Public Works (1896.) Department.

1830

G.O., No. 771 J

DATED 21st September 1896.

[Despatch Abstract.]

Periyar Water: Pros: Revenue Dept to pass orders on Boards' Pros: regarding the charges to be made for the supplies & tanks in the inam & Zamindari villages, Coimbr & S. & N. Arcot.

P. W. 136. 1,000—5-2-96.

INDEXED.

BACK PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

D 4

No. 771. dated 21st September 1896.

PUBLIC WORKS DEPARTMENT,
IRRIGATION BRANCH.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the

READ the following

Letter, Madras Govt., Revenue Dept. No. 373, dated 29 July 1896.

Communicated to the Superintending Engineer, Sixth Circle.

Recd 8/9/96

3/9/96

Issued 12/9/96

To The Supt. Engineer, Sixth Circle. ✓
" Chief Engineer for Irrigation. ✓
" Examiner, P.W. Accts. ✓

Recd 11/9/96

Decd 10/9/96

No 771 I, dated 21st September 1896.

E. I. Form No 1—1,000—27-11-95.

Public works (1896) Department

Government (1896) of Madras.

REVENUE.

Current Numbers 783

Recd. 1-9-96 } 1896.
Regd.

Enclosures.

Spare copies. 10 1

G.O., No. 373, 29th July 1896.

JULY.

Periyar water.

Passing orders on Board's Proceedings issuing instructions regarding the charge to be made for the — supplied to tanks in the inam and zamindari villages.

A Cfb
P.D. 1-9-96 Dutgd

GOVERNMENT OF MADRAS.

REVENUE DEPARTMENT.

Read—the following Proceedings of the Board of Revenue (Revenue Settlement, Land Records and Agriculture), dated 29th May 1896, Mis. No. 2600 :—

Read—the following letter from the Collector of Madura, to the Secretary to the Commissioner of Revenue Settlement, Land Records and Agriculture, dated 3rd February 1896, Ref. on C. No. 5103-Gl. of 1895 :—

In forwarding copies of the Executive Engineer's letter, Mis. No. 1043, dated 27th November 1895, and my reply thereto, also of letter, No. 887-M., dated 20th December 1895, from the Superintending Engineer, VI Circle, with its enclosures, I have the honour to request the Board's instructions as to the treatment of zamindari and inam lands in connection with the distribution of Periyár water.

2. Such lands may receive water—

(*a*) on application,
(*b*) without application because we cannot help it.

(*a*) *On Application.*—Supply can (and I think should) only be given by filling tanks, and not directly from channels. We can therefore only deal with the proprietors of tanks or holders of entire ayacuts, and not with individual tenants who hold portion of ayacuts.

For second crop the charge is Rs. 3 per acre, for the payment of which, upon all cultivation under the tank, the applicant must be responsible. Supply for first crop was not contemplated, but there will, for some years at least, be water available which it would be a pity to waste. The difficulty lies in fixing the charge since the Executive Engineer informs me that it is impossible to measure the amount supplied. I can only suggest that the rate per acre (which should cover the entire ayacut, whether cultivated or not) should be fixed in each case by agreement between the Executive Engineer and the applicant, according to the amount of water to be supplied, if this can be roughly estimated with sufficient accuracy.

(*b*) *Water involuntarily supplied.*—Until irrigation direct from channels is substituted for the tank system, it will be impossible to avoid giving an involuntary supply in many cases. Tanks often run in chains filled each by the overflow of the one above it: so in order to fill say Government tanks Nos. 3, 4 and 6, it may be necessary to fill inam tanks 2 and 5. I do not see how we can charge for this even for second crop unless by special agreement with the proprietors, the benefit to whom will vary greatly year by year according to the nature of the season unless the Executive Engineer can come to an arrangement with the proprietors for a term of years, the only course, I believe, will be to take care that such cases of involuntary supply are as few as possible and take early steps to make other arrangements in the case of these.

3. Zamindari and inam lands will also benefit from the Periyár water in other ways, *e.g.*, where their supply is taken by channel from the river in which the Periyár water runs, or where they receive the drainage from Government lands. Here too, I think, that no charge can be made either for first or second crop so long as cultivation is not extended.

4. If cultivation of first crop is extended owing to supply of Periyár water beyond existing wet or mamul wet area, whichever is largest, I presume that water-rate should be charged upon such extension at the same rate as in Government villages: also that water-rate should be charged, if land not hitherto cultivated with second crop is so cultivated, though in this case extension owing to Periyár water will be more difficult to prove.

5. I also presume that all such extension can, if necessary, be checked by imposition of a penal rate and that all cases of unauthorized taking of water by the unlawful act of the owner or cultivator should also be treated with penal water-rate.

6. In course of time other questions will no doubt arise, but I beg to know whether my views on the above general question are correct.

Resolution—dated 29th May 1896, Mis. No. 2600.

In the first case mentioned by the Collector, that is, where water is supplied to private tanks on the application of the proprietors, for the irrigation of first crop, the simplest plan appears to be to levy an acreage rate on the entire area irrigated under the works. It will, of course, not be possible to vary the rate with reference to the supply given in each case, nor, having regard to the fact that the tank irrigation is only supplemented, would it be fair to charge the full rate of Rs. 5 an acre, as in the case of Government and minor inam lands commanded by the Periyár works. The Board considers that an uniform rate of Rs. 4 an acre may be charged in all cases where water is taken, with permission, for first crop wet, no extra charge being levied, if, owing to the limited capacity of the tanks, it becomes necessary to fill them a second time, to mature the crop. A separate charge will be levied for the supply given for a second crop and also for crops which remain on the ground beyond the period of a first crop.

2. In the second case mentioned by the Collector, no charge can be enforced as the "water is involuntarily supplied," that is, it is carried through private tanks, without the application of the proprietors, with a view to supply some Government works. The Board understands, however, that such cases are very few and that it might be possible to divert the distributary channels or make other arrangements for filling the Government tanks, if the proprietors of the private works do not consent to pay a reasonable sum annually in consideration of the advantage derived by them. The Collector is requested to report further on the matter.

(True Copy and Extract.)

(Signed) P. RAJARATNA MUDALIAR,
Secretary.

To the Secretary to Government, Revenue Department.
„ Collector of Madura.

Enclosures.

Copy of communication from the Executive Engineer, Madura Division, to the Collector of Madura, No. 1043-M., dated 27th November 1895.

I have the honour to forward herewith two applications from private individuals to have Periyár water supplied to their tanks, one direct to me and the other through the Deputy Collector. I request you will kindly inform me whether water can be supplied on such applications and what the charge per acre would be.

2. I enclose for your perusal a copy of a letter I am sending to the Superintending Engineer, VI Circle, regarding zamin and whole inam lands and request the favour of your views in the matter.

3. I have as yet issued no orders to supply these tanks.

Copy of communication from the Collector of Madura, to the Executive Engineer, Madura Division, No. 5103, dated 11th December 1895.

Referring to your letter of the 27th ultimo, No. 1043-M., I have the honour to state that it is not intended to supply water for first crops to zamin and whole inam tanks. If, however, proprietors should ask for such supply, and it should be considered expedient to comply with the request, it would be necessary to come to an agreement in each case as to the price to be paid per so many cubic feet delivered and to measure the amount supplied. The lands in such villages are not surveyed and settled as in Government villages and no acreage rate can be fixed. For second crop, on the other hand, a uniform rate of Rs. 3 per acre will be charged if water is supplied.

If in supplying Government tanks, water is unintentionally and without application supplied to zamin and whole inam tanks I do not see how we can charge for it. The water, however, is absolutely at the disposal of Government to give or withhold at pleasure, and it would obviously be better to supply those tanks first from which there would be no wastage into private tanks. The applications are returned and I would suggest that the matter can but be discussed at a personal interview.

From the Executive Engineer, Madura Division, No. 405-S.E., dated 26th November 1895.

I have the honour to forward, herewith, a map of the area commanded by the Periyár canal and branch channels showing the zamin and whole inam villages situated therein.

2. It would simplify the regulation of water if it could be supplied on payment to these lands for first crop, as well as second crop. In G.O., No. 153, dated 15th February 1892, it is contemplated that water will be available for only 8,000 acres for second crop cultivation.

3. It will be impossible to keep Periyár water out of these lands as they will store all the water that finds its way to the drainages after being used for the supply of Government lands above. The only way would be not to supply the latter where they are surrounded by private lands, but I do not know whether we can refuse a supply to Government villages.

4. I think the matter should be brought to the notice of Government and some arrangement made for guidance in the distribution and regulation of water.

No. 826-M.D.

Copy submitted to the Chief Engineer, Public Works Department, for instructions. The zamindari, inam and ryotwari villages are so intermingled that it will be quite impossible to prevent the two former classes from benefiting largely by the Periyár water. When this is the case it is presumed that the wet lands may be treated as directed in the case of minor inams by G.O., No. 153-R., dated 15th February 1892, and that the conversion of dry into wet may be prohibited or prevented by penal assessment. The total wet area stated to be 17,474 acres in the papers printed with G.O., No. 153, Revenue, dated 15th February 1892.

7th December 1895.

(Signed) W. HUGHES,
Suptg. Engineer, VI Circle.

Memo. No. 4005-C.

It is not clear wherein lies the difficulty of refusing to supply water to zamindari or inam lands.

2. In the event of water being available, as it will very probably be during the next few years as the land required for using the whole of the water in Government villages will not be prepared, there is no reason why it should not be supplied on the terms stated for minor inams in G.O., No. 153, Revenue of 15th February 1892; if it is not available all that has to be done is to refuse to supply it.

3. The fact that zamindari or inam villages will benefit by the use of water after it has been used on Government lands does not seem important and the undersigned does not at present see any reason for trying to prevent such use.

4. The Collector should, however, be consulted on the matter, and a further reference made if that officer considers it necessary, the idea of refusing water to Government villages because it may afterwards be used again, cannot be entertained.

Madras, 14th December 1895.

(Signed) J. PENNYCUICK, Col., R.E.,
Chief Engr., Public Works Department.

To the Superintending Engineer, VI Circle.

Copy of communication from the Superintending Engineer, VI Circle, to the Collector of Madura, No. 887-M., dated 20th December 1895.

In forwarding herewith copies of correspondence noted in the margin, I have the honour to request that you will be good enough to inform me whether, when Periyár water is supplied to zamindari villages without being applied for, it may be charged for on the terms laid down for minor inams in G.O., No. 153, Revenue, of 15th February 1892, also whether extension in zamindari villages can be prevented, if necessary.

1. Letter from Executive Engineer, Madura Division, No. 405-S.E., dated 26th November 1895, bearing Superintending Engineer's endorsement, No. 826-M.D. of 7th December 1895.
2. Chief Engineer's No. 4005-C. of 14th December 1895.

2. The favour of an early reply is requested.

Order—No. 373, Revenue, dated 29th July 1896.

Irrigation No. 6.

With reference to paragraph 1 of the Board's Proceedings, the Government considers that applications for the supply of water to private tanks should be submitted to the Collector through the Executive Engineer who should be in a position to know whether a sufficient supply is available for irrigating the whole ayacut and filling the tanks twice if necessary. The Government approves the Board's proposal to levy a uniform water-rate of Rs. 4 an acre in all cases where water is taken with permission for a first wet crop, no extra charge being levied if, owing to the limited capacity of the tanks, it is necessary to fill them a second time. The separate charge leviable in respect of a supply given for a second crop or a crop which remains on the ground beyond the usual period should be Rs. 3 an acre.

2. Paragraph 2 of the Board's Proceedings which relates to the charge to be levied in respect of involuntary supplies of water will be considered when the report called for from the Collector is submitted to Government.

3. It is observed that the Board has not passed specific orders upon the Collector's presumption that water-rate should be charged on any extension of cultivation due to the use of Periyár water and that penal rates are leviable in cases where it may be necessary to check such extensions or where water may be taken without permission. The Government doubts whether it would be legal to charge for extensions of wet cultivation in zamindari lands supplied by private channels from the river. The case differs from that of the Gódávari and Kistna deltas where water is supplied not direct from the river but by means of Government channels. There is of course no objection to the levy of penal rates if water is taken intentionally without permission as by means of newly excavated channels to lands which had hitherto enjoyed no supply from the river. The Board will however be requested to report whether there are many cases of channels flowing from the river to zamindari lands and whether much of the Periyár water is likely to be lost in this way.

(True Extract.)

for Ag. Secretary to Government.

To the Board of Revenue (Revenue Settlement, Land Records and Agriculture).
„ the Public Works Department.

Exd. Md. Pahilvan.

60 Copies.

Letter from the Executive Engineer, Madura Division, No. 405 dated 26th November 1895, to the Superintending Engineer, 6th Circle:—

I have the honor to forward herewith a map of the area commanded by the Periyar Canal and branch channels showing the Zemin and whole Inam villages situated therein.

2. It would simplify the regulation of the water if it could be supplied on payment to these lands for 1st Crop, as well as 2nd Crop. In Lr G.O. 153/15-2-92 it is contemplated that water will be available for only 8000 acres for 2nd Crop Cultivation.

3. It will be impossible to keep Periyar water out of these lands as they will store all the water that finds its way to the drainages after being used for the supply of Government lands above. The only way would be not to supply

supply the latter where they are surround-
=ed with private lands, but I do not know
whether we can refuse a supply to Gov-
=ernment villages.

4 - I think the matter should be brought
to the notice of Government and some ar-
=rangement made for guidance in the
distribution and regulation of water.

No 826 md,

Copy, submitted to the Chief
Engineer, P.W.D for instructions. The
Zemindari, Inam and Ryotwari villages
are intermingled that it will be quite
impossible to prevent the two former
classes from benefiting largely by the
Periyar water. When this is the case it
is presumed that the wet lands may be
treated as directed in the case of Minor
Inams by G.O. No 153 R, dated 16th February
1892 and that the conversion of dry into
wet may be prohibited or prevented by
penal assessment. The total wet area
stated

Enclosure
1 Tracing
(To be returned)

stated to be 17474 acres in the paper
printed with G.O. No 153 Rev. dated
16th February 1892.

Supt. Engr. Upper Periyar.
Trichinopoly.
7 December 1895.

W. Hughes.
Superintending Engineer
Cuddalore.

No 252 Ld/14-3-92
to 9 Ld/24-1-90

Enclosure/plan.

Rec: 9.12.95

From

The Supdt. Engineer
Vizagpt.

To

The Chief Engineer
P.W.D.

No 926 md

Dated 7 December 1895
Disp 7/-

Re /

Zemindary & Inam
lands commanded by Peruvagadda
channel: —

Submitting a map
shewing the area of —
& requesting instructions
as to the distribution of
Peruvagadda water to these.

For orders
Cmte
11/12 [illegible]

[illegible] with
[illegible] I the map under
[illegible] it has been marked
[illegible] lands does
not seem important,
and the undersigned does
not see any reason
[illegible]
trying to frame such
an -

As Collector should
know the condition
of the ryots, and as
further expense such
as that Engr considers
is necessary; the idea
of referring letter to
petty villages seems
to many officials to
need a joke, cannot
be entertained -

[illegible]

Ref 926 Md 2

Letter No 926 Md 2

7.12.95 -

It is not clear what
this the difficulty is
referring to supply water
to Zemindary or Inam
lands -

In the event I write
this would be advisable, as it
may possibly with the charge
that next year, when
land is sold with the water
in petty villages will
not be proposed, there
is no reason why it
should not be supplied
- the term stated in
rule in force in G. O.
153 (Revenue) of 15th February
1894; if it is not considered
all that can be done
is to refuse to supply it -
The petty Inam Zemindary

No 4005 Cal/14 - December 97

Memorandum.

From the Supply Engineer VII Circle No. 826 M.D. d/7 Dec 97

It must clear wherein lies the difficulty of refusing to supply water to zemindary or inam lands.

2. In the event of water being available, as it very probably will be during the next few years as the land required for using the whole of the water in Government Village will not be prepared, there is no reason why it should not be supplied on the terms stated for minor inams in G.O. No. 153 Revenue of 15th February 1892; if it

is not available all
that has to be done is to
refuse to supply it
3. The fact that zemindary
or inam villages will benefit
by the use of water after
it has been used on
Government lands does
not seem important, and the
undersigned does not
at present see any reason
for trying to prevent
such use
4. The Collector should
however be consulted in the
matter, and a further
reference made if that
officer considers it necessary.
The idea of refusing water
to Government villages because
it may afterwards be
used again, cannot be
entertained.

S. Ew

Ew 26/12 CMB 13/12/95

No. 4005 Cd/ 14th December 1895

DESPATCH
18 DEC. 95

S. Ew 26/12
with one enclosure held.

2

15TH FEBRUARY 1892, No. 153, REVENUE.

GOVERNMENT OF MADRAS.

REVENUE DEPARTMENT.

READ—the following Proceedings of the Board of Revenue (Land Revenue), dated 30th September 1891, No. 594-A :—

THE HON. MR. J. GROSE.
MR. H. F. CLOGSTOUN.
MR. G. MCWATTERS.

Read—again Proceedings of the Board of Revenue (Land Revenue), dated 21st February 1890, Mis. No. 1166.

ABSTRACT.—Communicating to the Collector of Madura Government Order, Revenue Department, calling for report on certain points referred to in the note by the Honorable Sir Charles A. Elliot on the Periyár project embodied in Government Order, dated 24th January 1890, No. 49-I (P.W).

Read—also the following letter from E. TURNER, Esq., Collector of Madura, to the Secretary to the Commissioners of Land Revenue, dated 23rd August 1890, No. 347 :—

Adverting to Board's Proceedings, Mis. No. 63, of the 1st February 1890, and Mis. No. 1161 of the 21st idem, I have the honour to submit my report with such statements as have been found necessary.

2. The information called for in the first of the Proceedings quoted above is given in statement No. I, which is based on statement No. II. For further information on this point I beg to refer the Board to paragraph 18 of this report.

3. The Government of India has, in its Proceedings of the 4th January 1890, communicated with Government Order, No. 49 I. (P.W.) of the 24th January last, read in the Board's Proceedings, No. 1166, dated 21st February 1890, under reply, called for information on the following points :—

(*a*) Actual rates of assessment and the actual area of the land likely to come under Periyár irrigation with reference to settlement rates, &c.

(*b*) A revised estimate of the financial effects of the scheme.

(*c*) Whether Rs. 4 or 6 an acre may be fixed as water-tax as regards the dry inam and zemindari lands.

(*d*) Estimate of second-crop cultivation based on present knowledge.

(*e*) Selling rates of tank-beds.

(*f*) Question as to the propriety of selling the occupancy right in the waste lands.

(*g*) What is the extent of waste lands available for sale now with reference to existing facts.

(*h*) The result of the action said by Mr. Bliss to have been taken with reference to the orders restricting the grant of pattas as regards lands in the villages affected by the Periyár.

4. As regards (*a*), *vide* paragraphs 19 to 35 and the statements Nos. 2 to 7.

5. As regards (*b*), *vide* paragraphs 47 and 48 and the statements Nos. 6 and 7.

6. As regards (*c*), *vide* paragraphs 20 and 28.

7. As regards (*d*), *vide* paragraph 38 and the statements Nos. 2 and 6.

8. As regards (*e*), *vide* paragraph 43 and the statement No. 5.

NOTE.—There were certain obvious miscalculations and discrepancies in the Collector's statements Nos. II and III and in the figures quoted therefrom in his report. These have been rectified and adjusted and the correct figures are printed in thick type throughout the Collector's report.

9. As regards (*f*), *vide* paragraphs 42 to 45.

10. As regards (*g*), *vide* paragraphs 18 and 43 and the statements Nos. 2 and 5.

11. As regards (*h*), *vide* paragraph 46 and the statements 1, 2 and 5.

12. Before dealing with the several statements submitted herewith, I think it desirable to bring to notice some general points bearing thereon.

13. In paragraph 103 of his letter, No. 3293 (A), of the 15th November 1884, the Director of Revenue Settlement gave it as his opinion that on the completion of the Periyár project all irrigation affected by it should be included in the first group and that it should be notified at the introduction of the settlement that lands now classed in the 2nd, 3rd, &c., groups would, if hereafter affected by the Periyár project, be classed and assessed at first group rates. The Board having in its order, No. 661, dated 21st February 1885, concurred in his proposal, the same was approved of by Government in paragraph 11 of the Government Order, No. 881, Revenue, dated 30th July 1885. This was accordingly notified by the Settlement Department in the third supplement to the *Madura District Gazette*, dated 19th October 1885, and the statements have therefore been prepared with reference to it, the areas being assessed at the corresponding rates of the first or the highest group and the excess over the present assessment being taken to be due to the project.

14. From paragraph 3 of Mr. Clogstoun's report communicated with Board's Proceedings, Mis. No. 5442, dated 12th April 1877, and correspondence previous and subsequent to it, it would appear that the extent of land which the channels are capable of irrigating is only 150,000 acres. This, however, it appears, can be raised to 175,000 acres as is evident from paragraph 256 of Colonel Pennycuick's report in 1882 and paragraphs 3 and 4 of his letter embodied in Government Order, No. 355-I., dated 27th April 1883, Public Works, and the Periyár water supplemented by the Vaigai can, I think, irrigate about 200,000 acres at the most, as about 25,000 acres of ryotwar lands on the north bank alone are irrigated by the existing sources. The statements have been prepared on the supposition that 200,000 acres can be irrigated at the most.

15. I beg also to state that it will appear from the accompanying statements and the following paragraphs that the extent of cultivation under first and second crops in the villages on the north bank alone amounts to the above figure, so that I doubt whether sufficient water will be available for the villages on the south bank. My report is therefore in detail as regards the villages on the north bank, separate statements being, however, submitted for the villages on the south bank also for the information of the Board and Government.

16. The number of villages affected by the Periyár on the north bank and dealt with by Mr. Clogstoun in his report on the scheme is 132 (reduced to 89 in the settlement by amalgamation, &c.,) in the Madura taluk under ryotwar and 122 villages under inam and zemindari and in the Melúr taluk 20 under ryotwar and 5 inam. It seems that about 12 villages under ryotwar and 7 villages inam and zemindari in the Madura taluk and 13 villages under ryotwar and 6 villages under inam and zemindari in the Melúr taluk may be added to the above number as they are villages that may be affected by the Periyár and I cannot account for their omission by Mr. Clogstoun. To avoid confusion and for comparison sake, I have shown separately in the statements the transactions relating to these additional villages.

17. Information for every village affected has now been collected and statements herewith submitted have been prepared with reference to the villagewar statements previously prepared.

18. To deal with the accounts as regards villages on the north bank.

Statement No. I.—The total extent of land available for disposal in the villages dealt with by Mr. Clogstoun amounts to 28,14$\frac{5}{+}$ acres, of which 12,6$\frac{30}{20}$ are dry and 3,936 wet and 11,579 acres are tank-bed porambokes. The lands temporarily assigned are 253 acres under dry and 125 under wet, aggregating acres 378 in all. It will be seen that temporary assignments have not been made on a large scale—*vide* also this office letter, No. 291, dated 22nd July 1890. The extent of wet lands held on inam or permanent tenure is given below :—

Held on inam tenure.	Held on permanent tenure.	Total.
ACS.	ACS.	ACS.
19,298	3,217	22,515

19. *Statement No. II.*—This gives detailed particulars of all classes of lands affected by the project. The number of villages now given as regards Madura taluk is 101 * against 132 given in Mr. Clogstoun's report and the difference is due to several small ryotwari villages having been clubbed together in the survey. One village called Managiri, which is on the northern bank, appears to have been treated as one of the villages on the south bank in 1876 and this has been included in the present statement as one of the villages on the north bank. Inam and zemindari villages are 129, of which 122 are those reported upon by Mr. Clogstoun and the rest are newly added villages. Melúr taluk has 20 villages under ryotwar with additional 13 villages and 5 inam villages with the additional 6 villages.

* 89 referred to in Mr. Clogstoun's report; 12 newly added.

20. *Area irrigable in the tract to the north of the Vaigai—Dry land.*—The total extent of occupied and unoccupied dry lands in both the taluks is 57,532 acres including lands temporarily assigned. From this total area a deduction of 25 per cent., which appears reasonable, has been made on account of dry lands which are not irrigable owing to their high level and land required for main channels, &c. The net area irrigable amounts to 43,148 acres and the present assessment thereon to 41,66$\frac{57}{66}$. Column 17 of the statement shows water-tax at Rs. 4 per acre, while column 18 shows the amount of probable increased assessment arrived at with reference to 1st-group rates notified in the third supplement to the *Madura District Gazette*, dated 19th October 1885. The question is whether water-rate should be charged for the use of water or group rates. As channels will be perennial and as almost the whole extent of the net area will, I think, be converted into wet, it appears reasonable to adopt group assessment, which is accordingly shown in column 18 of the statement. But it may be thought desirable to levy water-rate instead of group assessment on dry lands; so water-tax also is separately shown in column 17 of the statement at Rs. 4 per acre. Rs. 4 sanctioned in Standing Order No. 4 as water-tax per acre is, I think, a reasonable amount and it does not appear desirable or expedient to raise it on account of the Periyár. The assessment due to Periyár in the ryotwar villages under lands now classed as dry is shown in the statement given below :—

Dry.

