

(1) Number of pages _____

(2) Date of repair _____

(3) Initials of the Referencer _____

MADRAS RECORD OFFICE

Government of Madras

Public Works

DEPARTMENT

G.O. No.	2991	Press
~~B.P. No.~~		Mis.
Dated	20. 10	1874
		105

Not to be folded or roughly handled

1866
Note by the Deputy
Controller of N. W. Accounts
Irrigation Branch.

The object of this note
is to call attention to the
different points on which
orders are required with
a view to putting the
Capital and Revenue
Accounts of Irrigation
books on a proper footing.
I have endeavored to put
each question as clearly and
fully as possible, but I can
hardly suppose that I have
made each point as intelli-
gible to others as it appears
to me; I therefore trust
that before this note is
finally disposed of, I may
be allowed an opportunity
of personally discussing
with the Chief Engineer
or the Chief Engineer for
Irrigation any points on
which my remarks or
suggestions may be considered
open

open to objection. I would
also express a hope that
these questions may be dis-
posed of as soon as possible.
To set the accounts right
as regards the future is
in my opinion the first
thing to be done. As for
the past, it matters very
little whether it is taken
up now or twelve months
hence.

Classification of expenditure } 2. In paras
11 to 13 of
the note
accompanying Govt of India
Circular No 80 of 1871, it is
laid down that all ex-
penditure in connection
with Irrigation works
shall be classed under two
heads - Capital and Re-
venue, and it is further
ordered that

I. Capital, shall comprise
all original projects
and extensions that
may be authorized
to be

works by the Chief Engineer
Irrigation.

The rule of the Government
has been accepted as applicable
to all the great works or systems
of Irrigation for which
detailed Capital and
Revenue accounts are kept;
but it has been pointed out
that it is not applicable to
the irrigation works of the
Provinces generally, as
the 5000 Rupees limit
would represent frequently
more than the entire Capital
cost of the works.
It may be useful to mention

to be charged to this head
II. Revenue, shall in-
clude all repairs,
all renewals and
extensions costing
not more than
Rupees 5,000 each for
separate objects, and
any others in excess of
that sum which
may not be sanction-
ed against Capital

The Circular here referred
to was circulated with G.O.
dated 30 April 1872 No 1102,
and, as the orders of Govt
take no exception to the
rules furnished by the
Govt of India in this
matter, it was supposed
by this office that these
rules were accepted, and
that all expenditure
on renewals and ex-
tensions estimated to
cost not more than
Rupees 5,000 each for
separate objects should
accordingly

accordingly be treated
as a charge against Re-
venue. I now understand
that the Chief Engineer
for Irrigation does not
consider that this Govern-
ment have accepted
the rule laid down by
the Govt of India on
this point.

3 Colonel Mullins
opinion I understand
to be that small additions
and improvements, and
improvements not of a
durable and substantial
nature, should generally
be charged to repairs, but
that it is not right to
burden the Revenue
Account of a work with
charges on account of new
works costing as much
as Rupees 5000 each.
It is not for me to express
an opinion as to the
limit which should
be fixed for new works
chargeable

that some confusion
appears to have arisen
from the classification
of expenditure on
1 Capital account
2 Revenue do
3 Works, provided no Capital
or Revenue accounts are kept
As I understand the intention
no works from which Revenue
is derived or intended to be
derived should be charged
under the 3rd head, but
only such works as river
embankments and perhaps
a few others, which are carried
out for the general welfare
and improvement of the
locality concerned, and
and the nature rather
of Miscellaneous Public
Improvement than benefited
from Agricultural Funds.
There are some works about
which there may be some
little doubt, as for instance
drainage works. These if
intended primarily as a

means of securing
or extending
cultivation and
Revenue should I
think be charged under the
1st or 2nd head, while if not
so intended they would
properly fall under the
3rd head. Thus the drainage
of the lands generally of the
Eschary & Krishna Deltas
should as is now being done
be charged to the Capital
outlay of the Delta Irriga-
tion works, but and their
subsequent maintenance
of the drains to Revenue
On the other hand the drainage
of the villages, recently ordered
by Government to be under-
taken, should so far as it
may be provided for under
Agricultural be charged under
the 3rd head as no returns
in revenue are expected from
the outlay.
I follow from these remarks

chargeable to the Revenue
Account; but I wish to
observe that if any new
works are to be charged to
the Revenue Account—
and Colonel Mullins
himself considers that
some new works should
be so charged—there
appears to be no reason why
the distinction between
"Extensions and Improve-
ments" on the one hand
and "Maintenance and
Repairs" on the other
should not be maintain-
ed as desired by the
Govt of India. "Repairs"
in the sense in which the
word has hitherto been
used in connection with
Public Works Accounts,
is a technical word which
includes only technical
meaning.

meaning a number of works which in a non-technical sense are not repairs: for the head "Repairs" is now substituted the head "Maintenance of Works"; under the main head "Maintenance of Works" it is proposed ^x that there ^x vide forms accompanying Accountant General's Circulars and 15 of 1872. should be two minor heads - namely, "Extensions and Improvements" and "Maintenance and Repairs"; I think that all original works, no matter how petty or how unimportant, that is, all works which are not repairs in the non-technical sense

that all masonry works should be charged under either Capital or Revenue. No Capital & Revenue account in detail may be kept for these works ^{individually}, but there is no reason why General Capital & Revenue accounts should not be kept, by Districts in the first instance and afterwards as information becomes more complete, by Groups. I see no objection to masonry under Revenue being divided into the two subheads 1 Extensions & improvements 2 Repairs. It will in no way prevent Government deciding in particular cases whether the extensions & improvements should not be rather charged to Capital. As a rule I think minor new works sanctioned

for the improvement of the numerous petty irrigation works of this Presidency should be charged to Capital - Such are new waste or surplus weirs, sluices, and restrooms where entirely new works - new supplying channels with their head sluices &c. on the other hand altering Colingulales into surplus weirs, small extensions of restrooms or their reconstruction are an improved section: remodelling supply channels, works for rendering obstructive or other, ancient more watertight or bringing their crest to a level so would come under extensions & improvements chargeable to Revenue. The classification shown in the note accompanying Government of India Circular No 64 of 1871 has been adopted as regards the

sense of the word, should if charged to the Revenue Account, be classed as "Extensions and Improvements" and under "Maintenance and Repairs" I would class only such works as are strictly repairs. Under each of the great heads - Capital and Revenue, the Govt of India, in their Circular No 80 of 1871, slightly modified by Circular No 40 of 1872 printed with G.O. dated 6 Sept 1872, No 2126, have prescribed other heads, subheads, and minor heads of classification. It is understood that the Govt of Madras agree to adopt for certain large works, or rather systems of work, a classification modelled upon

upon that of the Govt of India. The exact classification to be adopted has not yet been fixed. Until it is fixed it is useless for this office to attempt a classified booking of Expenditure. District Engineers have been requested to furnish lists of works in progress or sanctioned for execution, in connection with schemes for which Capital and Revenue Accounts have been ordered to be kept. These lists will be forwarded, with any remarks which this office may have to make, to the Chief Engineer for Irrigation, who has undertaken to revise the classification adopted by District Engineers and to place before Govt a complete scheme of classification. The question of classification is perhaps not

principal heads denoted by Capital letters, and the sub heads indicated by numerals vide P.M.G. No dated communicating that Circular to all District Engineers - The Budget of 1874-75 was prepared as far as time would admit in conformity with that order.

not mean which this office should advise; but, as the consideration of the question has been forced upon me in connection with the work of this office, I will here state the views which I have formed. My remarks may not be of any service. They can do no harm.

Classification of works. } b. Under Capital.

As proposed by the Govt of India to classify the expenditure as on Works, Miscellaneous, Plantation, Establishment, and Tools and Plant. I will first take "Works" which according to the Govt of India scheme, are classified as follows.

- A. Temporary Works - to maintain and regulate supply of water.
- B. Permanent Works - Main canals & Branches, Distributing channels.

The Ancients have been classed under this head, as they occupy the place of the temporary works apparently referred to.

Another sub-head for Drains required in the Deltas, and, not in the Deltas, canals for Tanks would have to be shown separately.

C. Masonry Works

1. Main Canals and Branches

a. Dams and regulating works

b. Falls and weirs

c. aqueduct and works to divert or pass drainage across the canal.

d. Locks

e. Irrigation outlets.

2. Distributing Channels

a. Head Stems and Regulating Works

b. Falls and weirs

c. aqueducts

d. Irrigation outlets.

3. Drainage Works

4. Supply of Tanks

5. Road Bridges

6. Navigation Works

7. Mills and application of Water Power

8. Buildings

9. River or Protection - Embankments.

Under present orders these further subdivisions have not been adopted.

do - do -

not in Circular 64 of 1871

and would generally be classed under works for which no Capital or Revenue accounts are kept.

D. Earth Works

1. Main Canals and Branches.

a. Excavation of bed.

b. Embankments or protection of banks.

c. Dimensions of drainage crossing the canal.

d. Escape channels.

2. Distributing Channels

3. Drainage (Surface of land)

4. Supply of Tanks

5. Navigation Channels

6. Supply Channels to Mills

7. River or Protection Embankments

E. Miscellaneous

The head "Temporary Works - to maintain and regulate supply," is not applicable to large schemes in this Presidency; I would substitute for it "Head works," subdivided into

these subdivisions have not been adopted

not in Circular No 64 of 1871

ancients or weirs, but not the head sluices which formerly were included under "Head works"

into "Masonry Works" and "Earth Works."

Under "Cost of land" it may be necessary to provide for compensation for lands taken up for Drainage Works, Supply of Tanks, Road Bridges (or diversions), Navigation works, or Buildings. The subheads given in the Govt of India scheme make no provision for such a contingency. Such items of compensation would probably have to be entered under Subhead "a, - Main Canals and Branches," but this would be altogether inconsistent with the classification adopted under "Masonry Works," which requires a clear distinction between "Main Canals and Branches" and "Drainage Works," Supply of Tanks, etc. I think the

but which belongs to C. Masonry works, main Canals & branches.

Drainage and Tanks & Buildings, may be added. "Supply of Tanks" is not as applicable as "Tanks" only which latter should be taken to refer to all lands required for the Tanks or its connected works.

Land for road bridges should be put down as (1) Main Canals and Branches (2) Distribution (3) Drainage or (4) Tanks & Buildings according to the description of works in connection with which the bridges are built.

Navigation works are included in Main Canals and Branches

Navigation works should be but not Buildings which are not component parts of the Canals.

The minor subheads were not adopted, the classification of this work is as follows:

number of subheads under "Cost of land" must be increased to provide for Drainage works, Supply of Tanks, Road-bridges, Navigation Works and Buildings, or - and this seems to me the better plan - two subheads should be added under "Cost of land" for "Drainage Works and Supply of Tanks," whilst Road-bridges, Navigation Works, and Buildings should be made through out minor heads of the Sub-head "Main Canals and Branches" under "Masonry Works." To "Main Canals and Branches" I think it will be necessary to add a minor head for "Dikes for local Drainage." I say this on the supposition that the minor heads "Dams and Regulating Works," "Gates and Weirs," "Locks" and "Navigation

Irrigation Outlets; are
to be maintained; but
I certainly think it would
be better — as being quite
sufficient and much simpler — to merge these
under the one head "Irrigation Works"; that is
works necessary to the
canal *quâ* irrigating
channel. The same remarks apply to the head
"Masonry Works — Distributing Channels". There
is a sub-head "Roads and Bridges" under "Masonry Works"; but no parallel sub-head under "Earthworks",
so that there is no provision for road diversions, and
installed crossings, which
latter appear to be in
common use in some districts. The classification
should provide for these
works

any way, they will be
placed under "Earthworks"
without any further sub-
division.

This is not matter; it
is merely a recognized
sub-head and it is
filing in use, who are
by the way.

vide remarks on
classification.

15
works. The sub-head in
"Mills and application of
water power" is not required.

"Under Earthworks —
Main Canals and Branches"; I would combine the
two first minor heads in
"Excavation of bed" and
"Embankments and protection
of banks"; for I really do
not see how the cost of
the two can be kept separate; nor do I see what
is gained by making two
heads for drainage, sewer
and escape channels. I would have one head
only.

I do not think
that much advantage
is gained by making
"Masonry Works" and
"Earthworks" primary
divisions. I would rather

rather makes "Head Works," "Main Channels," "Distribution Channels," etc. primary divisions, and have "Masonry Works" and "Earthworks" as subdivisions under these. It will very often be convenient to have in one view the cost of all works on any main channel, but it can never, as it seems to me, be of much use to have in one view the cost of all Masonry Works comprehended in any Project. This view of the matter would now appear to have been taken by the Govt of India, for the order which I here suggest is, in the Accountant General's Circular 19 of 1873 prescribed for adoption in the annual appropriation returns.

I think it would be

I agree with Mr. Christie's remarks on this point, but the aim has been to conform as far as possible to the classification desired by the Government of India.

It seems to me that preliminary expenses have not appeared as a rule in project estimates, but they are of the nature of the expenses which are required.

It may be at any time

no, and is not likely to be. I think subheads of Tools and Plant may be extended. Quarry plant is an important item. I mention "Floating Plant" as perhaps better than navigation plant, as it is more generally understood.

be an advantage to keep the cost of preliminary surveys distinct from other items of expenditure, and for this purpose I would introduce a main head "Preliminary Expenses," with subheads "Establishment," "Tools and Plant" and "Miscellaneous." The main head "Plantation" is not required. Under "Establishment" no change seems required. Under "Plant" the subhead "Machinery for Mills" is unnecessary.

I have above detailed the changes I would propose in the classification adopted by the Govt of India; below, I give in one view the classification which I propose for adoption under capital.

I Preliminary

Expenses.

- A Establishment *
- B Tools and Plant *
- C Miscellaneous *

Substantially not necessary
I think

II Land

- A Head works *
- B Main channels *
- C Distribution chls *
- D Tanks and their
Supply channels *
- E Navigation channels *
- F Drainages *

"Main canals & branches" would
be preferable

"Tanks" only better.

not necessary usually as
the navigation channels
when designed to agricultural
are main canals & branches
Canals or weirs

III Construction

- A Head works
 - 1 Masonry works
 - 2 Earthworks
- B Main channels
 - 1 Irrigation Works
 - a Masonry Works

this subhead unnecessary as
the earthworks are usually better
such as excavation, irrigation
& forming temporary dams

- i Dam and
regulating
works *
- ii Falls and
weirs *
- iii Irrigation
outlets *
- iv Intake for
local drain
age *
- v Levees *

vi aqueducts and
underpasses
for passing
drainage *

vide remarks above
on classification

III Construction (Cont'd)

b Earthworks

- i Excavation
and embankment *
- ii Locks, channels
and drainage
structures *
- 2 Navigation
Works

vide remarks above.

3 Roads and
Bridges

a Masonry Works

- i Bridges *

b Earthworks

- i Road di-
visions *
- ii Interlocked
crossings *

not necessary

4 Buildings

c Distribution chls

a Masonry Works

- subdivided
as above if
necessary *

b Earthworks

subdivided
if necessary *

subdivision not necessary
except Masonry & earthworks

D Tanks and their
Supply channels

a Masonry Works

b Earthworks

E Navigation chls

a Masonry Works

b Earthworks

unnecessary as not desirable
to subdivide the
navigation chls

III Construction (concluded)

F Drainages
 b. Masonry
 Works
 b. Earthworks

G River Conservancy
 and Improvements
 a. Masonry
 Works
 b. Earthworks

Chargeable usually to
works purchase & Capital
and Revenue accounts
and kept.

IV Establishment

A Direction and
 Accounts

B Executive

C Medical

D Survey

V Tools and Plant

A General

B Navigation

VI Miscellaneous - Ex

periments and contingen-
cies.

- This would come under either
Executive Est. or Preliminary
expenses.

"Quarry" might be added to the
materials.

The kind of Contingencies
needs specification

In the above classification
I have, in order to adhere
as closely as possible to the
Govt of India scheme,
introduced many
minute

minute subdivisions which
might I think with great
advantage be omitted: these
I have marked with an
asterisk.

H. Revenue expendi-
ture might I think be
classified as follows.

I Maintenance of
 Works.

A Extensions and
 Improvements

- 1 Head works
- 2 Main channels
- 3 Distribution chls.
- 4 Tanks and their
 Supply channels
- 5 Navigation chls.
- 6 Drainages
- 7 River Conservancy
 and Improvements
- 8 Miscellaneous

B Maintenance and
 Repairs -
 subdivided as above

vide remarks above

"Tanks"

not required

not required

II Establishment

- A Direction and Accounts.
- B Executive
- C Conservancy and Water Regulations
- D Navigation
- E Revenue Collection
- F Medical

None in the P.W.D

III Tools and Plant

- A General
- B Navigation

"Quarry" also when required.

