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MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

G.O. No. 232 Press
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Dated 15 4 187 .

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PUBLIC WORKS DEPARTMENT,
FORT ST. GEORGE, 13*th September* 1871.

No. 198.

No. 2,324.

To

THE SECRETARY TO THE GOVERNMENT OF INDIA,
PUBLIC WORKS DEPARTMENT.

CIVIL WORKS, No. 10.

SIR,—I am directed by the Right Honourable the Governor in Council to forward twenty-five copies of the Administration Report of the Public Works Department of this Presidency for the past official year.

I have the honour to be,
Sir,
Your most obedient servant,

Captain, R.E.,
Under Secretary to Government.

Exd. S. T. Augustin.

Administration Report

of

Public Works in the Madras Presidency

For the year 1870/71

The original

Imperial grant for Public Works was ~~2 lacs~~ Rs. 81,46,200

~~of Rupees~~. This assignment was subsequently reduced to ~~7 1/4 lacs~~ Rs. 76,71,200 which the Government of India ~~has~~ ~~granted~~ distributed as follows:-

		Rs.
Military		6,00,000
Agricultural	Ordinary	14,55,000
	Extraordinary	18,80,000
Other Services		18,55,810
Roads and Plant	Ordinary	1,30,000
	Extraordinary	20,000
Establishment	Ordinary	15,09,190
	Extraordinary	2,00,000
	Total	77,25,000

In this distribution,
the Government of
India taking exception
to the estimate for
Establishments (Ordinary)
reduced the grant under
that head by Rs 2,00,000,
which they added to
"Agricultural".

The following
statement exhibits
a comparison between
the grant and
outlay from Impe-
rial Funds in
the years 1869/70
and 1870/71. The
allotments, in each
case, are as they
stood at the
close of the years noted

Head of Service.	1869-70. Grant.	Outlay.	1870-71. Grant.	Outlay.
New Works.	Rs	Rs	Rs	Rs
Military	572989	563621	334015	332363
Civil Buildings	1135412	1108146	524702	513329
Agricultural	1444204	1201484	2228169	800020
Communications	827927	774772	212256	624922
Miscellaneous Public Improvement	132826	132753	25796	44719
Repairs.				
Military	185227	183110	226503	223405
Civil Buildings	80641	104081	98438	91804
Agricultural	1094344	1072519	1180981	1144826
Communications	744718	744085	870828	914912
Miscellaneous Public Improvement	4912	4763	7090	32694
Establishments	1879280	1777197	1779862	1610350
Tools and Plant	97500	83758	182560	162974
Total.	8199980	7750294	7671200	6495938

The following
statement exhibits the
allotments and expen-
-diture from Local
Funds.

	1869-70	1870-71		
	Grant.	Ballay.	Grant.	Ballay.
	Re	Re	Re	
New Works	189507	728731	2030838	729354
Repairs	758641	693373	753599	721577
Establishments	1203742	284266	316870	299369
Tools and Plant	27805	13432	23629	13467
Total	5101795	2278205	3124914	2328172

Military.

Bellary. Cantonment water Supply.

1. The importance of this project to provide against the results of a scanty rainfall to which this station of Bellary is frequently subjected has been noticed in a previous report. The supply channel has had its depths regulated. The head sluice, the foundations of which were laid in the previous year, has been completed, and the Reservoir, which has had its bund raised to a uniform level, will be ready to receive a supply

in. and all the outhouses have nearly been completed with an Expenditure during the year of Rs 6199.

Subalterns Quarters in the late Civil Auditors office. Fort St George.

These Quarters are approaching completion, and Rs ~~3,329~~ 3500 have been expended in 1870/71 against an estimate of Rs 8,400.

6. The construction of Family Quarters for the Garrison Battery at Bellary was commenced during the year and Rs 21,599 were expended on three of five Double Quarters which are ready for roofing.

Family Quarters for the Garrison Battery Bellary.

Chingleput. New Barracks & St Thomas' Mount.

8. The lower stories of all three blocks have been finished while the upper stories of Nos 1 and 2 blocks have been nearly completed to the level of the roof. The central stone stair cases and the outer wooden stair cases of Nos 1 and 2 blocks have been completed. The expenditure during the year has been Rs 49,994 making a total of Rs 1,20,177 against an estimate of Rs 2,05,010.

7. The Lightning Conductors to the Barracks at Ramandroog, the construction of which was stopped on financial grounds in 1869/70 were completed during 1870/71. Outlay during the latter year has been Rs 309.

Lightning Conductors to Barracks at Ramandroog.

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has be
Mess House belonging to the late Madras Artillery.

9- The Mess House belonging to the late Madras Artillery was purchased by the Govt. for Rs 43,335, and a monthly rent of Rs 100 is realized from the officers of the Royal Artillery.

Sergeants Mess, Library &c. Two Pavilions of Hospitals.

10. These buildings were completed in 1869/70, but owing to financial pressure payments to the extent of Rs ~~19,180-5~~ 9,680 could not be made until the following year.

Drainage of Infantry Lines at Royapooram. Presidency.

11. The estimate for remedying the defective state of the drainage of the new Infantry Lines at Royapooram amounted to Rs 35,5·50, and the expenditure which during the year was Rs 1,493,

aggregates Rs 32,5·50, and no more than Rs 100 are represented to be required to complete the work Rs.

Bangalore - Soojee Mill and Battery.

12. An excess expenditure of Rs 2,309 has been incurred in the construction of a ~~.....~~ Chimney and all that is required to complete the Battery is a small outlay of Rs 660 for fixing tie rods to bind certain parts of the building together with a view to counteracting the tremulous action likely to be created by the working of the machinery.

Ulsoor Water project Dhobies Well project. Bangalore.

13. These works which have for their object the supply of water to the

Barracks at Bangalore were at a stand during the year although a sum of Rs ~~20,000~~ 20569 was paid for work done during 1869/70. The Ulsoor project may be said to be nearly completed while the Dhobies well project needs only the fitting of a new 5 inch main, the estimate for which is under revision. The water from the Ulsoor Tank has been pronounced unfit for drinking purposes and the capability of the Dhobies well for furnishing a supply for that purpose to meet the entire requirements of the Barracks is under examination.

The

Gas Works in Fort St George. 14.

The additions and improvements to the Gas works in Fort St George consist of extending the retort house, constructing benches for retorts and bedding and fixing the retorts. Bedding and fixing nine condensers, scrubbers exhauster and lime purifiers, masonry well for gas holder, a syphon well and a new chimney.

All the iron fittings except the gas holder have been completed. The masonry works and chimney have made considerable progress towards completion. Rs 10,04[illegible] have been

Ba been expended on the
wer work Rs.
the 15. A Rest House was
of E built at Arcanum at
for an outlay of Rs 3012 and
186, the building has been
prehanded over to the
be Military authorities.
whe 16. The progress of the
pro female branch of the
fit Lawrence Asylum which
ma was suspended since
whe 1869 was resumed in
She December 1870 and during
Sa the four last months of
nny the year the exterior of the
- po building (tiling, pointing
the &c.) was entirely finished.
- mo The lofty school room,
tha 96' × 36' was completed
the and handed over to the
of th Principal. Considerable
exa

Rest House at Arcanum. North Arcot.

Ootacammund Lawrence Asylum.

progress has been made with four Dormitories, and it is hoped that the female branch of the building will be completed in every respect by the end of June 1871. No progress has been made with the Female branch.

Civil Buildings.

Lunatic Asylums.

All the works provided for in the original estimate for the Lunatic Asylum at Madras have been completed, and a supplemental estimate of Rs 1,500 has been framed for carrying out certain additional

additional works which, as the arrangements developed themselves were found to be absolutely necessary to place the establishment on an efficient footing. Of the works included in the supplemental estimate 12 solitary cells, fixing half doors and windows and punkahs to the Superintendent's Quarters and laying the foundations of the stables of the Apothecary's Quarters have been carried out with an aggregate expenditure of Rupees 31,447.

The

9

The Lunatic Asylum at Trichur which was carried forward stated in 1869/70 has been almost completed. The expenditure during the year has been Rs 4,789.

The progress made with the new Lunatic Asylum at Calicut has been as follows. Nine Cottages for male and Criminal Lunatics - Cottages for Hospital with Superintendent's Quarters and out houses - Dispensary - padded rooms - two thirds of palisading and all the intramural buildings have been completed. The total outlay has been Rs 28,522 of which Rs 6,000 have been laid out during the year -

The smallness of the grants for Civil Buildings prevented, as in the previous year, any satisfactory progress being made with the Salem Cutcherries and Subsidiary Jails which were commenced in several Districts in the year 1868 with a special assignment of funds. The outlay on some of the principal of this description of buildings is given in the margin.

The operations during the year on the Central Jail at Rajahmundry on which an expenditure of Rs 3,21,958 had been incurred up to 1869/70 against an estimate of Rs 3,53,263 are as follows:- Seventeen Warders' huts with Cook rooms were completed, four huts were nearly tiled and the walls of two huts were raised 4 1/2 feet high. The outlay during the year has been Rs 5,846.

