extent of 766,314 acres of land. Thus on an average, there is one tank for every 15 of a square mile.

In the *Malnād*, where the rainfall exceeds 90 inches, irrigation depends exclusively upon rains. Where it is less than 90, innumerable small tanks, locally known as *Kattes*, have been constructed to supply water whenever rains hold off long. The *Malnād* tanks are small with mere earthen bunds, natural weirs and no sluices. Water is drawn for irrigation only occasionally by making a small cut either in the bund or in the weir and closing the same temporarily.

Irrigation is to a limited extent carried on by means of wells. There are in the State 40,464 wells irrigating 78,096 acres.

Attempts are at present being made to introduce pumping plants for irrigation. The pumping outfit installed near Kankanhalli Section House of the Electrical Department has been in operation since June 1917. Water is pumped from the experimental well on the banks of the Arkavati and the same is used for cultivating sugar-cane on a piece of ground in co-operation with the Agricultural Department to demonstrate to the public the advantages of this system of irrigation.

The two reservoirs of large magnitude are :—

(i) The Vānivilās Sāgara, and (ii) the Krishnarājasāgara.

The modern practice of storing very large quantities of water by throwing a dam, in favourable sites, of masonry, at times towering up to a height of even 300 feet having been put to a successful test on the European continent, the Engineers of Mysore have in recent years availed themselves of the opportunities and constructed reservoirs of large magnitude. The first to be undertaken was Mārikanave lake, now called Vānivilās Sāgara, across the Vedavati in Chitaldrug District. The site,

which is a gorge between two hills, attracted attention from the beginning of the 19th century as one of the finest natural sites for the construction of a reservoir dam. But there were doubts from the beginning as to the character of the foundations, the sufficiency of the river supply and the prospects of irrigation in the valley. These doubtful features tended to delay the undertaking for many years. After discussions extending over 44 years, a project, estimated to cost Rs. 39 lakhs, was at last sanctioned by His Highness' Government on the 18th April 1899 as a great famine protective work in an arid district. The reservoir and canals, in accordance with the revised project subsequently sanctioned, have been constructed and completed at a cost of Rs. 44,72,000. The reservoir has the largest storage capacity of any artificial lake yet built in India and in this respect, is second only to the Nile Reservoir at Assuan. The dam is 1,330 feet long and 172 feet high above the lowest foundations with a water spread of nearly 34 square miles. The top width is 15 feet and the bottom width at foundation level 150 feet. The storage capacity is 30,025 million cubic feet. Another such work in progress is the Cauvery Reservoir at Kannambādi, which was in 1917 named the Krishnarāja Sāgara after His Highness Sir Sri Krishnarāja Wadiyar IV. The construction of this reservoir has been undertaken with a three-fold object :—

- (a) To provide a proper supply of water for hot weather crops in areas which formerly received a precarious supply.
- (b) To ensure a constant supply of water for the Electric Power Installation at Sivasamudram and to increase the output of power, and
- (c) To increase irrigation by another 150,000 acres.

The reservoir, if completed as designed, will cost the State Rs. 365 lakhs in all. It provides for a dam



124 feet high to impound 41,500 million cubic feet of water and a high level canal which after crossing the range of hills (Karighatta) dividing the Cauvery and the Shimsha basins, by means of a tunnel nearly a mile long, is designed to irrigate 150,000 acres of land. On account of its magnitude, the work has been divided into two parts. That which is in progress now contemplates the raising of a dam to the height of 80 feet with a storage capacity of 11,030 million cubic feet, with extensions to the Electric Power Installation to generate additional power up to 5,000 H. P. This part of the work is estimated to cost about Rs. 105 lakhs excluding the Electric Power Scheme.

For purposes of irrigation under the Mārikanave Reservoir, the Block System of Irrigation has been introduced and it is working fairly satisfactorily. The principle of this system is to spread out irrigation over a large area in blocks of specified limits in selected soils and situation at some distances apart and to practise it in triennial rotation on a third of each block, the remaining two-thirds being cultivated with semi-dry crops. Its object is to obviate the evil effects of continuous concentration of irrigation to any large extent in a particular locality and to distribute the benefits of irrigation over a large number of villages. The area irrigated and the revenue derived under the Reservoir up to 1922-23 were 6,658 acres, and Rs. 38,995, respectively.