IV Miscellaneous

It will be seen that the classification suggested for Revenue is as nearly as possible parallel with that suggested for Capital

classification } 12. It is the wish of the Govt.

of India that in the annual Budget estimates and Appropriation Returns, the

the estimated and actual charges on account of establishments shall be detailed in a methodical manner according to a fixed scheme of classification. In the model form forwarded with Govt of India letter No 64 of 1871 the following classification is given.

I General

1. Direction

- a. Office of Chief Engineer and Secretary.
- b. Superintending Engineers
- c. Accounts.

2. Executive Establishment

- a. Engineer Establishments
- b. Upper Subordinate Establishments
- c. Lower Subordinate Establishments
- d. Petty Establishments

3. Water Regulation

I. General (concluded),

4 Medical Establish^{ment}

5 Survey

a Engineer Establish^{ment}

b Upper Subordinate do

c Petty Establishment

II Revenue

III Navigation

IV Mills

V Plantations

13. This classification is not
- as it stands - quite applica-
ble to the establishments of
this Presidency. We have

no Superintending Engineers.

In the other hand we

have Inspecting officers and

District Engineers. The

distinction between Upper

and Lower Subordinate

Establishments is not known

here; though, strangely en-
ough, the term Upper

Subordinate is still used.

Water regulation is part

of the duty of the lower

Survey

I do not think this is a
description. There is a Com-
munity establishment for
work implied in the name
and in the main distinction
The Navigation & Irrigation
Establishment have nearly
separated.

Survey Establishment. We
have no Revenue (collection)
Establishment worth speak-
ing of; in fact the Duranika
Establishment in Tanjore
is the only Establishment
of this description, so far as
I am aware. Navigation
Establishments we have;
but they have always been
confounded - improperly
I think - with Conservancy
Establishments. We have
neither Mills nor Planter-
ies; and therefore no
Establishments in connec-
tion with them.

14. I think it is very
desirable to take as the
basis for the classification
of our establishments the
several gradations of
charges or works divisions
into which the Presidency
is divided. Of course it
will

will be necessary to distin-
guish the different ranks
and classes of officers and
subordinates; but the basis
of the classification should,
I submit, be the nature
of the charges into which
the Presidency is divided.
It seems to me useless to
classify the establishment
charges according to the grades
and classes of the different
officers, when these grades
afford no indication of the
nature of the duties per-
formed. A charge which
is held by a 3rd grade Ex-
ecutive to day may be held
by an overseer to-morrow,
and by assistant Engineer
or a Supervisor six months
hence. I subjoin a scheme
of classification formed
as far as possible upon this
basis.

Chief Engineer for Irrigation? -
Accounts?

- 21
- I. Direction and Accounts
1. General
 - a. Chief Engineer and Secretariat
 - b. Inspecting Officer
 - c. Control Office
 2. District Engineers
- II. Executive Establish-
ment
1. Range officers
 2. Sub-Divisional officers
 3. Taluk Officers
 4. Petty Establish-
ment
- III. Survey Establish-
ment
1. Engineer Establish-
ment
 2. Surveyors
 3. Petty Establish-
ment
- IV. Conservancy and
Water Regulation
1. Superintendent

- IV. Conservancy and Water Regulation (Copied?)
2 Petty Establish-ment
- V. Navigation
- VI. Revenue Collection

No change in the P.W.D

The expenditure under each subhead of the above classification will have to be given in the Budget Estimates and appropriation Returns, under the four heads, Establishment, office establishments, travelling allowances, and contingencies.

15. If the above scheme of classification is approved District Engineers should be called upon to classify the existing establishments of their districts in accordance therewith, and Range officers should be required to adopt the classification in their Salaries

Salary Bill. A slight modification in the form of the Salary Bill will probably be necessary in order to provide for showing clearly the above classification and certain other information which, as will be seen hereafter, is required to allow of a proper debiting of Establishment charges.

16. The Distribution of Establishment charges } next point to be dealt with is that

of the distribution of Establishment charges. In dealing with this subject the most convenient plan will I think be to state in first what is the plan of distribution according to present orders, then to point out the objections to that plan, and lastly to suggest

suggest a procedure for future adoption.

17 The Establishments with which this office has to deal are as follows;

a. Chief Engineer and Secretariat

b. Inspecting Officers

c. Control Office

d. District Engineers

e. Range Establishments comprising
i. Construction

Establishments

ii. Survey Establishments

iii. Conveyance
Establishments

iv. Navigation

Establishments

v. Kranikam or Revenue
Establishments

f. Presidency Store
Department

g. Lithographic De-
partment,

the

This is I think only another
name for Consumption in 185

Use of the word Consumption by
the Government

the charges on account of which are adjusted as follows:-

a. Chief Engineer and Secretariat. The Chief Engineer for Irrigation and his immediate establishment are charged monthly to Irrigation Extraordinary. The uncharged balance of the Secretariat charges is at the end of the year distributed over the several other heads of service in rateable proportion to the outlay on works under each head.

b. Inspecting Officers. No orders have been passed with regard to the allocation of charges on this account.

c. Control Office. The whole of the charges on account

on account of the Controller's office have hitherto been distributed between the different heads of service, with the exception of Irrigation Extraordinary, in proportion to the outlay, under the several heads. No orders have been passed with regard to the treatment of the charges on account of the Deputy Controller, Irrigation Branch and the pay of the Special Establishment entertained for the preparation of the Capital and Revenue Accounts of Irrigation Works.

d. District Engineers.
The charges on account of District Engineers and their Establishments are rateably apportioned to

to all heads of service with the exception of Irrigation Extraordinary.

e. Range Establishment. All survey charges, in connection with works which are expected to be carried out from Loan Funds, are debited to Extraordinary. All charges on account of maintenance, navigation, and Harbours Establishment are debited to Imperial Ordinary. The balance of Range Establishment charges are then dealt with as follows;—

At the end of each month that portion of the range charges which has not been previously dealt with as

above

above, is divided be-
tween (1) Extraordinary
and (2) All other heads
of service taken together,
in proportion to the outlay
under Extraordinary and
under all other heads
of service. As far as Extra-
ordinary is concerned
the monthly debits so
made are final; but at
the close of the year a
further distribution
is made, between the
several heads other than
Extraordinary, of the
unallocated balance of
Establishment charges.

In making this final
distribution the share
debtible to Local Funds
is first ascertained as
follows. All the balances
of

Apparently irrigation outlay
is charged too much as to
be its special charge -
Conservancy, and with
share of the General Fund

range establishment charge	} exclusive of these margins by noted not previously charged off are added to
Consulting Architect	
East Coast Canal Range	
Bangalore Range	
Improvement Survey Staff	
Local Funds Petty Establishments	

together and divided between
Local Funds and all
other heads of service taken
together in proportion to
outlay on works; the outlay
by Consulting Architect,
and the outlay in the
East Coast Canal,
Providency, and Bang-
alore Ranges being ex-
cluded from the total
outlay on which the
distribution is based. This
determines the share
debtible to Local Funds
which

which is afterwards distributed between the several Local Fund levels according to Rules with which this office has no concern.

The shares debitable to Extraordinary and Local Funds having been determined, the balance has still to be charged off. This is done as follows:—First of all a few establishments are specially treated thus;

The Consulting Architect and the Presidency House Department are distributed rateably between Provincial and Ordinary. The Presidency and

and last least Bengal Range charges are more charged to heads of the service in proportion to the outlay under the several heads in each of those Ranges.

The Bangalore Range and housewary charges are charged to Imperial Ordinary and Survey charges are debited to the head of Service concerned.

The Lithographic Department is debited to Provincial, and to the Local Fund. Petty establishments to Local Funds. The balance still remaining unadjusted is then divided between Imperial Ordinary and

and Provincial in proportion to the outlay under these two heads.
18. Under what authority the charges on account of the Chief Engineer for Irrigation are, and have been, debited to Extraordinary I do not know. I feel almost certain that there is no authority for this course: for, it is almost inconceivable that, if there were any such authority, neither the auditor concerned nor the head of the audit branch would be able to produce the authority. I cannot, however, assert positively that there is no such authority; for although, after a search which

which has occupied more than two months, the record department have succeeded in collecting what are said to be all the orders on the subject of the allocation of my establishment charges, I am by no means certain that I have seen all the orders on the subject; for the most ordinary precautions are neglected in the record department; there is no attempt whatever to keep together the thread of a long correspondence; and, when the papers connected with any subject happen to be spread over four or five years, it is next to impossible to collect them. I am

I am bound to add that I think this state of things is in some measure - but by no means altogether - due to the meanness of the establishment.

19. I come now to what appears to me to be objectionable in the present method of dealing with establishment charges.

a. Chief Engineer and Secretariat. The practice of debiting to Extraordinary all charges on account of the Chief Engineer for Irrigation - setting aside the question of the authority under which this is done - is, I think, open to objection. In the first place the Chief Engineer for

The system appears to be extremely complicated.

Yes, and at present more occupied with works carried out from Preliminary than with those for which the Extraordinary is the ordinary grant. I think the Extraordinary grant is the ordinary grant.

41.
for Irrigation performs the duties which were until very recently performed by the Consulting Engineer for the Madras Irrigation and Canal Company with a separate establishment; so that some portion at any rate of the pay of the Chief Engineer for Irrigation is fairly debitable to Control of Guaranteed Companies operations. In the next place the Chief Engineer for Irrigation is quite as much concerned and

Extraordinary, the whole
cost of that portion of
the Secretariat which is
specially concerned with
irrigation, all the rest of
the establishment should
be ratably distributed
between Irrigation (under
the head ordinary) and
others. The result must
I think be to overcharge
Irrigation.
c. Control office. The re-
emption of Extraordinary
from any share of the
accounts charge is ordered
by the Govt. of India. I
know of no rational justi-
fication for the exemption;
the only object appears to be
to limit the expenditure from
the Extraordinary Grant;
whether or not this exemp-
tion is maintained, I think

apparently so.

I do not understand this

every system of works should
bear its fair share of an
Establishment charges. If
the Extraordinary grant
is favoured the Ordinary
must suffer; but the charge
should I think be borne
by Irrigation Ordinary
and not by Roads and
Buildings, Local Funds
and Provincial.

d. District Engineers.

Extraordinary is exempted
from all participation in
the charges on this account,
and the remarks made re-
garding the accounts charge
apply here also.

e. Range Establish-
ments. The mode of dis-
tributing the cost of
Range Establishments
is complicated in the
extreme. No single principle

1
seem to regulate the pro-
cess. The complication
would matter very little
if the results attained by
it were approximately correct,
but they are not. The
cost of the Consulting
Architects establishment
is debited rateably to
Imperial Ordinary and
Provincial, so that Iri-
gation (so far as it comes
under Imperial Ordinary)
bears a portion of the
charges on account of this
Office while it can derive
no benefit whatever from
his services. On the other
hand, Conservancy (in-
cluding Navigation and
Deerhankam establishments)
being debited to Imperial
Ordinary, instead of the
whole charge being borne
out should be by Iri-
gation it

45 32
12
it is to a great extent borne
by Civil and Military
Buildings etc. Then again
Iri-
gation is made to bear
a share of the cost of the
Bangalore Range Estab-
lishment, whilst Provincial
escapes this charge altogether
although expenditure from
Provincial Funds is incurred
in that range. Local
Funds and Extraordinary
escape all charges on account
of the Presidency Store
Department. Add to this
that, in one range (Bangalore)
the cost of establishments is
made a charge against one
head (Imperial) without
any regard to the nature
of the Funds expended: in
two ranges (Presidency and
East Coast Canal) the
establishment

establishments are charged
to different heads of service
in proportion to the outlay
under each of those heads
in those ranges: and for
all other ranges the distri-
bution of charges is made
in proportion to the outlay
under each head in all
those ranges taken together.

20. It has been
planned that in calculating
the charges debitable to
Local Funds the Local
Funds Petty Establishment
is charged off at once to Local
Funds; it is necessary to
point out here that as no
corresponding item is left
out on the other side to
balance Local Funds
Petty Establishment,
Local Funds are charged
twice

Very improper: the
arrangements are
also often impractical

twice over for Petty Establish-
ment; they are charged
first for the whole of their
own establishment, and
again a rateable share of
the general petty establish-
ment. It would be very
much better, I think, to
make no distinction be-
tween Local Funds and
other petty establishment
but to distribute the whole
rateably. If absolute theo-
retical accuracy be required
the proper plan will be to
charge off Local Funds petty
establishments to Local
Funds; then to distribute
all other petty establishment
between Local Funds and
other heads in proportion
to the outlay under these
heads, excluding from the
calculation

calculation the outlay
supervised by Local Funds
Petty Establishment.

21. It is very possible
that a distribution such as
I have described may
bring about equitable
results; but it can only
be owing to chance; there
is no uniform principle
in the principles regulating
the distribution; nothing
to lead one to expect fair
results.

22. Before detailing
proposals for the future
systematic distribution
of establishment charges,
it will, I think, be well
to see what it is that we
want and what we can
attain. Absolute accuracy
in the allocation of charges
is quite unattainable;
but

impracticable, because
works so supervised
and the description is none
or only few members of either
the General or the Local Fund
Establishments are exclusively
employed on either class of
work.

This is a fair way and this
the only way in which a just
distribution of the
relative cost of establishments
to work done, is any, particularly
distinct or precise.

13
but approximate accuracy
can be attained; I take it
for granted that the nearest
attainable approach to ac-
curacy is to be aimed at; and
the nearest possible approach
to accuracy will, I think, be
attained by carrying out
as far as possible the principle
that the cost of any establish-
ment operating in a defined
area shall be borne by the
works in that area supervised
by that establishment.

23. I fully admit that
it would be a very great
deal simpler to have one
general distribution for the
whole Presidency; of this
there can be no doubt; but
the question is whether such
a general distribution is of
any use whatever; I think
it is worse than useless; if
establishments

establishment charges are
 to be made even all over
 the Presidency; why not
 make all other charges even
 also? Why not have one
 uniform rate for brick-
 work, and another for
 earthwork? It would only
 be going one step further.
 Supervision is as necessarily
 variable as any other element
 in the cost of a work. Why
 then should this element
 be made even all over the
 Presidency?

24. Of what use is it
 to compare the cost of, say,
 the maintenance of Irriga-
 tion works in different
 districts in relation to the
 area irrigated, when a very
 large proportion of the
 supposed cost of maintenance

I was not aware of the
 way in which establishment
 charges were calculated
 until I read this paper.

is quite fictitious? Such a
 comparison, it seems to me,
 is that attempted by the
 Engineer for Irrigation in
 paras 3 and 4 of his note
 No. 397 & 3 printed with
 G. O. dated 21st August
 1873, No. 2059. It will be of
 some use perhaps to examine
 the figures on which this
 comparison is based and
 see how they are got out. The
 figures in columns 6 and
 8 of the comparative state-
 ment are actuals for the
 districts against which
 they appear and, beyond
 the fact that the figures

Navigation establishment may be omitted from Irrigation maintenance charges if navigation establishment charges are collected and added to the total	according to Budget estimate for 1877-78 Godavery 16,800 Krishna 8,700 Tanjore 13,444	to include charges on account of Irriga- tion Establishments & in certain

contain districts and an
 item of charges for Meeran-
 Khan Establishment in
 Tanjore; and that the
 figures in column 8 include
 the cost of repairs to na-
 vigation works, there is
 no fault to be found with
 columns 6 and 8. But the
 figures in columns 4, 5 and
 7, and therefore also the
 figures in columns 9, 10 and
 11 are quite fictitious; they
 in no manner represent
 facts of the districts against
 which they appear. Let
 us see how columns 11, 6, 7
 have been filled in. The
 starting point is the total
 — Rs. 3,61,869 — at the foot
 of column 7, which was
 arrived at by the
 following calculation:

$$\frac{A \times B}{C} = \text{Rs. } 3,61,869$$

* It will be an advantage to
 separate navigation works
 and charges so far as to
 admit of its being distinctly
 known what they amount to
 otherwise, as their capital
 cost is included with naviga-
 tion, it does not matter.

where A = Total Estab-
 lishment charges
 of the Presidency
 exclusive of sum
 charged to
 Extraordinary
 and the Civil
 Engineering
 College charges,
 but including
 Conservancy,
 Lithography
 Press, Civil
 Architect, etc.
 etc.

B = Outlay on
 Repairs Agri-
 cultural.