—	Extent.	Present assessment.	First crop. Periyár assessment. Water-tax.	First crop. Periyár assessment. Group assessment.	First crop. Assessment due to Periyár. Difference between 5 and 3.	Second crop. Extent.	Second crop. Present assessment.
			4	5	6	7	8
1	2	3					
	ACS.	RS.	RS.	RS.	RS.	ACS.	RS.
In villages dealt with by Mr. Clogstoun...	34,829	86 33,4$\frac{86}{99}$	16 1,39,3$\frac{16}{20}$	631 2,19,$\frac{631}{253}$	1,86,145 $\frac{1,86,145}{1,85,754}$	17,415	...
In villages now ascertained to be influenced by the scheme.	8,319	5 71 8,1$\frac{71}{67}$	5 33,27$\frac{5}{+}$	461 53,$\frac{461}{393}$	45,290 $\frac{45,290}{45,226}$	4,159	...
Total ...	43,148	57 41,66$\frac{57}{66}$	1,72,591	2,73,092 $\frac{2,73,092}{2,72,646}$	2,31,435 $\frac{2,31,435}{2,30,980}$	21,574	...

Dry—cont.

—	Second crop—*cont.* Periyár assessment. Water-tax.	Second crop—*cont.* Periyár assessment. Group assessment.	Second-crop assessment due to Periyar. Water-tax (Difference between 8 and 9.)	Second-crop assessment due to Periyar. Group assessment (Difference between 8 and 10.)	Total due to Periyar. Extent (2 and 7).	Total due to Periyar. Water-tax (4 and 11).	Total due to Periyar. Group assessment (5 and 12).
	9	10	11	12	13	14	15
	Rs.	Rs.	Rs.	Rs.		Rs.	Rs.
In villages dealt with by Mr. Clogstoun...	**34,829** ~~69,660~~	**54,907** ~~54,813~~	**34,829** ~~69,660~~	**907** 54,~~813~~	52,244	**1,74,145** ~~2,55,414~~	**2,41,052** ~~2,40,567~~
In villages now ascertained to be influenced by the scheme.	**8,319** ~~16,636~~	**13,365** ~~13,348~~	**8,319** ~~16,636~~	**13,365** ~~13,348~~	12,478	**41,594** ~~61,862~~	**655** 58,~~574~~
Total ...	**43,148** ~~86,296~~	**273** 68,~~161~~	**43,148** ~~86,296~~	**272** 68,~~161~~	64,722	**2,15,739** ~~3,17,276~~	**2,99,707** ~~2,99,141~~

The total extent of dry land occupied and unoccupied given in Mr. Clogstoun's report, paragraph 32, as coming under Periyár project, is 46,146 acres, the Periyár assessment on which amounts to Rs. 3,09,322 while the present extent is 34,829 acres, with Periyár assessment of Rs. 2,19,**631** ~~253~~. The difference of 11,317 acres in extent between the figures now taken and Mr. Clogstoun's figures is due to 25 per cent. deduction being allowed on account of high level, &c., and to survey, with corresponding decrease in assessment.

21. *Wet lands.*—The total extent of wet lands in ryotwar villages is 43,446 acres under occupied and 4,464 under unoccupied, aggregating 47,910 acres. The present assessment thereon amounts to Rs. 1,77,7**22** ~~81~~ and the Periyár assessment which has been calculated at the rates sanctioned for the first group in accordance with the Government Order contained in Board's Proceedings, No. 2491, dated 27th August 1885, is Rs. 2,78,8**747** ~~39~~. The amount due to the project is shown below:—

Wet.

—	Extent.	Present assessment.	Periyár assessment, group rates.	Second-crop charge. Extent.	Second-crop charge. Present assessment.
1	2	3	4	5	6
	Acs.	Rs.	Rs.	Acs.	Rs.
Villages dealt with by Mr. Clogstoun ...	41,179	**265** 1,56,~~318~~	**122** 2,41,~~313~~	20,589	11,790
Villages now included.	6,731	**57** 21,~~463~~	**625** 37,~~526~~	**6** 3,~~365~~	515
Total ...	47,910	**22** 1,77,7~~81~~	**747** 2,78,8~~39~~	**5** 23,95~~4~~	12,305

—	Second-crop charge—*cont.* Periyár assessment.	Total Periyar assessment. Extent—columns 2 and 5.	Total Periyar assessment. Assessment—columns 4 and 7.	Present assessment. Total assessment—columns 3 and 6.	Difference due to Periyár—columns 9—10.
	7	8	9	10	11
	Rs.	Acs.	Rs.	Rs.	Rs.
Villages dealt with by Mr. Clogstoun ...	**280** 60,~~328~~	61,768	**402** 3,01,~~641~~	**055** 1,68,~~108~~	**347** 1,33,~~533~~
Villages now included.	**9,407** ~~9,382~~	**7** 10,09~~6~~	**47,032** ~~46,908~~	**2** 21,97~~8~~	**25,060** ~~24,930~~
Total ...	**687** 69,~~710~~	**5** 71,86~~4~~	**434** 3,48,~~549~~	**27** 1,90,0~~86~~	**07** 1,58,4~~63~~

22. The extent of wet lands appearing in Mr. Clogstoun's report, paragraph 32, is 40,017 with the Periyár assessment of Rs. 2,88,585, while the present extent is 41,179 acres with Periyár assessment of Rs. 2,41,**121** ~~313~~. The difference of 1,162 acres between the extent as shown in Mr. Clogstoun's report and the present statements is, I think, due to survey and the conversion of punjah into nunjah.

23. The total extent of lands under dry and wet in ryotwar villages is given below with its present and future assessments.

Villages.	Total extent dry including 2nd-crop extent.	Present assessment, dry.	Periyár assessment.	Difference due to Periyár.	Total extent wet including 2nd crop.
1	2	3	4	5	6
	Acs.	Rs.	Rs.	Rs.	Acs.
Number of villages dealt with by Mr. Clogstoun.	52,244	**86** 33,4~~99~~	**538** 2,74,~~066~~	**2,41,052** ~~2,40,567~~	61,768
Now added	12,478	**71** 8,16~~7~~	**66,826** ~~66,741~~	**655** 58,~~574~~	**7** 10,09~~6~~
Total ...	64,722	**57** 41,~~666~~	**3,41,364** ~~3,40,807~~	**707** 2,99,~~141~~	**5** 71,86~~4~~

Villages.	Present assessment.	Periyár assessment.	Difference due to Periyár.	Grand total, extent.	Assessment due to Periyár.
	7	8	9	10	11
	Rs.	Rs.	Rs.		Rs.
Number of villages dealt with by Mr. Clogstoun.	**055** 1,68,~~108~~	**402** 3,01,~~641~~	**347** 1,33,~~533~~	114,012	**399** 3,74,~~100~~
Now added	**2** 21,97~~8~~	**47,032** ~~46,908~~	**25,060** ~~24,930~~	**5** 22,57~~4~~	**715** 83,~~504~~
Total ...	**27** 1,90,0~~86~~	**434** 3,48,~~549~~	**07** 1,58,4~~63~~	**7** 136,586	**4,58,114** ~~4,57,604~~

If the second-crop charge not taken into account by Mr. Clogstoun in paragraph 32 of his report be deducted from Rs. 5,75,**940** ~~707~~ shown in columns 4 and 8 of the statement above appended, the net amount both under dry and wet comes to Rs. 4,60,**752** ~~566~~ on 76,008 acres against Rs. 5,97,907 shown as Periyár rate in his report on 86,163

acres of land. The decrease under both extent and assessment is due to deduction of 25 per cent. for the reasons given in paragraph 20 *supra*.

24. *Tank-beds.*—The number of tanks in the villages dealt with by Mr. Clogstoun is 1,067, * from which 5 tanks are to be deducted as it is probable from the information available from the Department of Public Works that these will have to be retained, the rest being taken as available for allotment for cultivation. As has been done by Mr. Clogstoun, 40 per cent. (paragraph 32 of his report) of the area of the remaining tank-beds has been deducted for lands on high level, bunds, for channels, paths, pasture, &c., and the remaining area, viz., 11,579 acres, taken for the purpose of assessment. The highest first group rate (wet) in each village concerned has been applied to tank-beds as these are in most cases of superior soil and well situated for wet cultivation. The assessment thus arrived at as regards the tank-beds is Rs. 82,0$\frac{70}{54}$ † which added to the expected second-crop charge of Rs. 20,51$\frac{8}{3}$ ‡ raises it to Rs. 1,02,5$\frac{88}{67}$. This again added to the assessment, Rs. 17,$\frac{896}{920}$, as regards tank-beds in villages now ascertained to be affected by the Periyár project amounts to Rs. 1,20,48$\frac{4}{7}$, the whole of which should be treated as the income due to the Periyár project.

* Madura		309
Melúr small tanks		758
	Total ...	1,067

Mr. Clogstoun's villages	11,579
New villages	1,993

	Rs.
† Mr. Clogstoun	82,0$\frac{70}{54}$
New	14,3$\frac{17}{36}$

	Rs.
‡ Mr. Clogstoun	20,51$\frac{8}{3}$
New	3,5$\frac{79}{84}$

25. Mr. Clogstoun's report gives the area of tank-beds as 9,196 acres ($\frac{1}{5}$ of tank-beds) with Periyár assessment of Rs. 73,568 at Rs. 8 per acre. The increase in extent is due to survey and settlement.

26. The total Periyár assessment as regards dry, wet and tank-beds is given below without second-crop charge :—

—	Number of villages.	Periyar. Dry. Extent.	Dry. Group assessment.	Wet. Extent.	Wet. Assessment.
1	2	3	4	5	6
		Acs.	Rs.	Acs.	Rs.
Villages dealt with by Mr. Clogstoun	109	34,829	631 2,19,$\frac{122}{253}$	41,179	2,41,$\frac{122}{313}$
Add do. additional villages	25	8,319	461 53,$\frac{625}{393}$	6,731	37,$\frac{625}{526}$
	134	43,148	2,73,092 2,72,$\frac{747}{646}$	47,910	2,78,$\frac{747}{839}$
Deduct present rate ...	...	...	57 41,$\frac{22}{666}$	...	1,77,$\frac{22}{784}$
Balance due to Periyár ...	...	...	2,31,435 2,30,$\frac{25}{980}$	...	1,01,$\frac{25}{058}$

—	Periyar—*cont.* Tank beds. Extent.	Tank beds. Assessment.	Total.	Water-rate as regards dry lands.
	7	8	9	10
	Acs.	Rs.	Acs.	Rs.
Villages dealt with by Mr. Clogstoun	11,579	82,0$\frac{70}{54}$ 17	87,587	1,39,3$\frac{16}{20}$ 5
Add do. additional villages	1,993	14,3$\frac{17}{36}$	17,043	33,27$\frac{5}{+}$
	13,572	87 96,3$\frac{87}{90}$	104,630	1,72,591
Deduct present rate ...	...	...	...	...
Balance due to Periyár ...	...	87 96,3$\frac{87}{90}$	...	1,72,591

27. *Minor inams.*—The following shows the amount due to the project on account of minor inam (dry) in ryotwar villages :—

—	Number of villages.	Extent.	Present assessment.	Water-tax at Rs. 4 per acre.
1	2	3	4	5
		Acs.	Rs.	
Mr. Clogstoun's villages ...	109	3,856 4,3$\frac{3,940}{27}$	3,940 4,4$\frac{15,424}{23}$	15,424 17,3$\frac{17,310}{10}$
Do. additional villages	25	991 5$\frac{3,965}{20}$	992 5$\frac{2}{10}$	3,965 2,0$\frac{3,965}{79}$
Total ...	134	4,847	4,93$\frac{2}{3}$	19,389

—	2nd-crop water-tax. Extent.	2nd-crop water-tax. Assessment.	Total extent, columns 3 and 6.	Assessment total, columns 5 and 7.	Difference between 4 and 9.
	6	7	8	9	10
	Acs.	Rs.	Acs.	Rs.	Acs.
Mr. Clogstoun's villages ...	1,928 2,1$\frac{1,928}{04}$	3,856 4,3$\frac{3,856}{28}$	5,784 6,49$\frac{5,784}{1}$	19,280 21,6$\frac{19,280}{38}$	15,340 17,2$\frac{15,340}{15}$
Do. additional villages	496 56$\frac{496}{0}$	991 5$\frac{991}{20}$	1,487 7$\frac{1,487}{80}$	4,956 2,5$\frac{4,956}{99}$	3,964 3,0$\frac{3,964}{89}$
Total ...	2,424	7 4,84$\frac{7}{8}$	7,271	6 24,23$\frac{6}{7}$	19,304

28. It is a question whether the dry inams watered by Periyár water should be charged with water-rate at Rs. 4 an acre or with the first group rates according to the classification of the soil. I think the imposition of water-rate is a proper course as is

usually done at present in the case of dry inams for which Government water is used. To avoid further reference, a column is opened in the form to show group assessment also. The extent of minor inams dry as per Mr. Clougstoun's report is 3,400 acres with a water-rate of Rs. 20,400 at Rs. 6 per acre. For the reasons given in paragraph 20 above, I think 4 Rs. rate is a proper one instead of Rs. 6 which appears prohibitive.

29. Extent of minor inams wet is 5,041 * acres, the Periyár assessment on which

				Acs.
* Mr. Clogstoun	...	...	...	4,308
New	...	...	...	733
				25,594
† Mr. Clogstoun	...	...	...	~~25,644~~
New	...	...	...	4,293

amounts to Rs. 29,~~937~~ † according to the highest group rate, the difference of Rs. ~~8,918~~ between the latter and the present assessment (Rs. ~~21,019~~) being treated as the amount due to Periyár.

Rs. ~~8,918~~ added to Rs. 7,~~484~~, being the amount due to the project under second-crop charge, raises it to Rs. 16,~~402~~. Mr. Clogstoun has not taken into account the assessment on irrigated inam lands apparently on the ground that wet inams are entitled to Government water free, but I should think that the collection of some tax on this class of lands is a proper charge, as these lands which have now to depend upon an uncertain supply can, on the introduction of the Periyár scheme, not only secure certainty of supply of water, but also will be certainly improved by superior irrigation at the cost of Government, justifying the demand of increased assessment in proportion to the increased value thus imparted—*vide* also paragraph 2 of Board's Standing Order No. 123. It may perhaps be thought that water-tax only at Rs. 4 per acre as in the case of dry inams should be levied, but I think the levying of the difference between the Periyár assessment and the present assessment is the proper course to pursue in charging the inamdars of wet lands.

30. The total assessment due to Periyár on account of minor inams is Rupees ~~39,834~~ as shown below :—

—	Number of villages.	Total extent.	Dry Periyár assessment including second crop	Wet Periyár assessment.	Total.	Deduct present assessment.	Balance due to Periyár.
1	2	3	4	5	6	7	8
Number of villages dealt with by Mr. Clogstoun ...	109	8,164 ~~8,635~~	19,280 ~~21,638~~	31,993 ~~32,056~~	51,273 ~~53,694~~	*24,377 ~~22,845~~	26,896 ~~30,849~~
Additional villages ...	25	1,724 ~~1,253~~	4,956 ~~2,599~~	5,365	10,321 ~~7,964~~	3,589 ~~3,107~~	6,732 ~~4,857~~
Total ...	134	9,888	24,23~~7~~ 6	37,~~421~~ 358	61,~~658~~ 594	*27,966 ~~25,952~~	33,628 ~~35,706~~
Add taram assessment on dry inams (included in column 7) ...							4,932 ~~4,128~~
Total ...							38,560 ~~39,834~~

* Inclusive of the present second-crop assessment of Rs. 2,035.

31. *Whole inam and zemindari villages.*—The number of villages dealt with by Mr. Clogstoun is 127 (122 Madura taluk and 5 Melúr taluk). The total extent of dry lands irrigable by Periyár water, both occupied and unoccupied, is 15,46~~5~~ 6 acres.

Water-tax on this at Rs. 4 per acre amounts to Rs. 61,86~~2~~ 3 and this added to 2nd-crop charge, Rs. 15,46~~5~~ 6, comes to Rs. 77,32~~7~~ 9, which is the Periyár assessment.

32. Wet lands in inam and zemindari villages are 17,474 acres in area and the present assessment thereon is Rs. 53,865, while the group assessment on the same amounts to Rs. 1,04,711, the difference between the latter and the former is the amount due to Periyár in addition to Rs. 26,178 (2nd-crop charge). For the reasons given in paragraph 29 as regards minor inams, water-rate as regards dry land and group assessment as regards wet lands have been adopted. The inam, &c., villages depend upon rainfed tanks and upon the surplus water of tanks fed by jungle streams, and there appears no doubt that the inamdars will take advantage of Periyár water and thus obtain benefits from the scheme. It will also enable them to break up their tank beds and convert them into the best wet lands. In view to this, I think it will be well to give inamdars and zemindars notice of the additional value these lands will receive by the introduction of the scheme and of their consequent liability to pay tax therefor.

33. Mr. Clogstoun takes into account only dry lands in inam and zemindari villages (viz., 15,210 acres) and excludes the wet lands (10,845 acres) on the ground that it will be possible to levy water-rate on dry lands only, but for the reasons given in paragraph 32 above, wet lands are liable to the payment of Periyár assessment. This item of receipt from wet lands must, however, be given up if it turns out, as is probable, that there will not be water enough to irrigate wet lands in the inam and zemindari villages without neglecting the interests of ryots in ryotwari villages who have superior claim to Government water.

34. The extent of tank beds in zemindari and inam lands which will certainly be broken up on the introduction of the scheme should also, I think, be taken into account, but this item also will probably have to be given up for the above reasons.

35. Total assessment due to Periyár for whole inam and zemindari villages as regards dry lands alone is given below :—

—	Number of villages.	Extent dry.	Present assessment.	Periyár assessment including 2nd crop.	Difference.
Villages dealt with by Mr. Clogstoun ...	127	15,46~~5~~ 6	16,957	77,32~~7~~	60,370
Do. additional	13	2,669	2,936	13,344	10,408
Total ...	140	18,13~~4~~ 5	19,893	90,671	70,778

36. I must not omit to report here that the extent of wet in whole inam and zemindari villages given in Mr. Clogstoun's report (paragraph 37) is 10,815 acres, whereas according to the accounts now furnished it is 14,462 acres. It is not known to what this difference is due except it be owing to the survey of whole inam villages or to the improvements carried out by inamdars, &c., to these villages. I have in my letter No. 204, dated 26th May 1890, embodied in Government Order, No. 531, dated 9th July 1890, alluded to this subject, and I hope to be able to check for the future all encroachments by inamdars on the use of Government water.

37. Annexed is the statement showing the results arrived at by calculating the revenue due to the Periyár in the manner detailed above for the ryotwar and inam villages.

Items.	1st crop. Extent.	1st crop. Assessment.	2nd crop. Extent.	2nd crop. Assessment.	Total. Extent.	Total. Assessment.	Deduct present assessment on occupied lands including 2nd-crop charge.	Balance due to the project.
	Acs.	Rs.	Acs.	Rs.	Acs.	Rs.	Rs.	Rs.
Ryotwar including tank-beds—								
Villages reported on by Mr. Clogstoun	87,687	5,42,620	3	823	87,690	5,43,443	1,80,109	4,98,419
New villages	17,043	1,05,292	403	754	17,446	1,06,046	25,862	1,05,892
				131,568	25,565			
Total ..	104,630	6,47,912	406	1,577	105,036	6,49,489	971	6,04,311
							2,05,849	
Minor inams—								
Villages reported on by Mr. Clogstoun	8,164	50,616	880	4,082	9,044	54,698	24,377	39,223
New villages	1,724	10,734	746	862	2,470	11,596	89	9,843
							6,956	5,496
Total ..	9,888	61,647	626	4,944	11,514	66,294	27,966	49,066
							33,374	39,834
Whole inam and zemindari villages—								
Villages reported on by Mr. Clogstoun	15,466	61,864	3	7,733	15,469	69,597		9
New villages	2,669	10,675	6	1,335	2,675	12,010		77,326
							..	13,345
Total ..	18,135	72,539	9	9,068	18,144	81,607	..	4
								90,671
Total—								
Villages reported on by Mr. Clogstoun	111,217	6,55,308	566	8	111,783	6,55,916	2,04,486	6,14,971
New villages	21,436	1,26,661	825	10,719	22,261	1,37,380	451	1,29,060
							20,067	
Total ..	132,653	7,82,059	391	7	133,044	7,93,296	2,33,937	7,44,051
				66,396			5,41,359	2,02,777
Total deducting tank-bed in ryotwar villages—								
Villages reported on by Mr. Clogstoun	99,638	5,73,944	496	49,819	100,134	6,23,763	1,80,109	5,12,383
				54,869			4,56,908	1,67,508
New villages	19,443	1,12,325	508	9,722	19,951	1,22,047	25,862	1,11,14
							22,311	1,06,257
Total ..	119,081	6,86,004	59,541	61,582	120,085	7,45,810	2,33,937	6,23,567
							4,79,219	5,79,498

33. It will be seen from the above that the total extent of lands both under the first and second crops under ryotwar and tank-beds and inams amounts to 198,979 acres against 200,000 acres, the utmost extent which the Periyár channels are considered capable of irrigating, even leaving out of account wet lands in whole inam and zemindari villages.

39. Before concluding my remarks on Statement No. II, I beg to state that, considering all circumstances, I have taken for second-crop cultivation 50 per cent. of the first-crop extent as regards ryotwar, tank-beds and inam lands.

40. *Statement No. III.*—This statement shows the present and Periyár assessments as regards ryotwar, minor inams and tank-beds under different rates in the first group. The Periyár assessment amounts to Rs. 7,09,521 against the present assessment of Rs. 2,45,399.

41. *Statement No. IV.*—This statement shows the extent of land under different rates of the first group as compared with those shown in Mr. Clogstoun's report, paragraph 25. The total extent shows a decrease of 10,155 acres in extent with a decrease of Rs. 1,37,344 in assessment, the reason for the former being due to survey and settlement and 25 per cent. deduction under dry on account of high level, &c., and that for the latter to the above causes as also to classification of lands under proper soils and rates of assessment with reference to the actual area and rates of assessment in the settlement. The last three rates are lower than the lowest rate (Rs. 5) shown in Mr. Clogstoun's report. The rate for water alone being Rs. 4 per acre, it seems expedient to treat the lands falling under the rates, Rs. 3½ and Rs. 2½, as liable to water-tax only instead of taram assessment. The difference will, however, be trifling and amounts to only Rs. 1,435, nor do I think that water-rate can be rightly imposed if the lands concerned are wet. As Mr. Bliss observed in paragraph 7 of his letter No. 1917, dated 15th August 1876, to the Director of Revenue Settlement, communicated with Board's Proceedings, No. 3250, dated 22nd December 1876, it may, I think, be taken that these lands, though of inferior sort, will be irrigated; because when the country is covered with channels, it will be difficult to exclude any particular lands from irrigation.

42. In paragraph 15 of Sir Charles Elliot's note, he wishes us to consider the feasibility of Colonel Pennycuick's suggestion to sell the occupancy right in the waste land to be brought under cultivation. The preferential right of villagers to occupy waste land within their village is generally acted upon and the occupancy right is not ordinarily sold. This claim on the part of the ryots does not however appear to have been formally and authoritatively recognised. The old darkhast rules did not allow the sale of waste lands under any circumstances, but under the new rules such sales are allowed when there are conflicting claims. All waste lands are presumably the property of Government, and it may be considered that it is open to it to sell the occupancy right in them when and where it chooses. But I submit that the measure will become unpopular unless the sale-proceeds are utilized towards some common object as shown below. The case of waste lands affected by the project may, I think, be treated as an exceptional one. There are waste lands available for cultivation in most of the villages which have not been taken up by the ryots. The major portion of this is of inferior quality and it is probable that these lands would have remained waste for ever unless they are taken up under the Project. It is Periyár water that will impart any value to the lands; and if they are sought for cultivation, it will be entirely on account of the project on which Government will have incurred a large outlay. The resident ryots are neither numerous nor rich enough to cultivate all the available waste within the limits of the village. The result of disposing of the lands under the darkhast rules will be that the ryots will speculate in land and the profits arising from the project will fall to the sowcar (money lender). The question has been fully discussed by Mr. Puckle in his letter No. 742, dated 30th December 1873, recorded in Board's Proceedings, No. 31, dated 10th January 1874, and the course proposed has been approved of by the Board of Revenue. That tank-bed porambokes

are the absolute property of Government and can be sold in auction to the highest bidder is, I think, undoubted.