Construction,  
Restoration  
and  
Maintenance  
of works.

The dams called "Anicuts" thrown across the rivers to raise the water to a higher level are, as already remarked, works of great antiquity. The large Talkad *anicut*, the lowest dam on the Cauvery, is said to have been constructed a thousand years ago; while the most recent, with few exceptions, are not less than three centuries old.

The dams as constructed in the early days consisted

entirely of packed stone without the requisite coherence and carried with them the elements of destruction, while they allowed nearly all summer water to escape through, unutilized. In most recent years, the rough stone dams were gradually replaced by line masonry solid water-tight *anicuts*.

Of river channels, an additional length of over 200 miles has been opened out, and this has increased the total length to 946 miles. The maintenance charges of these channels amount to about Rs. 84,000, which works out at Rs. 89 per mile.

In process of time, many of the tanks breached, silted up or became otherwise useless and the foresight and the industry of the cultivators which brought tanks into existence were not forthcoming later on for the task of repairing or restoring them. Not much is known of the endeavours made in this direction before the beginning of the 19th century, though doubtless there must have been considerable, if spasmodic, activity on the part of early Rulers. During the administration of Dewan Purnaiya (1800-1810), tank restoration was energetically pursued and the records show that annually a sum of 11 lakhs on the average was utilised for the purpose. No special activity was visible in the early days of British Administration. From 1831 to 1856, when a Public Works Department was constituted, the money annually spent was about Rs. 80,000. The duty of carrying out the work was entrusted to Revenue Officers, a duty which they continued to perform even after the constitution of the Public Works Department. The need for associating the Public Works Department in the work of restoration was not definitely recognised till 1863, when it was laid down that all major works involving an outlay of Rs. 500 and more should be entrusted to the Public Works Department, while the minor repairs were left in the hands of Civil authorities as before. In 1872, a separate Irrigation

Department was formed and the task of dealing with tanks serially was put in hand.

In October 1873, with a view to the better conservancy of tanks and other irrigation and water-supply works in the State, rules were published and were made applicable from 1st November 1873 to all tanks and other works that may, on or after that date, be formally handed over to the raiyats for up-keep.

The serial restoration of tanks had advanced sufficiently by the time of the Rendition to allow of an abatement of the expenditure on it. In 1886, it was resolved to make over the minor tanks, or those yielding a revenue not exceeding Rs. 300 to the Revenue authorities, the raiyats doing the earthwork themselves and Government paying for masonry works where necessary. The other tanks were styled as "Major." The restoration of these was to be done by Government with the help of contribution from the raiyats. The raiyats' obligation to do ordinary maintenance in the case of all restored tanks, Major and Minor, was unaffected by these arrangements. The scheme was at first introduced tentatively into one taluk in each district, and after trial was extended to all parts. A Tank Inspector was appointed to each taluk to assist the Amildar in the work, and a trained Sub-Overseer to each district to instruct and supervise the Tank Inspectors. Under this scheme, about 2,500 tanks have been restored. There being still a large number of tanks to be restored, the establishment entertained for the purpose under the Revenue Officers has been recently strengthened, the rules revised and a definite programme laid down, so that about 1,000 tanks may be dealt with every year.

Under the revised rules of 1904, the raiyats are required to contribute one-third of the total cost of restoration including earth work, the other two-thirds being met by Government. In selecting tanks, preference is given to

such of them where raiyats come forward with their contribution and the cost of restoration does not exceed 20 years' revenue. The selection of Major Tanks for restoration is also guided by the same principles. With a view to make the Minor Tanks Restoration Scheme more effective and extensive and to secure the hearty co-operation of the raiyats in the execution of repairs to tanks classed as Minor, it was decided :—

(1) that larger State grants should be made for the improvement of such tanks ;

(2) that the distinction between tanks having an *atchkat* of Rs. 100 and those having an *atchkat* of above Rs. 100 be removed and all irrigation tanks classed as Minor treated alike ;

(3) that when the amount of earthwork to be done by the raiyats is deemed an unreasonable burden on them, or exceeds the proportion of two to three, it may be relaxed at the discretion of the Deputy Commissioner with the approval of Government ; and

(4) that in cases of hardship such sums of money as may be deemed reasonable for carrying out their share of the work be advanced to the raiyats and be recovered from them in easy annual instalments.