C = Total outlay
 Agricultural
 exclusive of
 Extraordinary
 column

column 6 was next
filled in with actuals,
and the total of column
6 being deducted from
the total of column 7,
the difference gave the
total of columns 4 and 5.
The result, which call
5a, had next to be split
up between these two
columns; in order to
effect this, the total—
R 83667— at the foot
of column 4, was first
ascertained by calculating

as per
Total Direction and
Accounts of Presidency
exclusive of Chief
Engineer for Irrigation } } outlay
Total outlay on Irriga- } } on Rep-
tion, not including } } pairs
of extraordinary } } Agri-
cultural } }
share of Direction and Account
chargeable

chargeable to Repairs Agri-
cultural; the sum of
R 83667 so obtained was
then apportioned to dis-
tribute ratably to the
outlay in columns; the
differences between columns
4 and 1 (what I have called)
5a gave the figure for each
district under column 5

25 From beginning to
end the figures are purely
fictitious. There was a show
of great accuracy; but nothing
more than a show. I don't
think the Chief Engineer for
Irrigation would have been
at the trouble of calculating to
two places of decimals the
Public Works charges per acre
and the Percentage on Revenue
had he known that the
figures

figures he was dealing with
were all cooked. Of course it
may very well happen that
the results attained by
such calculations as I
have described differ very
little from the actual charges
in each district; but such
a coincidence must be quite
fortuitous. I gather from
G. O. of 21st August 1873 No
2089, that in future years
such comparisons as have
now been attempted by
districts will be made by
talucs; I need scarcely re-
mark that if establishment
charges are to be calculated
as they were for the year
1871/72 the discrepancies be-
tween figures and facts
will be even more glaring
than they are now.

26. While

Quite unnecessary for the pur-
poses for which the statement
is compiled

Definitely so, but it is very doubtful
whether they should be brought to
account. No exact and complete
comparison of the cost of maintenance
relative to acreage and revenue
is practicable. Appointments vary;
distances vary. If the salaries of
establishments are to be taken into
account, how are the salaries of the
elements which are charged by the
right to be dealt with? It is difficult

59 36
26. While on this sub-
ject I may refer to one or
two other points in connection
with comparative statements
of Irrigation outlay and
Receipts which seem to require
attention. The comparative
statement for 1871/72 leaves
out altogether one most
important element in such
a comparison — the interest
on capital outlay. This is
unavoidable at present.
Another point is that in
a few districts — Salem
for instance — there are
Leisurewamy Establishments
under the control of the
Revenue Authorities; such
establishments should
I think be taken into
account in the comparison;
they may be paid out of
a special cess levied for the
purpose; if so, it seems to me
that

that to make the figures in
against the several districts
truly comparable, the cess
should be shown under
receipts, and the establish-
ments should be included
under the outlay. It may
also be a question whether
the value of the man-
hired by Kirkathies should
not figure under outlay
in connection with Im-
migration.

27. The letter from
the President of the Local
Fund Board South
Arcot, printed in Proceedings
of the Board of Revenue,
dated 8th September 1873, No
1770, indicates an undesirable
contingency which might
easily occur under the present
arrangements for the distribu-
tion

made to Government
State expenditure.

I think there is more than
enough further migration
accounts. Officers to do without
haunting up with accounts
of their kind. I don't believe
the Govt. Office establish-
ment is employed with
it except the Board of the
Inam.

59 39
tion of establishment
charges. In para 7 of his
letter Mr. Sullivan says
— "The cost of the Public
Works Establishment in
this district is Rs 52,273
per annum, and this year
the Local Funds of South
Arcot are debited with a
sum of Rs 54,510 for the
supervision given by the
Government Engineers to
Local Fund Workers. This
is in addition to the pay
of what is known as the
Pelly Establishment, i.e.
Local Fund overseers,
labours, etc. These figures
speak for themselves.
The whole cost of the P.W.
Establishment is more than
defrayed from Local Funds,
so that not one farthing of
the

the cost of professional
1 "Supervision of Agricultural
" Works is borne by Imperial
" Funds although the great
"est portion of the time and
"attention of the Engineers is
"given to the latter."

Mr. Sullivan is wrong in
his facts (as he subsequently
admits), having taken the
budget provision for the actual
debit of the year; but the
point to be attended to is
that the contingency which
was supposed to have occurred
is one which is not by any
means unlikely to occur, and
even if no distinct Local
Fund circles are required
to defray the whole cost of
the Public Works establish-
ment, it must continually
happen that one circle pay
very

61
very much more, and
another very much less,
than its share of the Estab-
lishment which supervises its
outlay.

28. It may be well to
point out that when one
circle is thus made to pay
for the benefits enjoyed by another
circle, the probability will
always be that the poorer
circle pays for the benefits en-
joyed by the richer: for this
reason, the richer a circle,
the more it has to spend, other
things equal, the larger will
the Local Fund outlay be
in proportion to the total
Public Works outlay within
the circle; and inverting the
terms, other things equal, the
larger the proportion which
the Local Fund outlay
in any circle bears to the total
Public Works outlay in that
circle; or in other words, the
greater

greater the share of establish-
ment which ought to fall
upon Local Funds; the
richer, in all probability
is that circle; evidently
then, when the establish-
ment charges are made
even all round, the chances
are that the rich circle is
favoured at the expense of
the poor.

It should also be remem-
bered that ample and efficient
supervision leads to economy
in working: deficient su-
pervision is sure to end
in waste and extravagance:
is it fair then to charge to a
work which has suffered
from want of supervision,
and whose cost has probably
been enhanced by that want
of supervision, a part of
the establishment actually
engaged upon another work, the

A fact very common, but
rightly.

The localization of charges
will reduce, but not remove
altogether the inequity.

63 4
cost of which (under other
heads) has been kept low
by the very fact of the su-
pervision having been
ample.

29. It may be thought
perhaps that I have been
somewhat too prolix on this
subject. I know it is often
said that elaborate schemes
for charging off establish-
ment charges are mere
waste of time. I think
otherwise. If it be desirable
to ascertain the cost of a
work under heads other
than establishment — and
this I think no one dis-
putes — I maintain that
it is desirable to ascertain
the sums fairly chargeable
to that work on account of
establishment — as nearly
as possible. Superintendence
is as necessary an element
of

Nothing but a time bill would
of course really do this, but
a fair approximation may be

of work, as are bricks and mortar; any argument which convinces me that it is quite enough to distribute the whole cost of the establishments of the Presidency in rateable proportion over all the works of the Presidency, will convince me that the cost of all masonry, all earthworks, all plastering etc. should be distributed in the same way.

If any further argument is required, there is the commercial argument.

What does every manufacturer do? Does he distribute the total cost of his employees over different articles of manufacture rateably to the cost of the material worked up? or does he keep a staff of

clerks

The analogy is not complete masonry & earthworks belong to a particular work, whereas establishments supervise and are divisible among many works. If bricks were supplied from a single brickyard to many works the cost of their manufacture would be distributed, and here is the difference, according to the quantities taken, whereas it has been shown that the quantity of establishments used, even on such a group of works as those of a Range, has not been attempted to be determined. All attempts might be done.

Labour but not supervision

Notes: I think, but all attempts seem to be in vain to the establishment works themselves for an estimate of the cost of the establishment.

clerks to work out according to an elaborate scheme, based on time sheets and similar returns, the actual cost of labour for every description of article?

30. An attempt is now being made to put the Capital and Revenue Account of Irrigation Works on a proper footing, the responsibility for this devolves to some extent on me; I have therefore felt it my duty to insist strongly on what I think a very important point in connection with any attempt to ascertain the real cost of works; a point which has hitherto been treated as quite unimportant, establishment charges having been treated as if they were altogether in a different category from any other element

element in the cost of a work.

31. I start again now from the point from which I digressed in para 21. I think that, without any difficulty, and without throwing any extra work on Range officers, the charges for establishments could be so distributed that the works in each taluk should bear the cost of the establishment (construction) in that taluk; the works in each subdivision bear the charges of the subdivision; the works in each range the charges of the range; and the works in each district the charges of the district; and, having said that it can be done, I need hardly say that I think it should be

I myself think that it would suffice to determine the charges by Range in all cases in which there may not be establishments employed solely on particular works, but I see no objection to a further subdivision of such charges if this can conveniently be made.

The petty establishments meant the munitis and gunnastahs employed on individual works, the cost should be charged to those works only. As I have already said I clearly understand that establishment charges, which are to be divided rateably, are to be those only which appertain to establishments employed on all works within a pargana. The distinction is a clear and definite one, and to obtain fairly accurate results the difference between general and special establishments must be attended to.

69. The distribution can be entirely done in this office if the petty establishments of a taluk are to be lumped together and rateably apportioned to the works of the taluk; but I myself think—and I understood that Mullins & Co. of the same opinion—that petty establishments should be charged off to the works on which they are employed. I do not think this would throw any appreciable amount of extra work on local officers, nor do I suppose that taluk officers would often find any difficulty in making the charges; it might sometimes happen that, owing to slackness of

work or some other cause,
there might be no work to
which to charge some portion
of the petty establishment;
in such a case the fact
would be noted and the
uncharged balance of petty
establishment would be
added to the general tally
establishment to be distribu-
ted over the works of the
tally.

This might not happen and, should
it occur, it would be well that it
should come under notice - If establish-
ments of any kind have no work to do
in one part of a District they should
be transferred elsewhere.

32. I suggest the
following rules for the
systematic distribution of
establishment charges on
the supposition that the
distribution must be
made in this office ac-
cording to hard and
fast rules.

I. a. Chief Engineer and
Secretariat

1. The Chief Engineer
and

This may not be absolutely
correct, but comparatively
little of the Secretary's time is
occupied by Irrigation work,
and certain verbiage may
be accepted.

One per cent of the salary of the
Chief Engineer for Irrigation might
be charged to the Control of the
M.E.C. : the travelling allowance
when engaged on duty connected
with the Company & the Office
Establishment as provided in
the Budget of State Control.

84-
and Secretary to
be charged, ratably
to outlay, to all
heads of service
other than Irriga-
tion.

2. A fixed contri-
bution from the
pay of the Chief
Engineer for Irriga-
tion, and the
travelling allowance
of that officer when
travelling on duty
connected with
the Madras Irriga-
tion and
Canal Company,
to be charged to
Control of
Guaranteed
Irrigation operations,
the rest of the pay
and allowances
of

of the Chief Engineer
for Irrigation and
joint Secretary - to
Govt and the establish-
ment of clerks,
draughtsmen, and
office servants em-
ployed immediately
under him, to be
charged to Irrig-
ation.

3. The remainder
of the establishment
to be charged to the heads
of service in proportion
to outlay.

b. Inspecting officers.

1. The pay and
allowances of the
Inspecting Engineer
for Civil and Mi-
litary Buildings
and his establishment
to be charged to
Imperial

Extraordinary and Ordinary
rateably.

That is the establishment of the
Secretariat.

Imperial, Provincial
Local Funds in
proportion to the
outlay on Civil
and Military
Buildings under
each head of service.

2. The pay and
allowances of the
Inspecting Engineer
for Ports and com-
munications, and
his establishment, to
be charged to Imperial,
Provincial, and
Local Funds, in
proportion to the
outlay on Ports
and communications
under each of these
heads.

c. Controller's office.
Until some separation
of

of the Irrigation
accounts from the
general accounts is
suggested, the following
rules will be suf-
ficient.

The special
establishment for
the preparation of
the Capital and
Revenue Accounts
to be a charge upon
Irrigation. - Capital
and to be eventually
divided among
the different groups
or schemes, for which
separate accounts are
kept, in proportion
to the sums finally
taken as Capital
outlay on those
groups or schemes.

The remainder
of

In the first place it is not clear
why establishment employed on
Capital and Revenue accounts
should be charged only to Capital
In the next place when with the
sums to be taken as Capital
outlay, being finally determined, how
many years probably
again the Deft. Controller for Irriga-
tion has been and probably will
again be, employed on the financial
duties of the Control Department
I should say therefore that, at
any rate for the present, all
the accounts Dept. charges should
be distributed annually over
all heads of service.

of the establishment
to be charged to all
heads of service in
proportion to the
outlay under each head.

d. District Engineers.

The cost of each
District Engineer
and his establish-
ment to be distri-
buted over all
heads of service, the
funds of which have
been expended in
his district, rateably
to the outlay under
each head on works
in his District.

e. Range Establishments.

1. All petty establish-
ments, which can
be so dealt with,
to be charged off,
directly to the works
in which they are engaged.

2. The cost of each
Taluk overseer and
his establishment,
together with any
uncharged balance
of petty establish-
ment, to be distri-
buted over all
heads of service, ra-
teably to the outlay
under each head on
works in that Taluk

A.B. Local Fund
overseers in indepen-
dent charge render-
ing their accounts
directly to the Range
office and not through
the Taluk overseer,
will be treated
as Taluk overseers.

3. The cost of each
sub-divisional officer
and his establish-
ment

75
ment to be distributed
over all heads, rateably,
to the outlay under
each head on works
in his sub-division

4. The cost of each
range officer and his
establishment to be
distributed over
all heads of service
rateably to the
outlay under each
head on works in
his range.

5. Survey establish-
ments to be charged
to the head of service
concerned and, in
the case of surveys
connected with Irriga-
tion projects, to
the particular account
concerned.

6. Establishments
for

for conservancy
and water regula-
tion, navigation,
and revenue collec-
tion (Kerankam)
to be charged to the
Revenue Account
of the Irrigation
group or scheme
concerned.

Proposals for putting
the Presidency Stores
on the footing of a self-
supporting institution
are now before Govt.
If they are adopted
the establishment of
the Store Department
will not require to be
distributed over heads
of service.

The debits to heads
of service other than
Irrigation, determined
according to the rules
detailed

It is probably not of much
consequence, but Irrigation
works will have to bear somewhat
more than their fair share of
establishment charges, owing to their
being debited with the cost of the
conservancy est^{ts} and a full share
of the general est^{ts}.

I think it will be found more
convenient in the case of the Delta
to divide establishments by Ranges
rather than by Taluqs, seeing that
some individual Canals run
in more than one Taluq, and on
the other hand Taluqs lie partly
in one and partly in another Range.

70
71
detailed above, will be
final; but the sums charged
to irrigation will be fur-
ther distributed among
the different groups and
schemes for which separate
Capital and Revenue
Accounts are kept: this
distribution will be made
separately for each taluq,
and will be based upon
the outlay in each taluq
in connection with the
several groups or schemes.
III. When the establish-
ment charges of any taluq
have been ^{been} ratably apportion-
ed to the heads of service
concerned, the shares of
establishment charges there-
determined will be
added to the sums ex-
pended on works, and
the totals so obtained
will

will be taken as the
sums on the basis of
which the establishment
charges of the next higher
division are to be distrib-
uted; a similar course
being followed for each
subdivision, range and
district; and in any
case in which establish-
ment charges (as for
surveys) have been in-
curred in connection with
projects (in connection
with which there may
have been no outlay on
works), these establish-
ment charges will be
taken into account in
distributing the charges
of the next higher di-
vision.

IV. All absentee and sick
allowances, and the
travelling allowances,
and

79
and batta of officers and
subordinates proceeding
from one district to another
on duty will be distributed
over all works in the
Presidency in the same
manner as the charges
on account of Secretariat,
etc. The absentee and
sick pay of the petty
establishments and office
establishments and the
travelling allowances and
batta of officers and
others proceeding from
one part of a district to
another part of the
same district will be
treated as a charge against
the works of the district
and will be distributed
in the same manner
as the charges on account
of the District Engineer
and his establishment.

33. Rule III is proposed with a view to correcting to some extent the present anomalous arrangement under which no part of the pay of the Chief Engineer for Irrigation, or the Inspecting Engineer for Ports and Communications can be debited to the preliminary operations in connection with the investigation of Irrigation schemes, projects for ghats etc, matters which necessarily occupy a considerable — in some cases a very considerable — share of the attention of those officers.

34. The rules proposed above are designed to secure as perfectly as possible a proper incidence

21
incidence of establishment charges, and they necessarily entail a little more calculation than is required for the rough methods of distribution hitherto adopted. At the same time the rules being all based on one principle are easily intelligible, whereas the rules at present in force rest, so far as can be seen, on no principle whatever.

It should be distinctly understood that the scheme of distribution here proposed is not put forward as calculated to attain a perfect allocation of charges, but simply the most perfect that can be obtained under a hard and fast system. I have no doubt that a more perfect distribution would be attained if every range officer were to distribute

the

the cost of his own establishment, every district engineer the cost of his establishment, and so on, provided that every one of these individuals would be at the trouble of doing so.

35. It remains to be considered whether the distribution should be made monthly or yearly. It seems to me that some monthly distribution is imperatively required; for I hold it to be necessary that the various Local Fund Boards, to say nothing of those who administer all other funds, should, as the year progresses, have some idea of the liabilities they are incurring; proper management of local funds can hardly be expected if

Local

I am afraid the results would be more curious than satisfactory.

I do not see any necessity: the average cost of establishments may very well be taken, as the budget provision for establishments in relation to the budget provision for works.

A half-yearly distribution would supply small purposes of management.