The progress made with the Central Jail at Vellore has been the completion of the Central Warders' Tower, the Quarantine Ward, the warders and Police Lines and the Dressers' Quarters. The outlay has been Rs 38,999 some portion of which was paid for work done in the previous year.

Salem Cutcherries and Subsidiary Jails.

District	Stations	Estimate	Expenditure up to 1869/70	Expenditure in 1870/71.
Chingleput	Trivellore	31,093	25,211	5,783
S. Arcot	Vellajahpet	10,200	8,895	856
do	Arcanum	11,130	5,669	1,846
do	Cordiattum	17,30	9,353	
do	Polur	9,756	9,120	
Salem	Attoor	25,672	14,765	3,204
do	Namkul	36,800	9,950	891
do	Vaniembaddy	9,520	3,986	3,603
Malabar	Manjerry	25,000	13,326	5000
do	Tellicherry	30,000	23,061	2,363
Madura	Dindigul	4,782	2,500	2,230

Central Jails.

The construction of the new Central Jail at Trichinopoly was commenced in December 1866 on an estimate of Rs 3,76,000. The total expenditure upto the end of 1869/70 was Rs ~~3,49,342~~ ~~3,47,673~~ and that during the year has been Rs 17,695

The progress of the central Jail at Cannanore has been advanced with an outlay during the year of Rs 40,262. The estimate amounts to Rs 3,27,000 and the previous expenditure was Rs 2,39,640.

Improvements to the Jail at Bellary.

A sum of Rs 9,999 has been expended on improving the old Jail at Bellary. The Jailors Quarters have been completed the Overseers Quarters are ready for roofing while the Latrine, Quarters for Sepoys and for Insane and contagious diseases have all been finished.

Quarters for Jailors at Bellary on which Rs 3,693 were laid out in the previous year on an estimate of Rs 5,920 have been completed with a further outlay of Rs 2,211.

New Court Houses at Bellary and Tanjore.

The upper story of the new Court House at Bellary is ready for roofing. The outlay has been Rs 19,999 and the previous expenditure was Rs 14,999 against an estimate of Rs 46,020.

Sum of Rs 15,736 was expended during the year in completing the Civil Court House at Salem the estimate for which amounted to Rs 61,257.

In connection with the improvements to the Penitentiary on which Rs. 39,980 had been laid out in 1869/70 and an aggregate expenditure of Rs 84,109 has been incurred against an estimate of Rs 1,19,650 a block of three Wardens Huts with out offices - Spiral stair cases to the Juvenile Wards, two Latrines archways between cells in No. I Block and a latrine in the contagious Diseases ward, have been completed, with an outlay

Improvements to the Penitentiary.

Residence for Prince Azeem Jah Bahadoor Prince of Arcot.

during the year of Rs 22,677.

It having been determined to convert the present Police Court at Royapetta into a residence for Prince Azeem Jah Bahadoor Prince of Arcot, it was necessary to find other accommodation for the Police Court, and the building formerly occupied as the Presidency College has accordingly been purchased for the purpose for Rs 45,000.

Post offices

The new Post office at Salem on which Rs 3,625 were expended in 1869/70 upon an estimate of Rs 4,710 has been completed with an outlay of Rs 1323 during

the year - a Post office has also been completed at Tanjore for Rs 3,326.

Revenue Board office.

The object and character of the improvements to the Revenue Board office have been described in a former report - Verandahs to the Lower and Upper stories on the South and East faces, and on the three sides of the Quadrangle of the Upper story have been built during the year - alterations to the Revenue Survey office and the addition of an Upper story with Verandahs to the Upper and Lower stories on the north and south faces have been considerably advanced, while the Record Lower

Rooms for the Paper Currency Department.

Lower has been raised to a height of 7½ feet; the expenditure during the year has been Rs 67,450.

A new expenditure of Rs 2,735 was incurred on the construction of two rooms for the accommodation of the Paper Currency Department in the Accountant General's office.

Restoration of Seroomalay Isaick's Palace.

The restoration of Seroomalay Isaick's Palace at Madura has been proceeded with, at an outlay of Rs 10,000.

Agricultural

Godavery.

In this District the principal works which have been in progress are.

	Expenditure 1870/71.
Widening and improving the Samulcotta Canal	20,730
Extension of Irrigation Western Delta	22,199
Widening and deepening the Cocanada main Canal and constructing Locks and Calingulaka	19,165
Canal from Ellore to Leval Canal to Irrigate	14,517

The first of these Canals which forms one of the chief lines of communication with inland places, about 30,000 tons of Cadeda has been completed, and the Bridges

and culverts have been built. The estimates for the second project not having received sanction, the progress of the extensive improvements contemplated has been very disproportionate to the grant made for it, and the outlay has been confined to the construction of the new Locks at Itemprody and Bravelly, the former of which has been brought up to a level of nearly 6 feet above floor and the latter has been commenced to be excavated. The Thoserpody and Chintapilly Locks have been proceeded with in connection with the third work, and the earth work of

Kistna.

of the last project has made good progress and at the end of March water was let down as far as the site of the newly proposed lock

In this District the following are the principal works which have been under execution

	Expenditure
Enlargement of Channels on the Inaculipatam section of the Kistna Delta	25,469
Ryves Canal	3882
Enlargeing the head of the Seetanagram main Canal	7.82

of the Channels on the Inaculipatam or eastern side of the Delta the widening of the main Canal between Bezoarah and Rankipad has been

in

the scarcity of labor the difficulty of procuring which is increasing each year.

Bellary. The most important work which has been in progress in this District during the year has been the Swarnapully channel and its branches, which are intended to irrigate 25,500 acres. The Adagaly Spur and Padapurty Channels and all works connected with them have been completed. The high level channel has been nearly finished and will be shortly opened. Generally fair progress has been made with an outlay during the year of Rs 66,980.

in progress and that 1½ mile and a half has been completed. The portion between Kurnkupad and Peyaroor has been almost finished while from the latter place to Coutaroor, about 7½ miles have been fully completed. The progress of Rayeo Canal has not been advanced as rapidly as was anticipated, endeavours to introduce a system of contracts having failed and caused delay. The Setanagram main Canal has been widened in the 1st 2 and 4th miles.

The irrigations of the Kistna Delta is making steady advance notwithstanding the

In the Cuddapah and Kurnool Districts the expenditure on irrigation work has been confined to repairs, and in the Bellary District the restoration of the Goottoor tank has been the only work of importance in progress, and the outlay on it has been Rs 5,000.

Cuddapah.
Kurnool.
Bellary.

The Madras Water supply project, the Chembrumbakum Tank enlargement, and the Valloor anicut are the principal works which have been in progress in this District. The nature and object of these works have been explained in the Administration Report of the previous year. The state of progress of the several subdivisions of the first of these projects is as follows. The anicut, head sluice and upper supply channel have been completed. The earth work to form the embankment of the Cholaveram Reservoir has been thrown up throughout to a level only half a yard below that assigned for completion. The supply channel to the Red Hill reservoir has been completed throughout, as also the masonry works

Chingleput

connected with it. The earth work for the main em-bankment of the Red Hill reservoir has been com-pleted to the full level for half its length, and along the other half its general level is about 5 feet below that to which it is to be ultimately raised. The earth work of the Doorapadoo Bund has been completed to within one yard of the full level and the revetment has also been raised to that level. The masonry dam forming the northern portion of the tank enclo-sure has been built up to a level two yards below that intended as the full supply of the reservoir.

In October 1870 the head sluice to the Upper Channel itself was damaged by a flood in the Cortallia ~~The channel itself was damaged~~ and an exten-sive slip of the Cholavaram reservoir embankment also occurred. The necessary re-pairs are in progress.

The expenditure on the Madras Water supply project during the year has been Rs 122855.

Fair progress has been made with the Chem-brambakum Tank improvements on which an outlay of Rs 39.385 has been incurred during the year. Nearly the whole of the Ayacut

Rs from Ordinary Grant. 60701
" Extraordinary Loan Fund. 62154
122855

under the Tank has been
under cultivation and
the villagers consider
the season the most pro-
perous they have had
for many years.

The Vallur anicut
has been completed

In this District
the extension of the
channel on the south
side of the Cheyair
has been completed
with out outlay during
the year of Rupees
16,542-

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South Arcot.

In the South Arcot
District the most im-
portant work in pro-
gress has been the con-
struction of an anicut
across the Vellaur river
at Palandoray which is
designed to irrigate 16,650
acres. Although
an allotment of
Rs 100000 was provided
for this project in the
Budget the expenditure
did not exceed Rs 37741
which was laid out on the
partial excavation of a
channel 16 miles long
and in laying the foun-
dations of the head
sluice. The setting in
of the monsoon unusu-
ally early and the
prevalence of Cholera

prevented more satisfac-
-tory progress being made.

