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MADRAS RECORD OFFICE

Government of Madras

Public Works

DEPARTMENT

G.O. No.	1968	Press
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Dated	10-7	6875
		195

Not to be folded or roughly handled

*Proceedings of the Madras Government Public, Works Department,
10th July 1875.*

No. 320. Read the following Proceedings of the Government of India in the Public Works Department, (Account—Irrigation,) dated Simla, 7th June 1875, Circular No. 38 P. W. :—

Classification of outlay on Irrigation Works.

Read again the following papers :—

Public Works Department Circular No. 64 of 1871.

" " " 80 of "

Resolution Nos. 168—78A—I, dated 16th June 1874.

Read also the following :—

Letter from Secretary to Government, Madras, No. 2,568, dated 10th September 1874.

" " " Bombay, ,, 225A—I, ,, 12th October "

" " " Bengal, ,, 785A—I, ,, 14th September "

" " " N.W.P., ,, 323A, ,, 21st August "

" " " Punjab, ,, 3,230A—I, ,, 4th " "

" " " to Chief Commissioner, Central Provinces, No. 6,335, dated 22nd September 1874.

" " " to ditto, British Burmah.

" " " to " Hyderabad, No. 54 I, dated 10th July 1874.

" " " to " Mysore, ,, 498 A—I, dated 10th September 1874.

" " " to Governor-General's Agent, Rajpootana, No. 2,001, dated 15th July 1874.

RESOLUTION.—The Governor-General in Council observes that, excepting the Government of Madras, the several Governments and Administrations generally concur, with some modifications, in the proposed classification of expenditure on Irrigation Works. But the Government of Madras have proposed that the outlay on head works of a canal should be kept quite distinct from the outlay on main canal and branches, and the Governor-General in Council considers it desirable to accept the modification as indicating at once the character of the canal in the record of the outlay.

2. The Government of Bengal have suggested that a separate sub-head should be opened under Capital for the record of the outlay on maintenance during construction. This sub-head seems necessary, and it will be adopted, the outlay being shown separately under Head Works, Main and Branch Canals, Distributaries, and Drainage.

3. The Government of Punjab have proposed that separate sub-heads of "Buildings" and "Miscellaneous" should be opened under "Distributaries," in order that the total expenditure under Distributaries may be grouped together, instead of the expenditure under these sub-heads being shown as a portion of the outlay on the main canal, as will otherwise have to be done. The Government of India do not, however, consider it desirable to increase the number of sub-heads; and as buildings are required for general use on a system, and not only for those employed on distributaries, it is not necessary to alter the proposal that outlay on buildings should be recorded as a portion of the expenditure under the canal to which the outlay relates.

4. As regards miscellaneous charges for rajbuhars, the Government of India consider that the necessities of the case will be sufficiently met by the proposed sub-head "Irrigation outlets" being termed "Miscellaneous."

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5. As regards escape channels, it has been suggested by the Government of the Punjab that a separate sub-head should be opened for this outlay under Distributaries. But this is not necessary, since the amount involved is not large; so that it will suffice if the cost of the escape channels is shown as an item in the outlay of one of the existing sub-heads.

6. The original proposals for the classification of outlay on land required that the cost of land should, excepting as regards earth work, be shown as a portion of the cost of the work for which the land was required, while as regards earth work, the outlay on land was required to be shown as a distinct sub-head.

7. On this point the Government of the Punjab say that the arrangement will not admit of the total cost of land being shown under one main head, and it is added as follows:—

“It being more desirable that it should be so shown than that a stated main heading should be found to re-appear again in the accounts as a sub-head, I am desired to suggest that the cost of the land for the main canal and branches may be shown under one item—B.—Cost of Land—instead of being included under different sub-heads, as proposed by the North-Western Province's Government. If this is not done, to be consistent, it will be necessary to put the land of Mills, Buildings, Plantations, and Tanks and Reservoirs all under their separate heads; in fact, the same should be done for the head works, and under escapes their head works should be entered, if it is an object to know the complete cost of each large item of a project, but this is not advocated, as causing unnecessary complexity in accounts.”

8. The Government of India do not consider it desirable to require that the estimates for particular works should be so divided off as to require that the cost of land should be shown distinctly, in order to admit of the charge on this account being entered under one main sub-head of land. The amounts involved in each of these cases are so small as not to make it worth while to preserve such a distinction. On the other hand, the land required for the main bed of a canal or its distributaries is so large as to render it desirable to place such outlay distinctly on record; and the Government of India therefore consider that the original proposal, that the cost of land should be shown distinct for each of the heads, Head Works, Main and Branch Canals, Distributaries, and Drainage, should be adhered to. In the case of the charges for plantations, the cost of the land that may be taken up for plantations in excess of canal requirements, when such excess is a charge debitable to the Capital Account of the project, should also be shown distinctly.