Local Fund Boards are left until some months after the year has closed in complete ignorance of the amount for which they have severally become liable for so considerable an item as establishment. I do not however think it is necessary that a monthly distribution should be made in all the detail suggested for the final allocation of charges; I think all essential requirements would be met by a monthly distribution, rateably to the outlay in each district, to be corrected by proper detailed distributions at the end of September and at the end of March. Moreover: to obviate undesirable inequalities which must otherwise inevitably arise from

from

from slackness of work at certain seasons, I would make each monthly distribution a correction of the previous monthly distributions by basing it on the total expenditure up to the end of the month. Thus the distribution for April would be based on the outlay of April; the distribution for June on the outlay of April, May and June. It will be seen at once that the inequalities which I here seek to avoid are essentially different from the inequalities obtaining between different ranges or different districts: there may be at certain times of the year, scarcely any work in progress in a range but the

22
the reestablishment of the range may be engaged collecting materials and making necessary preparations for work; it would be unfair to charge the whole cost of the reestablishment to the few works actually in progress at the time; therefore, while I recommend a distribution at the end of the first half of the year with a view to keeping the different individuals concerned approximately informed of the extent of their accruing liabilities, I would make the final distribution at the end of the year correct that at the end of September, by basing it on the expenditure of the whole year, instead of on that for the last six months only.

36. If the Govt of India are not willing to modify the rule under which the extraordinary grant is exempted from all charges on account of District Engineers and Accounts, the rule need not, I think, be a bar to a fair allocation of charges to works; any portion of the establishment charge which, under the rule proposed above, would be debitable to a work carried out from the Extraordinary Grant, might remain as a charge against that work, but should be met from the Ordinary Grant. This could be arranged without difficulty.

Revenue Establishments } 37. I have now

The simplest plan will be to treat all alike. The distinction between Loan Fund & Ordinary outlay on the same work is merely a matter of convenience, and the financial merits of the work must be judged with reference to the total outlay from whatever source the money may come.

In my opinion this should be entirely excluded from the accounts of individual works, & should be referred to only in the annual review of the results of Irrigation generally. If however for purposes of comparison with the Irrigation in other parts of India where Revenue establishments form part of the Canal administration, a few cents per District may be fixed and added to the charges in the P. & A.

now I think exhausted the question of establishments of the Public Works Department, and I have only further to point out that if the net revenue from Irrigation is to be properly ascertained all charges on account of establishment paid for and controlled by the Revenue Authorities, must be taken into account. The largest item under this head will of course be that for collection of Revenue; the cost of which must, I presume, be taken at a percentage on the Revenue collected; what that percentage should be I will not presume to suggest. Then there are in each district certain

man to village servants,
styled *Surkatties*, who are
charged with the distri-
bution of water; the value
of these man should I
think appear as a charge
against Irrigation. Lastly
there are in some districts
— not I believe in all —
salaried servants, moneyers
and *hasearis* in charge of
arments etc, who are paid
by the Revenue authorities
whether they might not
with advantage be absorbed
into the P. W. establish-
ment, is I think a question
to be considered; in any
case they are a fair charge
against the irrigation works
in connection with which
they are maintained; in
cases in which such estab-
lishments are paid from a
special cess on the land
revenue, the gross revenue
of.

If there be such, and if they are
paid by salary bills, it will be
best to include them in the
P. W. Budget even if they remain
under the name of the Revenue
Officers.

Do not mean to take these village
institutions into account. In one
locality a cap is levied and expended
on labour & petty establishments; in
another place the labour is supplied

23

by the note and there is
no cap. — The cap where
levied is sometimes absorbed
in customs, and has no legal
foundation.

of the work, must of course
be taken to include this
cess if the establishment
paid out of it appear on
the expenditure side of
the account.

38. In
Tools and Plant } — G. D. dated
22nd August
1873, No 2094
Govt directed that the cost
of all Tools and Plant obtain-
ed for use on specific works
shall be at once charged against
the head of account benefited.
And that in the case of Tools
and plant obtained for general
purposes or sold as unservice-
able; the Range officer will
use his discretion as to which
head of account shall be
debited or credited? In the
case of tools and plant pur-
chased for Irrigation works,
or at the discretion of the
Range officer charged to
Irrigation.

38. Irrigation, it will not be quite sufficient that the head of service benefitted shall be charged with the cost of the tools and plant in question; the account—Capital or Revenue as the case may be—of the group or scheme concerned must be charged with the cost of the tools and plant.

39. When tools and plant are transferred from one head of service to another or from one Irrigation group or scheme to another, they should be transferred at a valuation, the account to which the tools are transferred being debited, and that from which they are transferred being credited with the value so placed upon them.

Yes.

Yes.

40. The

Receipts on } heads in
Revenue } der which
Account } Receipts

are classed in the model forms of accounts circulated by the Govt. of India (see Circular 80 of 1871) are

1. Special Water Rates
2. Navigation
3. Water Power
4. Plantations
5. Miscellaneous

not required at present, but there can be no harm in retaining them.

41. In this Presidency will be divided where necessary into

- a. Water Rates
- b. Land Revenue irrigated.

Under the order in the subject of Revenue statements.

Heads 3 and 4 may be omitted in this Presidency.

41. Special water rates only obtain in two districts, and even in those districts are not general; the main items of receipts in this Presidency will be the excess of the land revenue of irrigated lands over the amount adopted as standard.

standard.

42. The town of Maoulipatam is supplied with water from the Krishna Delta canals, and owing to the attention which is now being given to sanitation and local improvements generally by Municipal and Local Board, it is not improbable that such cases as that of Maoulipatam will become common. I would therefore suggest that such receipts be separately classed.

43. In some districts the P. & D. realizes certain sums by the sale of fruit, grass and other produce raised on canal and river banks; it is however understood that in many cases such

Collections under "Farm supplies" may be exhibited separately.

Miscellaneous can be explained by a schedule or memorandum of receipts under various subheads.

how that Irrigation works accounts are to be kept in so much detail, all items of Revenue therefrom derived should be credited to them. Local funds appear to have no valid claim to any receipts from Imperial works. They were formerly given as grants in aid, but their arrangements would seem to be wholly untenable. In some instances no apparent reason, either of convenience or otherwise, for a general proposal to credit receipts to Revenue Miscellaneous & do not find for expenditure under the same head, is rather sanction estimates against the budget provision under that head.

such receipts are realized by the Revenue Department, and fail to be carried to the credit of the projects concerned. It is understood that in certain districts there are fisheries in connection with canals, the revenues of which are realized by the Revenue officers and carried to the credit of certain local funds. The use to which such receipts are put is not very material, but certainly the canals or tanks where the produce is derived should get credit for its value. Such receipts might be classed as "Receipts from Canal Produce", reserving the head "Miscellaneous" for items which are not classifiable.

The heads of classification for Receipts in connection with irrigation works would then be
1. Increase of Land Revenue
2. Increase of Irrigated

Unit "Increase of"

- 2. Special Water Rates
- 3. Water supply of Towns
- 4. Navigation
- 5. Canal Produce
- 6. Miscellaneous

Items of receipts coming under heads 3, 4, 5 & 6 would be realized by the P. & D. and pass through the books of this office, but the land revenue and water rates being realized by the revenue department it will be necessary that the sums realized under these heads shall be communicated to this office for incorporation in the Capital and Revenue Accounts which are to be submitted to the Accountant General, P. & D., as accompanying to the annual Appropriation Accounts. It

... means collections apparently ...
 ... Para XIV of Memorandum ...
 ... enclosed in letter No 703A-I ...
 ... dated 11 April 1874 from Secy. of ...
 ... India. It appears to be desired ...
 ... that collections as distinguished ...
 ... from assessments should be brought ...
 ... into the accounts, but it would ...
 ... seem that for all practical purposes ...
 ... the assessment after allowing for ...
 ... remissions might be taken as the ...
 ... revenue. The difference is ...
 ... usually quite immaterial to the ...
 ... financial results of a work.

Board of Revenue

It appears to be very doubtful whether this information can be furnished at a sufficiently early date to admit of the Capital and Revenue Accounts being submitted with the Appropriation Accounts which are due in July. It is desirable that this office should know to whom it is to look - to the Board of Revenue or to collectors of Districts - for the information in question, and that by what date it can be furnished.

Progress Report ...
 ... progress report ...
 ... being kept ...
 ... the foundation of the ...
 ... audit by this office ...
 ... of range officers' accounts ...
 ... is a very important ...
 ... and his

and one which I cannot
leave out of consideration
in discussing the requirements
for placing on a proper
footing the Capital and
Revenue Accounts of
Imperial works. I
am quite aware that in
raising this question
here I am taking up a
question on which the
Govt. have already passed
orders and that they
have quite recently (G.O.
No. 2226 of 8 September 1873)
stated that they have no in-
tention of sanctioning any
modification of the form of
Progress Report prescribed
in G.O. No. 2413 of 19 Aug 1873,
but it appears to me that
I should fail in my
duty were I to refrain on
this account from distinctly
pointing

25
pointing out that ²⁷while much
of the information now fur-
nished in the progress re-
ports is perfectly useless,
and never has been utilized
by this office; a very slight
modification of the form
of progress report will
place this office in the
possession of information
of great utility.

26. I have, moreover,
less hesitation in again
raising this question be-
cause it appears to me that
in passing orders on the sub-
ject the Govt. had not before
them the full information
which they appear to have
desired. In para 2 of G.O.
dated 20 January 1873 No. 173,
the Govt. call on the Controller
to analyse carefully the
forms proposed by the Govt.
of India and send forward
his

and one which I cannot
leave out of consideration
in discussing the requisites
for placing on a proper
footing the Capital and
Revenue Accounts of
Irrigation works. I
am quite aware that in
raising this question
here I am taking up a
question on which the
Govt. have already passed
orders and that they
have quite recently (G.O.
No 2226 of 8 September 1873)
stated that they have no in-
tention of sanctioning any
modification of the form of
Progress Report prescribed
in G.O. No 2413 of 19 Aug 1873
but it appears to me that
I should fail in my
duty were I to refrain on
this account from distinctly
pointing

25
pointing out that ²⁷while much
of the information now fur-
nished in the progress re-
ports is perfectly useless,
and never has been utilized
by this office, a very slight
modification of the form
of progress report will
place this office in the
possession of information
of great utility.

26. I have, moreover,
less hesitation in again
raising this question be-
cause it appears to me that
in passing orders on the sub-
ject the Govt. had not before
them the full information
which they appear to have
desired. In para 2 of G.O.
dated 20 January 1873 No 179,
the Govt. call on the Controller
to analyze carefully the
forms proposed by the Govt.
of India and send forward
his

his own proposals to the Govt showing how the information required by the Govt of India can best be furnished? I cannot find that any such careful analysis was ever submitted to Govt, I shall therefore endeavour to bring out clearly here the points of similarity and difference between the form of Progress Report in which the Govt of India suggest for adoption, and that in general use in this Presidency.

47. I should also observe that in their Proceedings of 14th May 1872 the Govt prescribed the adoption of the New Form of Progress Report for certain works; so that there are in

use

92
use at the present moment two distinct forms of progress report. I trust that this fact also will justify me in bringing forward this question. It appears to me that if the new form is really obnoxious to all the objections which have been urged against it it is a mistake to introduce it even for a few works in a few ranges.

48. In discussing the question of the progress report there are three points to be considered:-

1. The nature of the audit to be applied in this office
2. The information to be given in the Progress Report
3. The form in which it is to be given.

49. It has, from the first, been
nature of } the prac-
audit } tice of
the office in auditing the
accounts of Range officers
to compare the total ex-
penditure on each work
with the total of the esti-
mate, for the work, no
attention being given to
the detail of the work,
although the form of pro-
gress report, originally
prescribed for adoption
appears to have been in-
designed with a view to a
comparison between ex-
penditure and estimate
under each sub-head. In
other Provinces the prac-
tice is understood to be to
compare outlay with the
estimate under each
sub-head, and the form
of

26
of progress report, the
adoption of which is desired
by the Govt of India, and
which has been sanctioned
for adoption for a few iriga-
tion works, is designed to
admit of such a comparison.
It is necessary that definite
orders shall be passed on
this point, whether this
office is to compare sub-heads
of expenditure with sub-
heads of estimate, or merely
total expenditure with
total of estimate.

50. I am decidedly
of opinion that much
advantage would attend
a comparison between ex-
penditure and estimate
for each sub-head of estimate.
Even if it should not lead
to closer attention to the de-
tails of an estimate on the
part of a range officer and to

to more strenuous endeavours
to work within the estimate
in every particular; it would
certainly bring to light at
the earliest possible date
the fact that an estimate
is likely to be exceeded; and
would keep clearly in view
the actual demands which
are likely to be made on the
funds of the State in con-
nection with any particular
work, instead of, as is now
too often the case, allowing
officers to work on until
the total amount of the
sanction has been expend-
ed and only then to call
attention to the necessity
of a revision of the estimate
and the provision of further
funds. Also it seems to
me that it is of little use
for this office to refuse audit
to

to the expenditure of a single
pice on an item for which
there is no provision in the
estimate, while it passes
unchallenged an expenditure
of Rs. 10,000 on an item for
which the estimate is
Rs. 1000 only.

51. Officers of the depart-
ment are very fond of
asking how many pices
are saved by all this mass
of accounts and audit and
appear - or pretend - to think
that the absence of any such
saving is complete evidence
of the uselessness of accounts
and audit. Now I do not
for a moment imagine that
the comparison of details of
work with details of
estimate will lead to any
saving, but I am quite sure
that it may be made the
means

means of getting rid of much of the irregularity that now prevails.

52. The Information } next
to be afforded } point
by Progress } to be
Report — } considered
is.

the nature of the information to be furnished in the progress report.

The old (Madras) form of Progress Report provides for the exhibition of the following items of information.

- (1) Description of Work.
- (2) Authority for Work.
- (3) Expenditure during } each
month } Stock
Total
- (4) Subheads of abstract estimate
- (5) Work executed during quantity
month, under each } Rate
subhead of estimate } Cost

(6)

- 195
- (6) Amount of estimate
 - (7) Expenditure to end of past year
 - (8) Expenditure during current year
 - (9) Grant for current } amount
year } when
 } anticipated
 } raised

The new Govt of India, form provides for the following items of information.

- (1) Work and heads of estimate
- (2) Authority for Work
- (3) Expenditure during } each
month } Stock
Total
- (4) Work executed to } quantity
end of month } Cost
Rate
- (5) Sanctioned per } quantity
estimate } Rate
Cost

- (6) Distribution } Capital } Extraordinary
of charges of } Revenue
month } Ordinary
Agricultural
Work

53. Comparing then the two forms it will be seen

seen that 1, 2, 3 and 4 of
the old form give exactly
the same information as
1, 2, and 3 of the new forms.
No 4 of the new form cor-
responds to No 5 of the old
form, the difference being
that the old form provides
for the exhibition of the
work executed during the
month whilst the new
form is intended to show
the work executed up to
the end of the month. No 5
of the new form corresponds
to No 6 of the old, but
provides for more detailed
information. Nos 7, 8, and
9 of the old form are not
provided for in the new,
and No 6 of the new form
is not provided for in
the old.

There are many for District
Engineers, and Subdividing
Officers.

I will now endeavour
to show how, in my opinion,
the several points of difference
noted

157
noted above affect the
utility of the form as the
foundation of the audit
by this office. I shall not
again refer to the points
in which the two forms
agree.

54. If the audit by
this office is to be based only
on a comparison of the
total expenditure with
the total of the sanctioned
estimate, no attention
being given to the details
of work and estimate, it
does not matter one straw
whether the progress report
shows the work executed
during the month, or that
executed to the end of the
month; because, for the
purpose of such an audit,
both these pieces of informa-
tion are absolutely useless.
It is quite true that for
years this office has, at
considerable

useful, however for
Subdividing Officers.

considerable trouble to
Range officers no doubt,
been furnished through
the Progress Report with
information as to the amount
of work executed during
month; but it is not
pretended that this infor-
mation has ever been
utilized in the slightest
degree; as a matter of
fact it cannot possibly
be utilized unless this
office makes use of it for
checking details of work
against details of estimate,
and then it would be
necessary for this office
to keep up registers of
work similar to those
supposed to be maintained
in Range Offices, in
order to bring out month
by month the work done
to the end of the month.
This information is still
given

109
given and I therefore
think it right to state
plainly that, in my
opinion the time devoted
in Range offices to giving
this information is simply
wasted; and I must also
notice in connection a further
waste of time in this office,
it is the practice of this
office, on receipt of this un-
less detail, to apply to it
what is called an arithmetical
check, and if the expenditure
against a subhead of estimate
is calculated from the quantity
and rate shown in the Progress
Report differs by a few annas
from the expenditure shown
therein, the Range officer
is duly advised of the fact,
and he makes — or is supposed
to make — a correction accord-
ing. If the time of the range
office must be wasted in
submitting

submitting useless in-
formation, it would I
think be well to take no
notice of it, rather than
to waste the time of this
office by applying to it an
equally useless check.