The Irattimatoor anicut across the Manimuttha muddy river has been completed with the exception of a small portion of the main channel and the minor branches. The greater part of the channel was ready to receive the early floods of the season and the anicut and head sluice being also ready most of the tanks were well supplied during the whole season

The Attangal Channel which was in progress during the previous year on an estimate of Rs 15,230 will it is expected be open in time for the next season's irrigation.

An outlay of Rs 6,069 has been incurred on the Pombay Channel which is designed to throw the waters of the Pooniaur into the Pombay river and to feed certain tanks. The works have made considerable advance towards completion and there is nothing to hinder the next freshes in the Pooniaur passing down the channel and entering the river.

Tanjore.

In this District the regulating works for

for the principal branches of the Tennaur have been in progress with an outlay of Rs 28170/ during the year - The foundations are being laid, and a large quantity of materials has been collected - The expenditure however contrasts unfavorably with the allotment of Rs 100000 for the year and this is due to the unfavorableness of the season - Heavy falls of rain and freshes in the river in January and February prevented anything being done in the river beds till March.

The construction of a dam or surplus weir in the bank of the Ammada Cauvery was also satisfactorily carried out during the year at a cost of Rs 7452 has been rendered secure by this work which provides for the passage of the drainage of a large area of country across the Ammada Cauvery the banks of which were formerly frequently breached.

Neilgherries

Operations at Lake St Lawrence on the Neilgherries which are being conducted by Messrs Price Dixon on the silting process have

been continued during the year. Inr. Inc. Dvor has been sitting out a saddle for the permanent escape. He has got down a depth of 45 feet and has met with a large sheet of rock which has prevented his going any further. A detailed contour survey and sections of the bund site and adjoining country are under preparation.

The Streevigunturu anicut works on the Sambrapoorney have been advanced during the year with an outlay of Rs ~~27,311~~ 27511. The estimate for this project amounts to Rs 8,31,600, and the expenditure

Annually

expenditure up to the end of the preceding year was Rs ~~460585~~ that has been during 1870/71 Rs ~~27511~~ The body of the anicut for a length of 500 feet has been raised to the full height of 6 feet and the remainder (886 feet) to a height of 8 feet. The cut stone aprons have been entirely completed, but a length of about 1000 feet of the foundation of the lower retaining wall still remains to be completed. Of the remaining works 75 head sluices, 68 other masonry works, 58 tanks and 52 channels have been completed. Cholera

prevailed in the District up to the end of June and retarded work. Progress was also impeded by the Contractor for this and other works in the Range having been criminally prosecuted for collusion with the Range officer in the practice of systematic fraud. Both have been convicted by the Sessions Court.

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Communications. 24

New Coonoor Ghaut.

The smallness of the grant for the year for communications prevented any progress being made with the Great Northern road from Madras towards Calcutta.

The whole of this important ghaut which connects Coonoor on the Neilgherries with Kullar at the foot of the Hills was opened to wheeled traffic on the 2d July 1870.

The 6 and ¼ miles from Coonoor have been provided with parapet walls

walls where necessary in addition to about half a mile on other portions of the road. No gradient on the ghaut is now steeper than 1 in 19. and the average width of roadway is 18 feet. The journey from Dota-camund to Coimbatore, a distance of 60 miles, is now performed in 8½ hours.

Harcoor Ghaut road and bridges below.

The Harcoor Ghaut road, which is especially designed to admit of coffee from south Wynaad being sent direct into Calicut for shipment to Europe has been completed so with the exception of the to bridges across the

Road from Soudy to Dindigul.

Eddakara, Cheroopoya and Kellemboor rivers. During the year a sum of Rs 7,964 was expended in completing one bridge, in raising and gravelling heavy embankments, and improving the surface of the road where necessary.

The road from Soudy via Devicotta Sripatoor and Kattani to Dindigul, was completed and opened for traffic during the year with an outlay of Rs 11,977.

The road from Paumben through Ramnaad Madura, Dindigul and Pulney to the Coimbatore frontier has been advanced during the year with an outlay of Rs 14,999, and 10 miles of this line of communication remain to be completed.

Road from Paumben to the Coimbatore frontier.

Operations on the Sambracherry grant and road to the Mysore frontier have been confined to widening the roadway where necessary - Portions of the road have been partially metalled and work has been carried on along the whole length - Six) arched

Roads in Wynaad.

arched bridge of 20 feet span has been completed at Luckadi - The Goomutty bridge has been opened for traffic and a heavy embanked approach on each side of the river made for the Geddathoray bridge - The outlay during the year has been Rs ~~15,827~~ 35261.

On the road between the Karcoor grant and Goodalore and between Goodalore and Sippa - candoo metalling has been laid over nearly half the distance - The line is in other respects complete - The expenditure has been Rs ~~10,000~~

The new Periah ghaut has, with the exception of permanent drainage and the removal of some rock, been completed. Owing to its steepness the road from the head of the ghaut towards Inanantoddy offers obsta- -cles to easy cart traffic. As soon as funds can be made available the improvement of this section of the line will be undertaken. During the year bridges and culverts on the portion of the road, the align- -ment of which will not require alteration have been built and the road between Inanantoddy and

Bridge across the Vellar on the road from Pondicherry to Negapatam.

and the Mysore frontier has been improved with an outlay of Rs ~~11,000~~ 14,994.

The continuance of the freshes until an unusually late period of the season prevented that progress being made with the Vellar bridge which would otherwise have been practicable. The abutments of the bridge have been raised, one to its full height, the other eight feet, four Piers have been raised to their full height with retaining walls and floorings and three sets

of

of centring pillars have been put up. The expenditure during the year has been Rs 14,785, and the total expenditure Rs 34,716 against an estimate of Rs 53,930.

Iyanur Bridge Trichinopoly.

The construction of the Iron Girder Bridge across the Iyanur was much retarded during the year by frequent freshets in the river which drains an area of about 400 square miles. Every thing is ready for rolling the girders into position and for completing the work. The outlay during the year has been Rs 12,165 although

Canal between Negapatam and Vedarniem.

26

Although a sum of Rs 10,000 was provided for the completion of the subsidiary works connected with the Canal between Vedarniem and Negapatam, only Rs 338 were expended. The land through which the channels have to be excavated is low and the frequent falls of rain rendered it impossible to undertake the works; but the incomplete state of the subsidiary works does not interfere with the navigation of the Canal which was opened for traffic in July 1869.

Reclamation of the swamp at Ootacamund.

As explained in the previous report the reclamation of the swamp at Ootacamund is to be effected by raising the entire area subject to inundations during the monsoon to the height of six inches above the flood level of the lake. The convict labor at command not having been concentrated on this scheme but utilized in carrying out other public improvements at Ootacamund, the progress made during the year has been but limited. Five acres in all have been reclaimed at the head of the lake and three new roads aggregating 3¼ miles in length have been constructed through the Bazaars, which are a considerable convenience to the public. The expenditure during the year has been Rs 2185.

Ootacamund Water Supply.

The south supply channel has been constructed and handed over to the Ootacamund Municipality and the main portions of the northern branch have also been finished. The lining of the Snowdon tunnel and about one third of the supply channel remain

remain to be completed. The expenditure during the year has been Rs 2,017.

Pamban Channel.

About 23,057 Cubic feet of debris have been raised by the hand dredge and 8,829 Cubic feet of stone were blasted and removed, the cost during the year having been Rs 1,284.

The Channel has also been deepened with a view to its having an ultimate depth of 14 feet and Rs 1142 have been spent on this account in 1870/71.

Repairs. 20

The total expenditure under Repairs was Rupees 24,07241 as follows:-

Military — 223005
Agricultural — 144826
Civil Buildings — 91804
Communications — 914912
Ins: Pub Impt: 32694
24,07241

Local Funds.

The Budget allotment from Local Funds was Rs 2,68,870 to which further assignments amounting in the aggregate to Rs 85,674 were added

added during the year, thus increasing the available funds for expenditure by Public Works officers to Rs 3,12,454 against which the actual outlay was Rs 2,28,172. A list of the principal works which were undertaken from that source during the year is given in the Appendix.

Appendix

Statement showing the expenditure on Public works in 1870-71 from Imperial Funds, as compared with the allotment for that year and with the outlay in 1869-70.

Districts	Allotment for 1870-71 including private contributions	Expenditure in 1870-71	Expenditure in 1869-70
	Rs	Rs.	Rs
Ganjam	130251	76775	107782
Vizagapatam	86422	75657	163911
Godavery	462691	301826	329166
Kistna	327636	213909	301878
Nellore	489990	186592	167712
Cuddapah	97796	161814	89837
Kurnool	65097	58435	65583
Bellary	259569	261840	269501
Neilgherries	285274	282275	447809
Chingleput	852538	530333	746963
North Arcot	237366	289344	232439
South Arcot	326464	252886	224539
Salem	104001	86511	132455
Bangalore	122505	121815	207441
Canara	379144	293524	269493
Trichinopoly	188419	176554	304772
Coimbatore	110842	108381	231829
Tinnevelly	97959	93494	301816
Malabar	177049	177081	315578
Travancore	129098	129665	141428
South Canara	56078	53531	79441
Madura	202543	149926	140497
Tinnevelly	542162	250126	638808
	5723694	4332294	5910118
Public works of 1868-69	——	405236	——
Total	5723694	4737530	5910118

Statement showing the expenditure on new works in each District from Imperial Funds under the Budget heads.