43. *Statement No. V.*—The enclosed statement No. 5 gives in detail the total area of unoccupied waste land and tank-bed poramboke available for cultivation and the prices that may be realised by the sale of them. The rates per acre have been fixed after mature consideration and after considering the circumstances of each locality; the prices are, I think, moderately estimated. The total amount expected to be realised from waste lands is Rs. 5,84,160 and from tank-beds Rs. 6,41,133. It will be seen from paragraph 48 *infra* that the direct receipts of the project are calculated to yield ultimately a net return of 8·4 per cent. on the capital outlay. A portion of these indirect receipts may therefore be utilised in the construction of field and drainage channels and village roads, &c., half of the sale-proceeds of waste lands though not the whole and one-fourth of those of tank-beds being assigned for this purpose.

44. Subsidiary channels do not appear to have been estimated for in the project. They are, I suppose, to be left to the villagers themselves to construct. The poverty of the ryots, especially in Mélur, and want of co-operation will always be a bar to these works being executed by the villagers within a reasonable period of time. As the main and branch channels will be of no use without the smaller ones to take water to and drain the fields, Government may have to lose for some years the revenue of the lands commanded by these channels. This loss can be prevented only by the subsidiary channels being laid out at once by the officers of Government; and as the requisite funds cannot come out of the poverty-stricken ryots, the only alternative by which to avert the loss to Government and to confer on the people the full benefits of the Periyár Project is by utilising a fourth of the sale-proceeds of tank-beds and half the sale-proceeds of waste lands for the purpose of making the smalier channels, &c. This, I think, is a legitimate appropriation of the funds, and as it has been sanctioned in the case of the Srívaikuntham anicut in the Tinnevelly district, there can be no objection to the same course being followed in the present case.

45. The other item of expenditure proposed is on village roads. The Periyár irrigated area is deficient in communications, and the existing village roads, cart-tracks and footpaths are crossed in numerous places by the net-work of Periyár channels, rendering necessary the construction of a large number of culverts and aqueducts; in several instances new tracks and deviations have to be made and the land therefor acquired. The improvements in these communications are necessitated in a great measure by the Project itself, and it is only reasonable to expend a portion of the indirect receipts of the Project for the purpose. The Government of India indeed objected (*vide* Government Order, No. 1396, Revenue, dated 20th September 1881) to the course proposed, but I take it that their objection was confined to the sale-proceeds of tank-bed porambokes only and did not extend to sale-proceeds of waste lands. In speaking of the sale-proceeds of waste lands, reference was made to the communal rights of villagers to the occupancy right in them, and the sale was recommended on independent grounds. Even if any rights are infringed by the proposed course (as I believe they are to some extent), due reparation will be made by spending the proceeds or a part in improving the village communications, which will enable the ryot to carry his produce with greater facility to the market. For the new tracks and road deviations the requisite lands have to be taken up at once as they will become valuable after the completion of the project. It is very doubtful whether the District Board, which will appreciably benefit by the project, only several years after its completion, can possibly find funds for so large an expenditure. The propriety of the appropriation has also been admitted by Government (Government Order No. 1716, Revenue, dated 25th February 1875). In the above circumstances, I would strongly urge upon the consideration of Board and Government the desirability of utilising a portion of the sale-proceeds of waste lands in the improvement of village communications.

46. With reference to the concluding portion of Sir Charles Elliott's note, I beg to add that since 1887 no lands in the tracts commanded by the Project have been assigned on patta. There are, however, certain lands assigned temporarily as will be seen from the enclosed statement No. I; these are also available for sale like the rest of the unoccupied land, nearly the entire extent of which is now available for sale.

47. *Statement No. VI.*—This statement shows the irrigable area and the revenue expected to be realised. The total irrigable area is 91,057 acres under ryotwar, 41,596 under inams and tank-beds, and 66,326 acres second-crop cultivation, aggregating 198,979 acres with a total net revenue of Rs. ~~723,777~~ 7,44,051. The sale-proceeds of waste lands and tank-beds are Rs. 12,25,293.

48. *Statement No. VII.*—The annexed statement shows the percentage of profits arising from the introduction of the scheme. The percentage on expenditure, deducting therefrom half the sale-proceeds of waste lands and one-fourth of those of tank-beds, is Rs. 9·5, while it is Rs. 8·4 if the sale-proceeds are not deducted.

49. As regards the southern bank, I beg to refer the Board to paragraph 15 above and the accompanying statements. The financial results of this branch of the scheme are shown in statement No. XIV.

50. Irrigable area under both the banks with second-crop cultivation is 2,~~7,964~~ 9,884 acres with a net revenue of Rs. ~~9,97,686~~ 10,27,842. The sale-proceeds of waste lands and tank-beds amount to Rs. 15,28,711.

Read—also the following telegram from the Collector of Madura, to the Secretary to the Commissioners of Land Revenue, dated 10th September 1890:—

Your telegram 5th. Clogstoun's villages Melúr—dry occupied taram assessment 10,622, Periyár 64,702; dry temporarily assigned taram 143, Periyár 838. Additional villages—dry occupied taram 3,539, Periyár 26,346; temporarily assigned taram 19, Periyár 109. Statement 2 columns 6, 11, 14 tally columns 14 or 17 statement 3 in which the heading inams should be read as referring to minor inams only.

Reference on the above, dated 3rd June 1891.

With reference to paragraph 14 of his letter, dated 23rd August 1890, No. 347, it is observed that the Collector adds the existing 25,000 acres on to Project's 175,000 acres to make his total of 200,000 acres. It is not clear if the Collector means that these 25,000 acres shall be irrigated from the project channels, or shall continue to be irrigated from their existing sources; if the former, the Collector is requested to state if he is certain that the whole 25,000 acres is commanded by the project channels, and also if the existing sources thereof will continue to supplement the Periyár water or will be lost to it; if the latter, as would probably be the case in abandoned rain-fed tanks, credit for the full addition of 25,000 acres to the 175,000 cannot be taken. It should also be stated how much of these 25,000 acres are single crop and how much double crop.

(Signed) H. A. SIM,
Acting Secretary.

To the Collector of Madura.

Read—again the following Proceedings of the Board of Revenue (Land Revenue), dated 21st July 1891, No. 2163, Routine:—

Read—the following letter from S. H. WYNNE, Esq., Acting Collector of Madura, to the Secretary to the Commissioners of Land Revenue, dated Korikadavu, 16th July 1891, No. 263:—

In reply to your reference, dated the 3rd ultimo, and Routine No. 1800 of the 18th idem, I have the honour to state that the 25,000 acres referred to are at present irrigated directly from the Vaigai by means of spring channels with which the Periyár irrigation system ought in no way to interfere, and as they are also commanded

by the Periyár channels, they have a double security and should certainly be taken into account and added to the 175,000 acres which are estimated as the total ayacut irrigable by the channels.

2. Of the above 25,000 acres, 5,518 acres are double crop.

Resolution—dated 21st July 1891, No. 2163, Routine.

In the letter read above, the Collector says that all the 25,000 acres stated in paragraph 14 of the original report to have been irrigated by the existing sources on the north bank alone are irrigated directly from the Vaigai by means of spring channels; but from the settlement memoirs it appears that irrigation from the Vaigai on its north bank is confined to the Madura taluk alone, that in the villages under its influence only 10,358 acres of ryotwari and 1,903 acres of inam lands are irrigated by the Vaigai spring channels and tanks fed by them, and that out of the remaining extent of wet lands in that taluk, 1,954 acres derive their supply from minor (hill and other) streams and the remainder from rain-fed tanks. The Collector is requested to report if the present supply available for supplementing the Periyár water on the north bank is that of the 12,261 acres irrigated by the Vaigai or of the 14,215 acres irrigated by the Vaigai and other streams *plus* the supply in two-fifths of the tanks proposed to be retained even after the construction of the Periyár channels; and in the latter case to report the extent for which the present supply in the tanks to be retained both in the Madura and Melúr taluks may be taken credit for.

2. A very early reply is requested, as the Government has been pressing for the Board's report on the subject.

(A true Copy and Extract.)

(Signed) H. A. SIM,
Acting Secretary.

To the Collector of Madura.

Read—also the following letter from S. H. WYNNE, Esq., Acting Collector of Madura, to the Secretary to the Commissioners of Land Revenue, dated 28th July 1891, No. 285 :—

In reply to Board's memorandum, No. 2163, Routine, dated 21st July 1891, I have the honour to report that the Deputy Collector, Madura division, in a letter No. 457 of the 9th instant, stated that the precise extent of ryotwari lands irrigated by the existing sources, *i.e.*, by spring and river channels and river-fed tanks on *both the banks* of the Vaigai was 24,337 acres, 9,598 acres on the north bank and 14,739 acres on the south bank (*vide* villagewar list, copy enclosed), and that, of the above extent, acres 5,518 (3,218 on the north and 2,301 on the south bank) are double cropped. The 25,000 acres given in round numbers in my letter read in the Proceedings under reply included the areas under both banks. I regret that the equality of the figures led me to overlook the fact that Mr. Turner in paragraph 14 of his letter was speaking of the north bank only.

2. I think the present supply available for supplementing the Periyár irrigation on the north bank should be set down as that irrigating 9,598 acres, 3,218 acres of which can be irrigated for a second crop, and that Mr. Turner's figures should be modified accordingly. The 12,261 acres which the Board obtained from the settlement memoirs includes unoccupied lands, and as they are not taken up I do not think it can be said that there is water for irrigating them. I think the lands supplied by other streams and by rain-fed tanks should also be excluded in making a safe estimate, especially as Mr. Turner took the extreme limit in estimating the area for which water from the Periyár would be available.

Read—also Government Order, dated 4th September 1891, Mis. No. 4751, Revenue.

ABSTRACT.—Communicating reminder from the Public Works Department regarding report on the Periyár project.

Resolution—dated 30th September 1891, No. 594-A.

The Collector's letters read above will be submitted to Government with reference to Government Order, dated 13th February 1890, No. 1064.

2. With the order quoted above, Government communicated a letter from the Government of India with a note by Sir Charles Elliott in which he calls for the revision of the forecast of the financial prospects of the Periyár project, originally framed by Mr. Clogstoun, in the light of the results of the recent survey and settlement of the Madura district and also asks for information on the following points connected therewith :—

(1) (*a*) whether Government intends to levy water-rate at Rs. 6 per acre as proposed by Mr. Clogstoun or at Rs. 4, and

(*b*) whether the proportion of the second-crop extent irrigable by the project is to be taken at one-half of the first-crop area as originally proposed or at one-third which seems to be the average proportion cultivated with second crop under other irrigation works in the Presidency;

(2) whether lands in the beds of tanks are intended to be thrown open for cultivation; and

(3) whether the tank-bed and the assessed waste lands commanded by the Periyár project are intended to be sold by public auction, and, if so, what amount they are likely to fetch.

3. According to Mr. Clogstoun's estimate, the area likely to be commanded by the project was 100,974 acres for first crop and 53,912 acres for second crop, and the additional revenue due to the project amounted to Rs. 774,274 as shown below :—

Items.	Acres.	Probable increase of revenue.	Rupees.
I. Ryotwar—			
(*a*) Dry, occupied	25,530	....	..
(*b*) Wet, occupied	33,831	....	..
Total, occupied ..	59,361	....	..
Deduct lands irrigated by koramboos which it was thought it would not be advantageous to bring under the project.	7,538	....	..
(*c*) Dry, unoccupied	51,823	....	..
(*d*) Wet, unoccupied	20,616	....	..
Total, Ryotwar ..	6,186	....	..
Deduct all lands not being occupied wet which it was thought it would not be desirable to irrigate owing to the poor quality of the soil.	78,625	....	..
(*e*) Tank-beds (three-fifths of 15,326)	9,813		
II. Minor inam—	68,812	(Rs. 5,25,996 — 1,52,598) or Rs.	3,73,398
Dry	9,196	At Rs. 8 per acre	73,568
Wet	3,400	Water-rate at Rs. 6 per acre ..	20,400
III. Whole inam and zemindari—	4,356	Free	..
Dry	15,210	Water-rate at Rs. 6 per acre ..	91,260
Total first-crop cultivation ..	100,974		5,58,626
Second-crop cultivation ..	53,912	At Rs. 4	2,15,648
		Total ..	7,74,274

The increase of revenue expected from second-crop cultivation was, however, subsequently reduced to Rs. 1,41,374 chargeable on about 45,000 acres and latterly to one lakh, and the water-rate chargeable for the cultivation of inam and zemindari lands was also reduced from Rs. 6 to Rs. 4, thus reducing the total estimate to about $6\frac{1}{4}$ lakhs.

4. In the letters read above, the Collector reports on all the points noted above.

5. The first point dealt with by the Collector is as to how much water can be supplied. Mr. Clogstoun's forecast was framed on the assumption that the irrigating capacity of the Periyár supply was 150,000 acres as estimated by the Engineering officers in 1874; but Colonel Pennycuick, in his later report of 1883, raised this extent to 175,000 acres (100,000 acres for the first crop and 75,000 acres for second crop). To this, the Collector, in his first letter read above, added on about 25,000 acres, thus raising the total capacity to 200,000 acres, on the ground that the Periyár supply could be supplemented to that extent by the existing Vaigai irrigation on its north bank. On a reference from the Board, however, he has since reported that the area at present irrigated by the Vaigai on its north bank is only about 13,000 acres of ryotwar lands or 15,000 * acres inclusive of minor inams, thus giving a total capacity of 190,000 acres (111,500 acres for the first crop and 78,500 acres for the second crop).

* 11,500 acres of ryotwar and minor inam first-crop lands and 3,500 acres of second-crop lands.

6. The survey area of the lands commanded by the Periyár project is acres 187,483 as detailed below :—

		Acres.
I. Ryotwar—		
(*a*) Dry, occupied		36,589
(*b*) Do. unoccupied		20,943
(*c*) Wet, occupied		43,446
(*d*) Do. unoccupied		4,464
(*e*) Tank-beds		22,759
	Total, Ryotwar ...	128,201
II. Minor inam—		
(*a*) Dry		6,456
(*b*) Wet		5,041
	Total ...	11,497
III. Zemindari and entire inam—		
(*a*) Dry		24,180
(*b*) Wet, occupied		15,376
(*c*) Do. unoccupied		2,098
(*d*) Tank-beds		6,131
	Total ...	47,785
	Grand Total ...	187,483

7. The Collector arrives at the irrigable area as shown below :—

(*a*) For dry lands, he allows 25 per cent. on account of lands unirrigable owing to high level or those required for main and branch channels, embankments, roads, &c., and treats the remaining 75 per cent. or 66,130 acres as irrigable.

(*b*) As regards tank-bed lands, the Collector recommends that, with the exception of those covered by five tanks which appear, from the information available in the Public Works Department, to be likely to be retained even after the construction of the works, the rest should be made available for cultivation. He would deduct 40 per cent. of their area on account of bunds and other portions situated on a high level or required for channels, paths, pasture, &c., and treat the remainder as irrigable. The same deduction is made in the case of tank-bed lands in whole inam and zemindari villages. The irrigable area under this head is thus 17,250 acres.

(*c*) As regards second-crop cultivation, the Collector is of opinion that, considering all the circumstances, the irrigable area may uniformly be taken at one-half of the first-crop area under all the descriptions of lands.

8. The Collector's figures of areas thus worked out against each item are as shown below :—

Description of land.	Survey area.	Irrigable first-crop area.	Irrigable second-crop area.	Total first and second crop.
	Acs.	Acs.	Acs.	Acs.
I. Ryotwar—				
(*a*) Dry occupied	36,589	27,440	13,720	41,160
(*b*) Dry unoccupied	20,943	15,708	7,854	23,562
(*c*) Wet occupied	43,446	43,446	21,723	65,169
(*d*) Wet unoccupied	4,464	4,464	2,232	6,696
(*e*) Tank-bed	22,759	13,572	6,786	20,358
Total, ryotwar	128,201	104,630	52,315	156,945
II. Minor inams—				
(*a*) Dry	6,456	4,847	2,424	7,271
(*b*) Wet	5,041	5,041	2,520	7,561
Total I & II ryotwar, and minor inams	139,698	114,518	57,259	171,777
III. Whole inam and zemindari—				
(*a*) Dry	24,180	18,135	9,068	27,203
(*b*) Wet occupied	15,376	15,376	7,688	23,064
(*c*) Wet unoccupied	2,098	2,098	1,049	3,147
(*d*) Tank-beds	6,131	3,678	1,839	5,517
Total	47,785	39,287	19,644	58,931
Grand Total	187,483	153,805	76,903	230,708

As the total irrigable extent of Government and minor inam lands in ryotwar villages, including both first and second-crop areas, amounts to 171,777 acres, the Collector takes account of the extent of the dry lands alone in whole inam and zemindari villages to make up the original irrigation capacity of 200,000 acres and leaves the wet and tank-bed lands in those villages out of consideration.

9. As regards the rates of assessment—

I. Under the power reserved to Government in the notification issued prior to the settlement of the Madura district, all ryotwar wet lands are liable to be charged with first group wet assessment on the completion of the Periyár works. Unoccupied dry lands can, of course, be transferred to wet and charged first group wet assessment. The Collector considers that occupied dry lands also could be similarly classified and charged as, owing to the perennial character of the supply, all or nearly all of them will be cultivated with wet crops.

II. In the case of minor inams, he would charge water-rate in the case of dry lands. As regards wet lands, the Collector considers that they should be charged the difference between the settlement and the first group assessment, in consideration of the infinitely better supply of water secured to them at the cost of Government.

III. For dry lands in whole inam and zemindari villages irrigated, the Collector would charge water-rate.

IV. The charge for second crop would follow the charge for the first crop and be either half the water-rate for the first crop or half the first group wet assessment as the case may be.

V. The Collector recommends that the water-rate should be fixed at Rs. 4 an acre, the rate prescribed in the Standing Orders for the whole Presidency.

10. The total irrigable area, both first and second crop, and the total increase of revenue derivable from the several descriptions of lands as estimated by the Collector, are as detailed below.

Description of land.	Total survey area.	Net irrigable area.	Water-rate on minor inam and whole inam and zemindari dry.	Excess of first group over the taram assessment or the entire first group assessment in the case of waste lands.	Total increase in first-crop revenue.	Irrigable second-crop area.	Probable increase in second crop revenue.	Total extent of first and second crop lands.	Total increase in revenue.
I. Ryotwar.	Acs.	Acs.	Rs.	Rs.	Rs.	Acs.	Rs.		Rs.
(*a*) and (*b*) Dry ..	57,532	43,148	..	2,44,814	2,44,814	..	..	..	..
(*c*) and (*d*) Wet ..	47,910	47,910	..	1,13,358	1,13,358	..	..	..	..
(*e*) Tank-beds ..	22,759	13,572	..	96,387	96,387	..	..	..	..
Total, ryotwar ..	128,201	1,04,630	..	4,54,559	4,54,559	52,315	1,49,751	156,945	6,04,310
II. Minor Inam.									
(*a*) Dry	6,456	4,847	19,389	..	19,389	2,424	4,847	7,271	24,236
(*b*) Wet	5,041	5,041	..	8,887	8,887	2,520	5,437	7,561	14,324
Total, minor inam.	11,497	9,888	19,389	8,887	28,276	4,944	10,284	14,832	38,560
Total, ryotwar and minor inam ..	139,698	1,14,518	19,389	4,63,446	4,82,835	57,259	1,60,035	171,777	6,42,870
(*f*) Whole inam and zemindari dry	24,180	18,135	72,539	..	72,539	9,068	18,135	27,203	90,674
Grand Total ..	163,878	1,32,653	91,928	4,63,446	5,55,374	66,327	1,78,170	198,980	7,33,544

11. The Board accepts the Collector's estimate of the irrigable *first-crop* area under ryotwar and minor inams. There is no need to take in the dry lands in whole inam and zemindari villages, as from the revised information recently furnished by the Collector as to the irrigational capacity of the Periyár supplemented by the existing sources, it appears that the supply available for first-crop cultivation (acres 111,500) will not exceed the extent available for irrigation in ryotwar villages (acres 114,518). As regards *second-crop* cultivation, there will be supply of water for 78,500 acres. The Board accepts the Collector's proposal that one-half of the first-crop area should be assumed as the probable second-crop area in the case of the ryotwar occupied and minor inam lands, both dry and wet. As regards the unoccupied dry, wet and tank-bed lands in ryotwar villages, however, it is open to Government to register the whole extent as double crop. Such a course has been adopted in Salem and Vizagapatam as one calculated to prevent the evasion of second-crop charge. The Board would, however, allow a deduction of $\frac{1}{8}$th on account of lands situated at the tail-end of the works and treat $\frac{7}{8}$th of the lands as second-crop area. The proportions adopted above are no doubt high, but the eagerness of the Madura ryots for, and their appreciation of the value of, wet cultivation is so great that it would be reasonable to expect that the full supply provided for second-crop cultivation would be utilized. The total extent available for second-crop cultivation as thus calculated, is only about 70,000 acres; the remaining supply available for the irrigation of 8,000 and odd acres may, the Board thinks, be supplied during the second-crop season to whole inam and zemindari wet lands which are 15,376 acres in extent.

12. The irrigable first and second-crop areas will then stand as under :—

—	Irrigable first-crop area.	Irrigable second-crop area.	Total irrigable area.
I. Ryotwar—	Acs.	Acs.	Acs
(*a*) Dry occupied	27,440	13,720	41,160
(*b*) Dry unoccupied	15,708	13,744	29,452
(*c*) Wet occupied	43,446	21,723	65,169
(*d*) Wet unoccupied	4,464	3,906	8,370
(*e*) Tank-beds	13,572	11,876	25,448
II. Minor inam—			
(*a*) Dry	4,847	2,424	7,271
(*b*) Wet	5,041	2,520	7,561
III. Whole inam and zemindari—Dry	..	8,000	8,000
Total ..	114,518	77,913	1,92,431

13. Turning to the rate of assessment the Board accepts the Collector's proposals in the case of all the descriptions of land excepting I-(*a*) ryotwar occupied dry lands and II-(*b*) minor inam wet lands. Ryotwari occupied dry lands are only chargeable with water-rate, as the proviso in the Madura Settlement notification reserving to Government the power to re-classify the lands does not apply to them. In the case of the similarly situated Sangam and Rushikulya Projects, Government have held that the classification cannot be disturbed during the term of the current settlement (*vide* G.O., dated 5th November 1887, No. 1041). In the case of wet minor inams also, the Board considers that the Collector's suggestion to levy the difference between the settlement and first group wet assessments is inadmissible with reference to G.Os., dated 16th January 1874 and 7th April 1875, Nos. 101 and 550. As regards single-crop wet inams growing second crop with the aid of Government water, they are liable to the charge of half the first group wet assessment.

14. As regards the water-rate, the Land Revenue Commissioners consider that the rate of Rs. 4 sanctioned and levied throughout the whole Presidency should not be departed from. The best lands could probably pay more than Rs. 4, but this rate is high for bad lands. A compromise is, therefore, necessary and the conditions of the case are met by a rate of Rs. 4. The Settlement Commissioner, however, thinks that the rate should be Rs. 5 per acre for first crop and Rs. 3 per acre for second-crop, a rate which would assimilate the assessment on these lands to that paid by all other lands under the project. He points out that the average dry assessment and the water-rate at Rs. 4 on occupied ryotwar lands amount to only about Rs. 5 per acre against Rs. $6\frac{1}{4}$, the average consolidated wet assessment per acre leviable on unoccupied lands of the same description, that this disparity between the two rates is due to the lowness of the proposed water-rate and that there is no reason why the occupied dry lands which could better afford to pay a higher assessment should be more leniently assessed than the unoccupied dry lands. He considers it highly inadvisable to place an unreasonably low water-rate on these lands in order that a certain small percentage of inferior lands may be cultivated at a profit, and would prefer to exclude these lands from the area to be irrigated under the project, leaving them to be cultivated as dry. He observes further that proposals for a water-rate of Rs. $5\frac{1}{4}$ on the lands to be irrigated by the Calingaroyen channel extension in Coimbatore have been already accepted by the Government of India.