55. If it is intended
that this office shall com-
pare expenditure with
estimate, subhead by
subhead, information as
to work executed, under
each subhead must be
furnished; and there
can be no doubt that
the information to be given
is information as to work
executed to end of month.
Information as to "work
executed during month"
cannot be directly utilized.
What is wanted for comparison
with the estimate is work
executed to end of month.
It

It can make no difference
whatever in the work of
a range office, whether
the progress report is made
to show work during month
or to end of month; it is—
at any rate it should be
if the instructions contained
in the manual are re-
carried out— simply
a question of copying one
line of the Register of
Work instead of another
line. On the other hand,
if the Progress Report
is to show only work executed
during the month, it will
— if details of work are to be
compared with details of
Estimate — be necessary
to open in this office Registers
of Work precisely similar
to those ordered to be kept
in Range offices; which
will, I need hardly say,
involve

involve a very considerable increase of work.

56. The next point is that the new form provides for the exhibition of details of sanctioned estimate, whilst the old form gives only the total of the estimate. I think both pieces of information, not merely unnecessary, but objectionable. I think that all information regarding sanctions, whether of quantities or amounts, should be furnished to this office directly by the sanctioning authority, and the sanction being properly registered in this office, the auditor should be taught to look to the sanctions so registered, and

29

113
and to them only. I think it is a very great mistake to look to the Officer whose accounts are to be examined for the information required to check them; it saves trouble in this office, no doubt, but, in my opinion, at the expense of security, and whatever trouble it saves to this office it gives to the range office. If, however, it should be thought that this information is information proper to be given in the progress report, then, whether details of the estimate are to be given, as required by the new form, or merely the total of the estimate, as required by the old form, must depend entirely

involve a very considerable increase of work.

56. The next point is that the new form provides for the exhibition of details of sanctioned estimate, whilst the old form gives only the total of the estimate. I think both pieces of information, not merely unnecessary, but objectionable. I think that all information regarding sanctions, whether of quantities or amounts, should be furnished to this office directly by the sanctioning authority, and the sanction being properly registered in this office, the auditor should be taught to look to the sanctions so registered, and

29

113
and to them only. I think it is a very great mistake to look to the Officer whose accounts are to be examined for the information required to check them; it saves trouble in this office, no doubt, but, in my opinion, at the expense of security, and whatever trouble it saves to this office it gives to the range office. If, however, it should be thought that this information is information proper to be given in the progress report, then, whether details of the estimate are to be given, as required by the new form, or merely the total of the estimate, as required by the old form, must depend entirely

entirely upon whether
the audit is to be extended
to details of work or not.

37. Three items
namely.

- (1) Expenditure to end of
past year.
- (2) Expenditure during
current year
- (3) Grant of current
year.

provided for in the old
form are not provided
for in the new, but it
is quite evident that
each of these items can
very easily be exhibited
in the new form without
devoting a separate column
to each; indeed the in-
tention is that this
should be done. At the
same time I must say
that I think it a mistake
to call upon the Range
officer

115
officer to furnish repeated
by the same information.
By all means let him
give the total expendi-
ture up to end of month,
that is necessary and he
has only to copy it from
the Register of works; but
why should he repeat in
month after month the
"expenditure to end of past
year" which is actually
entered in the sub-journals
kept in this office; and
why should not the
auditor make the sub-
traction required to ar-
rive at the expenditure
of the current year; it
may be desirable that
the progress report should
show the current grant
to guard against mistaken
assumptions as to the
amount of the allotment,
but

but it is not absolutely
necessary to provide a
column to show this
58. I cannot leave
this point without
referring to the opinion
expressed by Mr Brock
in para 11 of his letter No
2525 of 29 January 1873
printed with G.O. of
27 May 1873 No 1437. Mr
Brock says "the
Madras form of the
Progress Report contains
special columns wherein
Range officers record the
year's allotment, as
modified up to date,
and the year's outlay.
It is thus easy, when
these returns are examined
"at once to compare the
"grant and expenditure
of the year; but as such
a

30

68
117
"a comparison is not pro-
vided for by the new form,
I think it would be well,
"in giving effect to the orders
which may be passed on
"preceding paragraph,
"to supply these omissions.
Range officers have now
"before them, in one view,
"two very important items
of information, and cannot
"plead a satisfactory excuse
under ordinary circumstances
"for not working up to the
"full extent of the avail-
able funds for each work
"or for exceeding the sanctioned
"allotments."

59 I hope I shall
not be thought to exceed
my duty in criticising
the above opinion, more
especially as it is necessary
that I should ask for
indulgence on this point,
as Mr Brock's opinion

is accepted, if not ~~in~~
endorsed by Govt. in
their order, and is made
— along with another
opinion of Mr. Brock's
to which I shall return
hereafter — the ground
of a refusal to authorize
the adoption of the new
form. Mr. Brock's opinion
appears to me to be ~~in~~
based upon a misconception
of the proper function
of a progress report; and
it seems to me to be ne-
cessary that I should
endeavour to place the
matter in what appears
to me a proper light.

It is undoubtedly
most important that
Range officers should
"have constantly before
them in one view" the
two important pieces
of information referred
to

119
to by Mr. Brock; but
I think it is undesirable
to a degree that they
should be taught to look
to the Progress Report
for this information.
A Range officer's record
is — or should be if it is
kept up — the Register
of Work (vide P. R. Account
Manual paragraph 12), and it
is I think to the Register
of work that he should
look for all information
regarding outlay, estimates
grant etc. The Register
of work is — or should be
— a neatly kept book,
with an index for con-
venience of reference;
whilst the progress
report is about as in-
convenient a document
as can be imagined for
reference; the register of
work is a complete record
and

and shows all details of work, whilst the progress report shows details only of items in progress during the month to which it relates; again it is waste of time (so far as the usefulness of the information to this office is concerned) to enter in the progress report work not yet commenced and work completed, but this must be done if the progress report is to be regarded as the range officers record; lastly the Register of work is an original record, the progress report gives only extracts from the register of work, — this at least is the intention if the Manual of P. M. Accounts is not to be

work sanctioned but not commenced require to be entered in Subordinate Officers' Progress reports
 Work completed and paid for are done with, and till funds & expenditure small such might be entered in one line under each main head.

be treated as a dead letter. The other reason given in G. O. of 27th May 1873 No 1437 for not authorising the adoption — that is the general adoption, the partial adoption having been previously sanctioned — of the new form of progress Report is that it involves so important a change of principle, viz, the exercise of check over rates by the Controller's office. I cannot imagine what can have been Mr. B. B. meaning when he stated that the new form of progress report involves the exercise of a check over rates by the Controller. I find it impossible to trace any connection whatever between the two. As a matter of fact the new form of progress report has been in partial use in right ranges since April 1872

April 1872, and most certainly there has been no question of a check over rates by the controller, and most certainly no such questions will arise.

62. I suppose no one will maintain that a comparison of details of work executed with details of estimate, amounts to a check over rates, in the sense of constituting the controller a judge of the sufficiency or insufficiency of rates. Nor, anyone who maintains — rightly as I think — that the controller — whether an Engineer or not — can seldom, if ever, be in a position to judge of the sufficiency or insufficiency of rates, must certainly also maintain that the controller cannot be a

123
a judge of the sufficiency or insufficiency of quantities.

But all excesses over estimates are referrible to one or both of two causes, — divergence from the estimate in the matter of rates, and divergence from the estimate in the matter of quantities.

If, therefore, a comparison of details of work with details of estimate amounts to the objectionable check over rates; a comparison of total of work executed with total of estimate must amount to an equally objectionable check over rates and quantities.

It is, however, quite clear that this was not Mr.

Brock's meaning, for he speaks of ~~the~~ check — whatever it is — as something which cannot be applied by any one but the controller himself; whereas a comparison of

of details of work with details of estimate is purely mechanical work

63. If there is no necessary connection between the new form of progress report and a check over rates by the Comptroller — and there really is no sort of connection between them — the formidable difficulties foreseen by Mr. Brooks and described in para. 4 of his letter to the Chief Engineer for Irrigation — No. 1508 of 5th October 1872.

see G. O. of 20th January 1873 } need hardly be allowed to stand in the way of putting an end to the anomaly of having in use in the same range two distinct forms of progress report; one of which forms — and

— and that used for some of the most important works — is distinctly declared to be open to all manner of objections.

64. The last point to be noticed is the provision for showing the "Distribution of the charges of the month" in the new form of progress report. I think these columns except as regards the distribution between Ordinary and Extraordinary, are quite unnecessary. The distinction between Capital, Revenue, Ordinary, Agricultural Works, and Superannuation can be perfectly well maintained by detailing first the works under Capital, then those under Revenue, and so on. The distinction between Ordinary and Extraordinary would be more

more conveniently pro-
vided for by additional
columns under charges
of the month."

65. My opinion then
is that if the audit by
this office is to extend to
details of work, the pro-
gress report should give
information upon the fol-
lowing points.

1. Work and heads of
estimate

2. Authority for
work

3. Expenditure } each } distin-
during } month } guish-
 } } ing
 } } Total } Extraordy

4. Work re-
sented to } quantity
end of } Rate
month } cost

5. Current grant

But if the audit is to go
no further than a comparison
of total expenditure with
total

total of sanctioned estimate,
the following heads of infor-
mation are all that is re-
quired.

1. Description of Work
2. Authority for Work
3. Expenditure } each } distin-
during } month } guish-
 } } ing
 } } Total } Extraordy

Any other heads of information
I consider unnecessary, and
I must repeat that, if the
audit is not to extend to a
comparison of details of
work executed with de-
tails of estimate, it is use-
less, and worse than use-
less to enter in the progress
report any information
as to work executed, the labour
it entails in range offices,
as well as the labour in-
volved in the arithmetical
check by this office, is
simply wasted.

I hope I have succeeded

in showing beyond the possibility of misapprehension, what information it is really necessary that the progress report shall give. It remains to show in what form it can most conveniently be given.

66. If
Form of Prog. } the audit
Report } is to con-
sist -
as it now does - simply of
a comparison of the total
of work executed with the
total of estimate, the pro-
gress report may be made
a very simple document
indeed, for it need only
give, in one line for each
work, the four items of in-
formation which I have
already stated to be ne-
cessary, namely

1. Description of Work
2. Authority for Work
3. Expenditure, each distinguished
during month, total, & being ordinary
or extraordinary
4. Current Grant

129
4. Current Grant
67. But if details of
work are to be compared
with details of estimate the
progress report must of
course be a less simple
document, seeing that
information is required
under more numerous heads,
and that under one head
- work executed - details
are necessary. I believe,
however, that by intro-
ducing a form of progress
report which I will now
describe, the labour of pre-
paring the document in a
range office and the labour
of examining it in this
office, may be so much re-
duced, that there will
be no necessity whatever
for any increase of establish-
ments either in range offices
or in this office, beyond the
strength required to prepare
and examine the present
progress reports; and this,
in

in spite of elaborate classification of works which it will in future be necessary to observe in the progress reports of many ranges.

68. Instead of having, as now, a continuous progress report in book form, consisting of loose sheets sewed together, in which every single detail — name of work, authority for work, item of estimate, classification, etc. — has to be written by hand, month after month, I propose that whenever a work is sanctioned there shall be struck off a certain number — more or less according to the time which the work is likely to occupy — of printed forms of progress report for that particular work. Appended to this memorandum is a specimen of the form which I

vide the form endorsed

C's 2/1745/73

I entertain very strong doubts as to the advantage of exhibiting in any progress reports the details of the first 5 columns of debentures' sample form, and I believe that the advantage derived in particular cases will be far more than counterbalanced by the expense entailed in ten times the number of cases in which the information will be of no practical value. In the case of the Delta works for instance, materials are collected and a great deal of expenditure incurred before a single entry could be made in these 5 columns, and a book which would be finished before the Controller's clerk could have any influence. I think the establishment required for making out such reports in the Ranges and that for checking them in the Controller's Office may with great advantage be dispensed with and the money saved be spent on something more useful. Really useful

131
I propose. It is intended to illustrate the principle; and if the principle be approved, one or two slight improvements might be introduced into the form, and other forms could be prepared suitable for the exhibition of re-establishment charges and petty works.

69. It will be seen that at the head of the form are given all particulars regarding the name and description of work, the authority for its execution, the head of service to which it pertains, the account to which it is debitable, its classification, etc., all of which particulars have now to be written and copied and re-copied month after month. The body of the form is divided into columns, of which the

the first four contain
an abstract of the sanction-
ed estimate, and as I
stated in para. of this me-
morandum that I
thought it objectionable
to ask a range officer to
furnish in his progress re-
port the very particulars
by which the expenditure is
to be checked, I may as well
point out that this quite a
different thing to have
that information standing
in a printed form of
progress report. The
fifth column contains
the description of the items
of the estimate, which in
the ordinary form of pro-
gress report have to be
written by hand every
month. It may be true
that in the specimen form
the items are very much
more numerous than
is usually the case; as a rule,
the

Control of this kind must
be exercised by District
Engineers.
I would limit the Controller's
Progress report to one line for
each separate entry in the
revised form of Budget, which
gives the individual works forming
a district sanction in detail,
and would afford all the infor-
mation required for posting up
expenditure in the manner required
by the Government of India -
Tables H. 8 to 11 of the Budget of 1874-75.
There are 60 entries under B.
which relate to C. masonry works,
on 23 of which expenditure in
the year is intended to be made
and to show the subheads of the
estimate of all these works under
masonry alone would in each
month's Progress report would require
much a vast waste of time and
money. The remedy for improper
expenditure of whatever kind
must be looked for in a widely
different direction to the Controller's
Office.
Unfortunately in this the first Budget
of the kind there are numerous errors
& misprints, but may be it is hoped
that the Budget will show correctly
the description of every work and its
proper classification.

76
133
the number of items does
not exceed four or five. Columns
6, 7, and 8 give the work
reported to the end of the
month. It is not necessary
that particulars should
be entered against every
item; particulars must be
given for items in progress
during the month to which
the report relates, the total
expenditure — not quantities
— or other items being
shown in a lump at the
foot; indeed, even this is
not necessary; it will be
enough to enter the total
expenditure on the work —
which amount has simply
to be copied from the re-
gister of Works — in ad-
dition to the details for
items in progress during
the month; neither the
total of these items, nor
the

The total of other items
need be given. Columns
9, 10, 11, 12 and 13 show the
distribution of the charges
of the month; in these
columns details are not
required, it is only necessary
to show in one line the
expenditure on the whole
work. A wide column is
provided for remarks, and
an ample margin on the
left hand side provides for
binding together all the
detached progress reports
of different works.

70. It must I think
be admitted that the
form which I propose
reduces to a minimum the
work to be done by range
offices in compiling the pro-
gress reports, the actual
work being reduced to
entering in columns 6 & 7
a

135
a few figures copied from
the Register of works, and
one line — indeed generally
only two entries — under
columns 11 to 13. It is not at
all necessary that the rates should
be calculated and entered in
column 8, nor is it absolutely
necessary that the particulars
regarding expenditure up to
date, expenditure in pre-
vious years, etc, etc, at the
head of the form, should
be entered in the range
office; provision is made
for the entry of these par-
ticulars by the auditors,
if necessary.

71. As regards this
office, I think I may
safely say that the clearness
of the printed forms will
reduce very considerably in-
stead the labour of examina-
tion. For comparison, I
forward

forward herewith one of the progress reports recently received, and I would ask particular attention to that portion of the progress report which relates to works for which Capital and Revenue Accounts are kept; it will be seen that it is almost impossible to distinguish the names of the work, from the item of the estimate, from the classification of the work; and I think it will be readily admitted that this report is not an easy document to examine, or to utilize in any way.

It is of course necessary to consider whether the advantages to be gained by the use of such printed forms are a fair equivalent for

Eastern Delta, Kistna
Encl. C S 2/1868/73

This particular report is very badly written - the column "works & heads of estimates" is not nearly wide enough & some of the details are unintelligible.

There can be no doubt of the advantage of printing once for all the details which are to be exhibited unchanged each month for a considerable period. but there will be some difficulty in avoiding useless printing, as individual works of large size are often finished in a single season of 4 or 5 months, all materials being collected before hand.

131
for the expense of printing them. In considering this question it should be remembered that the progress report is not sent to the Controller of P. & A. Accounts only, complete copies of it are sent to District engineers, and I believe to the Inspecting officers, and in the case of local fund works, one copy is sent to the collector of the District and another to the Local Fund Board concerned; on average therefore it will not be out of the way to estimate that about five and twenty progress reports are despatched - from first to last - for each work executed. I believe it is generally allowed that where even four or five copies of a paper are required it is cheaper to print them than to write them.

for them; I know that in a
of 1870. It seems some years ago
cent this is stated to be the case,
we but I cannot at this mo-
at-ment quote the order. Even
of setting aside ~~the~~ the ad-
vantages which may be
claimed on the score of
greater clearness, the plan
it which I propose will pro-
bably prove economical.