Districts	Military	Civil Buildings	Agricultural	Communications	Misl. Pub. Impt.	Total
	Rs.	Rs	Rs	Rs.	Rs	Rs.
Ganjam	"	5748	1915	603	"	8266
Vizagapatam	617	15301	903	3702	193	20716
Godavery	"	14173	97272	481	3455	115381
Kistna	"	4002	103235	386	677	108300
Nellore	"	14895	74666	2696	"	92257
Cuddapah	"	3822	5570	20324	"	29716
Kurnool	"	3442	1587	"	"	5029
Bellary	89466	35418	8361	1337	"	134582
Presidency	26750	139567	"	"	2030	168347
Chingleput	98655	6860	183410	25783	4318	315426
North Arcot	3106	75574	26944	54335	"	159959
South Arcot	"	1449	84418	16176	"	102043
Salem	80	11082	11379	"	"	22541
Bangalore	67694	2578	"	"	"	70212
Tanjore	"	32412	58705	118	"	91485
Trichinopoly	1706	19932	11885	22584	"	56107
Coimbatore	"	10120	9341	1399	"	20860
Nilgherries	22829	1317	3576	14293	13570	55585
Malabar	20845	58704	3224	11980	"	94753
Mysore	"	24534	"	60254	"	84788
South Canara	85	3163	"	9222	"	12470
Madura	"	16466	7271	27249	2426	53412
Tinnevelly	520	13292	106338	2872	"	123022
	332353	513191	800020	275714	23168	1944446
Famine Relief works of 1869-70	"	138	"	349528	21081	370727
Total	332353	513329	800020	624922	44719	2315373
x Exclusive of outlay from Private Contributions	"	4424	2349	1325	"	8098

Statement showing the expenditure on Repairs in each District from Imperial Funds under the Budget heads.

Districts	Military	Civil Buildings	Agricultural	Communications	Misl. Pub. Impt	Total
	Rs	Rs	Rs	Rs	Rs	Rs
Ganjam	857	2578	19478	46099	"	69006
Vizagapatam	9423	5136	10528	27983	"	53070
Godavery	"	3836	154241	17579	9570	185186
Kistna	384	2808	67165	35236	6	105599
Nellore	"	1606	50109	42620	"	94335
Cuddapah	"	1446	57438	78572	612	132068
Kurnool	235	577	20642	32012	"	53466
Bellary	26954	2500	46834	49700	"	125988
Presidency	69274	24969	392	19179	114	113928
Chingleput	21105	4939	111743	76512	"	214299
North Arcot	1902	2502	97210	26107	1664	129385
South Arcot	"	2709	93630	54491	22	150843
Salem	2157	2409	18397	41013	"	63970
Bangalore	50030	1573	"	"	"	57603
Tanjore	"	4812	163313	33410	534	202069
Trichinopoly	10636	1311	70483	35524	"	117974
Coimbatore	144	2235	64016	30638	"	97033
Nilgherries	6495	2937	"	25586	250	35760
Malabar	19482	11140	1639	48306	236	81003
Mysore	"	988	"	42639	"	43627
South Canara	843	2979	"	37239	"	41661
Madura	"	3004	38744	53156	1610	96514
Tinnevelly	2596	2879	74826	44698	"	124997
	223005	91804	1144826	898457	4638	2372732
Famine Relief works of 1868-69	"	"	"	16453	18056	34509
Total	223005	91804	1144826	914912	32694	2407241
& Exclusive of outlay from Private Contributions	"	"	2908	2650	1260	6818

Statement showing the expenditure in each District from Local Funds

District	Income-tax Fund	District and Other Funds	Educational Funds	Etc
	Rs.	Rs.	Rs.	Rs.
Ganjam	"	73769	"	7376
Vizagapatam	"	99456	72	99528
Godavery	"	264295	"	264295
Kistna	"	163712	"	163712
Nellore	"	89755	"	89755
Cuddapah	"	83324	"	83324
Kurnool	"	78346	"	78346
Bellary	"	135066	"	135066
Neilgherries	"	20498	57194	77692
Chingleput	"	76871	"	76871
North Arcot	"	126481	2417	128898
South Arcot	"	108424	473	108897
Salem	"	5011	"	5011
Bangalore	"	"	"	"
Tanjore	"	309105	401	309506
Trichinopoly	"	77737	"	77737
Madura	"	122627	"	122627
Tinnevelly	"	10141	"	10141
Malabar	"	173788	"	173788
Canara	"	15763	"	15763
Total	"	2272103	61069	2328172

Statement showing the estimate, allotment and expenditure on Public Works in the Madras Presidency

District	Work	Estimate	Expenditure upto 31st March 70	Allotment for 1870-71	Expenditure during 1870-71
		Rs	Rs	Rs	Rs
Bellary	Improving the water-supply to the cantonment	69300	53725	~~7300~~ increased to 13720	13719
do	Female Hospital for European Troops	38000	15397	~~36300~~ reduced to 20566	20566
do	Hospital for Native Troops	44200	41200	3000	2982
do	Lock Hospital & Dispensary	15900	11500	4400	4391
do	New Garrison main guard	24200	8069	~~8200~~ reduced to 8200	6199
do	Family Qrs for the Garrison Battery	43500		21600	21599
do	Lightning Conductors to Barracks at Ramandroog	~~5635~~ 5550	1586	~~4641~~ 3145	309
Neilgherry	Extending the Subalterns' Qrs in the late Genl Auditors Office, Fort St. George	8400	3886	3500	~~3500~~ 3496
do	Drainage of new Native Infantry Lines at Royapooram	25550	31058	1493	1493
do	Additions & improvements to the Govt. Gas works	10851		~~7310~~ reduced to 1980	10942
Chingleput	New Barrack accommodation at St. Thomas' Mount	205010	70182	55000	49994

Statement showing the estimate, allotment and expenditure in 1870-71 on important Public Works in the Madras Presidency (Build)

District	Work	Estimate	Expenditure up to 31st March 1870	Allotment for 1870-71	Expenditure during 1870-71
Chingleput	Purchasing Mep House belonging to the late Madras Artillery	43360		43360 reduced 43335	43335
North Arcot	Rest house at Arcoonum	3100		3100	2019
Bangalore	Sooji Mill and Bakery	86743	84554	3000	2389
do	Ulsoor water Project	72000	176563	30000 reduced 20568	20568
do	Two male Pavilions of Hospital on the Race Course	182060	171902	9945	9945
do	Dhobies wells Project		18074	7500	7497
Neilgherries	Sergeants Mess, Library and Recreation room for Cavalry	51890	42200	9685	9680
	Lawrence Asylum at Pallacaud	1180252	834426	70200 reduced 21140	21140
	Civil Buildings				
Vizagapatam	Lunatic Asylum at Waltair	60316	43142	8000 reduced 5220	4769
Godavery	Central Jail at Rajahmundry	358268	321458	26620 reduced 5800	5846
Bellary	Improvements to the Jail at Bellary	95000 46020	56081 14999	10000	9999

Statement showing the estimate, allotment and expenditure in 1870-71 &c. (Contd.)

District	Work	Estimate	Expenditure up to 31st March 1870	Allotment for 1870-71	Expenditure during 1870-71
Bellary	New Court house at Bellary	46020	14999	20000	19999
do	Jailors' Qrs at Bellary	5920	3693	2227	2211
Residency	Improvements to Post Revenue Office buildings at Chepauk	78400	88548	70000 reduced 67450	67450
do	Room for the Paper Currency Dept. in the Accountant Genls Office, Fort St. George			2770	2735
do	Improvements to the Penitentiary	119650	61432	20000 increased 22550 2000	22677
do	Lunatic Asylum at Presto Gardens	243500 247200	197221	26360 21000	31447
do	Converting the present Police Court into a residence for His Highness Prince Azeem Jah Bahadur			100000	45000
Chingleput	Jail work Poulicherry & Subsidiary Jail at Trivellore	31093	23210	5783	5783

Statement showing the estimate, allotment and expenditure for 1870-71 [illegible] (contd).

District	Work	Estimate	Expenditure upto 31st March 70	Allotment for 1870-71	Expenditure during 1870-71
North Arcot	Central Jail at Vellore	337500	289071	40000 / 39000	38999
do	Taluk Cutcherry & Subsidiary Jail Wallajahpett	10200	8895	856	856
do	do do do at Cheroman	11130	5669	1646	1646
do	do do do at Gudiattam	1730	8250	9383	
do	do do do at Polore	9756	9125	9124	
Salem	Post Office at Salem	4710	3625	1085	1323
do	Taluk Cutcherry and Subsidiary Jail at Attoor	25670	14765	2220	2224
do	do do do at Ramakal	25800	9950	1600	891
do	do do do at Vaniembady	9520	3986	3200	3183
Tanjore	Civil Court house at Tanjore	61257	45579	13000 merged 15737.	15736
do	Post Office at do	6126 / 3160	34	3000	3292

Statement showing the estimate, allotment & Expenditure 1870-71 [illegible] (contd.).