15. Applying the above rates to the figures of area given in the statement appended to paragraph 12, the financial results would be as shown below :—

—	First-crop area.	Water-rate at Rs. 4.	Excess of first group assessment over the present assessment or entire first group assessment.	Total increase in first-crop revenue.	Probable second-crop area.	Estimated increase in second-crop revenue.	Total irrigable area both first and second crop.	Total increase of revenue.
I. Ryotwar—	Acs.	Rs.	Rs.	Rs.	Acs.	Rs.	Acs.	Rs.
(*a*) Dry occupied ..	27,440	109,761	..	1,09,761	13,720	27,440	41,160	1,37,201
(*b*) Dry unoccupied ..	15,708	..	99,222	99,222	13,744	43,516	29,452	1,42,738
(*c*) Wet occupied ..	43,446	..	93,919	93,919	21,723	52,428	65,169	1,46,347
(*d*) Wet unoccupied ..	4,464	..	19,439	19,439	3,906	8,670	8,370	28,109
(*e*) Tank-beds	13,572	..	96,387	96,387	11,876	42,169	25,448	1,38,556
II. Minor inams—				19,389	2,424	4,847	7,271	24,236
(*a*) Dry	4,847	19,389	..	..	2,520	5,437	7,561	5,437
(*b*) Wet	5,041	..	..	..	8,000	16,000	8,000	16,000
III. Whole inam and zemindari—Dry	..	..	..	4,38,117	77,913	200,507	1,92,431	6,38,624
Total ..	114,518	1,29,150	3,08,967					

The total increased revenue due to the project is Rs. 6,38,624, which on an estimated outlay of $66\frac{1}{2}$ lakhs of rupees is a return of 9·6 per cent.

16. If the water-rate were fixed at Rs. 5 per acre for the first crop and Rs. 3 for the second crop, the increase of revenue would be Rs. 4,70,404 under first crop, and Rs. 2,24,651 under second crop, making a total of Rs. 6,95,055 or 10·45 per cent. on the estimated outlay.

17. On the expiration of the current settlement, it will be open to Government to transfer all the occupied dry ryotwar lands to wet and to register as double crop the whole of the occupied dry and wet lands. But as the supply of water available for second-crop cultivation is fully utilized by the probable irrigable area as now fixed, the probable increase of revenue derivable at the next settlement is only that accruing from the adoption of the first group wet assessment instead of water-rate in the case of the occupied dry lands. This will amount to Rs. 51,799 as shown in the margin, and will raise the estimated increase of revenue to Rs. 6,90,423.

	Rs.
Increase in the first-crop revenue expected from the levy of first group wet assessment on occupied dry lands	1,45,592
Second-crop revenue taken at half the assessment on half the extent of the first-crop dry lands ...	43,408
Total ...	1,89,000
Deduct— Increase expected from the levy of water-rate	1,37,201
Net increase ...	51,799

18. The second and third questions asked by the Government of India regarding the abandonment of tanks and the expediency of selling the tank-bed and the assessed waste lands are answered by the Collector in the affirmative. He holds that tank beds are clearly the property of Government and should be sold. His view in regard to the expediency of selling the assessed waste lands is that all assessed waste being presumably the property of Government may be sold at its option when and how it chooses, that in the present case the lands being mostly of an inferior quality and having derived their present value solely from the execution of the Periyár works, Government is equitably entitled to recoup its expenditure out of the sale-proceeds thereof, that the resident population is scanty and poor and has not the means to bring more lands under cultivation, and that if the lands are granted free on darkhast, they will only be sold to outsiders. The Board agrees with the Collector in considering that the tank-bed lands should be thrown open to cultivation and that the occupancy right in them and in the assessed waste lands should be sold on behalf of Government. With reference, however, to the order of Government, dated 3rd July 1890, No. 513, the Board would set apart 10 per cent. of the assessed waste or 2,000 acres for assignment on dharkhast to resident ryots, no such ryot being, however, allowed to take up more than he has the means and capacity to cultivate.

19. On a careful consideration of the circumstances of each locality, the Collector estimates the price of these lands at rates ranging from Rs. 40 to Rs. 75 in the case of tank-beds and wet waste and from Rs. 15 to Rs. 40 in the case of dry-waste. Their extent and the amount likely to be realized by their sale are given by the Collector as follows :—

	Acs.	Rs.
Tank beds	13,572	6,41,133
Dry waste	15,708	3,78,503
Wet waste	4,464	2,05,657
Total ...	33,744	12,25,293

Deducting 10 per cent. of the assessed waste or 2,000 acres, and their estimated value, the extent available for sale amounts to acres 31,744 and their probable sale-proceeds to Rs. 11,66,877.

20. This amount might be taken as a set-off against the capital cost, but the Collector strongly recommends that it, or at all events a portion of it, should be utilized in providing drainage and distributary channels and in the improvement of the village communications. He adds that if this suggestion be adopted, Government will be securing to itself quicker returns in the shape of increased revenue from extended cultivation and will enable the ryots to reap the full benefit of the Periyár irrigation. The Board supports the Collector's recommendation and would urge that the minor distributaries and improved means of communication should be provided out of the sale-proceeds. Without this, it may be an indefinite time before either Government or

the ryots obtain the full advantage of the supply of water to be made available by the project, and it will certainly be a long time before the Local Funds can hope to cope effectively with the want of communications and drainage, which will be at once felt.

21. The above forecast relates exclusively to the increase of revenue derivable in the villages commanded by the Periyár works on the *north* bank of the Vaigai. There is a small portion commanded by them on the south bank also, for which the Collector has submitted a similar forecast; but the Board has not dealt with it as the Periyár supply can be fully utilized on the north bank itself.

22. The Collector's statements revised with reference to the Board's views are appended to these Proceedings.

(True Copies and Extract.)

(Signed) H. A. SIM,
Acting Secretary.

To the Secretary to Government, Revenue Department.

Copy to the Collector of Madura.

APPENDIX.

North Bank.

No. I.—Statement showing the information called for by the Board in its Proceedings, No. 63, dated 1st February 1890, regarding the villages affected by the Periyár, Madura district.

Name of the Taluk.	The total extent of land that will be available for disposal and its description inclusive of lands temporarily assigned, columns 10 to 12.					The extent of wet lands held either on inam or permanent tenure which have been regularly cultivated as such and which will be affected by the project channels including whole inam villages, &c.			The extent of land that has been given away on annual temporary lease (included in columns 2 to 6).		
	Waste.			Three-fifths of tank poramboke.	Grand Total.	Held on inam tenure.	Held on permanent tenure.	Total.			
	Dry.	Wet.	Total.						Dry.	Wet.	Total.
1	2	3	4	5	6	7	8	9	10	11	12
Madura—	Acrs.	Acrs.	Acrs.	Acrs.	Acrs.	Acrs.	Acrs.	Acrs.	Acrs.	Acrs.	Acrs.
Villages dealt with by Mr. Clogstoun	7,126	2,565	9,691	6,261	15,952	14,658	1,957	16,615	101	87	188
Additional villages ..	337	30	367	261	628	657	1,260	1,917	..	..	..
Total ..	7,463	2,595	10,058	6,522	16,580	15,315	3,217	18,532	101	87	188
Melúr—											
Included in Mr. Clogstoun's report	5,504	1,371	6,875	5,318	12,193	2,155	..	2,155	152	38	190
Additional villages ..	2,740	498	3,238	1,732	4,970	1,828	..	1,828	20	5	25
Total ..	8,244	1,869	10,113	7,050	17,163	3,983	..	3,983	172	43	215
Grand Total ..	15,707	4,464	20,171	13,572	33,743	19,298	3,217	22,515	273	130	403

Note.—The figures in columns 7 to 9 include also wet waste in zemindari and whole inam villages. Exclusive of the area of wet waste, the figures to be entered in column 9 are as follow :—

	Clogstoun's villages.	Additional villages.
Madura	14,761	1,837
Melúr	2,076	1,744
Total ..	16,837	3,581

No. II.—Statement showing the area commanded by the Periyár channel and the increase of revenue to be derived therefrom by the project in the villages on the north bank of the Vaigai river.

	DRY.								
	Ayacut or total area—assessed lands.		Occupied.		Irrigable area after deducting 25 per cent. from the occupied			Total unoccupied area.	
	Extent.	Assessment.	Extent.	Assessment.	Extent.	Water-rate at Rs. 4 per acre.	Excess of 1st group or anicut irrigation assessment as per classification of the soil as per settlement over the taram assessment.	Extent.	Assessment.
1	2	3	4	5	6	7	8	9	10
VILLAGES DEALT WITH IN MR. CLOGSTOUN'S REPORT.	ACS. CTS.	RS. A.	ACS. CTS.	RS. A.	ACS. CTS.	RS. A.	RS. A.	ACS. CTS.	RS. A.
North bank.									
Madura taluk (89 villages)—									
Ryotwar	25,299 19	23,670 5	15,846 94	16,344 1	11,885 0	47,540 0	58,941 12	9,452 25	7,326 4
Minor inams	3,213 4	3,167 4	3,213 4	3,167 4	2,414 98	9,659 15	13,055 6	..	..
Zemindari and whole inam villages, dry lands (122)	18,258 28	22,608 11	12,037 45	13,988 15	9,028 9	36,112 6	36,112 6	6,220 83	8,619 12
Total ..	46,770 51	49,446 4	31,097 43	33,500 4	23,328 7	93,312 5	1,08,109 8	15,673 8	15,946 0
Melúr taluk—									
Ryotwar (20 villages)	21,090 84	21,075 15	13,751 31	14,162 15	10,314 2	41,256 1	54,080 0	7,339 53	6,913 0
Minor inams	1,921 36	2,082 6	1,921 36	2,082 6	1,441 8	5,764 5	8,290 0	..	..
Whole inam villages, dry lands (5 villages).	2,362 68	..	1,088 71	..	816 53	3,266 2	3,266 2	1,273 97	..
Total ..	25,374 88	23,158 5	16,761 38	16,245 5	12,571 63	50,286 8	65,636 2	8,613 50	6,913 0
Total of Madura and Melúr taluks—									
Ryotwar	46,390 3	44,746 4	29,598 25	30,507 0	22,199 2	88,796 1	1,13,021 12	16,791 78	14,239 4
Minor inams	5,134 40	5,249 10	5,134 40	5,249 10	3,856 6	15,424 4	21,345 6	..	..
Zemindari and whole inam villages, dry lands	20,620 96	22,608 11	13,126 16	13,988 15	9,844 62	39,378 8	39,378 8	7,494 80	8,619 12
Grand Total ..	72,145 39	72,604 9	47,858 81	49,745 9	35,899 70	1,43,598 13	1,73,745 10	24,286 58	22,859 0

No. II.—Statement showing the area commanded by the Periyár channel and the increase of revenue, &c.—*cont.*

	DRY—*cont.*								WET.	
	Government waste.						Expected increase under total dry.		Ayacut or total area.	
	Irrigable area after deducting 25 per cent.									
	Assigned temporarily.			Unoccupied waste.						
	Extent.	Water-rate at Rs. 4 per acre.	Excess of the 1st group or anicut irrigation assessment according to the classification of the soil as per settlement over the taram assessment.	Extent.	Water-rate at Rs. 4 per acre.	First group or anicut irrigation assessment according to the classification of the soil as per settlement.	Total of columns 7, 13 and 16	Increase in assessment on the classification of the soil—columns 8, 13 and 16.	Extent.	Assessment.
11	12	13	14	15	16	17	18	19	20	
VILLAGES DEALT WITH IN MR. CLOGSTOUN'S REPORT.	ACS. CTS.	RS. A.	RS. A.	ACS. CTS.	RS. A.	RS. A.	RS. A.	RS. A.	ACS. CTS.	RS. A.
North bank.										
Madura taluk (89 villages)—										
Ryotwar	100 77	403 1	506 15	7,025 0	28,100 0	45,156 4	93,203 3	1,04,604 15	25,913 28	1,06,197 7
Minor inams	..	..	..	..	..	..	9,659 15	13,055 6	..	..
Zemindari and whole inam villages, dry lands (122)	..	..	..	4,665 62	18,662 7	18,662 7	54,774 13	54,774 13	3,286 91	14,824 5
Total ..	100 77	403 1	506 15	11,690 62	46,762 7	63,818 11	1,57,637 15	1,72,435 2	29,200 19	1,21,021 12
Melúr taluk—										
Ryotwar (20 villages)	152 21	608 14	695 1	5,351 92	21,407 11	37,334 12	79,285 14	92,109 13	15,265 81	50,068 0
Minor inams	..	..	..	..	..	..	5,764 5	8,290 0	1,021 41	3,577 5
Whole inam villages, dry lands (5 villages).	..	..	..	955 48	3,821 15	3,821 15	7,088 1	7,088 1	..	..
Total ..	152 21	608 14	695 1	6,307 40	25,229 10	41,156 11	92,138 4	1,07,487 14	16,287 22	53,645 5
Total of Madura and Melúr taluks—										
Ryotwar	252 98	1,011 15	1,202 0	12,376 92	49,507 11	82,491 0	1,72,489 1	1,96,714 12	41,179 9	1,56,265 7
Minor inams	..	..	..	..	..	..	15,424 4	21,345 6	4,308 32	18,401 10
Zemindari and whole inam villages, dry lands	..	..	..	5,621 10	22,484 6	22,484 6	61,862 14	61,862 14	..	..
Grand Total ..	252 98	1,011 15	1,202 0	17,998 2	71,992 1	1,04,975 6	2,49,776 3	2,79,923 0	45,487 41	1,74,667 1

No. II.—Statement showing the area commanded by the Periyár channel and the increase of revenue, &c.—*cont.*

	Wet—*cont.*											
	Occupied.			Unoccupied total area.		Government waste.						
						Assigned temporarily.			Unoccupied waste.			
——	Extent.	Assessment.	Difference between the first group and taram assessment due to Periyár.	Extent.	Assessment.	Extent.	Assessment.	Difference between the first group and taram assessment.	Extent.	Assessment.	First group assessment.	Total of columns 23, 28 and 31.
	21	22	23	24	25	26	27	28	29	30	31	32
VILLAGES DEALT WITH IN MR. CLOGSTOUN'S REPORT.	ACS. CTS.	RS. A.	RS. A.	ACS. CTS.	RS. A.	ACS. CTS.	RS. A.	RS. A.	ACS. CTS.	RS. A.	RS. A.	RS. A.
North bank.												
Madura taluk (89 villages)—												
Ryotwar	23,348 39	99,146 10	38,304 4	2,564 89	7,050 13	87 43	259 13	162 10	2,477 46	6,791 0	11,255 9	49,722 7
Minor inams	3,286 91	14,824 5	4,517 14	..	..	..	..	..	..	..	..	4,517 14
Zemindari and whole inam villages, dry lands (122)	..	..	..	..	..	..	..	..	..	..	..	..
Total ..	26,635 30	1,13,970 15	42,822 2	2,564 89	7,050 13	87 43	259 13	162 10	2,477 46	6,791 0	11,255 9	54,240 5
Melúr taluk—												
Ryotwar (20 villages)	13,894 89	45,892 1	40,759 8	1,370 92	4,175 15	38 3	105 4	90 13	1,332 89	4,070 11	5,144 14	45,995 3
Minor inams	1,021 41	3,577 5	2,674 10	..	..	..	..	..	..	..	..	2,674 10
Whole inam villages, dry lands (5 villages).	..	..	..	..	..	..	..	..	..	..	..	..
Total ..	14,916 30	49,469 6	43,434 2	1,370 92	4,175 15	38 3	105 4	90 13	1,332 89	4,070 11	5,144 14	48,669 13
Total of Madura and Melúr taluks—												
Ryotwar	37,243 28	1,45,038 11	79,063 12	3,935 81	11,226 12	125 46	365 1	253 7	3,810 35	10,861 11	16,400 7	95,717 10
Minor inams	4,308 32	18,401 10	7,192 8	..	..	..	..	..	..	..	..	7,192 8
Zemindari and whole inam villages, dry lands	..	..	..	..	..	..	..	..	..	..	..	..
Grand Total ..	41,551 60	1,63,440 5	86,256 4	3,935 81	11,226 12	125 46	365 1	253 7	3,810 35	10,861 11	16,400 7	1,02,910 2

No. II.—Statement showing the area commanded by the Periyár channel and the increase of revenue, &c.—*cont.*

	Tank-bed poramboke.			Total first-crop assessment of dry, wet and tank-bed.			Probable second-crop revenue		
		Irrigable area after deducting 40 per cent., on account of tank area that cannot be irrigated owing to high level lands required for channel pasture, &c.						First-crop assessment.	
——	Extent.	Extent.	Assessment at the highest 1st group rate in each village.	Total extent, columns 6, 11, 14, 19 and 34.	Increase expected from the levy of water-rate on occupied dry lands and from the introduction of anicut rates on other dry or wet lands.	Increase expected from the levy of first group or anicut irrigation assessment on all lands; total of columns 18, 32 and 35.	Extent.	Water-rate on occupied dry and first group assessment on the other classes of lands.	First group assessment on all lands occupied and unoccupied.
	33	34	35	36	37	38	39	40	41
VILLAGES DEALT WITH IN MR. CLOGSTOUN'S REPORT.	ACS. CTS.	ACS. CTS.	RS. A.	ACS. CTS.	RS. A.	RS. A.	ACS. CTS.	RS. A.	RS. A.
North bank.									
Madura taluk (89 villages)—									
Ryotwar	10,573 98	6,261 11	43,220 11	51,185 16	1,86,146 5	1,97,548 1	(o) 17,616 70 (u) 13,957 80	92,495 7 88,075 1	1,04,230 8 88,075 1
Minor inams	..	..	..	5,701 89	14,177 13	17,573 4	2,850 94	14,501 0	17,387 11
Zemindari and whole inam villages, dry lands (122).	..	..	..	13,693 71	54,774 13	54,774 13	..	..	..
Total ..	10,573 98	6,261 11	43,220 11	70,580 76	2,55,098 15	2,69,896 2	34,425 44	1,95,071 8	2,09,693 4
Melúr taluk—									
Ryotwar (20 villages)	8,863 57	5,317 66	38,849 13	36,401 62	1,64,130 14	1,76,954 13	(o) 12,104 45 (u) 10,668 62	63,953 12 72,057 0	75,676 14 72,057 0
Minor inams	..	..	..	2,462 49	8,438 15	10,964 10	1,231 25	6,008 3	8,052 4
Whole inam villages, dry lands (5 villages).	..	..	..	1,772 1	7,088 1	7,088 1	..	..	..
Total ..	8,863 57	5,317 66	38,849 13	40,636 12	1,79,657 14	1,95,007 8	24,004 32	1,42,018 15	1,55,786 2
Total of Madura and Melúr taluks—									
Ryotwar	19,437 55	11,578 77	82,070 8	87,586 78	3,50,277 3	3,74,502 14	(o) 29,721 15 (u) 24,626 42	1,56,449 3 1,60,132 1	1,79,907 6 1,60,132 1
Minor inams	..	..	..	8,164 38	22,616 12	28,537 14	4,082 19	20,509 3	25,439 15
Zemindari and whole inam villages, dry lands	..	..	..	15,465 72	61,862 14	61,862 14	..	..	..
Grand Total ..	19,437 55	11,578 77	82,070 8	111,216 88	4,34,756 13	4,64,903 10	58,429 76	3,37,090 7	3,65,479 6

(o) Represents occupied lands.

(u) Represents unoccupied and tank-bed lands.

No. II.—Statement showing the area commanded by the Periyár channel and the increase of revenue, &c.—*cont.*

—	PROBABLE SECOND-CROP REVENUE—*cont.*			PROBABLE INCREASE IN SECOND-CROP ASSESSMENT DUE TO THE PROJECT.		TOTAL FIRST AND SECOND-CROP REVENUE DUE TO THE PROJECT.		TOTAL REVENUE DUE TO THE PROJECT DEDUCTING TANK-BEDS.	
	Second-crop assessment.								
	Water-rate at Rs. 2 per acre for occupied dry and half the first group assessment for the other classes of lands.	At half the first group wet assessment.	Present second-crop assessment.	Water-rate at Rs. 2 per acre for occupied dry lands and half the first group wet assessment in the case of other lands.	If half the first group wet assessment be charged in all cases.	Calculated on the basis of water-rate at Rs. 4 for occupied dry and of the first group assessment for the other lands.	Calculated on the basis of the first group assessment in all cases.	Increase in revenue at Rs. 4 per acre for occupied dry and at the first group assessment for other lands.	Increase in revenue expected from the adoption of the highest group assessment in all cases.
1	42	43	44	45	46	47	48	49	50
VILLAGES DEALT WITH IN MR. CLOGSTOUN'S REPORT.	RS. A.	RS. A.	RS. A.	RS. A.	RS. A.	RS. A.	RS. A.	RS. A.	RS. A.
North bank.									
Madura taluk (89 villages)—									
Ryotwar	46,247 11	52,115 4	10,161 4	36,086 7	41,954 0	2,22,232 12	2,39,502 1	2,04,140 9	2,21,409 14
Minor inams	44,037 9	44,037 9	..	44,037 9	44,037 9	44,037 9	44,037 9		
Zemindari and whole inam villages, dry lands (122)	7,250 8	8,693 13	2,035 0	5,215 8	6,658 13	19,393 5	24,232 1	19,393 5	24,232 1
	..	..	..	..	..	54,774 13	54,774 13	54,774 13	54,774 13
Total ..	97,535 12	1,04,846 10	12,196 4	85,339 8	92,650 6	3,40,438 7	3,62,546 8	2,78,308 11	3,00,416 12
Melúr taluk—									
Ryotwar (20 villages)	31,976 14	37,838 7	1,628 7	30,348 7	36,210 0	1,94,479 5	2,13,164 13	1,74,661 3	1,93,346 11
Minor inams	36,028 8	36,028 8	..	36,028 8	36,028 8	36,028 8	36,028 8		
Whole inam villages, dry lands (5 villages.)	3,004 2	4,026 2	..	3,004 2	4,026 2	11,443 1	14,990 12	11,443 1	14,990 12
	..	..	..	..	..	7,088 1	7,088 1	7,088 1	7,088 1
Total ..	71,009 8	77,893 1	1,628 7	69,381 1	76,264 10	2,49,038 15	2,71,272 2	1,93,192 5	2,15,425 8
Total of Madura and Melúr taluks—									
Ryotwar	78,224 9	89,953 11	11,789 11	66,434 14	78,164 0	4,16,712 1	4,52,666 14	3,78,801 12	4,14,756 9
Minor inams	80,066 1	80,066 1	..	80,066 1	80,066 1	80,066 1	80,066 1		
Zemindari and whole inam villages, dry lands	10,254 10	12,719 15	2,035 0	8,219 10	10,684 15	30,836 6	39,222 13	30,836 6	39,222 13
	..	..	..	..	..	61,862 14	61,862 14	61,862 14	61,862 14
Grand Total ..	1,68,545 4	1,82,739 11	13,824 11	1,54,720 9	1,68,915 0	5,89,477 6	6,33,818 10	4,71,501 0	5,15,842 4

No. II.—Statement showing the area commanded by the Periyár channel and the increase of revenue, &c.—*cont.*

—	DRY.								
	Ayacut or total area—assessed lands.		Occupied.		Irrigable area after deducting 25 per cent. from the occupied.			Total unoccupied area.	
	Extent.	Assessment.	Extent.	Assessment.	Extent.	Water-rate at Rs. 4 per acre.	Excess of 1st-group or anicut irrigation assessment as per classification of the soil as per settlement over the taram assessment.	Extent.	Assessment.
1	2	3	4	5	6	7	8	9	10
ADDITIONAL VILLAGES.	ACS. CTS.	RS. A.	ACS. CTS.	RS. A.	ACS. CTS.	RS. A.	RS. A.	ACS. CTS.	RS. A.
North bank—cont.									
Madura taluk—									
Ryotwar (12 villages)	2,865 92	2,769 15	2,366 14	2,406 1	1,774 61	7,098 7	9,763 10	499 78	363 14
Minor inams	374 46	355 13	374 46	355 13	280 84	1,123 6	1,510 6	..	..
Zemindari and whole inam villages, dry lands.	3,028 19	3,914 3	2,304 9	3,316 13	1,728 7	6,912 5	6,912 5	724 10	597 6
Total ..	6,268 57	7,039 15	5,044 69	6,078 11	3,783 52	15,134 2	18,186 5	1,223 88	961 4
Melúr taluk—									
Ryotwar (13 villages)	8,275 97	8,128 9	4,624 70	4,719 7	3,466 51	13,866 1	22,806 14	3,651 27	3,409 2
Minor inams	947 23	967 1	947 23	967 1	710 42	2,841 11	3,951 11	..	..
Whole inam villages, dry lands (6 villages).	530 51	..	324 43	..	243 32	973 4	973 4	206 8	..
Total ..	9,753 71	9,095 10	5,896 36	5,686 8	4,420 25	17,681 0	27,731 13	3,857 35	3,409 2
Total of Madura and Melúr taluks—									
Ryotwar	11,141 89	10,898 8	6,990 84	7,125 8	5,241 12	20,964 8	32,570 8	4,151 5	3,773 0
Minor inams	1,321 69	1,322 14	1,321 69	1,322 14	991 26	3,965 1	5,462 1	..	..
Zemindari and whole inam villages, dry lands	3,558 70	3,914 3	2,628 52	3,316 13	1,971 39	7,885 9	7,885 9	930 18	597 6
Grand Total ..	16,022 28	16,135 9	10,941 5	11,765 3	8,203 77	32,815 2	45,918 2	5,081 23	4,370 6