As the form is one
of which will be in very
frequent request, it would
probably be well to keep
standing the arrangement
of the columns, and such
portions of the type as
will not vary for different
works; I understand that
the value of the materials
which would have to be
set aside for this purpose
would be under Rs. 30,
and the cost of setting up the

139
the remainder of the
type and striking off even
as many as 100 copies would
probably not amount to
as much as 1 Rupee for
each work.

74. I must repeat
that the specimen form
herewith submitted is
not put forward fulfilling
all requirements, another
form will be required for
the abstract of the monthly
expenditure, as well as
forms for exhibiting ex-
penditure on petty works,
establishments, Stock etc,
which could not be
conveniently shown in
the specimen form, and
blank forms will be required
for use for works commenced
in anticipation of estimate,
but it is to be hoped such
cases will not be very many.
I may observe that the form now
used is no better adapted for this
purpose.

75. If the Govt. determines to adopt a system of audit which compares details of work executed with details of estimate, it will be necessary to decide whether this is to be carried out for all works, or only for works estimated to cost more than a certain amount. According to present orders details of work executed are not shown in the progress report for works estimated to cost less than Rs 2500 each; but, seeing that even where the details are given they are not and cannot be utilized, this distinction is not a very valuable one. I must say that I do not see why

Mr Christie has withdrawn the opinion expressed here, as he has since ascertained that

36
the additional labour involved in dealing with works under Rs 2500 by subheads of estimates would be great.
Vidhar's letter of the 30 March 1904

80
141
why such a distinction should be made between major and minor works. Many minor works must present much more marked subdivisions of work than do many major works; and whenever these subdivisions do exist and are attended to in the preparation of the estimate, different descriptions of work being separately estimated for and the totals of all descriptions added together to arrive at the total estimate, it seems to me that, whether the work is estimated to cost more or less than Rs 2500, the officer who carries out the work should work to the estimate, which he cannot really do unless he keeps his station book in

in such a way as to show
as to show the expenditure
against each subhead of
the estimate. To do this
really involves only a very
trifling increase of labour.
As a general rule minor
works are such as do not
present distinct — or at
most present very few
distinct — subheads of
work.

On this point I understand
that Mullins to agree with
me.

The distinction, at pre-
sent observed in the case
of minor works, between
labour and materials, seems
to me quite useless. It cor-
responds to no distinction
in the estimate and is not
required for Major Works
that is — for more impor-
tant works.

76.

vide the opinions above
expressed on the same
Heg.

I would here add in connection
with the subject so fully discussed by
Mr. Mullins, that I think one form
of Progress report should do for the District
Superintendent, Controller, Inspecting Engineer,
and Chief Engineer. Then the multi-
plication of copies is ^{unnecessary} a bulky mechanical
work & is cheap, but various forms
involving compilation of information
Cost money & unless really necessary
should be avoided. If information is not
needed in another
the columns ^{in question} in the copies for the latter
Officer can be left blank. — Subordinating
Officers need to see at a glance that
works are sanctioned that they

have allotments, what
progress they are making,
what they have made,
and other items of information,
which may be useful to the Con-
troller, but if so it is better in
my opinion to use one form, &
to fill in only those columns
which are required by particular
offices.

143
76. The register of
Works is the
Register of Works & contains
a record of progress, and
the basis of the progress
report furnished to the
and other offices; and, there-
fore, if the progress report
is to give details of work
executed it becomes ne-
cessary that these details
of subheads shall be recorded
in the Register of Works.

It should however be
clearly understood that
this does not really involve
any increase of work over
that required by present
orders regarding these
registers. For major works
these details are now recorded
in the registers; and the
registers for minor works
distinguish

distinguish between labour and materials, and lease and stock; why these distinctions, which are not insisted on for major works should be prescribed for minor works I cannot understand, and seeing that the four subheads thus made are as many as would, on an average, be required if the subheads were regulated by the description of work, as in the case of major works, it would I think be very much better to require the registers of works to be kept in the same form for all works, major and minor. The only works for which it seems unnecessary to keep registers are petty works begun and finished within the month.

* There is a slight mistake here. The distinction between cash & stock is maintained for all works so far as the charges of the month, as shown in the program report are concerned; but in the Register of Works the distinction is only maintained in the case of Minor Works.

Am. L.

There has been a ¹⁴⁵
 77. Cash Account } of cor-
 Current } respond-
 ences on
 the subject of the new (?) form of Cash Account in current prescribed by the Govt of India for adoption in Irrigation Divisions, and after considerable discussion it was ordered that certain Ranges should be classed as Irrigation (other also as Imperial, Provincial etc) and the new (?) form should be used in those ranges. I wish to observe that the distinction seems to answer no useful purpose whatever. I cannot see in what respect the new (?) form of Cash Account differs from the old. Of course certain heads of Account necessary in ordinary divisions will be unnecessary in purely Irrigation divisions, and
 vice versa

do ^{never} use, but the omission
 or introduction of one or two
 heads in the Account is not
 a very difficult matter.
 Moreover, we have no purely
 irrigation divisions, and
 the Irrigation branch Account
 is different, as printed by the
 Govt of India, has to be
 modified before it can be
 used in our so called Irriga-
 tion (!) divisions. I think
 it would be much better
 to keep to one form, instead of
 creating perfectly imaginary
 distinctions merely for the
 purpose of using two forms.

Abstracts of } In
 Estimates } G.O. No.
 1988,
 dated

11th August B.I. is directed that
 this office shall be furnish
 ed with Abstracts of all
Estimates

147
Estimates sanctioned by
Govt., I wish to observe
 that if the audit by this
 office is not to involve a
 comparison of subheads
 of work reported with
 subheads of estimate it is
 perfectly useless to fur-
 nish this office with ab-
 stracts of estimates; if the
 abstracts are only furnish-
 ed in order to enable this
 office to detect the execution
 of work of a description
 not provided for in the
 estimate — which appears
 to be the intention — it is
 quite unnecessary to give
 the quantities, rates and
 amounts of the estimate,
 in fact, the time occupied
 in giving these details is
simply wasted — a des-
 criptive list of the items sanctioned

Just so. an abstract of items or
 individual works
 and not of the quantities of work
 or subheads of estimates of particular
 works.

sanctioned is quite enough;
at the same time I must
repeat that the check here
provided for seems to me
useless. If, on the other
hand, details of work are
to be compared with details
of estimates it is necessary
that this office shall be
furnished with abstracts
of all estimates without
regard to the sanctioning
authority.

79. The heading of
the abstract should give
the following information.

1. District
2. Range
3. Taluk
4. Brief description
of work
5. Head of Account
to which the work
is chargeable.
6. Classification of
the work.

It.

149
It would I think be very
convenient, for purposes of
reference, if in each range
the estimates of each calendar
year were numbered con-
secutively from 1 upwards;
an estimate could then be
referred to shortly as 1 of 72 or
3 of 73 etc. There should be
a separate series for Irrigation
estimates, which could be dis-
tinguished by prefixing the
letter 'I' thus I, 1 of 72, I,
3 of 73 and so on.

The body of the abstract
should give the items of
the estimate, and the quantity,
rate, and cost of each item;
all work of one description,
and estimated for at one rate,
being treated as one item. It
should be distinctly understood
that no two distinct works
should be included in one
abstract, even if included

in the same sanction.

There should be a separate abstract for every work. For convenience of filing for record, all abstracts should be prepared on printed forms; this is also desirable in order to ensure all necessary particulars being included in the abstract. It is the invariable practice in England, in making out bills of quantities, to observe a regular order in the sequence of the dimensions. cubic dimensions are always taken first, then square, then linear, and lastly numbers; and the superficial dimensions (not the larger quantities) are taken first, yards before feet, rods of brickwork before cu. yards, and so on. I think it would be an advantage to observe some such order in

85
151
the preparation of abstract and detailed estimates; it tends to prevent confusion of dimensions and facilitates comparisons between work and estimate.

80. In the case of large Irrigation Projects such as the project for the extension of Irrigation in the Godavary Delta, Panyam Project, etc., it is desirable that estimates should be drawn up with strict reference to the classification adopted for Capital outlay. The estimate for such projects should I think comprise four parts, thus

1. General abstract estimate giving a brief description of the Project and the estimated cost under each head and subhead of classification.

2. Detailed abstract detailing under each head of classification the individual works comprised under that head, and showing the total estimated cost of each individual work.

3. Abstracts of estimates for every work in the order of the classification. These are the abstracts required by this office and should show the quantities, rate, and estimated cost for each description of work.

4. Detailed estimates for every work arranged in the order of classification.

For all these, printed forms might be very conveniently adopted. All estimates for works now in progress should

Unions of the Controller's Office is to compare details of sanctioned estimates with details of work done.

Certainly.

do.

do.

39

153

I think he throws into such shape. This could be done in this office if we only had the estimates, which we have not.

81. It is very necessary that all sanctions conveyed to this office should specify distinctly the head of account to which the work sanctioned is chargeable; and in cases of indents on the Secretary of State for tools and plant, this office should be advised of the heads of service, and in the case of Irrigation works, the particular accounts, which should bear the charges.

82. It appears to me essential that in connection with Irrigation Registers

It appears to me essential that in connection with

with the Capital and
Revenue Accounts of
Irrigation works there shall
be opened in this office Irriga-
tion Registers similar to
those ordered by Govt to
be opened in District and
Engineers' offices. Such re-
gisters cannot be posted
in District offices except
from information furnished
by this office: for, District
Engineers have no know-
ledge of the charges actually
incurred against different
works. The proper plan
appears to me to be that
this office should maintain
a complete Irrigation Re-
gister for the whole Pres-
idency, communicating
to District Engineers annually
the new entries to be made
in their registers. Some
check would be necessary

The District Engineers know or
should know the outlay on works,
and I submit the Deputy Controller
means that they have no knowledge
of establishment and other charges
which have not been
entered in the District registers of
Irrigation works. If in future these
are to be entered in the Irrigation
Registers at all, they must be done
in a separate column otherwise
comparisons between, say, mainline
works, charges of 15 years ago
will be unpracticable

156
to guard against the omission
to post in the District Re-
gisters the amounts com-
municated by this office.
One way of effecting this
would be for this office to
call upon District Engineers
a month or two before the
close of each year, to com-
municate the total ex-
penditure recorded in
their registers against each
of the works included in
the last advice of yearly
expenditure. A comparison
of the totals communicated
by District Engineers with
the total recorded in the
Register of this office would
disclose any error. If some-
such check is not adopted
the District Registers will
very soon become as worthless
as the enumerative
Statements now prepared in

in the District office
 and 83. In G.O. dated 21st
 March 1873, No 886, the
 Govt. approved of a form
 of register circulated by
 the Board of Revenue
 to all collectors, and directed
 the adoption of a similar
 form by District Engineers.
 This Register is intended
 to give for each work, and
 for each year, the following
 series of information:

1. Actual extent of cultivation
2. Assessment
3. Expenditure { New Works
 Repairs
4. Percentage of Repairs
 on Assessment
5. Remarks as to season.

I venture respectfully to sub-
 mit that it is quite useless
 to record the percentage of
 the cost of repairs in any
 one year on the assessment
 of

except that the percentage of
 a succession of years averaged,
 will give the average percentage
 of repairs. It is simply a question
 of the amount of labour involved
 in either case.

157
 of that year; I apprehend
 that what is wanted is a
 comparison of the expenditure
 during a series of years with
 the Revenue during that
 period; and I think this
 requirement would be best
 answered by providing ad-
 ditional columns for showing
 under both New Works and
 Repairs the total expenditure
 up to date

84. With reference to
 the distinction between
 New Works and Repairs, I
 must point out that the
 Govt. appear to have accepted
 the classification of expenditure
 as Capital and Revenue, as
 proposed by the Govt. of
 India. If this distinction
 is to be adopted it would
 be surely better to abandon
 completely the old terms
 New Works and Repairs.
 The maintenance of the
 double

The distinction is not complete.
 The Govt. of India in the Budget
 form Part III use the headings
 "Original works" which is another
 name for New Works" and perhaps
 less appropriate as some works before
 they are completed have been
 in their original form. Again Part
 IV is entitled "Detail of the estimates for repairs"

double system of classifica-
tion can only produce
confusion.

85. As the order of
Govt. above quoted appears
to contemplate that in the
collectors copy of the re-
gister, the particulars
of P. & R. expenditure shall
be posted by the District
Engineers, I must repeat
that the District Engineers
have at present no accurate
information regarding
those particulars.

86. In

Land Registers, order to
carry
out the requirements of
the Govt. of India in con-
nection with charges on
account of land taken
up for Irrigation works,
whether as compensation
or capitalised loss of revenue,
it

They certainly ought to have
information of the extent con-
templated by Government. All
which is shown in the
proper reports.

what is wanted in this respect
is the identification of the
work with the Budget entry
however that may be described
as for instance
Western Delta, Godavari
Munabore Canal
C. masonry
Palash dock
or I should say the C
masonry could be omitted,
as Palash dock would be an
item in the list of works or abstract
of the estimates in the Western Delta

159
it will, I think, be ne-
cessary to open and main-
tain a Land Register
in this office. The register
should be very similar in
form to that prescribed by
G.O. of 20th June 1873, No. 1614,
for use in all districts (whether
in district or range offices
is not specified); but there
are a few alterations and
additions which it will,
I think, be desirable to
make. Thus, I would
have separate columns
for the "name of the work"
and the "nature of the work";
also separate columns for
the Taluk and Village in
which the land is situated,
as well as a column for
the District should it be
thought most convenient
to have one register for the
whole Presidency instead
of

of one for each district; I would provide a column for the date from which the assessment was relinquished, and another for the capitalized value of the same; and for date of transfer" (column 9) I would substitute "date of payment." I would also provide for distinguishing compensation paid for land from compensation for trees, buildings etc standing thereon.

The particulars recorded in the Register would then be as follows:-

1. Name of Project or group to which the work belongs
2. Name of work
3. Nature of work
4. Taluq in which situated
5. Village do do
6. Area of land

date of payment may be given, but date of transfer is required for reference to the authority to take possession.

usually given so when there are such items.

In this its classification as C. M. D. G. M. etc.

I am not sure that even all these columns will make the information complete. For instance in the case quoted above the provision for compensation would probably be a lump sum for the passage Canal and the Paleke lock is the particular work - what would be the entry against No 2. If it was above Canal there would be no identification of the particular block of land, if Paleke lock there would be no reference to the work for which the compensation was provided.

7. Estimated amount of compensation
8. G. O. sanctioning estimate
9. Date of Payment of compensation
10. Amount of assessment
11. Date of relinquishment of assessment
12. } Amount of Land
13. } Compensation } Spec. B. B. B.
14. } Total
15. Capitalized value of assessment
16. Total of 14 and 15
17. Though the more immediate object of my correspondence was the preparation of the Capital and Revenue Account of Irrigation Works, I have always understood the intention

intention to be to strengthen
the control office by the
permanent addition of
an officer to have, under the
controller, the immediate
charge of the Irrigation
Accounts. How far the
Irrigation Accounts can
be separated from the
General Accounts is a
question which it is nec-
essary to discuss at present.

But I think that arrange-
ments might at once be
made for separating as far
as possible the correspondence
on matters connected with irrigation from
the general correspondence of the
office.

1. of removing Irrigation
matters entirely from the
controller, but to relieve
him from dealing with
them in the first instance.

2. To effect this separation it
will, I think, be necessary
that

There is a separate series of
Government orders.

163
District Engineers and
Range officers shall main-
tain separate series for
their Irrigation correspond-
ence. It would be con-
venient if a similar system
were adopted by the Chief
Engineer and Secretariat;
and of course there must
be a complete separation
in this office. I do not
think such a separation
should involve any
extra expense, but I am
bound to say whether
such separation is carried
out or not, the record de-
partment of this office
requires to be thoroughly
overhauled and reorganized.

88. There
Monthly Volumes } is an
of Proceedings } - other
front
to

to which I may well refer
here. This office is not
provided with monthly
volumes of P. W. D. Pro-
ceedings, and the consequence
is that our bound up
proceedings are without
index; this in itself is an
enormous inconvenience,
and there is the further
inconvenience that this
office again and again has
to deal with questions of
which only a portion is
before it. I presume that
there can be no objection
as to supplying this office with
the monthly volumes both
of General and Divisions.

89. I wish to notice
also the
P. W. Code
and Manual
of Accounts } great
incon-
venience
which
results from the non-existence
of

h²
No doubt it will be very
convenient to have a
Complete Code and Manual
to refer to, and I believe
is correct in saying that
there is now no complete set
of rules relating to P. W. procedure
and accounts.

105
of any complete P. W. Code
and Manual of P. W.
Accounts. I really do not
know where any Officer is
to look if he wishes to learn
the rules relating to P. W.
procedure and accounts.
For my own part I have
wished to do so and have
not succeeded. I do not
think there should be
much difficulty in com-
piling a code embodying ex-
isting rules; and as regards
future modifications what
is required is that all new
rules shall be issued as
supplementary standing
orders. At present there
is nothing of the sort.