CAPITAL CHARGES.

9. Under these orders, the classification of Capital outlay on Irrigation Works will be as follows:—

I.—WORKS.

(1.)—HEAD WORKS—

- A.—Preliminary expenses.
- B.—Land.
- C.—Works.
- K.—Buildings.
- O.—Miscellaneous.
- P.—Maintenance.

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(2.)—MAIN CANALS AND BRANCHES—

(Each main canal or branch being kept distinct.)

- A.—Preliminary expenses.
- B.—Land.
- D.—Regulators.
- E.—Falls and Weirs.
- F.—River and Hill Torrent works.
- F(1).—Other cross drainage works.
- G.—Bridges.
- H.—Escapes.
- I.—Navigation works.
- J.—Mills.
- K.—Buildings.
- L.—Earth work.
- M.—Plantations.
- N.—Tanks and Reservoirs.
- O.—Miscellaneous.
- P.—Maintenance.

(3.)—DISTRIBUTARIES—

(Those of each canal and branch being kept distinct. The cost of each distributary would of course be shown distinct against the estimate sanctioned for it.)

- A.—Preliminary expenses.
- B.—Land.
- C.—Works.
- L.—Earth work.
- O.—Miscellaneous.
- P.—Maintenance.

(4.)—DRAINAGE AND PROTECTIVE WORKS—

(The works in connection with each main canal and branch canal being kept distinct.)

- A.—Preliminary expenses.
- B.—Land.
- C.—Works.
- L.—Earth work.
- O.—Miscellaneous.
- P.—Maintenance.

II.—ESTABLISHMENT.

(5.)—DIRECTION AND ACCOUNT—

Chief Engineer	Chief Engineer and Assistant.
	Office Establishment.
	Travelling allowances.
	Contingencies.
Superintending Engineers and Superintendents of Works.	Superintending Engineer and Assistants.
	Office Establishment.
	Travelling allowances.
	Contingencies.
Account	Controller, Deputy Controller, and Assistants.
	Accountants.
	Office Establishment.
	Travelling allowances.
	Contingencies.

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- (6.)—EXECUTIVE ESTABLISHMENT—
Engineering Establishment.
Upper Subordinate Establishment.
Lower Subordinate Establishment.
Petty Establishment.
Accountants.
Office Establishment.
Travelling allowances.
Contingencies.

- (7.)—MEDICAL ESTABLISHMENT—
Surgeons, Assistant Surgeons, and Hospital Assistants.
Travelling allowances.
Contingencies.

- (8.)—SPECIAL SURVEY ESTABLISHMENT—
(To be sub-divided as in the case of Executive Establishment.)

- (8½.)—SPECIAL FIELD SURVEY ESTABLISHMENT—
(To be sub-divided as far as possible as in the case of Executive Establishment.)

III.—TOOLS AND PLANT.

- (9.)—NAVIGATION PLANT.
(10.)—MILL PLANT.
(11.)—RAILWAY PLANT AND ROLLING STOCK.
(12.)—MISCELLANEOUS.
(13.)—REPAIRS AND CARRIAGE WHEN NOT CHARGEABLE TO PARTICULAR WORKS.

IV.—SUSPENSE ACCOUNTS.

- (14.)—STOCK.
(15.)—STOCK PURCHASES AND SALES.
(16.)—MISCELLANEOUS ADVANCES.
(17.)—LONDON INVOICES.
(18.)—LONDON STORES.

V.—RECEIPTS ON CAPITAL ACCOUNT.

- (19.)—SALES OF BUILDINGS, THE ORIGINAL COST OF WHICH WAS DEBITED TO CAPITAL.
(20.)—RENTS OF BUILDINGS PREVIOUS TO CANALS BEING BROUGHT INTO OPERATION.
(21.)—SALES OF TOOLS AND PLANT, THE ORIGINAL COST OF WHICH WAS DEBITED TO CAPITAL.
(22.)—MISCELLANEOUS REFUNDS OF OUTLAY DEBITED TO CAPITAL, AND WHICH CANNOT BE CREDITED TO THE PARTICULAR WORK FOR WHICH THE REFUND IS MADE.

VI.—CHARGES NOT DEBITABLE TO BUDGET GRANT OF CANAL.

- (23.)—CAPITALIZATION OF ABATEMENT OF LAND REVENUE.
(24.)—CHARGE FOR EXCHANGE ON PAYMENTS IN ENGLAND.
(25.)—LEAVE AND PENSION ALLOWANCES.