District	Work	Estimate	Expenditure upto 31st March 1870	Allotment for 1870-71	Expenditure during 1870-71
Trichinopoly	Central Jail	376000	31 9342 / 240652	17680	17693
Malabar	Central Jail at Cannanore	327000	239660	40000	40262
do	Taluk Cutcherry and Lubsidiary Jail at Manjerry	25000	13326	5000	5000
do	do do do at Tellicherry	30000	23061 / 22447	2400	2363
do	Lunatic Asylum Calicut	34000	22522	6000	6000
Madura	Subsidiary Jail at Teroomangalam	4782	2500	2009	2230
do	Restoration of Teroomalay Choultry Palace	10000	-	10000	10000

Statement showing the estimate, allotment and expenditure in 1870-71, &c. (Contd.)

District	Work	Estimate	Expenditure upto 31st March 1870	Allotment for 1870-71	Expenditure during 1870-71.
Agricultural					
Godavery	Widening & improving the Samalcotta Canal	~~138560~~ ~~137500~~	110958	20247	20730
do	Extension of Irrigation from Western Delta	68750	8000 reduced to 5475		22199
do	Widening and deepening the Cocanada main Canal from Coringa Creek to Calingulake	119680	101128	45000	19165
do	Canal from Ellore big to Leril Canal to Vyaroo	70460 ~~46617~~		15000	14517
Kistna	Enlargement of channels in the Masulipatam section of the Kistna Delta	183100	96662	50000 reduced to 52077	25469
do	Ryves Canal Project	~~414143~~ ~~412240~~	80811 ~~80811~~	50000 ~~reduced~~ ~~4000~~	36821 ~~36821~~
do	Enlarging the head of Sulanaya-ram main canal	276404	153939 ~~153939~~	45000 ~~reduced~~ ~~4000~~	78214

Statement showing the estimate, allotment and expenditure in 1870-71, &c. (Contd.)

District	Work	Estimate	Expenditure upto 31st March 1870	Allotment for 1870-71	Expenditure during 1870-71
Nellore	Improvements to the Surrapully Channel	420060 ~~420060~~	188355	100000 reduced to 93475	66985
Bellary	Restoration of the Gottoor tanks	60500	43522	~~5000~~	5000
Chingleput	Madras Water Supply Project	611759	438772	Est. 200000 58281 Contg. 6701	62164 ~~6701~~
do	Krembrumbaukum Project	~~353430~~ ~~140000~~	194464	39668	39586
do	Anicut across the Cortalliar at Vellore and	44925	29916	3500 increased to 11009	11341
North Arcot	Widening & deepening the branch channel of the Cheyaur at Sholinghur Tank	47600	32490	15110	15542
South Arcot	Anicut across the Vellaur river at Valandroo	198235		100000	37744 ~~37744~~
do	Mamatkon Anicut across the Manumukanady river	55800	33684	18200 reduced to 15241	15230

Statement Showing the estimate, allotment and expenditure
for 1870-71 &c. (Contd.)

District	Work	Estimate	Expenditure up to 31st March 70	Allotment for 1870-71	Expenditure during 1870-71
South Arcot	Improvements to the Allungal Channel	15,330	3688	11000 reduced to 3958	4455
do	Bombay channel from the Vennar river	51,400	45,388	20000 reduced to 6235	6069
Tanjore	Regulatory works for the principal branches of the Vennar	199450	91	100000	28170
do	Boneby a dam or surplus weir in the bank of Cummuda Cauvery	7,400		7,400	7552
Tinnevelly	Sthreevaikuntam anicut Project	831600	46055	38,000	9751

Statement Showing the estimate, allotment & Expenditure
during 1870-71 &c. Contd

District	Work	Estimate	Expenditure up to 31st March 70	Allotment for 1870-71	Expenditure during 1870-71
	Communications				
Trichinopoly	Bridge across the Vellaur on the road from Trichinopoly to Negapatam	53930	19931	20800 reduced to 16800	14785
Tanjore	completing the navigable canal between Negapatam and Vedaranniem	108192	104991	15000 reduced to 1000	338
Trichinopoly	Iron girder bridge across the Cauvery	74,300	52907	37000 reduced to 28393	12165
Tanjore	Veiligherry to New Coleroon Channel	264000	257281	6975	6977
Malabar	Kootoor Channel road Bridges	95930	86894	5500	7944
Madura	Tamberchery Channel	598762	434530	30000 +35000	352161

Statement showing the estimate allotment & expenditure
for 1870-71, Pwks (Contd.)

District	Work	Estimate	Expenditure up to 31st March 70	Allotment for 1870-71	Expenditure during 1870-71
Tinnevelly	Harbour channel to Goodaloor	~~108720~~ 41503	~~53768~~ 20602	~~105~~ 15000	~~112~~ 15000
do	Goodaloor to Tuticorin	~~45248~~	~~5424~~	~~5424~~	~~9724~~
do	Road from head of Veriah channel to Mahanuttoy	182700	~~153681~~ 15768	15000	~~13994~~ 11024
Madura	Road from Erichy to Dindigul	46780	~~35388~~ 11981	11981	11971
do	Road from Paumben to Coimbatore frontier	165000	111365	15000	14949
Miscellaneous	Mis. Pub. Impt.				
Fisheries	Reclamation of the swamp at the head of the Pulicat Lake	23000	16327	3820 ~~1004~~ 2185	2185
do	Project for supplying Pulicat with water	18192	11069	~~4577~~ ~~2447~~	2017

Statement showing the estimate allotment & expenditure
for 1870-71, Pwks (Contd.)

District	Work	Estimate	Expenditure up to 31st March 70	Allotment for 1870-71	Expenditure during 1870-71
Madura	Cutting the inner angle of the Paumben Reef channel	43340	~~39221~~ ~~7300~~	3000 reduced to 1284	1284
do	Deepening Paumben channel from 12 to 14 ft.	22810	3464	5800 reduced to 1388	1142

Statement showing the estimate, allotment and expenditure in 1870-71 &c. (Contd.)

Districts	Work	Estimate	Expenditure upto 31st March 1870-71	Allotment during 1870-71	Expenditure during 1870-71

Statement showing the principal works which were undertaken from the District Road, Educational and Port Funds by Officers of the Public Works Department during the year 1870-71.

Districts	Work	Expenditure in 1870-71	Remarks
Ganjam	Road from Aska to Soorada to the Sooria plateau	17244	Earth work & turfing completed to the full length of line - 26 miles of road metalled and 22 miles gravelled - 84 masonry works built. 18 in progress.
do	do from Cancheilly to Baruwar	1656	Earth work for the whole line is completed of which 5 miles of road metalled 7½ miles gravelled - 31 masonry works built.
do	do from Alikam to Veeramandalam	15,000	12 miles of road metalled with masonry works and for the remaining 10 miles of road earth work done, also all the large bridges and about 20 culverts.
do	Bridging principal streams on the Aska and Soorada road	4509	Bridges & road dam across 3 streams built.
do	Road from Trunk road No 6 to Sea Customs house at Ganjam	2030	Completed
Vizagapatam	do from Anakapilly to Chodavaram with a branch to Suttaram	~~2 lacs~~ 24,095	Earth work and turfing completed for 11 miles - 7922 Cyds: gravelling finished - 4 masonry works built and 7 in progress.

Vizagapatam	Road from Ankapilly to Tuna-gapatka and from Tuna-gapatka to Tedimadaka	6999	14425 Cyds. of earthwork done 10435 Cyds. of earthwork roughly compleld. Surfacing 5 miles completed. 6090 Cyds. of gravelling completed. 24. masonry work built and 3 in progress.	Godavery	Road from Rajole to Mookteswaram	3576	Masonry works in progress.	
				do	do from river bank of Vaeista Goda-very at Koderu to Attily	9673	Earthwork completed, masonry work and sanding in progress	
				do	do from Narsapoor to Tuchumada Ferry	1122	Completed	
do	do from Ankam to Gaja-palenagaram	19442	Earthwork masonry works in progress from 8 to 13 mile. also metalling on the 9 miles. Gravelling in progress from 6 to 9 mile.	do	do from Ellore to the Hyderabad frontier via Polavalasa	21194	In progress	
				do	do from Draksharam to Ramachendrapoor	1815	1952 Cyds of earthwork done	
do	do from Ramabadrapooram to Tachepalla	12772	Earthwork in progress from 4 mile from 7 to 11 mile metalling in progress from 1st to 3d mile & gravelling on the 1st mile. Masonry works in progress from 2d to 8 mile.	do	Continuation of Veerarasaram road to Aheed	8412	Earthwork 6/7 done, Rubble 2/5, Arch work 1/2, Cornice work 3/8, Masonry 3/7 done embankment work completed. Sanding also completed Concrete 2/6 and gravelling 1/2 done.	
				do	Road from Vemulley to Vizianagaram	7964	Earthwork finished masonry works Completed, sanding 2/3 done, gravelling finished.	
do	Completing Challapolem road	1482	Completed					
do	Master Attendants Office at Pentapatam	984	Nearly completed	do	do from Samalcotta to Bendapoody	31727	Earthwork & gravelling in progress. Road between Cheepole and Golaprole has been raised 1½ ft high. Rale iron girder bridge abutments are being built materials being collected for other bridges.	
Godavery	Road along the canal bank from Dowlaishweram to Samalcotta	20824	Earthwork completed up to 23 miles. Earthwork & gravelling in progress for 9 miles.					