90. I have now I think
exhausted all the special
points which require attention
with a view to placing the
Division

Irrigation accounts on a proper footing, as regards the future; but there are one or two more general matters which in my opinion very seriously need to be attended to.

91. I do not believe that Working of either Central Office } the ir-

rigation accounts or any other portion of the accounts, will ever be on a really satisfactory footing unless there is introduced into this office a very great deal more method and system than prevails at present, especially in the Record Department. It appears to me also that there should be

The rest of this note refers to matters with which the Chief Engineer's Irrigation is not concerned, and no opinion therefore on Mr. Christie's remarks is offered.

Wm. L. Christie
Chief Eng. of Irrigation
11 May 1874

15
a scale of establishment framed with some reference to the work to be done; and I think that the scale once fixed should be adhered to. It seems to me that an officer cannot be long in good working order if the requirements of the office are subordinated to the supposed claims of individuals, arising from length of service; individuals of long service being allowed to draw the pay of posts, the duties of which they are incompetent to perform, while their more competent juniors who perform those duties are deprived of the pay which is supposed to be attached to them.

92. There is another point

Interchange of Accountants between Central Office and Range Offices } position which I believe is necessary to the proper operation of the system, and the matter is one which appears to me to affect very seriously the efficiency of the whole accounts department, meaning thereby not the central office only but all range office accountants also. I do not believe that any auditor in this office can be thoroughly efficient unless he has a practical knowledge of the system of range office accounts and of the manner in which the requirements of this office affect range offices

office, and I believe that every range office accountant, in order to be thoroughly efficient, should have some practical knowledge of the working of this office. I think that no person should be appointed head accountant in a range office who has not served for twelve months at least in the position of a sub-auditor or assistant Accountant in this office, and that no person should be appointed an auditor or accountant in this office who has not served a certain length of time as head accountant in a range office.

93. This arrangement is substantially the same as that suggested in the note accompanying the Under Secretary's letter No 169 of 21st October 1872, which was dealt with by Mr. T. Brock in his letter of the 12th November

Madras 1872 No. 1849

Printed with G.O. of 20 June

1873 No. 1615, and in referring

to this matter I feel bound

to state that the arguments

urged by Mr. Brock against

the proposed arrangement

appear to me to have no

support whatever in facts.

94. The arguments

urged against the pro-

posal are

1. That the forms in use

in Madras Range

being so much simpler

than those prescribed

by the Govt of India for

use in Divisional offices,

the Madras Range

Accountants are not

required to possess the

same qualifications as

Divisional Accountants

in another part of India

and that they are

therefore not competent

to perform the difficult

duties

duties devolving on
accountants in the
Central Office.

2. That the range Accountants are men of such inferior education that they could never qualify for Divisional Auditorships in this office.

3. That it is absolutely necessary that the men holding the higher appointments in this office should have received the benefits of a good education etc.

4. That in the exceptional cases in which Accountants are met with possessing the requisite qualifications they cannot possibly have any knowledge of the details of the work of this office, which is so different from that devolving upon Range Establishments.

Madras 1872 No. 1849

Printed with G.O. of 20 June 1873 No. 1615, and in referring to this matter I feel bound to state that the arguments urged by Mr. Brock against the proposed arrangement appear to me to have no support whatever in facts. The arguments urged against the proposal are

1. That the forms in use in Madras Range being so much simpler than those prescribed by the Govt of India for use in Divisional offices, the Madras Range Accountants are not required to possess the same qualifications as Divisional Accountants in another part of India and that they are therefore not competent to perform the difficult duties

devolving on accountants in the Central Office.

2. That the Range Accountants are men of such inferior education that they could never qualify for Divisional Auditorships in this office.

3. That it is absolutely necessary that the men holding the higher appointments in this office should have received the benefits of a good education etc.

4. That in the exceptional cases in which Accountants are met with possessing the requisite qualifications they cannot possibly have any knowledge of the details of the work of this office, which is so different from that devolving upon Range Establishments.

95. In the first point
Mr. Proctor says "a glance
at part I. of the forms as
comparing the P. W. Code
of the Govt of India, and
a comparison of those forms
with the forms in use in
Madras, will show that,
while the writing up of
the former requires a thorough
acquaintance with accounts
and a knowledge of books-
keeping, the latter may be
maintained by persons of
very ordinary ability and
of experience in Range office.
I will not pretend to say
what a glance at the P. W.
Code of the Govt of India
will show, but I can assert
most positively after care-
fully comparing the two
sets of forms, that setting
aside the journals and
ledgers the adoption of
which, as I understand,
is optional with Divisional
officers under the Govt of
India

171
India, the forms in use in
Madras are with two
exceptions exact counterparts of
those prescribed in Part I
of the Govt of India Code.
These two exceptions are the
Progress Report (schedule
of Receipts and expenditure)
and the Cash Book. I
trust I have already shown
that the modifications
introduced into the Progress
Report have only resulted
in making that return
show information which
is perfectly useless and in-
formation which is already
on record in this office. I
cannot say that the mo-
difications introduced in
the Cash Book appear to me
to be for the better. One mo-
dification consists in
leaving out the columns
for allowing transactions
with treasuries, so that
the Madras Range
officers

officers' cash book is not
what every Cash Book
professes to be, a complete
record of cash transactions.
The other modification
consists in so ruling the
cash book that all
transactions, whether
debtor or creditor, appear
on the same page, an
arrangement which, I
think, some people con-
sider simpler than the
ordinary arrangement,
but which has the dis-
advantage of being opposed
to the practice of almost
the whole world, and
which certainly seems to
me more confused, instead
of more simple than the
ordinary plan. Surely these
differences are not such as
to entitle one to say that the
Madras forms require for
their compilation a class
of

17th
of men very inferior to those
employed in the compilation
of the Govt of India Division-
al accounts.

96 With regard to the
second point I can only say
that almost all the individuals
who are employed as auditors
& sub-auditors in this office
have been drawn, & are
from the very class which
is said to be so inferior; they
have almost all begun as
accountants in range and
district offices, or as copyists
and writers in these and
other offices, where they could
not possibly acquire any
knowledge of the details of
working in this office; and
the most useful among
the auditors are found
to be those who have some
practical knowledge of the
accounts outside the office.

97 I certainly think
that

that a man of such inferior education that he could never qualify, for a Divisional Auditorship in this office is not a fit man to be employed as Head Accountant in a Range office. In a range burdened with such a man the range officer would practically have to be his own Head Accountant. Certainly, if Range Accountants are such inferior beings, something should be done to improve them; and the best way to get a superior class of men for these appointments — and it seems to me that these appointments require better men than sub-auditorships — the best way, I say, is to hold out to them some hope of advancement beyond Range Accountantships.

175
98. As to the third point, I really do not know what there is in the duties attached to the so-called auditorships to render it necessary that they should be held by persons of such superior education. Their duties are simply mechanical, and I cannot conceive how an auditor can ever have to dispose of a difficult and complicated question. I may be wrong, but I certainly think that difficult and complicated questions should be disposed of by the Controller, or at any ^{rate} by one of his deputies. The most that the auditor can have to do is to put the facts clearly together for disposal, and surely any man who has been for a length of time in responsible charge

change of the accounts of a
range ought to be able to
state clearly any case arising
out of the accounts of a
range. It seems to me a
very great mistake to con-
sider that Range Account-
ants require in their
incumbents less capabilities
than do auditors in this
office. I believe myself that
the very reverse is the case;
a Head Accountant in a
range is head accountant;
an auditor in this office
works under the head of
his branch and all the
work of the former under-
goes the scrutiny of the latter
— perhaps I ought rather
to say that he is supposed
to work under the head of
his branch. But if such
very superior men are required

177
to fill these appointments,
I certainly think something
should be done to secure
their services. Certainly
nothing of the sort is done
at present.

99. The fourth ob-
jection applies quite as much
to one individual as to an-
other, to intelligent men
introduced on probation
or to Range Accountants;
but Range Accountants
have one sort of knowledge
which intelligent probationers
cannot possess, and that, as
it seems to me, the very
knowledge which it is most
essential that auditors should
possess, a knowledge of P. M.
Accounts outside this office.

100. It will be under-
stood that I am not pro-
posing to place Range
Accountants.

Accountants move under
the authority of the
controller than they now
are, or to withdraw them
in any way from the au-
thority of Range Officers.
I simply wish — I can-
not say, I hope — to see
introduced some measure
which will secure better
the accountants for Range
offices and better auditors
(or examiners) and account-
ants for this office; and
as part of such a measure
it would in my opinion
be very desirable to introduce
a system of examinations,
such as obtain in the
accounts department under
the Govt of India. I
do not think that exami-
nations are an infallible
test, but I do think them
a better test than mere
length.

length of service; and they
would at any rate be the
means of showing that in
accountants, whether in this
office or out of it, should
have some knowledge of
book-keeping, knowledge
which now appears to be as
superfluous.

I have felt it my
101. duty to discuss in this
note certain questions
which have already been
before Govt and — for the
time at any rate — have
been disposed of. I trust
I shall not be thought to
have exceeded my duty in
doing so. My opinion is that
these questions were not dealt
with by this office as they
should have been; and,
mightily

10
18
rightly or wrongly, holding
this opinion, I
consider it my duty
to place the facts in
what appears to me
to be their true light.

Charles H. Smith
Lieut. R. E.
Deputy Controller of
P. W. Accounts
Inigation

Oct 1/1828/73

Fort St George

1873

P. W. 2970 A/74

plg. 2/20 Oct/74

In B. A. 456 B.

Office of the Controller of
Public Works Accounts
Fort St George 28 October 1873.

No 4782

From,

The Offg. Controller of
P. W. Accounts

To,

The Chief Engineer for
Irrigation

Sir,

I have the honor to forward
herewith, for submission to Govt, a State
drawn up by Lieut. Christie R. E,
Deputy Controller Irrigation Branch
on the various points connected with
accounts of Irrigation Works as pre-
pared in Range Office and Audited
in the Office of the Controller of
P. W. Accounts. Many of the points
having been already discussed with
you by Lieut. Christie, you will
probably find it convenient to make
your remarks and suggestions in the
half margin space which has been re-
served

reserved for this purpose in the state.

2. Smith Levinson has so fully and clearly explained the object with which his note has been drawn up that I have nothing to add on that subject except to express my satisfaction that the Accounts Branch has gained the services of that Officer.

3. The following are the heads under which the state may be considered as divided.

- I Classification of Expenditure } Paras 2. 6. 5.
- II Classification of Works " 6. 6. 11.
- III Classification of Establishments " 12. 6. 15.
- IV Distribution of Establishment charges } " 16. 6. 36.
- V Revenue Establishment " 37.
- VI Tools and Plant " 38. 6. 39.
- VII Receipts on Revenue Account } " 40. 6. 44.
- VIII Progress Report at present used and nature of audit } " 45. 6. 65.

- IX Proposed form of Progress Report. } Paras 185. 66. 67. 5.
- X Register of Works " 76.
- XI Cash Account Current " 77.
- XII Abstracts of Estimates " 78. 6. 80.
- XIII Sanctions communicated by this Office " 81.
- XIV Irrigation Registers " 82. 6. 85.
- XV Land Registers " 86.
- XVI Separate series of Irrigation correspondence " 87.
- XVII Monthly volume of Proceedings " 88.
- XVIII P. W. Code and Manual of Accounts " 89.
- XIX Working of Central Office " 91.
- XX Interchange of Accounts and between Central Office and Range Offices " 92. 6. 100.

4. The few remarks that I have to make may well follow in the order of the heads detailed above.

I. Classification of Expenditure
Smith Levinson has intentionally confined his remarks to the classification of

of Works for which Capital and Revenue Accounts will have to be kept. But of course there will be expenditure on Works for which no Capital and Revenue Accounts will be kept, as for example on isolated Tanks which may not be included in any series of Irrigation Works. For recording such expenditure no special instructions are necessary, the existing orders on the subject being sufficient.

II Classification of Works.

As regards "Cost of Land" it seems to me that in the case of a Canal it will be sufficient to have the charges for land condensed under the two great heads, namely

I. Main Canal & Branches

II. Distributing Channels

as provided for in the present form.

All subsidiary or minor works would have their origin in or be subordinate to the above great heads and all land for such works might, as stated above

a 3rd head required for Drains which in the District will occupy a good head of land.

above, be included in the one item "Cost of Land" under each of those heads. A third head might be opened specially for Madras, thus

Tanks Cost of Land

The combination of subheads under Land Works recommended by the Committee has apparently been already effected, for in the Account in General's form (No. 11) of Capital Account, the subheads do not appear.

x Circular No. 19 of 1873

IV Distribution of Establishment Charges

Admitting that it is necessary to distribute Establishment charges with strict regard to supervision bestowed on Works in each Taluk, Range and District, I do not think the object will be gained without securing the aid of District Engineers who should be best able to judge in what proportion the several funds and works should bear the Establishment charges.

funds and I believe it would be satisfactory to all concerned to have a fixed percentage. The local authorities would, under this arrangement, know that for every 100 Rs. given to the P.W. Department for Works, the outlay on the work would be ⁷⁵Rs and the Department would reserve 25 Rs to meet establishment charges. Periodical statements of cost showing fluctuations in establishment charges would be unnecessary and, given the expenditure on Works (always easily done), it would be easy at any time to ascertain the balances of grants and the liability of Local funds. Instead of working as now, without any knowledge of what the charge for establishment will be at the end of the year, there will be absolute certainty and greater freedom of action in allotting funds.

In the same way I would fix a percentage to regulate the charge for establishment against Extraordinary. All that seems necessary is that Loan funds shall be charged at a fair rate for

vide above

Wholly Mr.
Dunlop
P.W. Dept.
Establishment
in Local funds
charges

191
for establishment and not in excess of the charge borne by Imperial funds. By Imperial funds I mean all funds not got by Loans or from Local sources. I include Provincial funds in the term because in point of fact, those funds are Imperial administered provincially.

I think it would be fair to fix 25 per cent as the charge for establishment against Extraordinary, plus charges for special survey establishments.

The balance of establishment charges after debiting Local and Loan (Extraordinary) funds as above, and after debiting the entire cost of Conservancy (Irrigation), establishment to Imperial, I would charge off to Imperial and Provincial in proportion to the outlay on works and repairs under those heads. The charge under these two heads would be at a higher rate than under Local and Extraordinary, but this would be in accordance with my view expressed above, namely, that having regard to the Imperial character of the establishment the Govt. should be satisfied with a return that on the one side would be considered

considered reasonable and on the other side be regarded as a sensible relief to Imperial in bearing the cost of establishment.

VI Tools and Plant

The proposal under this head will be shortened by instructions from the Accountant General P. W. Department vide para 30 of his circular No. 19 of 1873.

VII Receipts on Revenue Account

The information connected with land-revenue and water-rates realized by the Civil Department could, I imagine be furnished to this office by the Accountant General of Madras.

The heads under which Revenue derived from Irrigation Works for which is capital and Revenue Accounts are to be kept, should also be prescribed. Probably the two heads "Sales of Produce" and "Miscellaneous" would suffice for the classification of such Receipts.

VIII Progress Reports as at present used and nature of audit

Having already written on this subject I need only refer to the G. O. marginally quoted in which my opinion and remarks are recorded. Should any change be made in the

* No. 1480 of 4th June 73
No. 1730 of 6th July 73
No. 1988 of 14th Aug 73

the present system I would suggest that the following rule by the Govt of India may be extended to this Presidency.

And generally the mode of exhibiting expenditure in the schedule should be adapted, in communication with the Controller, to the nature of the work in hand, so as to carry out the object in view, a really effective audit of expenditure on its merits, without undue elaboration of unimportant details on the one hand, or the omission of essential information on the other.

The Progress Reports in this Presidency are prepared more for the information of District Engineers than of this office and even by a recent order (No. 1480 of 4th June 1873) of Govt they are made to give information which is of no use to this office though no doubt useful to District Engineers in compiling their annual reports. In some cases, as noted in my letter printed with G. O. No. 2226 of the 6th September 1873, Range Officers consider it more important that the District Engineers should receive the first copy of the Progress Report that is, be supplied before

before the Controller.

I am not surprised that in the Presidency Range officers prefer to refer to their Progress Reports rather than to their Registers of Works. These Registers were not always kept and now that they are kept they do not include Works costing Rs 2,500 and under each, and as the questions of District Engineers refer to numbers of Progress Reports, it is not surprising that Range Officers have got into the habit of making the Progress Reports by their books of reference. Another reason for this is perhaps the fact that in the form of Register of Works there is no column to show the allotment of the year while there is a column for this information in the Progress Report.