During 1914-15, the responsibility for working the Minor Tanks Restoration Scheme and the entire control of the operations were vested in the Revenue Commissioner.

In regard to maintenance, the raiyats are responsible for doing the earthwork and turfing so as to keep the bunds to standard condition, which is fixed at the time of restoration. The repairs to stone revetment and masonry are done by Government.

With a view to provide for the obligations of raiyats in regard to the maintenance of Major tanks and the restoration, repair and maintenance of Minor tanks, Government in 1911 passed a Regulation called the "Tank Panchayet Regulation" (No. 1 of 1911). The

Panchayets constituted under this Regulation have control over the tanks as also the power to administer the funds that may be assigned for their restoration, repair and maintenance.

The preparation of serial maps and tank registers has been undertaken and a good part of the work has been carried out.

In 1916, the Minor Tank Restoration Regulation XIII of 1916 was passed, providing for the recovery of the raiyats' share of cost of restoration compulsorily. In spite of the measures taken, the progress in the restoration of the Minor Tanks has been very slow and the results obtained so far not satisfactory. The Minor Tank Restoration scheme was again transferred to the Public Works Department in G. O. No. R. 1299-1309—L.R. 15-22-1, dated 8th September 1922 and the Regulation of 1916 was also revised in September 1923. Under the existing rules, the raiyats' contribution is fixed at one-fourth of the actual cost of restoration.

**Distribution  
of Water.**

The distribution of water is in the hands of the raiyats and controlled by the Revenue Officers, except under certain river channels. Scientific distribution, with a view to prevent wastage of water, which has become almost normal, is made specially under channels drawn from rivers and large reservoir tanks and notably in the Cauvery Valley.

The management of the river channels, during the irrigation season, was for the first time, in 1887-88, transferred to the Amildars of the taluks through which they run. It was considered that under this arrangement, complaints regarding the equitable distribution of water would be more speedily attended to and that the *Manegārs* and *Saudis* would better attend to the wants of the raiyats, if placed under the direct control of the Revenue Officials residing near the channels. Prevention

of wastage of water was still felt the prime necessity. In 1912, the then Chief Engineer remarked that "in numerous places water, which might do service in increasing the produce, is running to waste. To utilise these resources, a reasoned policy and sustained efforts are necessary." The following recommendations made by him were generally approved by Government in 1913, and are being given effect to as far as possible gradually:—

(1) Improvement and extension of the canals in the Cauvery Valley which will benefit by the Krishnarajasagara Reservoir and the settlement of the area and the manner in which the new irrigation should be practised;

(2) The introduction of scientific methods of administration and management under the more important canals and tanks maintained by Government and the selection of some 8 tanks and 2 canals for experimental working by a mixed agency of Government Officers and Local Committees;

(3) The restoration and improvement of minor tanks including *Malnād* tanks;

(4) The constitution of Tank Panchayets;

(5) Observation of river, canal and tank discharges at a few selected places and the systematic collection of hydraulic facts and data;

(6) The completion of tank registers and maps and the maintenance of correct statistics; and

(7) The passing of an Irrigation Regulation.

Mysore being primarily an agricultural country, its numerous irrigation works are of great use to it. They not only enable raiyats to raise valuable crops of sugar-cane, cocoa-nut, areca-nut, etc., but also supply water for domestic purposes, without which villages cannot exist. The maintenance of these works is thus of paramount importance.

Protective  
and financial  
results.

These works will be of greater benefit to raiyats, if they will take to growing more of sugar-cane and other valuable crops. The country will be more prosperous, if,

in bad years, irrigation under tanks is limited to the quantity of water available in them.