Godavery	Road from Yerraram to Juddangy	19509	Earthwork almost completed up to 18 miles, gravelling almost completed between Yerraram and Yalavaram. 1 Iron girder bridge & 2 tunnels built. 1 bridge under construction & 4 road dams built	
do	—do— from Veddapoor to Rajanagrum	16533	Gravelling all completed almost all the tunnels except one which is nearly completed.	
do	—do— from Moondoor bridge near Ramachendrapoor to Kiradapand	3610	7 miles earthwork done. 3¼ miles turfed. 3 bridges built and 1 on hand.	
do	—do— from Elloré canal near Thadapilligudam to Venkapand	1973	Earthwork in progress	
do	—do— from Kundavelly to Veravelly	6232	Earthwork done, masonry works completed except bridge at Kundavelly which is nearly in progress	
do	—do— from Almoor to Thapaswaram Bridges over do	4838	Materials for bridge being collected 1 mile of earthwork completed.	
do	—do— from Ramachendrapoor to Pitchavole Bridges on do	9769	26753 Cyds. of earthwork done.	
do	Bridge over Samalcotta canal	3582	1986 Cyds. of earthwork done. 55½ Cyds. gravelling done.	

Godavery	Wooden bridges on Kottipilli canal	3004	Girders made up	
do	Road from Veddapur to Juggempettah	11808	Earthwork almost completed between Thummapuram & Juggempetta 3½ miles of road gravelled	
do	—do— from Juggempetta to Pallapilly	8052	Earthwork 2½ miles finished jungle cleared out for 5½ miles. Piers to bridge over Palamoor ready Arnish raised about 8 ft high from apron.	
do	—do— from Gottaram to Pallapilly	2443	Earthwork completed for the first 3 miles. 4 miles almost finished & 7 tunnels nearly finished.	
do	Wharf at Cocanada	2808	completed	
do	Revetting light at Hope reland	974	do	
Kistna	Road from Guntoor to Ryalcor	25829	Embanked road nearly completed. All masonry work with the exception of the bridge on the main canal and the channels at Nundivelugu & on the western bank channel completed. Metal & gravel being laid.	
do	—do— from Vinnoor to Sandole	6156	Completed	

Kistna	Bridge across salt creek near the village of Purlapollem on the Coast road	4893		Completed with the exception of the apron parapets & roadway
do	—do— across Purlapollem tank supply channel on the road from Vuzoor to Bapatla	1009		Work Completed Sills level of the floor. Materials under collection
do	Bridge: an accommodation bridge across the Gommamoor Channel at Kokkalore	4091		Abutments & piers have been completed & their full height. Materials collected for the remainder of the work.
do	Road from Santararoor towards Valapollem	2042		Embankments for 2¼ miles throughout ¾ mile levelled.
do	—do— from Narnekadu to Veralu through the Komplairu Swamp	1132		Embankment for 1 mile thrown up and ¼ mile levelled.
do	do from Gunlur to Vuzoor	7965		Gravel carted in 3 miles spread and lamped in 10 miles.
do	—do— from —do— to Sattanapally	3946		Nearly completed.
do	—do— from Chunnapalakalore to Avuraropetta	7142		Road completed 4 miles embankment up 6 18 miles. Metal packing & gravelling going on
do	do from Chillakalurpetta to Nekkarieullo via Avuraropetta	9138		13⅓ miles of embankment of road completed. Metalling in progress.

× Exclusive of Rs 231. incurred & entered to Ramamahiswellamma

Kistna	Road from Hyderabad road to Kuntamaram to My Laveram	4009		Earth work completed & road dams & 1 tunnel partly executed. 3½ miles of road metalled & 2¾ miles gravelled.
do	—do— from the Cross of Injeal-petta to join the Hyderabad road at Kuntamaram	2223		Earth work & metalling in progress on the 1st 2 miles. 1 Road dam & 1 tunnel under construction.
do	—do— from Vullore slope to Vullore	2725		Earth work completed. Metal being laid.
do	—do— from Kuntaram to Hyderabad	2000		Materials under construction
do	—do— from Singaraconda to Kankatal	14463		Earth work completed in the first 4 miles and in progress between 6 & 15 miles. Metalling collected.
do	—do— from Pallapally to Nadavaduru	1852		Completed
do	Excavating a channel to Lawoy sweet water to Nizampatam	1014		Nearly completed. Supplementary estimate submitted.
Nellore	Metalling the road & making up the embankment from Nellore to Podur	3000	3²⁄₄	miles of the road metalled

Nellore	Metalling the road from Nellore to Mypaud	4548		15 miles metalled
do	Gravelling the road from Gudurur to Venkatagiri	4548		5 big & 24 small bridges built. Metal & gravel collected at 14. 15. 16. 22 & 28 Miles
do	Road from Kovale to Kaligiri via Palakantti and Chinnakralla	11000		Road is used for traffic, 12 pucka dams, 9 tunnels, 1 Barrel drain & 3 bridges completed to 10 miles. Gravelling completed to the end of 6th mile Gravel & Metal collected between 7 & 10 miles.
do	do from Kaligiri to Podiajiry	4999		Earth work done throughout the whole length & all masonry works with the exception of the tunnel and one road dam completed. Road is used for traffic
do	do from Nellore to Someswaram	8400		Road completed up to 28 mile and opened for traffic
do	do from Nellore on the Great Northern road to Podalakur on the Nellore and Someswaram road	10000	✓	6½ miles of road completed
do	do from Kaligiri towards Vanmalapaud	3993	✓	8½ miles of road completed. 4½ miles requiring gravelling. Two tunnels completed. Materials for others collected.

Nellore	Road from Podalakur to Podella	2783		9 miles road completed
do	Converting Bungalow at Kavale	800		
Siddapalli	Road from Soddatoor to Gerraguntla	3738		Work completed
do	do from Nandalamitta	5011		9 ft. arch culvert and 3 ft. culvert built in the 4th 5 miles. 3 ft. culverts 1, 3 cent. do. built. Metalling finished in the 2nd mile & materials collected in the 2nd 6 & 9 miles.
do	do from Nandavaram to Tadivandla	5000		Work amounting to 4619 cyds. of earthwork 1830 Rds. of metalling inclusive of turfing and 1819 cft. of masonry were executed. Side ditch & drain fenced and furlongs on each mile marked. Road metalled up to 3rd mile. Three small masonry works built.
do	do from Kamalapoor to Railway Station and Road	4868		

Kurnool	Road from Sunderteoor to Banlooty	13512	Masonry works in active progress		
do	do from Sumbaum to Markapoor	771			
do	do Mattikerra to Zaggile	2005	Work suspended - A new line thro' Mattikerra & the Railway Station to Kurnool		
do	do Ramapaum to Anucanamaghaut	2326 60	Earthwork more than three fourths throughout the entire length completed - materials for metalling and gravelling being collected.		
do	do Adony to Ghooty	5307	A bridge over Swajacala Nullah and a road dam across Hellarapoo are being constructed		
do	do Tarigopla to Paramanchala	966	Expenditure in this year for work done last year		
do	do Mullala bridge to meet the road from Alloor to Sunderteoor	1683	Completed & handed over to Pere: Dept.		
do	do Vonn bridge to Banacalcoor	4372			
Kurnool	Road from Alloor to Sunderteoor	292	Completed & handed over to the Revenue Dept.		
do	Branch road from Kurnool High road No XVII to Calwa	2359	Work completed in March/71		
do	Coney a Chenchy at Yatekerla	1300	—do— in Janry/71		
do	Road from I.R. No VII near Yandicherla to the Cuddapah frontier	1671	Work completed		
Bellary	Road from Bellary to Sirgoopah	3000	New portions of the line have been worked up and opened out.		
do	do from Sirgoopah to Adony	4000	Portions of the 21st 22d 23d & 24 miles were constructed		
do	do from Railway to Hosphee	8527	7 miles completed with the exception of masonry works.		
do	do from 14 mile on the Ghooty road to Railway Station at Veerapoor	2662	Work completed		
do	Completing that portion of road from Anantapoor to Yandpattry in Anantapoor Range	20469	Road dams on 3d 5 - 13 - 14 - 15 - 16 & 18 - miles partially completed & also 13 vent culverts on 32 mile.		