But the Register of Works is unquestionably intended to be the permanent record of expenditure and I hope Range officers will soon come to regard it in that light. The information regarding allotments could be easily entered in the Register of Works, as done in other parts of India. I am decidedly of opinion that information

195
information connected with allotments, past expenditure &c. should be given by Range Officers in their Progress Reports as done at present and as done under the Govt of India. The furnishing of such information does not — or should not — relieve the central office of any work or duty, but is the means of securing complete agreement between the two offices. A Range officer must not be allowed to incur expenditure under a misapprehension as to past outlay and present allotments and the only way to prevent this is to require that his Progress Report should show monthly what he regards to be the past expenditure, latest allotment &c.

IX Proposed form of Progress Report

I hope it will be found practicable to try the experiment of using detailed printed forms. If it should prove successful — and I think it will — great relief will be afforded to all concerned.

X Register of Works

My remarks above regarding Progress Reports (section VIII) refer also to the Register of Works.

XIII Sanctions communicated
to this office

I have already asked Govt for copies of Orders on England and of the letters submitting them to the Secretary of State. If we get these, ^{we shall} have full particulars regarding stores. If all sanctions as given were eventually followed by complete monthly volumes of Proceedings as suggested in section XVII by Smith Christie, the Office would never be in doubt, as it often is now, by the non-receipt of orders which though not appearing to affect the Accounts Branch at the time of issue, are often necessary hereafter. In numerous instances Copies of Orders not communicated to this office at the time of issue have been obtained by semi-official application afterwards.

XIV Land Registers

The first step towards opening these has been taken by requiring that no land shall be paid for by Revue Officers till receipt of audited Bill. Bills are to be submitted to this office and will be prepared in a form which will give the necessary information.

19
XVI Separate series of Irigation
correspondence

It will not be difficult to arrange for this separation. As regards Range Officers, they might be asked to use paper printed with the word Irigation for their correspondence on Irigation subjects.

XIX Working of Control Office

I have recently received the orders of Govt to propose the remodelling of this office after I shall have been able to judge of its working by the employment of additional men recently admitted, and therefore I need not make any further remarks now.

XX Interchange of Accountants
between Central Office and
Range office

My opinion that the accountants should be transferable from one office or charge to another has been already expressed in the letter printed with G. O. No 637 of the 23rd June 1873. The authority of the Controller would in no way affect or lessen the authority of Range Officers, but there must be some exercise of authority on the part of the Controller if men are to pass from the Range office to the Central office and vice versa.

199
view verod: I think it highly desirable
that there should be not exactly a
graded establishment, but a rising
scale of salaries by which deserving men
could get a small yearly increase up to
a certain limit.

5. As Lieut. Christie has to
meet the Accountant General P. H. Dept.
in Calcutta on the 25th November, it would
be very satisfactory were he able, by that
date, to inform that Officer of all that had
been settled towards working the Irrigation
(Branch of Accounts and I therefore
venture to beg that, if possible, you will
at least inform me of the proposals you
may make to Govt with reference to
Lieut. Christie's report.

I have the honor to be
Sir
Your most obedient Servant

Free
Offg. Controller of
P. H. Accounts.

No 1848

From, Regt

The Offg. Controller of
Public Works Accounts
Fort St. George

To,
The Chief Engineer
for Irrigation

Dated 28 }
Decr 28 } October 1873
Recd 28 }

No 4782

Enc 3.

Forwards with
remarks etc by
Lieut. Christie R.E.
on points connected with
the placing of the leaflets
and Revenue Accounts
of Irrigation Works on
a proper footing

P.W. 2970 A/74

P.H. 20 Oct 1/74
12797/8

No 314 A

201

Note by the Chief Engineer for Irrigation

In submitting for the considera-
tion of Government a letter No 4782 dated
28th October 1873 from the Controller of
Public Works Accounts and its accompa-
nying note by the Deputy Controller
of the Irrigation branch, it is not
requisite to add more than one or two
observations to the remarks which have
been entered in the margin of Lieut.
Christie's note.

2 Lieut. Christie had a long
interview with me shortly before his
note was written, and most of the
subjects therein noticed were discuss-
ed on that occasion. He has since
been to Calcutta to confer with the
Accountant General, Public Works De-
partment, and as a result of that
conference the Government of India
have with their letter No 103 A I dated

11

456 A

11th April 1874, now awaiting disposal,
transmitted a Memorandum showing
the conclusions which have been
arrived at as regards the arrange-
ments for keeping proper Capital
and Revenue accounts.

3 Paras I to III of that Memorandum
require no remarks.

Para IV. All the heads and the prin-
cipal sub-divisions of outlay have
been adopted, and the minor divisions
of sub-divisions only have been omit-
ted, as decided in G. O. No. 2731 dated

10th November 1873, these having been
left optional.

Paras V, VI and VII need no remarks.

Para VIII. Allotment of establishments
charges. This subject will be
found to have been fully discussed
in Lieut. Christie's Note, and it will
be seen that he advocates the charge
to works of the cost of an special
establishment employed on them.

and of a rateable share of the Taluk
Sub-divisional and District establishments
of the District to which they appertain,
as also of the superior establishments
of the Presidency, and the suggested
mode of allotment appears to me to
be fair and as accurate as is attainable.

The Controller on the other hand
would,

1. establish a fixed percentage for
Local funds.
2. — do — another and apparently
higher per centage for
Loan Fund works.
3. debit all conservancy establish-
ments to Imperial (Irrigation) Ac-
4. charge the rest of the cost of estab-
lishment between Imperial
and Provincial, rateably and
in proportion to the outlay
for those services.

I have already shown that this a
plan would not be likely to give
satisfaction.

Satisfaction, because percentages vary considerably from year to year, and adjustments would be called for, thus upsetting those fixed in the case of certain funds to start with. Then the argument that Local fund works do not need an expensive establishment and should therefore, compared with Imperial works, be charged a less percentage is to some extent admissible, but on the other hand it may be advanced that large works cost very much less for superintendence in proportion to outlay than small ones. Lastly the division of the remainder between Imperial and Provincial works generally would continue that entire want of accordance

205
accordance between facts and figures which Lieut. Christie has forcibly pointed out to be now wanting under the similar arrangements now in force. A "hard and fast" rule is the only one that can be worked successfully where so many varying circumstances which would render the task, of allotting establishment in accordance therewith exactly, hopeless, were they to be taken into account, and Lieut. Christie has shown how an allotment can be made which will agree very closely with the distribution of establishment and its actual employment.
Para ^{XIV} - Revenue - The difference between the Aforement as finally settled and the collections is usually very small indeed, and as the former is determinable at the ~~year~~ ^{year} end, and the latter are not actually known

known until long after, it would
seem to be better to accept the
assessment after all remissions have
been deducted as the Revenue, rather
than to wait until all the collec-
tions have been made.

The other paragraphs need no
comment from me.

Ootacamund
11th May 1874

Wm. Mullins Lieut. Col. R.E.
Chief Engineer for Irrigation.

To
The Secretary to Government
P.W.D.

14
S.P.C.
1874
Pro: 8/10 had as last
Read the following.

Note by the Chief Engineer for Irrigation
A. 8/11 May 74, on letter from the Controller of
P.W.D. 4/82 of 28th Oct 73 submitting memo-
randum by Lieut. Christie R.E. in respect to
Capital and Rev. Accounts of Irrigation Works.
G.O. no 2991 A of 20th October 1874.

M
11/10

In his ~~note~~ ^{memorandum} ~~presented~~
submitted with note by the Chief
Engineer for Irrigation
A. 8/11 May 74
Lieut. Christie called at-
tention to certain points
on which orders are re-
quired with a view to
putting the Capital and
Revenue Accounts of
Irrigation Works on a
proper footing - Lieut.
Col. Mullins has remar-

marginally on his
suggestions. The following instructions
~~It is proposed that the order be issued thereon~~
~~in each quarter~~

I Classification of Expenditure.

1 Colonel Mullins' definition of works for which no Capital or Revenue Accounts are kept is accepted; including his proposals as regards drainage works

2 Capital and Revenue Accounts must be kept for each Tank that may have been materially improved under British rule according to para 4 of note accompanying

the new forms of Irrigation Accounts; which requires distinct record of the income and expenditure of each work that may have been separately sanctioned.
3 Tanks from one group of Irrigation works as laid down in para 9 of G.O. 1102 of 30th April 1872. But to prevent confusion, such as has already arisen, with the term group applied to a series of Tanks within the same Catchment basin, the term

Class shall be used - Thus
rain fed Taluks form
class IV of Irrigation
Works -

4. General Capital
and Revenue Accounts
must be kept by Districts
only; there can be no
minor sub divisions or
groups, for purposes of
account - Revenue Ac-
-counts may indeed be
furnished by Talooks,
but the attempt to render
accounts of Capital and
Revenue expenditure
Talookwar, would lead
to confusion - So would
it

it be if the attempt
were made to group by
Ranges - Still Talooks
or Ranges are the only
sub divisions possible;
grouping by catchment
basins, except for pro-
fessional treatment,
is out of the question -

5. "Extensions & Improvements"
and "maintenance and
Repairs" shall be the
two minor heads, under
the main head "Maine-
-nance of works" - The
limit to be fixed both
for the past and future,
of the cost of Extensions
and improvements chargeable

class shall be used - Thus
rain fed Taluks from
class IV of Irrigation
Works -

4. General Capital
and Revenue Accounts
must be kept by Districts
only; there can be no
minor sub divisions or
groups, for purposes of
account - Revenue Ac-
-counts may indeed be
furnished by Talooks,
but the attempt to render
Accounts of Capital and
Revenue expenditure
Talookwar, would lead
to confusion - So would
it

it be if the attempt
were made to group by
Ranges - Still Talooks
or Ranges are the only
sub divisions possible,
grouping by catchment
basins, except for pro-
fessional treatment,
is out of the question -

5. "Extensions & Improvements"
and "Maintenance and
Repairs" shall be the
two minor heads, under
the main head "Mainte-
-nance of works". The
limit to be fixed both
for the past and future,
of the cost of Extensions
and improvements chargeable

to the Revenue Accounts,
shall be Rs 500 for works
of which the cost is not
known but which is
to be fixed arbitrarily, and
Rs 500 for works of
which the cost is known;
the limit of Rs 500 pro-
posed by the Govt of India
being inapplicable to
the works of this Presi-
dency - A lower sum
is fixed for the works
of which the cost is not
known, because it has
been settled in para 10
of G.O. no 1102 of 30th April
1872, and in para 3 of
G.O. no 837 of 17th March 1873,

I think that Col. M's
proposals should be
accepted as the rule
for future distribution
of expenditure - It is
easy and scarcely
need involve extra
trouble.

Sd/- W.R.

that such cost shall be
arbitrarily fixed & the
expenditure made since
1856-57 only; which must
result in a dispropor-
tionately small charge to
Capital - The detailed
Rules proposed by the
Chief Engineer for Irrigation
may be correct enough
in principle but they would
lead to perpetual refer-
ences regarding indivi-
dual small works of
extension and improve-
ment; and the object
being to start a Capital
and Revenue Account
at once arbitrary money
limits are necessary to

to simplify and accelerate the process -
II Classification of Works
This subject has been
separately disposed of -
Whatever departures
from the classification
of Government of India
Circular No. 64 of 1871
may be found necessary
should be agreed
upon by the Controller
and Chief Engineer for
Irrigation and adopted
after reference to the
Accountant General
Public

Public Works Department
if necessary - special
orders of this Govt. do not
seem to be called for -

III Classification of establishments -

The principle of
Lieut. Christie's propo-
sals is correct and
should be carried out -
It is concurred in by
the Chief Engineer for
Irrigation -

IV Distribution of Es- tablishment charges -

It has been proposed
by the Govt. of India and
agreed to by this Govt. that

Public Works establish-
ments shall for purposes
of account be treated
as Provincial, exclu-
ding the cost of con-
veyance and survey
establishments, and
that of the Chief Engi-
neer for Irrigation and
his establishment,
which shall be Imperial
charges; to which should
be added the cost of the
Deputy Controller for
Irrigation and his depa-
rta establishment -
25 per cent on Budget
grants, or on actual
outlay for Imperial Work.

whichever may be greater
will be the additional
-erial charge for estab-
-lishments - 25 per cent
of actual outlay on
Works, that against
Local Funds. And
the balance will be
borne by Provincial.
As a necessary sequel
to this arrangement the
existing Local Fund
Petty establishment
will be amalgamated
with the regular Public
Works establishment
as a Lower Subordinate
establishment -

The Board of Revenue
must be asked to report
after consulting Local
Boards - whether this is desi-
-rable and acceptable to
those Boards - S. W. R.

Revenue Establishments

The details of this matter should be arranged by the Controller in correspondence with the Accountant General

Pub: Works Dept who must be in possession

of the views of the Govt of India; which will

have to be necessarily adopted

in working out a system of Irrigation ac-

counts or forms of their

selection -

25, VII Tools and Plant

The practice of the Govt of India will similar

I would adopt Mullins' suggestion. Cannot be given in reliable form until year's Revenue Acc are closed. say H. R.

acc

25, VII Tools and Plant
The practice of the Govt of India will similar

4

be ascertained and ad-
-ted on this point 219

VII Receipts on Revenue Accounts -

I would refer this point to the Board of Revenue and ask how far they can give the information in the form suggested
say H. R.

Yes: better requested after parcel!

"his report belongs to the Revenue Dept. will be dealt with by the Revenue Dept. Board, & what I propose belongs"

The heads of classification proposed by Lieut. Christie as concurred in by the Chief Engr. for Irrigation may be adopted; the Board of Revenue being charged with the duty of furnishing the information required as to receipts under Land Revenue, Irrigated (ie Assessments, Rents, Remissions) and "Special

5
In para 7 of the Govt of
India note of 16th Augt.
1871, the first thing to
be done was to make
an arbitrary opening,
and declaration of the
sum which is to be
held to constitute
the Capital Account
of each work. He has
put aside those in-
structions, in conformity
with his opinion declared
in para 1 that to set
the accounts right as
regards the future is
the first thing to be
done. Adding that,
as for the past it
matters very little whether
it be taken up now

or 12 months hence - 12
months or more have ^{20th} elaps-
ed since he wrote, and the
questions of which he
requested an early de-
cision have not been
answered yet. Had his
report been limited to
44 paras bearing on
the subject regarding
which orders were more
immediately needed they
would probably have
been passed long ere
this. They are now passed
and will be acted on
without delay, the con-
troller being personally
responsible that such
action is taken by his
Deputy, who will be

Relieved of all current
work. The remaining
57 paras will be separately
disposed of

(Sd) G. W. W.

10/10/74

200

M.S. despatch only to Controller of M.A.
1. Copies despatched 7/11/74.
2. To Supg Engineers
3. District D.O.
4. Despatched 1/12/74.
5. To Supg Engineers
6. To District D.O.
7. To Controller of M.A.
8. To Rev. Secy. to Govt.
9. To Secy. to Govt.
10. To Secy. to Govt.
11. To Secy. to Govt.
12. To Secy. to Govt.
13. To Secy. to Govt.
14. To Secy. to Govt.
15. To Secy. to Govt.
16. To Secy. to Govt.
17. To Secy. to Govt.
18. To Secy. to Govt.
19. To Secy. to Govt.
20. To Secy. to Govt.
21. To Secy. to Govt.
22. To Secy. to Govt.
23. To Secy. to Govt.
24. To Secy. to Govt.
25. To Secy. to Govt.
26. To Secy. to Govt.
27. To Secy. to Govt.
28. To Secy. to Govt.
29. To Secy. to Govt.
30. To Secy. to Govt.
31. To Secy. to Govt.
32. To Secy. to Govt.
33. To Secy. to Govt.
34. To Secy. to Govt.
35. To Secy. to Govt.
36. To Secy. to Govt.
37. To Secy. to Govt.
38. To Secy. to Govt.
39. To Secy. to Govt.
40. To Secy. to Govt.
41. To Secy. to Govt.
42. To Secy. to Govt.
43. To Secy. to Govt.
44. To Secy. to Govt.
45. To Secy. to Govt.
46. To Secy. to Govt.
47. To Secy. to Govt.
48. To Secy. to Govt.
49. To Secy. to Govt.
50. To Secy. to Govt.
51. To Secy. to Govt.
52. To Secy. to Govt.
53. To Secy. to Govt.
54. To Secy. to Govt.
55. To Secy. to Govt.
56. To Secy. to Govt.
57. To Secy. to Govt.

31-3-08

20/7/12

R
100
5
100

2991

1/18/4

456A-456D.

227

31-3-08

Pub. Works 1874 Dep
No: 291

From
The Chief Engineer
for Brigades
To The Secretary to
P.W. Dep
No 314 A.

Dated 11th 29
Recd 19th 3 May
Enclos.

13-2-
26-11-

Observation con-
tained with the report
by Lieut Christie
on points connected
with the planning
of the Capital of
Reve accounts of
brigade works
a proper footing
G.O. No: 2991 A. 20-10-08

456 B