The revenue that could be obtained from the irrigation works in the State may be thus exhibited :—

		<i>Area irrigated.</i>	<i>Assessment.</i>
Tanks	...	388,302	18,11,396
		378,012	14,74,351
Channels	...	115,009	7,01,617
Wells	...	78,096	3,87,954
		<hr/>	<hr/>
Total	...	9,59,419	43,75,318
		<hr/>	<hr/>

Scope for extension of irrigation.

Projects for new reservoirs have been investigated and are to be undertaken as funds become available. The best form of a work suggested would comprise a reservoir to store the rainfall from the Ghāts and Malnād regions and a canal or canals to lead the water to the irrigation of Maidān parts. As an instance might be cited the project which is under consideration of a reservoir at Lakkavalli, across the Bhadra, where there is a splendid site. The channel would command large areas of thirsty lands in the Shimoga and Chitaldrug Districts. There is still scope for the construction of such large reservoirs.

Private Irrigation Works.

There is no private enterprise in regard to the construction of large irrigation works. The tanks in *Inām* and *Jōdi* villages belong to private individuals who look after their maintenance, etc. Well irrigation, however, is almost entirely due to the efforts of private land-owners.

Famine works and Programmes.

An investigation of the existing facilities for future developments was made in 1901-02. About 50 large irrigation projects calculated to afford protection against famine were selected, of which 34 projects estimated to cost Rs. 1,02,59,617 have been sanctioned and placed on the famine programme.

## APPENDICES.

## STATISTICS RELATING TO IRRIGATION WORKS.

I. The following are large works in progress or approaching completion :—

	<i>Estimate Rs.</i>
1. Sowlanga tank, Honnali Taluk ...	1,39,000
2. Maralwadi tank near Mavatur, Kankanhalli Taluk ... ..	3,92,000
3. Hairege tank, Hunsur Taluk ...	2,20,000
4. Nidasale tank, Kunigal Taluk ...	1,10,000
5. Chamaraja right channel, Mysore District ... ..	14,30,000
6. Mandagere channel extension, Mysore District ... ..	6,67,000
7. Hemagiri channel extension, Mysore District ... ..	1,60,000
8. Halsur anicut, Mysore District ...	2,91,000
9. Gopala anikat, Shimoga District ...	8,55,000

II. The following are some of the large irrigation works executed, each costing over a lakh of rupees including establishment and tools and plant charges :—

<i>Name of tank.</i>	<i>Estimate Rs.</i>
1. Borankanave reservoir, Chiknayakanhalli Taluk ... ..	2,79,657
2. Mavatur tank, Tumkur Taluk ...	3,62,843
3. Ranikere tank, Challakere Taluk ...	2,68,877
4. Kalhalli tank, Challakere Taluk ...	92,266
5. Kathral tank, Chitaldrug Taluk ...	90,526
6. Venkatesa Sagara Tank, Siddlaghatta Taluk ... ..	88,610
7. Srinivasa Sagara Tank, Chikballapur Taluk ... ..	1,70,807
8. Ramasamudra Tank, Siddlaghatta Taluk	1,40,439

III. The following tanks and channels have been restored or improved :—

## (A) TANKS.

<i>Name of tank.</i>	<i>Cost Rs.</i>
1. Sulekere tank, Malvalli Taluk ...	1,89,010
2. Kottebetta tank, Nagamangala Taluk...	82,588



Name of tank	Cost Rs.
3. Rekalgere tank, Challakere Taluk ...	1,38,502
4. Mudvadi tank, Kolar Taluk ...	1,67,539
5. Kyathagankere tank, Pavagada Taluk.	96,729
6. Kuksandra tank, Kadur Taluk ...	1,61,567

## (B) CHANNELS.

Name of channel	Cost Rs.
✓1. Sriramadevar dam and channels, Hassan District ... ..	5,40,000
✓2. Krishnaraja anikat and channels, Hassan District ... ..	2,88,000
3. Chamaraja anicut and channels, Mysore District ... ..	4,81,000
4. Kalhalli anikat and channels, Mysore District .. ..	2,43,000
5. Devaroy anikat and channels, Mysore District .. ..	1,98,000
6. Hulhalli channels, Mysore District ..	6,57,000
7. Chikdēvarāya Sāgara channel, Mysore District .. ..	4,90,000
8. Rampur channel, Mysore District ..	2,86,000
9. Rāmaswāmi channel, do ..	2,24,000
10. Rāmasamudram channel, do ..	1,48,000
11. Virjanadi channel, do ..	1,62,000

IV. The following statement shows the river-fed channels in the State giving the following particulars:—(1) Name of channel; (2) Length; (3) Area irrigated; and (4) Revenue realized for the year 1923-24.