Bellary	Completing that portion of road from Anantapoor to Landpattry Ghat Range	11909	Completed	
do	Road from Kuppajeru to Madkerra Station	550	do	
do	do main road to Railway station at Adony	4772	Masonry works finished and road metalling nearly completed.	
do	do to Railway station at Adony	931	Completed	
do	do from Madgherry to Paupur frontier	2000	A platform bridge of 9 spans each 4×6½ linier and a portion of road over the bund of drained tank opened out.	
Chingleput	2d Class Dt Road from Sattenadoo to Conjeveram	2260	Earthwork and gravelling finished. A few more culverts are required.	
do	do from Ottoorattah to Great Northern road Sec 1 via Tarapallem	4080	Earthwork throughout the line finished and portions gravelled. Some masonry tunnels are required. To be built from Palaur to Grand Trunk Road Sec 1	

Chingleput	2d Class Dt road from Vallyoor to Trunk Road 21 m 72 mile near Red Hills		1553	Earthwork and gravelling finished. A few more culverts are required.
do	Road from 41st mile stone on Great Northern Road to Tabby on the road from Pallavaram to Poonamallee		4000	Earthwork finished and nearly the whole of the line gravelled. The bridge across the Bottleworai nadoo is in progress.
do	Extension of the East coast canal northwards from Doraiswaram to Kistnapatnam		29827	The first reach of about 9 miles in length is opened for navigation
North Arcot	Across the Poonday Cheyaur by the supplying channel of the Madandavady Reservoir at a point near Kattivaucum			A bridge of 5 arches across the Poonday Cheyaur by the supplying channel of the Madandavady Reservoir at a point near Kattivaucum
do	Via-duct Railway feeder from Conjeveram to Sholinger Station	3015	Completed	
do	Road from Sholinger to Annadana Chuttrum	1342	do	
do	Section 4 of grain road from Tripaty Railway Station via Calastry Pass Sullots frontier Kaurapett	5000	Earthwork & gravelling finished as also nearly the whole of masonry works. A few more culverts are required.	

North Arcot Road from Seetharam Kroyle Vencadagiri Collah &c. & the Cuddapah frontier	7600	Earthwork nearly finished all the larger masonry works are un-completed with the exception of the Palaur bridge the pile for which still remains unsettled.		
do Road from Madurantacum to Manultaudy	387	Completed and in good condition Krongkont.		
do do from Chittoor to Arcot	3200	Road open Krongkont a few Culverts required.		
do do from Trichinopoly to Salem via Chittoor	1199	Earthwork nearly laid out gravelling & masonry works in progress.		
do do from Conjeveram to the South Arcot frontier near Tindivanam	4998			
do Improving the school houses at Vellayapetty	2197	Completed		
Presidency Erecting a new Presidency College at Madras and filling in the ground of do	32433	Completed & handed over for occupation		
do do a Senate house at Madras	1410	Foundations have been laid and basements in progress.		

Presidency Restoring Madras Pier	4347	Nearly finished.		
do Erecting an Office and Store House for the Pier Master	8323	Completed		
do Laying down pipes from the Reservoir at the Head Pier for supplying water to the Shipping in the Roads	883	do		
South Arcot Road from Villapuram to Mambalapett	3000	4 miles of road formed into tunnel bank of 23 ft. span.		
do do from Tirumalay to the boundary of the Villapuram Taluk at Pattaravanu	2803	18 miles of road hereby been formed 6 bridges of 16 ft. 5 do of 4 feet. Do 18 of 3 feet and do 5 of 1½ ft. built 18 mile stones placed and 16 miles of avenue trees planted.		
do do from Chunampatty to Parangipalayam	2190	8¾ miles of road formed 1 bridge of 16 ft. built two mile stones placed.		
do Raising & metalling the approaches to the bridge across the Gondamoor river in the road between Tindivanam and Pondicherry	1000	Approaches of the bridge has been completed.		

Southern Circle	Road from Kullacurchi to Vridachellam via Varanjaram	1700	17 miles of road formed, 24 tunnels built and avenue trees planted		
do	Branch road from the 10th mile of the Trichatore and Ellavanasore road to the 2d mile of the Tiagar and Manamalurpett road	1830	11926 Cyds: earthwork done 6683 Sq.rds: jungle cleared 3401 Sq.rds: bushes cleared 9 miles stones dressed & fixed and carted 7 tunnels built.		
do	Sundry parts of the 6: 7: 10: 11: 12: & 13 miles of the road from Vridachellam to Chatiatope	3329	6 miles of road handed over		
do	Masonry & masonry works in progress on the Pallaur river near Chevvoradathoray	210	Materials being collected		
Salem	do a bridge over the Vellaur near at Bayalore	2447	Bridge completed. a balance of Rs 104 still remains to be paid		
Tanjore	Cross road No 65 from No 35 near Thuriekandaraby bridge to Keevalore two road No 1	1822 ~~18,322~~	Bridges over Peatoriyaur & Pellyaur completed. Piers & wings raised 3 ft. above the flooring for masonry. the bridge ends prepared for the Thuriekandaraby bridge - 45 Culverts completed varying from 1½ to 15 ft. 6 miles of road gravelled for traffic from Keevalore to Thanaiyeur.		
Tanjore	Road No 57 from Mannaroor to Thalanayer along the S B. of Thuriekandaraby	3116		✓	Earthwork in progress and Materials for masonry works under collection.
do	do No 68 from Vathoor on Road No 2 to Tudupathanam near Devesthanam along the bank of Pudumannayaur	3136		✓	Earthwork in progress.
do	do No 73 from No 2 near Vathalam to Vathoor on road No 13	20376		✓	Completed with the exception of one bridge & two tunnels
do	do No 81 from Devipendal to Tennalayadi and Aduthurray	~~7103~~ 7103		✓	Earthwork in progress.
do	do No 57 from Thevvoladully to the Railway Station at Pordalore	23127		✓	All the masonry works completed with the exception of 2 tunnels - Sectioning & surveying in progress.
do	Reforming road No 26 from Mallampattah to Valayanary	5629	5741 Cyds. of land collected	✓	
do	Metalling road No 29 from Papanasam to Sakamanya-kanu	50,212		✓	Completed

Senjor B	Restoration of 5 miles 9 road No 27 from Coimbr to Sengundy	3244	✓	Completed with the exception of one culvert.
do	Road No 69 from Sheally to Panangattanjudr on the Coleroon South bank	7462	✓	do do do of two culverts
do	Works on road No 78 from Velavady on road No 47 to Cadumbanjudr along the S. B. of Arasalaur	3306	✓	Masonry works completed, portion of work Nos executed by Sundaramanickam Merasedars incomplete
do	do No 85 from Codamurdy bridge in Coimbatore road No 36 along the Codamurdy S. B. to join the new road from Neevalore to Settehanieme	1000	✓	1/3 of the work completed
do	Improving widening the Railway Feeder No 17 from Kordachady to Kodaracad.	2492	✓	Earthwork & Laudry completed.
do	Reconstg Road No 33 between Sunnalam & Poorvady joining road No 30 & raising the top of Mudaconkan embankment	3895	✓	About 3/4 completed
Senjor B	Road No 79 from Coimbatore to Combaconam boundary & raising of the top of Arasalar South bank	6783	✓	
do	do do No 14 between Sunnalam & Codaracad	8481	✓	
do	Metalling road No 7 from Codaracad to Kordachady	6345	✓	about 800 yds. metalled.
do	Reconstruction of jetty at Nagapatam	7786	✓	Cut stone fencing at eastern end has been done to a length of 241' and an average height of 7' do at western end to a length of 66' and an average height of 7'- 2396½ C/ft. of bank work done & the old portion of the jetty to protect it during monsoon.
Trichinopoly	Road No 7 from Trichinopoly to Caniamore Division	6377	✓	Earthwork fully completed. Fully masonry works all completed with the exception of one culvert. Koyanary bridge completed & open for traffic. Sunnalam bridge completed all but facewalls and parapets.

				Iron dawr bridge 2 abut-ment and wings raised 1½ ft: above flooring level. Piers raised 9½ feet above flooring.
Trichinopoly — Road No 9 from Veerambalore to Arealore		4998	15/16	Gravel work complete. Metalling nearly com-pleted. Of masonry works the greater numbr have been completed.
do	do No 10 from do to Kistna	6562	15/16	Gravel work completed. Petty masonry works nearly all Completed. Bridge No 112 Arches two No 113 carried up to Springing line. Bridges Nos 133 to 137 nearly com-pleted.
do	Extending Road No 9 from the li-mits of Veerambalore Valook to Arealore	4998	Completed	
do	Road from Trichinopoly to Salem via Lowrab	1858	do	
do	Metalling road from do to Trunk Road No 9 through Woodiarpollam	3619	do	

Trichinopoly Road No 25 from Arealorb to Heelapalorb on road No VI		3000	¾	completed
Coimbatorb Road from Bodoomulpettah to Tirpoor		22/35		The whole road has been made good and easy for traffic except a few portions late damaged by rain in Bodo-mulpellah Talook. Culverts have been built over all small streams. Wooden bridges over large streams. The sandy and low rivers have been made easy by hard paved beds and road dams. Many bends in road have been straight-ened and long diversions effected where necessary. Most of the soft parts have been metalled &c
do	Bridle path from Jarana yunden-hully to the head of the Hacsanoor plant	1611		In progress.
do	Lonely a feeder to the Passoor Station by the G. S. & Indian Railway	1191		Completed, but compensa-tion for land not yet settled for.