No. II.—Statement showing the area commanded by the Periyár channel and the increase of revenue, &c.—*cont.*

—	DRY—*cont.*								WET.	
	Government waste.						Expected increase under total dry.		Ayacut or total area.	
	Irrigable area after deducting 25 per cent.									
	Assigned temporarily.			Unoccupied waste.						
	Extent.	Water-rate at Rs. 4 per acre.	Excess of the 1st group or anicut irrigation assessment according to the classification of the soil as per settlement over the taram assessment.	Extent.	Water-rate at Rs. 4 per acre.	First group or anicut irrigation assessment according to the classification of the soil as per settlement.	Total of columns 7, 13 and 16.	Increase in assessment on the classification of the soil—columns 8, 13 and 16.	Extent.	Assessment.
	11	12	13	14	15	16	17	18	19	20
ADDITIONAL VILLAGES.	ACS. CTS.	RS. A.	RS. A.	ACS. CTS.	RS. A.	RS. A.	RS. A.	RS. A.	ACS. CTS.	RS. A.
North bank—cont.										
Madura taluk—										
Ryotwar (12 villages)	..	..	..	337 32	1,349 4	1,998 2	9,096 9	11,761 12	1,321 77	4,388 5
Minor inams	..	..	..	..	..	..	1,123 6	1,510 6	88 62	423 0
Zemindari and whole inam villages, dry lands	..	..	..	543 7	2,172 4	2,172 4	9,084 9	9,084 9	..	..
Total ..	..	..	..	880 39	3,521 8	4,170 6	19,304 8	22,356 11	1,410 39	4,811 5
Melúr taluk—										
Ryotwar (13 villages)	19 76	79 0	90 7	2,720 70	10,882 13	13,440 6	27,396 14	36,337 11	5,409 14	17,068 6
Minor inams	..	..	..	..	..	..	2,841 11	3,951 11	644 17	2,174 12
Whole inam villages, dry lands (6 villages).	..	..	..	154 56	618 4	618 4	1,591 8	1,591 8	..	..
Total ..	19 76	79 0	90 7	2,875 26	11,501 1	14,058 10	31,830 1	41,880 14	6,053 31	19,243 2
Total of Madura and Melúr taluks—										
Ryotwar	19 76	79 0	90 7	3,058 2	12,232 1	15,438 8	36,493 7	48,099 7	6,730 91	21,456 11
Minor inams	..	..	..	..	..	..	3,965 1	5,462 1	732 79	2,597 12
Zemindari and whole inam villages, dry lands	..	..	..	697 63	2,790 8	2,790 8	10,676 1	10,676 1	..	..
Grand Total ..	19 76	79 0	90 7	3,755 65	15,022 9	18,229 0	51,134 9	64,237 9	7,463 70	24,054 7

No. II.—Statement showing the area commanded by the Periyár channel and the increase of revenue, &c.—*cont.*

—	WET—*cont.*											
	Occupied.			Unoccupied total area.		Government waste.						
						Assigned temporarily.			Unoccupied waste.			
	Extent.	Assessment.	Difference between the first group and taram assessment due to Periyár.	Extent.	Assessment.	Extent.	Assessment.	Difference between the first group and taram assessment.	Extent.	Assessment.	First group assessment.	Total of columns 23, 28 and 31.
	21	22	23	24	25	26	27	28	29	30	31	32
ADDITIONAL VILLAGES.	ACS. CTS.	RS. A.	RS. A.	ACS. CTS.	RS. A.	ACS. CTS.	RS. A.	RS. A.	ACS. CTS.	RS. A.	RS. A.	RS. A.
North bank—cont.												
Madura taluk—												
Ryotwar (12 villages)	1,291 22	4,313 13	2,470 11	30 55	74 8	..	..	..	30 55	74 8	128 0	2,598 11
Minor inams	88 62	423 0	95 6	..	..	..	..	..	..	..	..	95 6
Zemindari and whole inam villages, dry lands	..	..	..	..	..	..	..	..	..	..	..	..
Total ..	1,379 84	4,736 13	2,566 1	30 55	74 8	..	..	..	30 55	74 8	128 0	2,694 1
Melúr taluk—												
Ryotwar (13 villages)	4,911 10	15,659 7	12,384 10	498 4	1,408 15	4 84	11 13	9 6	493 20	1,397 2	2,648 0	15,042 0
Minor inams	644 17	2,174 12	1,599 2	..	..	..	..	..	..	..	..	1,599 2
Whole inam villages, dry lands (6 villages).	..	..	..	..	..	..	..	..	..	..	..	..
Total ..	5,555 27	17,834 3	13,983 12	498 4	1,408 15	4 84	11 13	9 6	493 20	1,397 2	2,648 0	16,641 2
Total of Madura and Melúr taluks—												
Ryotwar	6,202 32	19,973 4	14,855 5	528 59	1,483 7	4 84	11 13	9 6	523 75	1,471 10	2,776 0	17,640 11
Minor inams	732 79	2,597 12	1,694 8	..	..	..	..	..	..	..	..	1,694 8
Zemindari and whole inam villages, dry lands.	..	..	..	..	..	..	..	..	..	..	..	..
Grand Total ..	6,935 11	22,571 0	16,549 13	528 59	1,483 7	4 84	11 13	9 6	523 75	1,471 10	2,776 0	19,335 3

No. II.—Statement showing the area commanded by the Periyár channel and the increase of revenue, &c.—*cont.*

—	Tank-bed poramboke. Extent.	Tank-bed poramboke. Irrigable area after deducting 40 per cent. on account of tank area that cannot be irrigated owing to high level lands required for channel, pasture, &c. Extent.	Tank-bed poramboke. Irrigable area after deducting 40 per cent. on account of tank area that cannot be irrigated owing to high level lands required for channel, pasture, &c. Assessment at the highest 1st group rate in each village.	Total first-crop assessment of dry, wet and tank-bed. Total extent, columns 6, 11, 14, 19 and 34.	Increase expected from the levy of water-rate on occupied dry lands and from the introduction of anicut rates on other dry of wet lands.	Increase expected from the levy of 1st group or anicut irrigation assessment on all lands; total of columns 18, 32 and 35.	Probable second-crop revenue. Extent.	First-crop assessment. Water-rate on occupied dry and 1st group assessment on the other classes of lands.	First-crop assessment. 1st group assessment on all lands occupied and unoccupied.
	33	34	35	36	37	38	39	40	41
Additional Villages. *North bank*—cont.	Acs. cts.	Acs. cts.	Rs. a.	Acs. cts.	Rs. a.	Rs. a.	Acs. cts.	Rs. a.	Rs. a.
Madura taluk—									
Ryotwar (12 villages)	435 35	260 85	1,792 3	3,694 55	13,487 7	16,152 10	(o) 1,532 91	6,941 7	9,176 0
							(u) 550 13	3,428 8	3,428 8
Minor inams	..	..	..	369 46	1,218 12	1,605 12	184 73	820 14	1,147 10
Zemindari and whole inam villages, dry lands	..	..	..	2,271 14	9,084 9	9,084 9	..	..	..
Total ..	435 35	260 85	1,792 3	6,335 15	23,790 12	26,842 15	2,267 77	11,190 13	13,752 2
Melur taluk—									
Ryotwar (13 villages)	2,885 93	1,731 95	12,524 7	13,348 6	54,963 5	63,904 2	(o) 4,188 81	20,955 2	27,195 5
							(u) 4,349 15	25,150 8	25,150 8
Minor inams	..	..	..	1,354 59	4,440 13	5,550 13	677 30	3,307 12	4,225 6
Whole inam villages, dry lands (6 villages)	..	..	..	397 88	1,591 8	1,591 8	..	..	..
Total ..	2,885 93	1,731 59	12,524 7	15,100 53	60,995 10	71,046 7	9,215 26	49,413 6	56,571 3
Total of Madura and Melur taluks—									
Ryotwar	3,321 28	1,992 80	14,316 10	17,042 61	68,450 12	80,056 12	(o) 5,721 72	27,896 9	36,371 5
							(u) 4,899 28	28,579 0	28,579 0
Minor inams	..	..	..	1,724 5	5,659 9	7,156 9	862 3	4,128 10	5,373 0
Zemindari and whole inam villages, dry lands	..	..	..	2,669 2	10,676 1	10,676 1	..	..	..
Total ..	3,321 28	1,992 80	14,316 10	21,435 68	84,786 6	97,889 6	11,483 3	60,604 3	70,323 5

(o) Represents occupied lands.

(u) Represents unoccupied and tank-bed lands.

No. II.—Statement showing the area commanded by the Periyár channel and the increase of revenue, &c.—*cont.*

—	Probable second-crop revenue—*cont.* Second-crop assessment. Water-rate at Rs. 2 per acre for occupied dry and half the 1st group assessment for the other classes of lands.	Probable second-crop revenue—*cont.* Second-crop assessment. At half the 1st group wet assessment.	Present second-crop assessment.	Probable increase in 2nd-crop assessment due to the project. Water-rate at Rs. 2 per acre for occupied dry lands and half the first group wet assessment in the case of other lands.	Probable increase in 2nd-crop assessment due to the project. If half the 1st group wet assessment be charged in all cases.	Total first and second-crop revenue due to the project. Calculated on the basis of water-rate at Rs. 4 for occupied dry and of the 1st group assessment for the other lands.	Total first and second-crop revenue due to the project. Calculated on the basis of the 1st group assessment in all cases.	Total revenue due to the project deducting tank-beds. Increase in revenue at Rs. 4 per acre for occupied dry and at the 1st group assessment for other lands.	Total revenue due to the project deducting tank-beds. Increase in revenue expected from the adoption of the highest group assessment in all cases.
	42	43	44	45	46	47	48	49	50
Additional Villages. *North bank*—cont.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.
Madura taluk—									
Ryotwar (12 villages)	3,470 12	4,588 0	..	3,470 12	4,588 0	16,958 3	20,740 10		
	1,714 4	1,714 4	..	1,714 4	1,714 4	1,714 4	1,714 4	16,096 3	19,878 10
Minor inams	410 7	573 13	..	410 7	573 13	1,629 3	2,179 9	1,629 3	2,179 9
Zemindari and whole inam villages, dry lands.	..	..	..	..	..	9,084 9	9,084 9	9,084 9	9,084 9
Total ..	5,595 7	6,876 1	..	5,595 7	6,876 1	29,386 3	33,719 0	26,809 15	31,142 12
Melur taluk—									
Ryotwar (13 villages)	10,477 9	13,597 10	515 1	9,962 8	13,082 9	64,925 13	76,986 11		
	12,575 4	12,575 4	..	12,575 4	12,575 4	12,575 4	12,575 4	59,497 3	71,558 1
Minor inams	1,653 14	2,112 11	..	1,653 14	2,112 11	7,663 8	6,094 11		
Whole inam villages, dry lands (6 villages).	..	..	..	..	..	1,591 8	1,591 8	1,591 8	1,591 8
Total ..	24,706 11	28,285 9	515 1	24,191 10	27,770 8	85,187 4	98,816 15	67,183 6	80,813 1
Total of Madura and Melur taluks—									
Ryotwar	13,948 5	18,185 10	515 1	13,433 4	17,670 9	81,884 0	97,727 5		
	14,289 8	14,289 8	..	14,289 8	14,289 8	14,289 8	14,289 8	75,593 6	91,436 11
Minor inams	2,064 5	2,686 8	..	2,064 5	2,686 8	7,723 14	9,843 1	7,723 14	9,843 1
Zemindari and whole inam villages, dry lands	..	..	..	..	..	10,676 1	10,676 1	10,676 1	10,676 1
Total ..	30,302 2	35,161 10	515 1	29,787 1	34,646 9	1,14,573 7	1,32,535 15	93,993 5	1,11,955 13

No. II.—Statement showing the area commanded by the Periyár channel and the increase of revenue, &c.—*cont.*

—	DRY.								
	Ayacut or total area assessed lands.		Occupied.		Irrigable area after deducting 25 per cent. from the occupied.			Total unoccupied area.	
	Extent.	Assessment.	Extent.	Assessment.	Extent.	Water-rate at Rs. 4 per acre.	Excess of 1st group or anicut irrigation assessment as per classification of the soil as per settlement over the taram assessment.	Extent.	Assessment.
1	2	3	4	5	6	7	8	9	10
ADDITIONAL VILLAGES—*cont.*	ACS. CTS.	RS. A.	ACS. CTS.	RS. A.	ACS. CTS.	RS. A.	RS. A.	ACS. CTS.	RS.
North bank—cont.									
Total of villages dealt with and not dealt with in Mr. Clogstoun's report—									
Ryotwar	57,531 92	55,644 12	36,589 9	37,632 8	27,440 14	1,09,760 9	1,45,592 4	20,942 83	18,012 4
Minor inams	6,456 9	6,572 8	6,456 9	6,572 8	4,847 32	19,389 5	26,807 7	..	..
Zemindari and whole inam villages, dry lands	24,179 66	26,522 14	15,754 68	17,305 12	11,816 1	47,264 1	47,264 1	8,424 98	9,217 2
Total ..	88,167 67	88,740 2	58,799 86	61,510 12	44,103 47	1,76,413 15	2,19,663 12	29,367 81	27,229 6
Whole inam and zemindari villages, wet lands	..	..	..	..	..	..	..	..	..

No. II.—Statement showing the area commanded by the Periyár channel and the increase of revenue, &c.—*cont.*

—	DRY—*cont.*								WET.	
	Government waste.						Expected increase under total dry.		Ayacut or total area.	
	Irrigable area after deducting 25 per cent.									
	Assigned temporarily.			Unoccupied waste.						
	Extent.	Water-rate at Rs. 4 per acre.	Excess of the 1st group or anicut irrigation assessment according to the classification of the soil as per settlement over the taram assessment.	Extent.	Water-rate at Rs. 4 per acre.	First group or anicut irrigation assessment according to the classification of the soil as per settlement.	Total of columns 7, 13, and 16.	Increase in assessment on the classification of the soil, columns 8, 13 and 16.	Extent.	Assessment.
	11	12	13	14	15	16	17	18	19	20
ADDITIONAL VILLAGES—*cont.*	ACS. CTS.	RS. A.	RS. A.	ACS. CTS.	RS. A.	RS. A.	RS. A.	RS. A.	ACS. CTS.	RS. A.
North bank—cont.										
Total of villages dealt with and not dealt with in Mr. Clogstoun's report—										
Ryotwar	272 74	1,090 15	1,292 7	15,434 94	61,739 12	97,929 8	2,08,982 8	2,44,814 3	47,910 0	1,77,722 2
Minor inams	..	..	..	..	..	..	19,389 5	26,807 7	5,041 11	20,999 6
Zemindari and whole inam villages, dry lands	..	..	..	6,318 73	25,274 14	25,274 14	72,538 15	72,538 15	..	..
Total ..	272 47	1,090 15	1,292 7	21,753 67	87,014 10	1,23,204 6	3,00,910 12	3,44,160 9	52,951 11	1,98,721 8
Whole inam and zemindari villages, wet lands	..	..	..	..	..	..	..	..	..	..

No. II.—Statement showing the area commanded by the Periyár channel and the increase of revenue, &c.—*cont.*

——	WET—*cont.*											
	Occupied.			Unoccupied total area.		Government waste.						Total of columns 23, 28 and 31.
						Assigned temporarily.			Unoccupied waste.			
	Extent.	Assessment.	Difference between the first group and taram assessment due to Periyár.	Extent.	Assessment.	Extent.	Assessment.	Difference between the first group and taram assessment.	Extent.	Assessment.	First group assessment.	
	21	22	23	24	25	26	27	28	29	30	31	32
ADDITIONAL VILLAGES—*cont.*	ACS. CTS.	RS. A.	RS. A.	ACS. CTS.	RS. A.	ACS. CTS.	RS. A.	RS. A.	ACS. CTS.	RS. A.	RS. A.	RS. A.
North bank—cont.												
Total of villages dealt with and not dealt with in Mr. Clogstoun's report—												
Ryotwar	43,445 60	1,65,011 15	93,919 1	4,464 40	12,710 3	130 30	376 14	262 13	4,334 10	12,333 5	19,176 7	1,13,358 5
Minor inams	5,041 11	20,999 6	8,887 0	..	..	..	..	..	..	..	..	8,887 0
Zemindari and whole inam villages, dry lands	..	..	..	..	..	..	..	..	..	..	..	..
Total ..	48,486 71	1,86,011 5	1,02,806 1	4,464 40	12,710 3	130 30	376 14	262 13	4,334·10	12,333 5	19,176 7	1,22,245 5
Whole inam and zemindari villages, wet lands	..	..	..	..	..	..	..	..	..	..	..	..

No. II.—Statement showing the area commanded by the Periyár channel and the increase of revenue, &c.—*cont.*

——	TANK-BED PORAMBOKE.			TOTAL 1ST-CROP ASSESSMENT OF DRY, WET AND TANK-BED.			PROBABLE SECOND-CROP REVENUE.		
		Irrigable area after deducting 40 per cent. on account of tank area that cannot be irrigated owing to high level lands required for channel, pasture, &c.						First-crop assessment.	
	Extent.	Extent.	Assessment at the highest 1st group rate in each village.	Total extent, columns 6, 11, 14, 19 and 34.	Increase expected from the levy of water-rate on occupied dry lands and from the introduction of anicut rates on other dry or wet lands.	Increase expected from the levy of 1st group or anicut irrigation assessment on all lands; total of columns 18, 32 and 35.	Extent.	Water-rate on occupied dry and 1st group assessment on the other classes of lands.	First group assessment on all lands occupied and unoccupied.
	33	34	35	36	37	38	39	40	41
ADDITIONAL VILLAGES—*cont.*	ACS. CTS.	ACS. CTS.	RS. A.	ACS. CTS.	RS. A.	RS. A.	ACS. CTS.	RS. A.	RS. A.
North bank—cont.									
Total of villages dealt with and not dealt with in Mr. Clogstoun's report—									
Ryotwar	22,758 83	13,571 57	96,387 2	104,629 39	4,18,727 15	4,54,559 10	(o) 35,442 87 (u) 29,525 70	1,84,345 12 1,88,711 1	2,16,278 11 1,88,711 1
Minor inams	..	..	..	9,888 43	28,276 5	35,694 7	4,944 22	24,637 13	30,812 15
Zemindari and whole inam villages, dry lands	..	..	..	18,134 74	72,538 15	72,538 15	..	..	..
Total ..	22,758 83	13,571 57	96,387 2	132,652 56	5,19,543 3	5,62,793 0	69,912 79	3,97,694 10	4,35,802 11
Whole inam and zemindari villages, wet lands	..	..	..	..	..	..	8,000 0	32,000 0	32,000 0

(o) Represents occupied lands. (u) Represents unoccupied and tank-bed lands.

No. II.—Statement showing the area commanded by the Periyár channel and the increase of revenue, &c.—*cont.*

—	PROBABLE SECOND-CROP REVENUE—*cont.*			PROBABLE INCREASE IN 2ND CROP ASSESSMENT DUE TO THE PROJECT.		TOTAL FIRST AND SECOND CROP REVENUE DUE TO THE PROJECT.		TOTAL REVENUE DUE TO THE PROJECT DEDUCTING TANK-BEDS.	
	Second crop assessment.								
	Water-rate at Rs. 2 per acre for occupied dry and half the 1st group assessment for the other classes of lands.	At half the 1st group wet assessment.	Present second-crop assessment.	Water-rate at Rs. 2 per acre for occupied dry lands and half the first group wet assessment in the case of other lands.	If half the first group wet assessment be charged in all cases.	Calculated on the basis of water-rate at Rs. 4 for occupied dry and of the 1st group assessment for the other lands.	Calculated on the basis of the 1st group assessment in all cases.	Increase in revenue at Rs. 4 per acre for occupied dry and at the 1st group assessment for other lands.	Increase in revenue expected from the adoption of the highest group assessment in all cases.
	42	43	44	45	46	47	48	49	50
ADDITIONAL VILLAGES—*cont.*	RS. A.	RS. A.	RS. A.	RS. A.	RS. A.	RS. A.	RS. A.	RS. A.	RS. A.
North bank—cont.									
Total of villages dealt with and not dealt with in Mr. Clogstoun's report—									
Ryotwar	92,172 14	1,08,139 5	12,304 12	79,868 2	95,834 9	4,98,596 1	5,50,394 3	4,54,395 2	5,06,193 4
Minor inams	94,355 9	94,355 9	..	94,355 9	94,355 9	94,355 9	94,355 9		
Zemindari and whole inam villages, dry lands	12,318 15	15,406 7	2,035 0	10,283 15	13,371 7	38,560 4	49,065 14	38,560 4	49,065 14
	..	..	..	..	..	72,538 15	72,538 15	72,538 15	72,538 15
Total ..	1,98,847 6	2,17,901 5	14,339 12	1,84,507 10	2,03,561 9	7,04,056 13	7,66,354 9	5,65,94 5	6,27,798 1
Whole inam and zemindari villages, wet lands	16,000 0	16,000 0	..	16,000 0	16,000 0	16,000 0	16,000 0	16,000 0	16,000 0

	RS.
Increase of revenue expected from the irrigation of ryotwar lands as per column 47	5,92,951
Increase of revenue from minor inam lands as per column 47 *minus* the difference between the settlement and first-group assessment of wet lands included therein, viz., Rs. 8,887	29,673
Increase of revenue from the irrigation of wet lands in whole inam and zemindari villages for second crop cultivation	16,000
Total increase as per paragraph 15 of the Proceedings ..	6,38,624

No. II-A.—Statement showing the area commanded by the Periyár channels in whole inam and zemindari villages affected by it and the increase of revenue to be derived therefrom by the project, North Bank of the Vaigai. This concerns wet lands also.