	River			Name of channel	Length in miles	Area irrigated in acres	Revenue realised
	Main	Branch	No.				
Cauvery			1	Chamaraja series ...	53	4,867	49,496
			2	Mirle ..	38	6,818	42,596
			3	Ramasamudram ...	41	6,219	37,729
			4	Tippur ...	22	1,010	6,141
		:	5	Rajaparameswari ...	23	3,767	21,640
			6	Ramaswamy ...	40	8,674	57,346
			7	Mahadevamantri ...	26	3,503	18,330
			8	Chikdevaraya Sagar ...	65	14,253	92,366
			9	Devaraya ...	18	2,023	14,515
			10	Virjanadi ...	27½	7,728	47,691
			11	Bangar Doddi ...	5½	761	5,412

River			Name of channel	Length in miles	Area irrigated in acres	Revenue realised
Main	Branch	No.				
Cauvery	Suvarnavati	12	Bandikere ...	9	227	999
		13	Hongalvadi ...	15	2,112	11,103
		14	Sargur ...	3½	228	1,212
		15	Maralahalli ...	3	306	1,632
		16	Alur new ...	4	155	1,271
		17	Hemima ...	4	411	2,067
		18	Hosahalli ...	3½	145	1,014
		19	Kudlur ...	2	99	525
		20	Alur old ...	2½	128	1,087
		21	Honganur ..	12½	1,798	8,371
		Lakshman- tirtha	...	22	Hanagod series ...	70½
23	Kattemalalavadi ...			11	593	2,803
24	Husanpur ...			11	813	3,402
25	Seruyur ...			11	581	1,955
26	Marchalli ...			7	405	2,403
27	Anandur ...			20	241	1,214
28	Ayarhalli ...			4	236	1,261
Kab- bani	...			29	Rampur ...	33½
		30	Hulhalli ...	36½	5,585	29,119
		31	Lakshampur ...	5½	470	2,240
Shimsha	Maddur tank	32	Maddur Aue ...	12	1,588	8,694
		33	Kemmanna ...	5½	955	6,254
		34	Vaidyanathapur ...	9½	249	1,555
		35	Bairan ...	2	280	2,023
		35	Chamanahalli ...	2½	609	3,836
Hemavati	...	37	Mandagere ...	27	3,702	25,462
		38	Hemagiri ...	17	1,854	13,005
		39	Akki Hebbal ...	7	381	2,498
		40	Kalhalli ...	16	891	6,458
		41	Kannambadi ...	14	1	7
Cau- very	...	42	Kattepur ...	36	3,969	21,996
		43	Ramanathapur ...	19	1,757	8,543
Hemavati	...	44	Sriramadevar North .	80½	7,987	43,119
		45	Do South ...	21½	1,390	4,921
...	Bringi "	46	Halvagal ...	6	282½	1,452
		47	Changaravalli ...	13	1,259	9,201
Yagachi	...	48	Chakratirtha ...	2	125	781
		49	Arahalli ...	2	143½	920
		50	Kittur ...	8	574½	1,688
Yagachi	...	51	Old Kudlur ...	6	200½	1,129
		52	Madagatta ...	8	500½	1,784
		53	Shankatirtha ...	9	665½	3,716

## BIBLIOGRAPHY.

- Imperial Gazetteer of India*, Volume III, 1907.  
Chief Commissioner's Notification No. 65, dated 2nd October 1873.  
Mysore General Administration Reports, 1886-87 to 1890-91.  
General Administration Report, 1904-05.  
The Tank Panchayet Regulation No. 1, 1911.  
Irrigation improvements in Mysore, 1912.  
Records connected with the Tank System in Mysore.
-