Coimbatore	Culverts across the Aaroor and Cunchamadary channels	1261	615 4/9 Cyds: of earthwork 96 6/18 Cyds: of gravelling 134 3/4 Cyds. of coping stone 15 3/4 Cyds: of rough stone work, 4 Cyds: of burnt stone & guard stones purchased.	Coimbatore	Road diversions at the junction of the roads from Kaldyiem Darapuram & Palladam at Avenashy	4599	Completed
do	Tracing and opening a bridle path from Vascanoor by Ghairmal & Byloor to Ayeelpuram	5147	Work stopped from want of funds.	Nilgherries.	Opening bridle path from Kartaury to Colacamund	1000	Ghaut at Kartaury completed from water fall to junction with Devashola road & from that junction to junction with Kartaury to Coonoor road.
do	Bridging the Moyar river	3837	95 3/4 Cyds. of excavating foundation, 59 Cyds. of rough stone in Chunam, 40 stones dressed 127. measures & Gunpowder purchased.	Malabar	Tracing road from Talaparamba by Cherukadanporam to Cross Roor D.R. No 5	4935	849 Cyds earthwork 470 Cyds. of rock cutting executed.
do	New road & approach from the Derech. -ies of Darapuram, Hanghiem and Tirpoor	3387	60 Cyds. of earthwork, 130 Cyds. of rough stone in Chunam and 10½ Cyds. of burnt stone in Chunam.	do	Road from Cheroor Cerampa. -ramba to Kothbeyal on the Pera road D.R. Roll	2784 / 6742	Cft. of masonry and 1265 Cyds of earthwork executed.
				do	do from Tirroor to Thalot D. R. No 13	4526	Collecting materials
do	Widening banks and supplying wings and parapets to the bridges and embankments on the road from Coimbatore to Melapollecm	1350	Completed	do	Widening road from Kerapa. -ramba to Thekotte bridge part of D. R. No 30	2423 / ~~2500~~	Completed
do	New road from the Pollachy road to the Pothanoor Railway Sta. -tion	1770	do	do	Road from Panikkad to Manoor and Mumbat part of D. R. No 41 P.	6700	Opened to cart traffic. all work Com. -pleted except small drains (13 of which have been put in) Gravelling & metalling.

Malabar	Tunnels on the road from Kum. -jery to Brandoor D. R. No 37	✓	1,000	Completed
do	Road from Vandikad by Me. -labor to 2 mile market of Manaar on the Brandoor road D. R. No 38	✓	696	Completed & paid in full
do	Roading from Cheritul via Velootte, Irkoor, Vellampa. -ramba & Keeparamba to the Coorg boundary	✓	5386	2172 Cft. masonry executed.
do	Road from Mambram ferry to Thalot 2d section of D. R. No 17	✓	3,900	2249 Cft. masonry and 2259 Cyds: earthwork executed.
do	County: a new line of road from Shoranoor to Kuruyarangady on the Imperial Salt ~~Road~~ Road from Tonany to Pattambi	✓	8341	Earthwork and masonry work in progress.
do	do from Shoranoor bridge to the Cochin frontier			Rs 1324.10.11 spent out of provincial contributions
do	do of certain tunnels on D. R. No 62 from Kolengode to Alatoor	✓	5089	Completed & paid in full

Malabar	Improving the road from the junction of Malleaporam road to the junction of Dr. road No 48 from Wathathamy to Terooveya -porram	✓	2143	Earthwork gravelling & masonry in progress.
do	Chuttram at Talleparamba		1480	Completed accounts not adjusted
do	do at Nedumboya		1,840	Completed
do	do at Tambrachetty		1500	Walls door and windows completed all trusses up, 2/3 rafters & 1/2 purlins tiles and materials at side
do	Road from Calicapatam to Beypoor		7,700	Completed
do	do from Tannanoor to Coorg Imperial Road No ~~XXVIII~~	✓	3740	Collecting 180 Cyds: of gravel Iruvly bridge gravelled. Road repaired at Kandotte & Veliyaparamba and other places where damages occurred by late showers.
do	Cheritul via Irkoor to Coorg District Road No	✓	1995 ~~2,000~~	Completed
do	Protecting the Cochin harbour & Colony the cruz Milagree Gate	✓	10,794	Materials collected. work stopped.

Malabar	Revetting the north bank at Tyseem	1185	295 ft of revetment and 90 ft of Groyne completed	do	South Canara	Reconst.n of Uchilsal bridge on the coast line	2526	Two spans completed, the 3rd is remaining the planks Revised est: under preparation.	
South Canara	Minor bridges on the Moodbidry and Bellangady road	6280	Bridges nos 7, 8, 9, 10, 11, 18, 19 & 23 completed. Bridge and materials under collection. Bridge no 22 work stopped. Arch work of another bridge completed.	do		Improvements to the Moolpe and Sodpe road	5700	2 miles, 3 furlongs & 184 yds: of road raised & gravelled &c.	
				do		Widening Coomba and Perdal Bridle path	2498	In progress	
				do		Making a line to connect Loobra-manya with S. R. no 2	2566	17 miles 1872 yds: of road opened & bridle path.	
do	Bridges on the Bantwall and Moodbidry road	Poochamagar Timber bridge	1058 2	11/2 Spans planked lower rails & starting boards for 7 spans & parapet over 9 piers Completed. Northern approach finished.	do				
		Minor bridges	115	Ellekah bridge completed.	do	Provincial School at Mangalore	1359	School privy and well completed.	
do	Bridges on the Vootoor and Mun-jeshwar road by Pettah	2396	Bridge no 3 across Bova stream completed. Bridges nos 3, 4, 6 and 7 ni 1st set. Nos 1, 2 & 31 ni 2d set completed. Bridge no 1 ni 1st set stones collected. Bridges nos 2 & 13 ni 2d set completed except parapet walls. Bridges nos 4-7-8 & 16 ni 2d set completed value & carriage of coral stones paid for. Bridges nos 25 & 26 ni 2d set completed except blocking course of parapet walls. No 30 ni 2d set abutment built up 1' high.	Madura	Andalore Grant		3477	11285 running yds: of road to a width of 16 feet cleared. 11285 running yds of road cut & Cyds: of dry rubble revetment constructed.	
				do		Road from Nellapetty via Nerea-collam Lumbam and Gooda-ford & the Travancore frontier	14000	1/2 miles of road completed and 1 1/2 miles in progress.	

Madura	Road between Chevagengah and Tondy	10495	14 miles & 5 furlongs completed. 8 tunnels constructed.	
do	do from Tirumangalam to Struvelleputtoor	10000	12 miles of road raised. 8 Tunnels & 3 road dams completed. 2 Tunnels are in progress.	
do	do from Meylore to Irrepatore	8000	11 miles of road completed. 8 tunnels & 4 road dams constructed.	
Tinnevelly	Road from Vyapaur to Colapa. Karam	10000	7 miles of road, 11 road dams and 1 tunnel completed.	
do	do from Sheevegunteam to Aurormorganmangalam	1115	Completed. 1 mile under progress.	
do	do from Tinnevelly via Levaloperi & Vullanel to Shee-vegunteam	3098	7 miles of road completed & 15 miles of in progress.	
do	do from do to Rajapollium	9000	7 miles of road, 10 tunnels and 5 road dams completed 2½ miles of road and 3 bridges under progress	
do	do from the Madura frontier via Shevaltipettoor to Polaveri	10000	13 miles of road 126 bridges and 74 road dams completed. 5 miles of road and 2 road dams are under progress	

Tinnevelly	Portion of road from Co-Caseri to Vasudaramalloor	6710	9 miles of road and 9 tunnels completed. 9 miles of road are under progress.	
do	Extention of the Srajuneri and Vazcanarcoyanaur road to Tesayanvoloi	6628	12 miles of road, 17 road dams & 3 tunnels completed. 1 mile in progress.	
do	Road from Veziapatto to Gerwade	659	4 miles of road, 7 road dams and 9 tunnels completed. 1 mile under progress.	
do	do from Struvalleputtoor to Brattrah	1135	completed.	
do	do from Vambulepalam to Vethencovil pass	2363	completed	
do	do from do to Kadaya-mulloor	1310	do	
do	do 2nd between Sanaguedi and Tenkuranguedi	4874	5½ miles of road completed & 2 tunnels required.	

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