—	Dry.									Wet.				
		Occupied.			Waste.			Total.						
	Ayacut or total area.	Extent.	Irrigable area after deducting 25 per cent. from the holding.	Water rate at Rs. 4 per acre.	Extent.	Irrigable area after deducting 25 per cent.	Water-tax at Rs. 4 per acre.	Extent, columns 4 + 7.	Water rate at Rs. 4 per acre, column 5 + column 8.	Occupied area.	Waste.	Total wet area, column 11 + column 12.	Present wet assessment.	First group assessment for the extent shown in column 13.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Villages dealt with by Mr. Clogstoun—	ACS. CTS.	ACS. CTS.	ACS. CTS.	RS. A.	ACS. CTS.	ACS. CTS.	RS. A.	ACS. CTS.	RS. A.	ACS. CTS.	ACS. CTS.	ACS. CTS.	RS. A.	RS. A.
Madura	18,258 28	12,037 45	9,028 9	36,112 6	6,220 83	4,665 62	18,662 7	13,693 71	54,774 13	11,473 72	1,854 34	13,328 6	40,659 1	77,039 5
Melúr	2,362 68	1,088 71	816 53	3,266 2	1,273 97	955 48	3,821 15	1,772 1	7,088 1	1,054 77	78 98	1,133 75	3,517 4	6,529 13
Total ..	20,620 96	13,126 16	9,844 62	39,378 8	7,494 80	5,621 10	22,484 6	15,465 72	61,862 14	12,528 49	1,933 32	14,461 81	44,176 5	83,569 2
Villages not included in Mr. Clogstoun's report—														
Madura	3,028 19	2,304 9	1,728 7	6,912 5	724 10	543 7	2,172 4	2,271 14	9,084 9	1,748 37	79 72	1,828 9	6,416 14	14,424 6
Melúr	530 51	324 43	243 32	973 4	206 8	154 56	618 4	397 88	1,591 8	1,099 76	84 70	1,184 46	3,271 12	6,716 14
Total ..	3,558 70	2,628 52	1,971 39	7,885 9	930 18	697 63	2,790 8	2,669 2	10,676 1	2,848 13	164 42	3,012 55	9,688 10	21,141 4
Grand Total ..	24,179 66	15,754 68	11,816 1	47,264 1	8,424 98	6,318 73	25,274 14	18,134 74	72,538 15	15,376 62	2,097 74	17,474 36	53,864 15	1,04,710 6

No. II-A.—*Statement showing the area commanded by the Periyár channels in whole inam and zemindari villages affected by it and the increase of revenue to be derived therefrom by the project, North Bank of the Vaigai. This concerns wet lands also—cont.*

—	Wet—*cont.*	Tank bed poramboke.			Total dry, wet and tank-bed, first crop.		Second crop.		Total increase in assessment and water-rate (first and second crop), column 21+ column 23.	Total increase of revenue due to the project exclusive of the increase expected from tank bed lands.	Present second-crop assessment.	Increase of revenue exclusive of the present second-crop assessment, column 25 —column 26.	Increase of revenue expected from the Periyár project exclusive of extra charge on existing wet lands.
	Increase due to the Periyár project exclusive of Taram assessment, column 15—column 14.	Extent.	Irrigable area after deducting 40 per cent. Extent.	Irrigable area after deducting 40 per cent. Water rate at Rs. 4 per acre.	Extent (total of columns 9, 13 and 18).	Water rate and increased assessment (total of columns 10, 16 and 19.	Extent (half of column 20).	Assessment or water-rate (one-fourth of column 21 + 14).					
	16	17	18	19	20	21	22	23	24	25	26	27	28
	RS. A.	ACS. CTS.	ACS. CTS.	RS. A.	ACS. CTS.	RS. A.	ACS. CTS.	RS. A.	RS. A.	RS. A.	RS. A.	RS. A.	RS. A.
Villages dealt with by Mr. Clogstoun—													
Madura	36,380 4	4,286 0	2,571 60	10,286 6	29,593 37	1,01,441 7	14,796 68	35,525 2	1,26,966 9	1,24,108 9	3,053 9	1,21,055 0	84,674 12
Melúr	3,012 9	628 76	377 26	1,509 1	3,283 2	11,609 11	1,641 51	3,781 12	15,391 7	13,505 2	..	13,505 2	10,492 9
Total ..	39,392 13	4,914 76	2,948 86	11,795 7	32,876 39	1,13,051 2	16,478 19	39,306 14	1,52,358 0	1,37,613 11	3,053 9	1,34,560 2	95,167 3
Villages not included in Mr. Clogstoun's report—													
Madura	8,007 8	775 75	465 45	1,861 13	4,564 68	18,953 14	2,282 34	6,342 11	25,296 9	22,969 5	181 15	22,787 6	14,779 14
Melúr	3,445 2	440 29	264 17	1,056 11	1,846 51	6,093 5	923 26	2,341 4	8,434 9	7,113 11	..	7,113 11	3,668 9
Total ..	11,452 10	1,216 4	729 62	2,918 8	6,411 19	25,047 3	3,205 60	8,683 15	33,731 2	30,083 0	181 15	29,901 1	18,448 7
Grand Total ..	50,845 7	6,130 80	3,678 48	14,713 15	39,287 58	1,38,098 5	19,643 79	47,990 13	1,86,089 2	1,67,696 11	3,235 8	1,64,461 3	1,13,615 10

No. III.—Statement showing the rates of Ryotwar, &c., lands (north bank) in the villages by the Periyár, Madura district.

Taluks and tarams.	Ryotwar.										Tank-beds.		
	Dry.						Wet.						
	Present assessment.			Periyár assessment.			Present extent and assessment.			Periyár extent and assessment.			Extent.	Periyár assessment.	
	Occupied and unoccupied extent.	Rate.	Total.	Extent.	Rate.	Total.	Extent.	Assessment. Rate.	Assessment. Total.	Extent.	Assessment. Rate.	Assessment. Total.		Rate.	Assessment.
	ACS. CTS.	RS. A.	RS. A.	ACS. CTS.	RS. A.	RS. A.	ACS. CTS.	RS. A.	RS. A.	ACS. CTS.	RS. A.	RS. A.	ACS. CTS.	RS. A.	RS. A.
I. Madura taluk, villages (A) dealt with in Mr. Clogstoun's report. 1 ..	..	2 0	..	213 97	8 8	1,818 12	..	8 8	..	227 92	8 8	1,937 5	193 55	8 8	1,645 3
2 ..	218 71	1 8	328 1	3,007 11	7 8	22,553 5	780 83	7 8	5,856 4	2,853 37	7 8	21,400 4	3,056 66	7 8	22,924 15
3 ..	2,997 6	1 4	3,746 5	9,397 68	6 8	61,084 15	2,723 83	6 8	17,704 14	8,649 80	6 8	52,323 11	2,091 58	6 8	13,595 4
4 ..	9,762 30	1 0	9,762 5	3,106 3	5 8	17,083 3	3,944 93	5 8	21,697 2	8,985 53	5 8	49,420 6	918 34	5 8	5,050 14
5 ..	3,109 21	0 12	2,331 14	2,735 3	4 8	12,307 10	3,878 47	4 8	17,453 2	3,777 20	4 8	16,997 6	0 98	4 8	4 7
6 ..	2,738 93	0 8	1,369 7	543 42	3 8	1,902 0	8,159 74	3 8	28,559 1	2,001 22	3 8	7,004 4	..	3 8	..
7 ..	177 1	0 6	66 6	7 53	2 8	18 13	4,152 10	2 8	10,380 4	18 24	2 8	45 10	..	2 8	..
8 ..	7 55	0 4	1 14	..	2 0	..	2,273 38	2 0	4,546 12	..	2 0	..	..	2 0	..
Total, I ..	19,010 77	..	17,606 4	19,010 77	..	1,16,768 10	25,913 28	..	1,06,197 7	25,913 28	..	1,49,128 14	6,261 11	..	43,220 11
II. Melúr taluk, villages (A) dealt with in Mr. Clogstoun's report. 1 ..	..	2 0	..	..	8 8	..	..	8 8	..	4 89	8 8	41 9	476 69	8 8	4,051 14
2 ..	..	1 8	..	1,857 69	7 8	13,932 11	..	7 8	..	586 3	7 8	4,395 4	3,331 66	7 8	24,987 7
3 ..	1,967 69	1 4	2,384 10	12,619 85	6 8	82,029 0	..	6 8	..	8,365 57	6 8	54,376 3	1,509 31	6 8	9,810 8
4 ..	12,617 96	1 0	12,617 15	923 96	5 8	5,081 12	178 70	5 8	982 14	4,993 78	5 8	27,465 13	..	5 8	..
5 ..	926 74	0 12	695 1	360 70	4 8	1,623 2	548 75	4 8	2,469 6	1,109 27	4 8	4,991 12	..	4 8	..
6 ..	360 63	0 8	180 5	55 95	3 8	195 13	10,574 80	3 8	37,011 13	206 27	3 8	721 15	..	3 8	..
7 ..	5 13	0 6	1 15	..	2 8	..	3,353 66	2 8	8,384 2	..	2 8	..	..	2 8	..
8 ..	..	0 4	..	..	2 0	..	609 90	2 0	1,219 13	..	2 0	..	..	2 0	..
Total, II ..	15,818 15	..	15,879 14	15,818 15	..	1,02,862 6	15,265 81	..	50,068 0	15,265 81	..	91,992 8	5,317 66	..	38,849 13
Total I. and II. (A) villages dealt with by Mr. Clogstoun. 1 ..	..	2 0	..	213 97	8 8	1,818 12	..	8 8	..	232 81	8 8	1,978 14	670 24	8 8	5,697 1
2 ..	218 71	1 8	328 1	4,864 80	7 8	36,486 0	780 83	7 8	5,856 4	3,439 40	7 8	25,795 8	6,388 32	7 8	47,912 6
3 ..	4,904 75	1 4	6,130 15	22,017 53	6 8	1,43,113 15	2,723 83	6 8	17,704 14	16,415 37	6 8	1,06,699 14	3,600 89	6 8	23,405 12
4 ..	22,380 26	1 0	22,380 4	4,029 99	5 8	22,164 15	4,123 63	5 8	22,680 0	13,979 31	5 8	76,886 3	918 34	5 8	5,050 14
5 ..	4,035 95	0 12	3,026 15	3,095 73	4 8	13,930 12	4,427 22	4 8	19,922 8	4,886 47	4 8	21,989 2	0 98	4 8	4 7
6 ..	3,099 56	0 8	1,549 12	599 37	3 8	2,097 13	18,734 54	3 8	65,570 14	2,207 49	3 8	7,726 3	..	3 8	..
7 ..	182 14	0 6	68 5	7 53	2 8	18 13	7,505 76	2 8	18,764 6	18 24	2 8	45 10	..	2 8	..
8 ..	7 55	0 4	1 14	..	2 0	..	2,883 28	2 0	5,766 9	..	2 0	..	..	2 0	..
Total (A) ..	34,828 92	..	33,486 2	34,828 92	..	2,19,631 0	41,179 9	..	1,56,265 7	41,179 9	..	2,41,121 6	11,578 77	..	82,070 8

No. III.—Statement showing the rates of Ryotwar, &c., lands (north bank) in the villages by the Periyár, Madura district—*cont.*

Taluks and tarams.	Ryotwar.												Tank-beds.		
	Dry.						Wet.						Extent.	Periyár assessment.	
	Present assessment.			Periyár assessment.			Present extent and assessment.			Periyár extent and assessment.					
	Occupied and unoccupied extent.	Rate.	Total.	Extent.	Rate.	Total.	Extent.	Assessment. Rate.	Assessment. Total.	Extent.	Assessment. Rate.	Assessment. Total.		Rate.	Assessment.
	ACS. CTS.	RS. A.	RS. A.	ACS. CTS.	RS. A.	RS. A.	ACS. CTS.	RS. A.	RS. A.	ACS. CTS.	RS. A.	RS. A.	ACS. CTS.	RS. A.	RS. A.
III. Madura taluk, (B) villages not dealt with in Mr. Clogstoun's report. 1 ..	..	2 0	..	..	8 8	..	..	8 8	..	..	8 8	..	..	8 8	..
2 ..	..	1 8	..	393 71	7 8	2,952 13	66 26	7 8	496 15	66 26	7 8	496 15	104 38	7 8	782 14
3 ..	393 72	1 4	492 2	1,247 0	6 8	8,105 8	58 28	6 8	378 13	278 80	6 8	1,812 3	148 71	6 8	966 10
4 ..	1,247 2	1 0	1,247 0	397 27	5 8	2,185 0	22 5	5 8	121 4	392 54	5 8	2,159 0	7 76	5 8	42 11
5 ..	397 26	0 12	297 15	62 18	4 8	279 13	124 66	4 8	560 15	399 75	4 8	1,798 14	..	4 8	..
6 ..	62 17	0 8	31 2	11 77	3 8	41 3	376 46	3 8	1,317 10	184 42	3 8	645 8	..	3 8	..
7 ..	11 76	0 6	4 6	..	2 8	..	329 22	2 8	823 1	..	2 8	..	..	2 8	..
8 ..	..	0 4	..	..	2 0	..	344 84	2 0	689 11	..	2 0	..	..	2 0	..
Total, III ..	2,111 93	..	2,072 9	2,111 93	..	13,564 5	1,321 77	..	4,388 5	1,321 77	..	6,912 8	260 85	..	1,792 3
IV. Melúr taluk, (B). 1 ..	..	2 0	..	..	8 8	..	..	8 8	..	..	8 8	..	..	8 8	..
2 ..	..	1 8	..	541 38	7 8	4,060 6	..	7 8	..	10 35	7 8	77 10	1,266 76	7 8	9,500 11
3 ..	541 38	1 4	676 12	4,858 61	6 8	31,581 0	..	6 8	..	2,000 54	6 8	13,003 8	465 19	6 8	3,023 12
4 ..	4,858 60	1 0	4,858 10	649 70	5 8	3,573 5	..	5 8	..	2,487 81	5 8	13,682 15	..	5 8	..
5 ..	649 70	0 12	487 5	131 8	4 8	589 14	216 29	4 8	973 5	762 70	4 8	3,432 2	..	4 8	..
6 ..	131 16	0 8	65 9	26 20	3 8	91 11	3,226 9	3 8	11,291 5	147 74	3 8	517 1	..	3 8	..
7 ..	26 13	0 6	9 13	..	2 8	..	1,740 45	2 8	4,351 2	..	2 8	..	..	2 8	..
8 ..	..	0 4	..	..	2 0	..	226 31	2 0	452 10	..	2 0	..	..	2 0	..
Total, IV ..	6,206 97	..	6,098 1	6,206 97	..	39,896 4	5,409 14	..	17,068 6	5,409 14	..	30,713 4	1,731 95	..	12,524 7
Total III and IV (B). 1 ..	..	2 0	..	..	8 8	..	..	8 8	..	..	8 8	..	..	8 8	..
2 ..	..	1 8	..	935 9	7 8	7,013 3	66 26	7 8	496 15	76 61	7 8	574 9	1,371 14	7 8	10,283 9
3 ..	935 10	1 4	1,168 14	6,105 61	6 8	39,686 8	58 28	6 8	378 13	2,279 34	6 8	14,815 11	613 90	6 8	3,990 6
4 ..	6,105 62	1 0	6,105 10	1,046 97	5 8	5,758 5	22 5	5 8	121 4	2,880 35	5 8	15,841 15	7 76	5 8	42 11
5 ..	1,046 96	0 12	785 4	193 26	4 8	869 11	340 95	4 8	1,534 4	1,162 46	4 8	5,231 0	..	4 8	..
6 ..	193 33	0 8	96 11	37 97	3 8	132 14	3,602 55	3 8	12,608 15	332 16	3 8	1,162 9	..	3 8	..
7 ..	37 89	0 6	14 3	..	2 8	..	2,069 67	2 8	5,174 3	..	2 8	..	..	2 8	..
8 ..	..	0 4	..	..	2 0	..	571 15	2 0	1,142 5	..	2 0	..	..	2 0	..
Total, (B) ..	8,318 90	..	8,170 10	8,318 90	..	53,460 9	6,730 91	..	21,456 11	6,730 91	..	37,625 12	1,992 80	..	14,316 10

Statement showing the rates of Ryotwar, &c., lands (north bank) in the villages by the Periyár, Madura district—*cont.*

Taluk and tarams.	Ryotwar.												Tank-beds.		
	Dry.						Wet.						Extent.	Periyár assessment.	
	Present assessment.			Periyár assessment.			Present extent and assessment.			Periyár extent and assessment.					
	Occupied and unoccupied extent.	Rate.	Total.	Extent.	Rate.	Total.	Extent.	Assessment. Rate.	Assessment. Total.	Extent.	Assessment. Rate.	Assessment. Total.		Rate.	Assessment.
	ACS. CTS.	RS. A.	RS. A.	ACS. CTS.	RS. A.	RS. A.	ACS. CTS.	RS. A.	RS. A.	ACS. CTS.	RS. A.	RS. A.	ACS. CTS.	RS. A.	RS. A.
Total (A) and (B). 1 ..	..	2 0	..	213 97	8 8	1,818 12	..	8 8	..	232 81	8 8	1,978 14	670 24	8 8	5,697 1
2 ..	218 71	1 8	328 1	5,799 89	7 8	43,499 3	847 9	7 8	6,353 3	3,516 1	7 8	26,370 1	7,759 46	7 8	58,195 15
3 ..	5,839 85	1 4	7,299 13	28,123 14	6 8	1,82,800 7	2,782 11	6 8	18,083 11	18,694 71	6 8	1,21,515 9	4,214 79	6 8	27,396 2
4 ..	28,485 88	1 0	28,485 14	5,076 96	5 8	27,923 4	4,145 68	5 8	22,801 4	16,859 66	5 8	92,728 2	926 10	5 8	5,093 9
5 ..	5,082 91	0 12	3,812 3	3,288 99	4 8	14,800 7	4,768 17	4 8	21,456 12	6,048 92	4 8	27,220 2	0 98	4 8	4 7
6 ..	3,292 89	0 8	1,646 7	637 34	3 8	2,230 11	22,337 9	3 8	78,179 13	2,539 65	3 8	8,888 12	..	3 8	..
7 ..	220 3	0 6	82 8	7 53	2 8	18 13	9,575 43	2 8	23,938 9	18 24	2 8	45 10	..	2 8	..
8 ..	7 55	0 4	1 14	..	2 0	..	3,454 43	2 0	6,908 14	..	2 0	..	..	2 0	..
Grand Total for north bank	43,147 82	..	41,656 12	43,147 82	..	2,73,091 9	47,910 0	..	1,77,722 2	47,910 0	..	2,78,747 2	13,571 57	..	96,387 2

North Bank.

No. IV.—Comparative statement of the result of classification of the ryotwari lands affected by the Periyár Project between the figures of Mr. Clogstoun's report and those now arrived at, raising the second, third and fourth group villages as per settlement to the first group.

Taram.	As per Clogstoun's report.			Taram.	As per present classification.		
	Money rate.	Extent.	Assessment.		Money rate.	Extent.	Assessment.
1	2	3	4	5	6	7	8
	Rs. A.	Acs.	Rs. A.		Rs. A.	Acs. Cts.	Rs. A.
					Madura Taluk.		
1	8 8	4,495	38,207 8	1 ..	8 8	441 89	3,756 1
2	7 8	16,457	1,23,427 8	2 ..	7 8	5,860 48	43,953 9
3	6 8	16,802	1,09,213 0	3 ..	6 8	17,447 48	1,13,408 10
4	5 8	5,720	31,460 0	4 ..	5 8	12,091 56	66,503 9
5	5 0	12,226	61,130 0	5 ..	4 8	6,512 23	29,305 0
....	..	..	..	6 ..	3 8	2,544 64	8,906 4
....	..	..	..	7 ..	2 8	25 77	64 7
Total ..	..	55,700	3,63,438 0		..	44,924 5	2,65,897 8
					Melúr Taluk.		
1	8 8	11,936	1,01,456 0	1 ..	8 8	4 89	41 9
2	7 8	13,065	97,987 8	2 ..	7 8	2,443 72	18,327 15
3	6 8	5,103	33,169 8	3 ..	6 8	20,985 42	1,36,405 3
4	5 8	129	709 8	4 ..	5 8	5,917 74	32,547 9
5	5 0	230	1,150 0	5 ..	4 8	1,469 97	6,614 14
....	..	..	..	6 ..	3 8	262 22	917 12
Total ..	..	30,463	2,34,472 8		..	31,083 96	1,94,854 14
					Madura and Melúr together.		
1	8 8	16,431	1,39,663 8	1 ..	8 8	446 78	3,797 10
2	7 8	29,522	2,21,415 0	2 ..	7 8	8,304 20	62,281 8
3	6 8	21,905	1,42,382 8	3 ..	6 8	38,432 90	2,49,813 13
4	5 8	5,849	32,169 8	4 ..	5 8	18,009 30	99,051 2
5	5 0	12,456	62,280 0	5 ..	4 8	7,982 20	35,919 14
....	..	..	..	6 ..	3 8	2,806 86	9,824 0
....	..	..	..	7 ..	2 8	25 77	64 7
Total ..	..	86,163	5,97,910 8		..	76,008 1	4,60,752 6
Average ..	..	..	6 15		..	..	6 1 per acre.
For villages not included in Mr. Clogstoun's report—					*Madura Taluk.*		
....	..	..	..	1 ..	8 8	..	..
....	..	..	..	2 ..	7 8	459 97	3,449 12
....	..	..	..	3 ..	6 8	1,525 80	9,917 11
....	..	..	..	4 ..	5 8	789 81	4,344 0
....	..	..	..	5 ..	4 8	461 93	2,078 11
....	..	..	..	6 ..	3 8	196 19	686 11
Total ..	..	..	..		..	3,433 70	20,476 13
					Melúr Taluk.		
....	..	..	..	1 ..	8 8	..	..
....	..	..	..	2 ..	7 8	551 73	4,138 0
....	..	..	..	3 ..	6 8	6,859 15	44,584 8
....	..	..	..	4 ..	5 8	3,137 51	17,256 4
....	..	..	..	5 ..	4 8	893 78	4,022 0
....	..	..	..	6 ..	3 8	173 94	608 12
Total ..	..	..	..		..	11,616 11	70,609 8
					Madura and Melúr together.		
....	..	..	..	1 ..	8 8	..	..
....	..	..	..	2 ..	7 8	1,011 70	7,587 12
....	..	..	..	3 ..	6 8	8,384 95	54,502 3
....	..	..	..	4 ..	5 8	3,927 32	21,600 4
....	..	..	..	5 ..	4 8	1,355 71	6,100 11
....	..	..	..	6 ..	3 8	370 13	1,295 7
Total ..	..	..	..		..	15,049 81	91,086 5

No. IV.—Comparative statement of the result of classification of the ryotwari lands affected by the Periyár Project, &c.—*cont.*

Taram.	As per Clogstoun's report.			Taram.	As per present classification.		
	Money rate.	Extent.	Assessment.		Money rate.	Extent.	Assessment.
1	2	3	4	5	6	7	8
For villages dealt with and not dealt with by Mr. Clogstoun (Madura and Melúr)—	Rs. A.	Acs.	Rs. A.		Rs. A.	Acs. Cts.	Rs. A.
					Madura and Melúr together —cont.		
	8 8	16,431	1,39,663 8	1 ..	8 8	446 78	3,797 10
1	7 8	29,522	2,21,415 0	2 ..	7 8	9,315 90	69,869 4
2	6 8	21,905	1,42,382 8	3 ..	6 8	46,817 85	3,04,316 0
3	5 8	5,849	32,169 8	4 ..	5 8	21,936 62	1,20,651 6
4	5 0	12,456	62,280 0	5 ..	4 8	9,337 91	42,020 9
5	..	..	..	6 ..	3 8	3,176 99	11,119 7
....	..	..	..	7 ..	2 8	25 77	64 7
....	..	..	..				
Total ..	..	86,163	5,97,910 8		..	91,057 82	5,51,838 11

No. V.—Statement showing the price to be realized by the sale of waste and tank-bed lands in the villages affected by the Periyár Project, North Bank, Madura District.

Reaches of channel.	Dry Waste.			Wet Waste.		
	Extent.	Rate.	Price amount.	Extent.	Rate.	Price amount.
1	2	3	4	5	6	7
	Acs. Cts.	Rs. A.	Rs. A.	Acs. Cts.	Rs. A.	Rs. A.
Madura Taluk.						
1st	221 24	40 0	8,850 0	239 76	75 0	17,982 0
2nd	206 25	30 0	6,187 8			
3rd and 4th	2,118 71	20 0	42,374 3	2,355 68	40 0	94,227 3
5th	4,916 89	15 0	73,753 6			
Total ..	7,463 9	..	1,31,165 1	2,595 44	..	1,12,209 3
Melur Taluk.						
6th to 12th	8,244 59	30 0	2,47,337 11	1,868 96	50 0	93,448 0
Grand Total ..	15,707 68	..	3,78,502 12	4,464 40	..	2,05,657 3

Reaches of channel.	Tank-beds.			Total.	
	Extent.	Rate.	Price amount.	Extent.	Price amount.
	8	9	10	11	12
	Acs. Cts.	Rs. A.	Rs. A.	Acs. Cts.	Rs. A.
Madura Taluk.					
1st	793 55	75 0	59,516 4	1,460 80	92,535 12
2nd					
3rd and 4th	5,728 41	40 0	2,29,136 7	15,119 69	4,39,491 3
5th					
Total ..	6,521 96	..	2,88,652 11	16,580 49	5,32,026 15
Melúr Taluk.					
6th to 12th	7,049 61	50 0	3,52,480 8	17,163 16	6,93,266 3
Grand Total ..	13,571 57	..	6,41,133 3	33,743 65	* 12,25,293 2

	Rs.	A.	P.
* For villages reported on by Mr. Clogstoun	10,14,639	8	0
New villages	2,10,653	10	0

No. VI.—Financial Statement (North Bank).

Item.	Number of Taram.	Rate per acre.	Villages reported on by Mr. Clogstoun.		Additional villages.		Total.	
			Irrigable area.	Revenue.	Irrigable area.	Revenue.	Irrigable area.	Revenue.
1	2	3	4	5	6	7	8	9
		Rs.		Rs.		Rs.		Rs.
Government land	1	8½	447	3,798	..	..	447	3,798
Do.	2	7½	8,304	62,281	1,012	7,588	9,316	69,869
Do.	3	6½	38,433	2,49,814	8,385	54,502	46,818	3,04,316
Do.	4	5½	18,009	99,051	3,927	21,600	21,936	1,20,651
Do.	5	4½	7,982	35,920	1,356	6,101	9,338	42,021
Do.	6	3½	2,807	9,824	370	1,295	3,177	11,119
Do.	7	2½	26	65	..	..	26	65
Total ..	..	..	76,008	4,60,753	15,050	91,086	91,058	5,51,839
Tank beds	..	..	11,579	82,070	1,993	14,317	13,572	96,387
Minor Inams. (a) Wet ..	..	..	4,308	..	733	..	5,041	..
(b) Dry ..	..	..	3,856	15,424	991	3,965	4,847	19,389
Total ..	..	..	19,743	97,494	3,717	18,282	23,460	1,15,776
Grand Total ..	..	..	95,751	5,58,247	18,767	1,09,368	114,518	6,67,615
Deduct present assessment on occupied lands	..	..	..	1,68,319	..	25,347	..	1,93,666
	..	..	95,751	3,89,928	18,767	84,021	114,518	4,73,949
Deduct also difference between probable increase in revenue that will accrue from the conversion of occupied Ryotwar dry lands into wet and the water-rate chargeable on them	..	..	..	24,226	..	11,606	..	35,832
Net first crop revenue ..	..	..	95,751	3,65,702	18,767	72,415	114,518	4,38,117
Second crop revenue. If occupied Ryotwar dry be converted into wet.	..	..	58,430	1,66,450	11,483	34,024	69,913 + 8,000	2,00,474 + 16,000
Second crop revenue. If occupied Ryotwar dry be charged water-rate.	..	..	58,430	1,54,720	11,483	29,787	69,913 + 8,000	1,84,507 + 16,000
Totalincrease of revenue under both the crops. If occupied Ryotwar dry be converted into wet.	..	..	154,181	5,56,378	30,250	1,18,045	184,431 + 8,000	6,74,423 + 16,000
Totalincrease of revenue under both the crops. If occupied Ryotwar dry be charged water-rate.	..	..	154,181	5,20,422	30,250	1,02,202	184,431 + 8,000	6,22,624 + 16,000

North Bank.

No. VII.—Statement showing the percentage of interest derivable under the total expenditure under the proposed new rates of assessment as regards villages.

Items.	Total expenditure.	Increase in revenue due to the project.	Percentage on outlay.	Percentage on outlay after deducting sale-proceeds of waste lands and tank-beds from outlay.	Percentage on outlay after deducting sale-proceeds of tank-beds alone.	Percentage on outlay after deducting half of the sale-proceeds of tank-beds.	Percentage on outlay after deducting the entire sale-proceeds of tank-beds and half the proceeds of waste lands.
	Rs.	Rs.					
1. Return on total expenditure.	66,50,000	6,38,624	9·6	11·6	10·6	10·8	11·1
		6,95,055	10·4	12·7	11·6	11·8	12·1
2. Net return after deducting 1¼ lac for cost of upkeep.	..	5,13,624	7·7	9·4	8·5	8·7	8·9
		5,70,055	8·6	10·4	9·5	9·6	9·9
3. Net return after deducting cost of upkeep establishment, and payment at Travancore.	..	4,73,624	7·1	8·6	7·9	8·0	8·2
		5,30,055	7·9	9·7	8·8	8·9	9·2

ORDER—dated 15th February 1892, No. 153, Revenue.

Land Revenue, No. 8.

In the paper read above, the Board of Revenue submits a revised estimate of the revenue that may be anticipated from the Periyár project and furnishes information on the several points referred to in the Honorable Sir Charles A. Elliott's note communicated with G.O., dated 24th January 1890, No. 49 I.

2. The Government concurs in the views expressed in paragraphs 11—13 of the Board's Proceedings. But as regards the water-rate to be charged on occupied dry lands which may be irrigated by the Periyár channels, the Government agrees with the Settlement Commissioner in considering that the Rs. 4 rate is undoubtedly too low and that there is no reason why such lands should not pay as much as those which are now unoccupied and which when taken up will be charged wet assessment. The water-rate will, therefore, be fixed at Rs. 5 per acre for first crop and Rs. 3 for second crop.

3. The subjoined abstract shows in one view how the different classes of lands which will be benefited by the Periyár project should be dealt with.

I. *Ryotwar occupied lands*—(*i*) *Dry.*—For first crop a water-rate of Rs. 5 per acre and for second crop Rs. 3. At the next revision of assessment the whole should be placed in the first group wet and treated as double crop lands.

(*ii*) *Wet.*—Will be charged first group wet assessment. For second crop 50 per cent. of the first crop assessment will be charged pending the revision of assessment.

II. *Ryotwar unoccupied lands including tank-beds.*—These lands will be converted into wet first group and charged a consolidated assessment for two crops with the exception of one-eighth of the area which is believed to be incapable of irrigation for a second crop owing to its situation at the tail end of the works.

III. *Minor inams*—(*i*) *Dry.*—Will be charged water-rate at Rs. 5 an acre for first crop and Rs. 3 for second crop. The same procedure will be adopted at the next revision of assessment as no change in the classification of these lands can be made without the consent of the inamdars.

(*ii*) *Wet.*—No additional charge will be made for first crop, but for a second crop half the assessment at first group rates will be levied.

IV. *Whole inams and zemindaries.*—No water will be available for the irrigation of dry lands or for raising a first crop on wet lands. But during the second crop season it is estimated that about 8,000 acres may be irrigated for which a water-rate of Rs. 3 an acre will be charged.

4. The financial results according to these principles would be an increase of Rs. 6,95,055 as shown below:—

—	First crop.	Increase.	Second crop.	Increase.	Total.
	Acs.	Rs.	Acs.	Rs.	Rs.
I. Ryotwar occupied—					
(i) Dry	27,440	* 1,37,201	13,720	§ 41,160	1,78,361
(ii) Wet	43,446	† 93,919	21,723	‖ 52,428	1,46,347
II. Ryotwar unoccupied including tank-beds ..	33,744	‡ 2,15,048	29,526	‖ 94,355	3,09,403
III. Minor inams—					
(i) Dry	4,847	* 24,236	2,424	§ 7,271	31,507
(ii) Wet	5,041	..	2,520	‖ 5,437	5,437
IV. Whole inam and zemindari	..	..	8,000	§ 24,000	24,000
Total ..	114,518	4,70,404	77,913	2,24,651	6,95,055

* Water-rate at Rs. 5 an acre.
† Excess of first group assessment over present assessment.
‡ First group wet assessment.
§ Water-rate at Rs. 3 an acre.
‖ Half the settlement assessment for first crop calculated for half the area except in the case of ryotwar unoccupied for which it represents the assessment for ⅓ths of area.

5. It will be seen from the above that the supply of water available for a second crop estimated to suffice for 78,500 acres is expected to be fully utilized. Excluding the 8,000 acres belonging to whole inam and zemindari villages, the area of second crop cultivation is estimated at 69,913 acres or 61 per cent. of the extent on which a first crop will be grown and is made up of half the extent of occupied lands and minor inams and of seven-eighths of the unoccupied and tank-bed lands. The proportion is probably high, but as the principal supply will be derived from the rainfall of the south-west monsoon stored in the Periyár reservoir and will be supplemented by the north-east monsoon on which the ryots of Madura have been accustomed to rely for their main wet crop, it may confidently be expected that water will be taken freely for two crops.

6. As regards the sale of waste lands by auction discussed in paragraph 18 of the Board's Proceedings, the Government, on a careful consideration of the case, has come to the conclusion that the proposal is unadvisable and must be negatived. The question of auction sale was first raised in the papers printed in G.O., dated 8th May 1856, No. 667, but the Government considered that the sale was opposed to the interest of the village communities which though never accurately defined had been universally admitted (paragraph 15). Four years later the subject was revived by the Collector of Coimbatore and his arguments were fully traversed by the Board of Revenue in its Proceedings printed in G.O., dated 7th September 1860, No. 1545. The Government agreed with the Board in recognizing the preferential right of the ryots of a village to the occupation of the waste land within it and negatived the proposal as a rule. It was, however, prepared to adopt the system of auction sales in exceptional cases as when irrigation was supplied to a village with very few and poor ryots. It was laid down that in a case of this sort, after giving to the ryots as much land as they could occupy, the remainder might properly be sold to strangers. These views met with the approval of the Secretary of State in his despatch printed in G.O., dated 30th April 1861, No. 971. An opportunity for the application of the principles set forth above occurred in 1890, in connection with the waste lands newly brought under irrigation in the Kistna delta, but it was found that no means could be devised by which the requirements of the ryots of the village could be satisfactorily gauged and the proposal to sell the lands by auction was accordingly abandoned.

7. The Board has brought forward no arguments to induce the Government to alter the decision so recently arrived at in the case of the Kistna district. The Board's plan of setting apart 10 per cent. of the assessed waste and of not allowing any ryot to take up more than he has the means and capacity to cultivate, is obviously unworkable. Some one, presumably the Collector, is to certify as to the extent which is within the capacity of the resident ryots to cultivate, but it is difficult to conceive how he can gauge their capacity and ascertain what their resources are. The resident ryots will be the best cultivators and those most likely to extend the irrigation quickest. The Government would, therefore, rather run the risk of their taking up more land than they can cultivate and possibly selling it to others than make the extent granted to them less than they can manage. As to the argument that the lands if granted free on darkhast will only be sold to outsiders, the Government observes that if this should be the case the money which the sellers will receive will be devoted to agriculture and to the extension of irrigation under the project. It should also be observed that if the resident villagers are limited to a certain amount of land set apart for them, and the balance put up to auction, there would be reason to apprehend the introduction of a class of land-jobbers, who would only sell on obtaining a profit, and the incoming cultivators would be thereby impoverished, while the money they had laid out would be most probably diverted from agricultural interests in the locality. The only other argument urged in favour of the sale is that the lands being mostly of an inferior quality will derive their value solely from the execution of the works and that the Government is equitably entitled to recoup its expenditure out of the sale-proceeds. But it has been overlooked that the chief interest which the State has is to get the irrigation extended as rapidly as possible in view to the quick realization of the anticipated return. It is true that what is taken from the ryots in the shape of sale-proceeds will be a reduction of the capital

cost of the work, but it will also be an abstraction from the capital seeking agricultural investment and consequently retard the extension of cultivation and the realization of returns on capital cost. So far as the immediate pecuniary interest of the State goes, the question is whether a reduced return on a smaller capital or a larger and quicker return on a larger one is to be preferred, and there can be no doubt that the latter alternative is preferable; for while in the former case the amount of money that will be realized by the sales will not be a material set-off against the capital cost of the project, in the latter the rapid extension of irrigation will be attended with great advantage to the people. The Government is, therefore, decidedly of opinion that the proposal to sell the waste lands should be rejected and that the villagers should be permitted to apply for as much lands in their villages as they please, the balance, if any, being offered to outsiders under the ordinary darkhast rules.

8. The case of tank-bed lands stands on a different footing, inasmuch as the ryots have no preferential claim to them and the proposal to sell them by auction being in accordance with precedents is approved. The sale-proceeds of these lands are estimated by the Collector at Rs. 6,41,133.

9. As regards the provision for drainage and distributary channels and the improvement of the village roads referred to in paragraph 20 of the Board's Proceedings, it appears that the project estimates contain provision for the two former classes of works. There is no definite information before Government whether there is work of the last-mentioned kind to be done, nor whether the ryots require any help to do it. The Government is of opinion, therefore, that the question may lie over for the present.

(True Extract.)

Secretary to Government.

To the Commissioners of Land Revenue.
,, the Public Works Department (Irrigation).
Copy to the Commissioner of Revenue Settlement, Land Records and Agriculture.

Exd. A. Aubert.

90 Copies.

P. W. CURRENT No. 1764

Govt. of {1892} Madras.

REVENUE.

Issued 17.5.C

Read. Rep: 19.2.92 Encl.

G.O., 15th February 1892, No. 153.

FEBRUARY.

Periyar project.

Passing orders on Board's Proceedings submitting report in connection with forecast of increase of revenue due to the —, Madura district.

No. 252 Irg 14 March 1892

P. W. D.

To,

The Secretary to the
Government of India,
P. W. D.

Sir,

With reference to your letter No. 1 dated 4th January 1890, I am directed to forward a copy of the Proceedings of this Government dated 5th February 1892 No. 153 Revenue Department, furnishing the information required on the several points referred to in paras 12 to 15 of the Hon'ble Sir C. A. Elliott's note of the 9th December 1889.

I have &c.,

D10/2

No. 49 I. dy 24-1-90
- 497 3C - 1-12-90
- 249 B - 22-5-91
- 927 B - 23-9-91
- 164 I - 12-3-90
- 381-19-9-7-90
- 4915C - 7-11-91
- 228 I - 8-3-92

No. 252 Jdy 14-3-92

J.C. 16/3

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.

READ—the following paper:—

From C. VINCENT, Esq., Under-Secretary to the Government of India, Public Works Department (Civil Works—Irrigation), to the Secretary to the Government of Madras, Public Works Department, dated Calcutta, 4th January 1890, No. 1 I.

I am directed to forward, for the information of His Excellency the Governor in Council, copies of a note, dated 9th December 1889, on the Periyár Irrigation Project, by the Honorable Sir Charles A. Elliott, K.C.S.I.

2. I am to invite special attention to the suggestions made in the last sentence of para. 3 of the note relative to the construction, by Government, of huts for the labourers employed on the works.

3. With reference to para. 4 of the note, I am to say that it appears to the Government of India most desirable that the medical arrangements should be fully equal to the requirements of this very unhealthy locality.

4. I am at the same time to request that the Government of India may be furnished with the information required on the several points referred to in paras. 12, 13, 14 and 15 of the note.

5. I am further to request that a report may be furnished quarterly to the Government of India showing the progress of work in connection with the Periyár project. The form should be similar to the "Works Slip" which accompanies Public Works Department Circular No. 9 P.W., dated the 9th October 1889, except that in place of "items of works" it should exhibit all the particulars and headings as per estimate, such as—

(1) *Head Works.*

B. Land.	K. Buildings.
C. Works.	O. Miscellaneous.

(2) *Main Canals and Branches.*

B. Land.	D. Regulators.
&c.	&c.

These might conveniently be printed in.

ENCLOSURE.

Note on the Periyár Irrigation Project.

I visited the Periyár Irrigation works on the 5th—7th November under the guidance of Colonel Pennycuick, to whom I am much indebted for the assistance and hospitality I received from him and his officers. The north-east monsoon still held off, there was no rain during my inspection, and the rivers were all easily passable. For the convenience of future visitors I may note that I took 16 hours in a "transit" between Ammayanáyakanúr and Kuruvanuth at the foot of the ghât and 15 hours in returning, stopping both times for one hour at Uttamapolium for a meal. I reached Kuruvanuth at 4 P.M. on the 5th and rode up the ghât with Colonel Pennycuick to Thekady. Next day I went on to the Periyár and spent the day there. On the

morning of the 7th I returned to Thekady, and in the afternoon went down the ghât, leaving Kuruvanuth at 4 P.M. The four unbridged and troublesome rivers are—

the Varaghe, at Periyakulam, 27 miles from Ammayanáyakanúr;
the Teniar, 10 miles from Periyakulam;
the Suruliyár, at Virapandy, 14 miles from Periyakulam;
the same at Uttamapolium, 27 " "

The Teniar was the deepest when I crossed it—almost up to the seat of the bandy.

2. The works are still in the initial stage, and I will briefly describe the condition in which I found them. A large quantity of kankar has been collected at the foot of the ghât, and is being carried up by donkeys. The wire tramway which is to carry this and other supplies is not yet ready: the line has been cleared, about one-third of the posts are up, and the turbine and machinery for working the tramway are nearly in position. The tramway will, it is hoped, be in working order by the end of January. A little work has been done on the tunnel at both ends, but it is intended to work almost entirely from the north end. The line of the tunnel has been a little altered, so that about 500 feet are in cutting which were to have been tunnelled. The turbine which is to work the drills with compressed air is in position, and I saw it set in motion, but it still wants a little adjustment. The channel which brings water to work it has turned out deficient, and must be enlarged. When in full work it is calculated to pierce the work at the rate of 7 feet a day. At the south end a shaft has been sunk and a little hand drilling is being done, mainly to keep the men employed till the turbine is at work. The channel which is to lead the water from the reservoir to the tunnel is about one-third completed; it has been cut to near the mouth of the tunnel, but has to be deepened. One lock on this channel has been finished, but the foundations and sides of the other works have been found so difficult that it is determined to convert them into dams; one lock has been so converted and three dams are nearly finished, and the channel will be in working order to convey stone and lime, &c., from Thekady to the Periyár dam, as soon as that work holds up enough water to reach the last channel dam, that is, when it has been built up for about 25 feet.

3. As to the main Periyár dam, preparations have been made by erecting piers and shutters, as described in the monthly progress reports, to divert the stream into the side channel on the northern bank as soon as the north-east monsoon is over. A coffer dam will then be put in above and below the site, the water will be pumped out in a day or two, and the foundations of the two walls, front and rear, of the dam will be commenced in January, and by the end of March, when the season becomes too unhealthy for work to continue, it is hoped that the walls will be about 25 feet high, and able to keep out the river water unless topped by an unusual flood. The central core of concrete between these two walls will not be put in till next year's monsoon is over. When work is in full swing, it is expected that progress will be made at the rate of 5 feet a month. The workshops are being built, and the site is being prepared for the turbine which is to work the machinery. The Pioneers are established in well-built, half-company grass huts and appear to be working contentedly and well. I should be inclined to think it might be worth while for Government to construct corresponding huts for the labourers, who are said to suffer much from fever.

4. Colonel Pennycuick expressed himself well satisfied with his Engineering staff and appears to be fortunate in his selection of men. The medical staff does not seem to be strong enough; the apothecary in charge has to look after Thekady as well as Periyár, and has no hospital assistant at either place; he would evidently be the better for more frequent supervision. An Assistant Surgeon from Madura inspected the hospital in November 1888, but apparently no one has been since. There was one in-door patient, an accident case, said to be doing well. The out-door patients are numerous, but the register had not been written up for some days.

Mr. Taylor, Executive Engineer, Periyár.
" Keeling, Assistant " "
" Mackenzie, Executive " Thekady.
" Wickham, Assistant " "

5. The original estimate for the work was—

				RS.
Compensation to Travancore Government for the site of the Lake			...	8,00,000
Works in the Periyár valley	...	...	...	RS. 19,50,000
Works in the Madura district	...	...	...	24,50,000
Establishment	Total Works		...	44,00,000
Tools and Plant	...	...	...	9,25,000
			...	60,000
Indirect charges	Total Direct charges		...	61,85,000
			...	2,54,913
	Grand Total		...	64,39,913

Colonel Pennycuick believes that the work will be completed within the limits of this estimate. Accidents and unforeseen difficulties, such as the unprecedented fresh in the Periyár last March which frustrated the hopes of founding the dam that season, will be sure to occur, but he thinks that a sufficient margin has been allowed for the delay and loss which such events will produce. Progress is being satisfactorily made in the construction of the channels in the Madura district (which I did not see), and the work is being done there at a lower cost than the estimate.

6. The estimate has been somewhat altered by the terms settled with Travancore, mentioned lower down, which are worse by two lakhs, so that the total cost may be stated at 66½ lakhs roughly.

7. The irrigation work which the scheme is expected to do, and the return it is expected to produce, may be stated as follows, throwing the figures into a rather simpler form than that contained in Colonel Hasted's note of 11th April 1883, printed at page 74 of the Volume of Selections:—

	ACRES.		Revenue. RS.
(1) Area formerly cultivated ...	42,010	paying Rs. 1,52,598 (on an average of 10 years).	
(2) Area now unoccupied and waste	26,802	paying nothing.	
Total ordinary cultivation ...	68,812	which will pay Rs. 5,25,996 or an increase of ... ... due to the Irrigation project.	3,73,398
(3) Tank beds	9,196	now paying nothing, will pay at Rs. 8	73,568
(4) Inams and Zemindaries ...	18,610	now paying nothing, will pay at Rs. 6	1,11,660
Total Area ...	96,618	will pay ... ... due to Irrigation project.	5,58,626
(5) Second-crop land, area estimated at	45,000	Estimated revenue at	1,41,374
		Total Revenue due to Irrigation project ...	7,00,000

In this table I have not included 4,356 acres of "Wet inams" which are to get their water free, nor the 7,538 acres of land irrigated by Koramboos, which are not to get water from the Periyár. The dry revenue assessable on the 26,802 acres of unoccupied land and 9,196 acres of tank beds, is said to be Rs. 46,000. This would be deducted in any other Province, but according to the Madras custom the whole land revenue of land which is brought under cultivation through the application of water to it, is credited to irrigation.

8. In the despatch No. 28 P.W., dated 27th June 1884, with which the Government of India submitted the scheme to the Secretary of State, a different calculation was made, as follows:—

	RS.
(1) 85,790 acres of Government land	4,67,374
(2) 15,210 " of Inam and Zemindari land at Rs. 4	60,840
(3) Second-crop irrigation	1,00,000
Total ...	6,28,814

It is not quite clear how these area-figures were obtained. The Government of Madras telegraphed (6th August 1883) that while generally accepting Mr. Clogstoun's figures, they thought the second-crop revenue should be reduced to 1 lakh, and that the water-rate on inam and zemindari land should be Rs. 4 instead of Rs. 6. The gross receipts might be taken at 6¼ lakhs.

The area marked (1), 85,700 acres of Government land, possibly includes 3,400 acres of dry inam land which ought to have been placed under item (2), as well as the 4,356 acres of wet inam land which I have excluded as paying nothing to the project, or else it may include the 7,538 acres irrigated by Koramboos, in which case the 3,400 acres were omitted by error. However this may be, taking the gross receipts at 6¼ lakhs and the working expenses at 1½ lakhs, the net profits are estimated at 5 lakhs, which, if realised, will give a very handsome return on the capital outlay.

9. As far as the engineering side of this great scheme is concerned, I think we may leave it with confidence in Colonel Pennycuick's hands. It combines boldness and simplicity in a

remarkable degree, and unless difficulties altogether unforeseen occur, we may fairly hope that it will be carried to completion at a date and cost not far beyond the estimate. But with regard to the financial results of this investment of State capital, I do not feel altogether satisfied.

10. In the first place it must be noticed that the project is unduly weighted by the enormous sum paid for the site to the Travancore State. In the sanctioned estimate the amount fixed was 8 lakhs of rupees. The actual arrangement has been an annual rent of Rs. 40,000—the capitalised value of which at 4 per cent. is 10 lakhs of rupees. And this is paid for 8,000 acres of worthless swamp and forest land, with hardly a good tree on it, situated in a fever-stricken, uninhabitable jungle which can never have produced a rupee to the State. How such a monstrous demand was acceded to passes my comprehension. We expect Native States to give up land for railways free of any charge. It is true that they benefit by the railways, and the Travancore State will not benefit by this scheme; but at least it will lose nothing, for though the head waters of one of the rivers of the Travancore State are cut off, the rainfall in this country is so heavy that the supply when it reaches the plains can hardly be injuriously affected. On the other hand, the land taken up for railways is generally cultivated in part and produces revenue to the State. Moreover, I have been told that this site is part of a tract of land made over by the British Government to the State as a free gift, to round off their boundary, and if so, there were special reasons why a hard bargain should not have been driven for it. I think we should have insisted on this land being given over free, instead of which it is leased at Rs. 5 an acre—a high rate for fertile and cultivated land.

11. In the second place, the area affected by the project is remarkably small, considering the capital cost involved. The Godávari system, with a capital expenditure of 106 lakhs, irrigates 600,000 acres. The Kistna, with a capital expenditure of 78 lakhs, 380,000 acres. Looking at two projects recently sanctioned in the Punjab, I find that the Jhelum canal, with an estimated capital cost of 122 lakhs, is to irrigate 420,000 acres, and the Chenab canal is to irrigate 400,000 acres at a cost of 104 lakhs. The Periyár project, with an estimated capital of 64 lakhs (or taking the Travancore dead-rent at a full valuation—66 lakhs) will irrigate less than 100,000 acres, and will only bring 27,000 acres formerly uncultivated under cultivation.

Whatever its merits as an engineering *tour de force*, the Periyár project must take a low rank, compared with the others mentioned, as an agricultural improvement; since in the Punjab, where vast areas of waste lands exist, with great volumes of unutilised water rolling past them, an equal expenditure would both reclaim for cultivation and would irrigate more than double the area which will be affected by the Periyár scheme. The only cause which can make this scheme financially successful is the unusually high rate of land revenue which the Madras Government expects to realise.

12. When the data for this expectation are looked into, I cannot find that there are any later figures in existence than those in Mr. Clogstoun's report of July 1876. He shows there the classification of land he would adopt, his figures for average produce, for market value, and for cost of production, with the resultant rates of assessment, and these figures were doubtless as good as anything that could have been supplied at the time. But since then a great deal of settlement work has been done and much wider experience obtained,—nay the Madura district itself has been resettled,—and I understand that instead of Mr. Clogstoun's hypothetical rates, the Board of Revenue could now supply us with the actual rates of assessment and the actual areas of land likely to come under irrigation. I think it would be desirable that a revised estimate of the financial effects of the scheme should be asked for.

13. The dry inam and zemindari lands, 18,610 acres, were originally estimated to pay Rs. 6, but our despatch of 27th June 1884 lowered that estimate to Rs. 4 per acre. It would be well to inquire what the present intention of the Madras Government is in this respect.

14. The Madras Government's first estimate of return from second-crop irrigation was Rs. 1,41,374. By the Madras settlement system, second-crop land pays 50 per cent. on the assessment for first-crop, *i.e.*, if the average assessment is Rs. 7 per acre, the second-crop cultivation is charged Rs. 3-8-0, and on this assumption I calculate the area which is to produce Rs. 1,41,374 at about 45,000 acres, or 50 per cent. of the whole irrigated area. The later estimate of 1883 was Rs. 1,00,000, which represents about 30,000 acres or over 30 per cent. The earlier estimate at first sight struck me as extremely high; the only figures which I can find to support it in the Irrigation Report of 1887-88 are those of the Srívaikuntham anicut system, which has 83 per cent. of its area under second-crop. The lower estimate is more in accordance with the general run of figures in the south of the Province. The Chembrambakum tank and the Pálár anicut system have each of them 37 per cent. under second-crop. The Madura district, under "works for which a continuous record of expenditure is kept up," has 32 per cent., and "under Minor Works" 20 per cent. of second-crop land.

It is true that the conditions will be very favorable under the Periyár system: the supply of water is to be almost perennial, and that of manure is said to be ample; and these facts justify our expecting a high percentage of second-crop land. We may ask the Madras Government what estimate, based on present knowledge, they would make.

15. On the other hand, there are two items which deserve notice as possible sources of revenue. It is understood that the occupancy right in the tank bed, 9,000 acres and more in area,

which will be set free for cultivation, will be sold, and this area is estimated by Mr. Clogstoun to produce Rs. 50, and by Colonel Pennycuick over Rs. 100, an acre. Whether this can be actually obtained seems doubtful. I learned that, in the Nellore district, Government is asking Rs. 10 per acre for tank beds, and the people are refusing to pay more than Rs. 5. The second item is the waste land: no action seems to have been taken on Colonel Pennycuick's suggestion (para. 261 of his Report, page 23 of the Volume of Selections,) regarding the amount which may be earned by selling the occupancy right in the 26,800 acres of waste land to be brought under cultivation. I understand that it is not usual in Madras to sell occupancy right in such land; it is generally held that there exists a communal right on the part of the cultivators of the soil to the preferential occupancy of waste lands within the village area. But I have been informed that the existence of this communal right has not been admitted in Madura, and in any case, whether it is admitted or not to exist in ordinary cases, it seems to me worthy of consideration whether Government ought to allow it in cases where, by a great expenditure of public money, water is brought to the land, and what has hitherto been worthless becomes very valuable. If the right in this land could be sold in small blocks to the cultivators at Rs. 100 or even at Rs. 50 per acre, the State would recover 27 or 13½ lakhs by such sale, to set against its capital expenditure of 54 lakhs. Taking the higher estimate and adding the higher figure for the value of tank beds, the sale of land might recoup 36 lakhs and leave only 18 lakhs as the cash outlay on the project. It would not take this precise form, as such receipts (instead of being credited to the capital account, as I think they should be) are credited to current land revenue, and the interest on them, at 4 per cent., is assigned to the canal as indirect revenue; but the practical, financial effect is the same. I think the Madras Government might be requested to consider the feasibility of this suggestion. I may note here that in Sindh the Bombay Government puts up to sale by auction the occupancy right in waste land which is made culturable by the construction of a canal. There is some doubt, however, as to the figure—26,800 acres—which is the estimate made by Mr. Clogstoun 13 years ago, and may not at all correspond to the existing facts. I was told by Mr. Bliss, while in Madras, that the Board of Revenue was preparing to take up this question, and was issuing orders that no more waste land in the tract commanded by the scheme was to be given out on patta. It will be well to ask that the results of this action may be reported, and that the area of Government waste land now remaining unoccupied should be inquired into.

9th December 1889. C. A. E.

ORDER—dated 24th January 1890, No. 49 I., Public Works.

Communicated to the Chief Engineer, Periyár Project, who will see that the suggestions contained in paras. 3 and 4 of the enclosure to the above letter are carried out at an early date. The Chief Engineer will submit for transmission to the Government of India a quarterly statement of progress of work on the project in the form prescribed, commencing with the quarter ending on 31st March next. The statement should reach the Chief Engineer for Irrigation before the end of the month following the quarter to which it refers.

2. Orders will be issued in the Revenue Department regarding the explanation and revised forecast statements of revenue required by the Government of India in para. 4 of foregoing letter.

(True Extract.)

(Signed) G. T. WALCH,
Ag. Secretary to Govt., P.W.D.

To the Chief Engineer for Irrigation.
" Chief Engineer, Periyár Project.
" Examiner, Public Works Accounts.
" Revenue Department.
" Public Department.

Exd. J. Moses.
Spare Copies

1082

IRRIGATION.

Govt. of {1890} Madras.

PUBLIC WORKS.

Dated January, 24th.

Recd.

Encl.

G.O., 24th Jan. 1890, No. 49 I.

JANUARY.

Periyar Project

Orders on letter from the Government of India forwarding a note by the Honorable Sir Charles A. Elliott on the —.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.
Account.

Read—the following paper :—

Resolution of the Government of India, Public Works Department (Account—Irrigation), dated Simla, 20th June 1889, No. 53 A.I.

Read—the following papers :—

Proceedings of the Government of Madras, Public Works Department, Nos. 332-333 I., dated 8th June 1888.

Letter from the Examiner of Public Works Accounts, No. 355 A., dated 26th November 1888, received with endorsement No. 135 I., dated the 19th December 1888, from the Accountant-General, Public Works Department.

Resolution—

A question has recently arisen regarding the extent to which credit may be allowed in the accounts of Major Irrigation works for the sale-proceeds of waste or other lands not belonging to the works but directly benefited by their construction.

2. In the estimates of certain irrigation works the anticipated realisations from such sales have been shown as receipts on Capital Account or as reduction of the Direct Capital expenditure on the works in question ; and the estimates have received the approval of competent authority. From a reconsideration of the question it however appears to the Government of India that it is incorrect to credit such sale-proceeds to the Direct Capital Account of the project (more especially in those particular works where the capital is provided from loan funds). The land is sold under the orders of the Civil Department and the proceeds should be credited to Land Revenue.

3. As it is right, however, that the work in question should receive credit in some way or another for receipts which would not have occurred but for their construction, the Government of India is pleased to rule that when cases of the above nature occur the works may be credited annually in the administrative accounts as *Indirect Revenue*, with 4 per cent. on the amount realised by the sale of such lands.

4. In cases where credits have already been afforded to the direct Capital Account of Irrigation works, the amounts should be written back in accordance with these orders.

5. It should be clearly understood that these orders do not refer to lands which have been purchased specially for the works of any project and which may subsequently be sold.

Order—

Ordered that a copy of this Resolution be forwarded to the Local Governments, Administrations and officers noted in the margin for information and guidance.

The Governments of Madras, Bombay, Bengal, the North-Western Provinces and Oudh and the Punjab.
The Chief Commissioner, Burma.
The Agents to the Governor-General for Rajputana and Beluchistan.
The Accountant-General, Public Works Department.

(Signed) A. G. BEGBIE, Lt.-Col., R.E.,
Offg. Dy. Secy. to the Govt. of India.

Order—dated 3rd August 1889, No. 362 I., Public Works.

Communicated to the officers concerned for information and guidance.

2. The sale-proceeds of tank-bed lands of the Sangam anicut project for the current year were estimated at Rs. 20,000 and those of the Pennér anicut system at Rs. 10,000 (*vide* para. 26 of the note printed with G.O., No. 2 I., dated 8th January 1889). These sums were deducted from the current year's estimates of expenditure on the projects named and the net amounts only were provided for in the budget estimates (*vide* page 5 of the Major Works budget estimates issued with G.O., No. 220 I., dated 9th May 1889). Under the foregoing Resolution of the Government of India, the sale-proceeds of tank-bed lands are not to be treated as receipts on Capital Account. The current year's grants for the two projects under "49. Capital Expenditure on Irrigation Works not charged to Revenue" will be redistributed as shown below, the reserve for expenditure on works of the Sangam anicut project being reduced from Rs. 30,185 to Rs. 5,795 :—

	Sangam anicut.		Penner anicut.	
	Budget grant.	Revised grant.	Budget grant.	Revised grant.
	Rs.	Rs.	Rs.	Rs.
Works	62,659	38,269	16,354	16,354
Establishment	12,341	6,731	3,646	3,646
Total ..	75,000	45,000	20,000	20,000
Deduct receipts on Capital Account	20,000	..	10,000	..
Net Total ..	55,000	45,000	10,000	20,000

3. Orders will be issued in the Revenue Department for the inclusion of the amount to be credited to the projects in future annual statements of irrigation revenue prepared by the Board of Revenue in accordance with the ruling in para. 3 of the foregoing Resolution.

4. Ordered that a copy of these Proceedings be forwarded to the Government of India for information.

(Here enter No. 363 I., dated 3rd August 1889.)

(True Extract.)

(Signed) G. T. WALCH,
Ag. Secretary to Govt., P.W.D.

To the Chief Engineer for Irrigation.
" Superintending Engineer, II Circle.
" Examiner, Public Works Accounts.
" Revenue Department.

Endorsement—dated 3rd August 1889, No. 363 I., Public Works.

Forwarded.

(By order.)

(Signed) G. T. WALCH,
Ag. Secretary to Govt., P.W.D.

Exd. J. Henricus.
Spare Copies

IRRIGATION.
ACCOUNT.

Govt. of {1889} Madras.

PUBLIC WORKS.

Dated August, 3rd.

Read. *Encl.*

G.O., 3rd Aug. 1889, Nos. 362 I., 363 I.

AUGUST.

Irrigation Works

Orders on Resolution of the Government of India regarding the treatment of the sale-proceeds of waste or other lands not belonging to — but directly benefited by their construction.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.

READ—again the following :—

Proceedings of the Public Works Department, dated 10th July 1888, No. 401 I.

READ—also the following paper :—

G.O., dated 20th August 1888, No. 589, Revenue.

Order—dated 20th August 1888, No. 589, Revenue.

With reference to para. 2 of the Government Order in the Public Works Department above referred to, it is observed that it has already been decided in G.O., dated 11th April 1888, No. 253, that dry lands irrigated by the works of the Periyár project will be classified as wet and charged with consolidated wet assessment, not with separate water rates.

(True Extract.)

(Signed) C. A. GALTON,
Ag. Secretary to Government.

To the Public Works Department, Irrigation Branch.

ORDER—dated 11th September 1888, No. 536 I., Public Works.

Ordered that a copy of these Proceedings be forwarded to the Government of India in reply to para. 3 of their letter No. 116 I., dated 20th June 1888.

(Here enter No. 537 I., dated 11th September 1888.)

(True Extract.)

(Signed) H. R. MEAD, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

To the Chief Engineer for Irrigation.
" Superintending Engineer, Periyár Project, with copy of G.O. No. 253, dated 11th April 1888, Revenue Department.
" Examiner, Public Works Accounts.
" Revenue Department.

Exd. S. J. Pereira.
Spare Copies

CHIEF ENGINEER
No. 622 H
25 SEP 88
FOR IRRIGATION.

IRRIGATION.

Govt. of {1888} Madras.

PUBLIC WORKS.

Dated September, 11th.

Read.

Encl.

G.O., 11th Sept. 1888, No. 536 I.

SEPTEMBER.

Periyar Project

Proceedings in the Revenue Department affording information required by the Government of India in regard to the classification of revenue to be derived from lands irrigated by the —, ordered to be forwarded to the Government of India.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.

READ—the following letter from R. B. BUCKLEY, Esq., Under-Secretary to the Government of India, Public Works Department (Civil Works—Irrigation), to the Secretary to the Government of Madras, Public Works Department, dated Simla, 20th June 1888, No. 116 I. :—

I am directed to invite your attention to the revised forecast statements for the Periyár Irrigation Project, forwarded to the Government of India with your letter, No. 355 I., dated the 8th June 1887.

2. In statement No. III, showing growth of irrigation and revenue receipts and charges, the gross revenue due to works is classed as "indirect revenue," and it is stated in the eighth column of the statement that "as all water-rates are collected in Revenue Department, they are shown under indirect revenue; if they are excluded, there is no net revenue."

3. The correct principle for classifying such revenue would seem to be that if the money is collected as *land-revenue*, it should be shown as such in the accounts, and the portion due to irrigation should be treated as indirect revenue. But if the revenue due to the canal is separately assessed, as water-rate, it should be credited as such and classed as direct revenue by whatsoever department it is collected. I am directed to inquire whether the water-rates due to the Periyár Project will be separately assessed as a distinct demand, or whether they will be collected as land-revenue.

ORDER—dated 10th July 1888, No. 401 I., Public Works.

Communicated to the Chief Engineer for Irrigation for information.

2. Para. 3 of the above letter will be communicated to the Revenue Department with a request that the information required by the Government of India may be furnished as soon as possible.

(True Extract.)

(Signed) H. R. MEAD, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

To the Chief Engineer for Irrigation.
„ Superintending Engineer, VI Circle.
„ Examiner, Public Works Accounts.
„ Revenue Department.
„ Superintending Engineer, Periyár Project.

Exd. F. R. Bantleman.

Spare Copies

514 91
16 JUL 88
FOR IRRIGATION

IRRIGATION.

Govt. of {1888} Madras.

PUBLIC WORKS.

Dated July, 10th.

Recd. *Encl.*

G.O., 10th July 1888, No. 401 I.

JULY.

Periyar Irrigation Project

Orders on letter from the Government of India remarking on certain points in the revised forecast statements for the —; and inquiring whether the water-rates due to the project will be separately assessed as a distinct demand, or whether they will be collected as land-revenue.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.
Account.

READ—the following paper:—

Note by the Chief Engineer for Irrigation.

No. 56 I.

In the estimates for the Periyár project sanctioned by the Secretary of State in his despatch, No. 53, of 18th September 1884, communicated with the Government of India letter, No. 90 I., dated 10th May 1886, printed with G.O., No. 386 I., dated 29th May 1886, a sum of Rs. 8,00,000 was provided for payment to the Travancore State as compensation for the site of the works and for the water to be diverted to British territory. The actual amount to be paid was not then settled; but the negotiations with that State having been subsequently concluded, a lease deed for the land required for a period of 999 years, was executed (*vide* G.O., No. 928 I., dated 23rd December 1886). Under this indenture a sum of Rs. 40,000 has to be paid to the Travancore State, commencing from the date on which water in the Periyár river may, by means of the project works, be diverted from the Travancore to British territory. As the payment will be an annual recurring charge, it should be treated as a portion of the working expenses under Revenue account, the estimated outlay on Capital account being reduced by Rs. 8,00,000, the amount originally provided for payment to the Travancore State for land compensation; at the same time under the Government of India circular No. 107 A.G., dated 24th March 1886, the provision of Rs. 40,000 for "loss by exchange" should be transferred from "Indirect" to "Direct" charges. In the forecast statements the amount of charges for the collection of revenue in the Civil department was added to working expenses, but under the existing rules * it should be deducted from the estimated revenue. The Government of India in revising the forecast statements reduced the estimate of revenue from Rs. 7,00,000, to Rs. 6,28,214 on information furnished by the Revenue Department, but the proportionate reduction in the estimate of collection charges was not made. The rate of collection charges was subsequently under G.O., No. 1501 W., dated 16th June 1884, reduced from 7·2 to 5 per cent. The rate of 8 annas per acre for maintenance charges in the Public Works Department has since the preparation of the original forecast statement, been considered inadequate and should be increased to 12 annas per acre so as to cover establishment, tools and plant and indirect charges.

* G.O., No. 1087 I., dated 19th Dec. 1885.

2. The forecast statements have been revised with reference to the above remarks and are attached to this note. These statements show that the project will yield a net revenue of 8·53 per cent. on the total estimated outlay including indirect charges against 7·80 per cent. anticipated when the estimates for the project were sanctioned. It is suggested that the revised statements, together with a copy of G.O., No. 928 I., dated 23rd December 1886, be forwarded to the Government of India with a request that permission for the early commencement of the project may be accorded.

OOTACAMUND,
25th May 1887.

(Signed) H. R. MEAD, Colonel, R.E.,
Chief Engineer for Irrigation.

To the Joint Secretary to Government,
Public Works Department, Irrigation Branch.

ENCLOSURE.

PERIYAR PROJECT—MADURA DISTRICT.

No I.—Summary of the estimated Direct charges to Capital account.

—	Works.	Establishment.	Tools and plant.	Loss by exchange.	Total.
1	2	3	4	5	6
	RS.	RS.	RS.	RS.	RS.
First year	4,00,000	50,000	5,000	30,000	4,85,000
Second year	8,00,000	1,75,000	11,000	2,000	9,88,000
Third ,, ...	8,00,000	1,75,000	11,000	2,000	9,88,000
Fourth ,, ...	8,00,000	1,75,000	11,000	2,000	9,88,000
Fifth ,, ...	8,00,000	1,75,000	11,000	2,000	9,88,000
Sixth ,, ...	8,00,000	1,75,000	11,000	2,000	9,88,000
Total ..	44,00,000	9,25,000	60,000	40,000	54,25,000

No. II.—Summary of the estimated Indirect charges to Capital account (excluding interest).

—	Capitalized abatement of Land revenue.	Leave and Pension allowances.	Total.
1	2	3	4
	RS.	RS.	RS.
First year	..	..	..
Second year	..	..	..
Third ,, ...	17,000	7,000	7,000
Fourth ,, ...	17,000	24,500	41,500
Fifth ,, ...	17,000	24,500	41,500
Sixth ,, ...	17,413	24,500	41,500
Total ..	85,413	1,29,500	2,14,913

No. III.—Summary of growth of Irrigation and Revenue receipts and charges.

—	Area irrigated at the end of each year.	Revenue Receipts and Charges. Gross revenue due to works. Direct receipts.	Indirect revenue exclusive of collection charges at 5 per cent.	Total.	Charges both direct and indirect.	Net revenue due to works. Including Indirect revenue.	Excluding Indirect revenue.
1	2	3	4	5	6	7	8
	ACS.	RS.	RS.	RS.	RS.	RS.	
Seventh year ..	11,000	..	59,071	59,071	55,000	4,071	As all water rates are collected in Revenue Department, they are shown under Indirect revenue; if they are excluded there is no net revenue. The figures in column 6 include the annual payment of Rs. 40,000 to the Travancore Government, and the working expenses from the eleventh year are estimated at 12 annas per acre of the ultimate area to be irrigated.
Eighth ,, ..	21,000	..	1,18,820	1,18,820	70,000	48,820	
Ninth ,, ..	31,000	..	1,78,566	1,78,566	85,000	93,566	
Tenth ,, ..	41,000	..	2,38,311	2,38,311	1,00,000	1,38,311	
Eleventh ,, ..	51,000	..	2,98,058	2,98,058	1,15,750	1,82,308	
Twelfth ,, ..	61,000	..	3,57,806	3,57,806	1,15,750	2,42,056	
Thirteenth ,, ..	71,000	..	4,17,553	4,17,553	1,15,750	3,01,803	
Fourteenth ,, ..	81,000	..	4,77,300	4,77,300	1,15,750	3,61,550	
Fifteenth ,, ..	91,000	..	5,37,047	5,37,047	1,15,750	4,21,297	
Sixteenth ,, ..	101,000	..	5,96,803	5,96,803	1,15,750	*4,81,053	

* 8·87 per cent. on the estimate of Direct charges or 8·53 per cent. on the total estimate including Indirect charges.

No. IV.—Estimate of net Financial results.

2 per cent on

—	Direct Capital outlay during the year.	Direct Capital outlay to end of the year.	Simple interest at 4 per cent. on outlay to end of the previous year, *plus* half outlay during the year.	Net revenue including Indirect revenue (column 7) of table III.	Simple interest less Net revenue.	Net revenue less simple interest.
1	2	3	4	5	6	7
	RS.	RS.	RS.	RS.	RS.	RS.
First year	4,85,000	4,85,000	9,700	..	9,700	..
Second year	9,88,000	14,73,000	39,160	..	39,160	..
Third ,, ...	9,88,000	24,61,000	78,680	..	78,680	..
Fourth ,, ...	9,88,000	34,49,000	1,18,200	..	1,18,200	..
Fifth ,, ...	9,88,000	44,37,000	1,57,720	..	1,57,720	..
Sixth ,, ...	9,88,000	54,25,000	1,97,240	..	1,97,240	..
Seventh ,, ...	..	54,25,000	2,17,000	4,071	2,12,929	..
Eighth ,, ...	..	54,25,000	2,17,000	48,820	1,68,180	..
Ninth ,, ...	..	54,25,000	2,17,000	93,566	1,23,434	..
Tenth ,, ...	..	54,25,000	2,17,000	1,38,311	78,689	..
Eleventh ,, ...	..	54,25,000	2,17,000	1,82,308	34,692	..
Twelfth ,, ...	..	54,25,000	2,17,000	2,42,056	..	25,056
Thirteenth ,, ...	..	54,25,000	2,17,000	3,01,803	..	84,803
Fourteenth ,, ...	..	54,25,000	2,17,000	3,61,550	..	1,44,550
Fifteenth ,, ...	..	54,25,000	2,17,000	4,21,297	..	2,04,297
Sixteenth ,, ...	..	54,25,000	2,17,000	4,81,053	..	2,64,053
Seventeenth ,, ...	..	54,25,000	2,17,000	4,81,053	..	2,64,053
Eighteenth ,, ...	..	54,25,000	2,17,000	4,81,053	..	2,64,053
Total ..	..	..	32,04,700	32,36,941	12,18,624	12,50,865
Deduct ..	..	..	..	..	..	12,18,624
Net Surplus revenue ..	..	..	..	..	..	32,241

OOTACAMUND,
25th May 1887.

(Signed) H. R. MEAD, Colonel, R.E.,
Chief Engineer for Irrigation.

ORDER—dated 8th June 1887, No. 354 I., Public Works.

The revised forecast statements for the Periyár project, prepared by the Chief Engineer for Irrigation, are approved and will be forwarded to the Government of India together with a copy of G.O., No. 928 I., dated 23rd December 1886.

2. The following letter will be sent to the Government of India.

* (Here enter No. 355 I., dated 8th June 1887.)

(True Extract.)

(Signed) H. R. MEAD, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

To the Superintending Engineer, VI Circle.
" Chief Engineer for Irrigation.
" Examiner, Public Works Accounts.
" Revenue Department.
" Political "

LETTER—to the Secretary to the Government of India, Public Works Department, dated Ootacamund, 8th June 1887, No. 355 I.

In continuation of the remonstrance of the Right Honorable the Governor in Council conveyed in my letter, No. 863 I., dated 9th December 1886, against the further postponement of the Periyár project, I am directed to forward, herewith, a copy of the proceedings of the Madras Government noted in the margin, and to request that, having regard to the reduction of eight lakhs in the estimated cost of the

Proceedings of the Madras Government, No. 928 I., dated 23rd December 1886.

project resulting from the conclusion of the negotiations with the Travancore State for the cession of the land required for the project and the increase from 7·80 to 8·57 per cent. anticipated in the financial result, the Government of India may be pleased to reconsider the feasibility of allotting funds for the early commencement of the project works.

(Signed) H. R. MEAD, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

Exd. P. L. Pereira.
Spare Copies

IRRIGATION.
ACCOUNT.

Govt. of {1887} Madras.

PUBLIC WORKS.

Dated June, 8th.

Read.

Encl.

G.O., 8th June 1887, Nos. 354, 355 I.

JUNE.

Periyar Project

Revised forecast statements for the — approved and forwarded to the Government of India with the request that the feasibility of allotting funds for the early commencement of the project works may be reconsidered.