VII.—SIMPLE INTEREST PREVIOUS TO WORK BEING BROUGHT INTO OPERATION.

NOTE.—The entries against the numbers I. to VII. should be termed classes, those under (1) to (25) as main heads, and the others A to F as sub-heads.

10. The charges to be comprised under the above heads will be as follows:—

I.—WORKS.

A.—Preliminary Expenses.—Surveys and all other expenditure, except on Establishment, incurred before the detailed estimates are sanctioned, including compensa-

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tion for running survey lines. Charges for the regular classified establishment employed on surveys, and any extra establishment of Surveyors and others for survey purposes, will appear under the main head Special Survey Establishment under Class II.

Preliminary expenses, which cannot be kept distinct under the several main heads of works, will be divided between them in proportion to the estimated cost of each main head.

B.—Land.—Compensation for taking permanent or temporary possession of all land required for the general project of the works in each class, including payments for house property, trees, crops, &c., &c., and the special Revenue Establishment employed for taking up the land, when such establishment is debitable to the grant of the Public Works Department. Sale proceeds of wood and building materials obtained on clearing land taken up will be treated as a reduction of the charge. If the land is taken up for several main heads, i.e., for the head works and the main canal, at the same time, the cost of the land must be divided between the main heads in the best way practicable. The cost of detached plots of land subsequently taken up specially for the erection of buildings, masonry works, plantations, and other works enumerated under the sub-heads D to N, must be treated as a portion of the cost of these sub-heads.

Payment for the use of land for the manufacture or extraction of material is to be treated as a portion of the cost of the materials.

C.—Works.—To include under the main head (1) all expenditure on all construction work (whether of earth work, masonry, &c.,) other than such as fall under K.—Buildings; and under the main heads (3) and (4) all construction work other than earth work. In fact, the sub-head would comprise all outlay which would, under the main head (2), be enumerated in detail under the following sub-heads:—

- D.—Regulators.
E.—Falls and Weirs.
F.—Torrent works.
G.—Bridges.
H.—Escapes.

It is considered that, under these sub-heads, the expenditure is too small to justify the introduction of separate sub-heads under (1), (3), and (4).

Under the main head (1)—Head Works—will further be included the earth work, masonry works, and weirs for the maintenance of supply, and for training or embanking the river.

Locks at the heads of main canals or branches will be included as a part of the cost of the main canal or branch under the main head (2) I.—Navigation works.

The cost of head sluices of main canals or branches will be included as a part of the cost of the main canal or branch under main head (2) D.—Regulators.

D.—Regulators.—Dams and regulating works constructed for the regulations of the supply for main or branch canals, excluding escapes and escape heads.

The head sluices of main and branch canals will appear under this head.

E.—Falls and Weirs.—To include the cost of all falls and weirs, except that of the weir in the river at the head works, which would appear under the main head (1). The sub-head Falls and Weirs will include the cost of weirs required to lessen the velocity of the current, but not such weirs as may be primarily intended to maintain the depth of water for navigation purposes. These latter will appear under sub-head I.—Navigation works.

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F.—River and Hill Torrent works.—To include all aqueducts, super-passages, under-tunnels, inlets and outlets required for passing across the canal, or otherwise dealing with natural drainage, or artificial drainage existing previous to the construction of the canal.

All expenditure on artificial works subsequent to the construction of the canal for drainage, including that on works for passing such drainage across the canal, will appear as a charge under the main head (4).

When canals of irrigation or navigation, and intersecting schemes of artificial drainage, are planned simultaneously, the cost of works necessary for passing such artificial drainage across the canals will be equally divided between the canals and the drainage works.

Drainage works connected with the canal will appear under the main head (4).

G.—Bridges.—All bridges, including retaining walls, approach roads, fencing, gates, as also steps, ghâts, and other works required for facilitating communication across the canal. This is not to include the expenditure on ferry boats, which will appear under the main head (9).

H.—Escapes.—The cost of masonry and earth work connected with escapes.

I.—Navigation works.—Locks at head works and on the canal; separate navigation channels; weirs, when essentially designed for maintaining the requisite depth of water for navigation purposes.

J.—Mills.—Buildings designed for the application of water-power, including sluices and channels to supply such works. Provision for water-power machinery in connection with head works will appear, not under the main head (1), but under the main or branch canal to which the outlay may be referable.

K.—Buildings.—Under the main head (2), permanent and temporary buildings, staff quarters and offices belonging to the particular canals concerned. Under the main head (1) will be included, not only the buildings, &c., belonging specially to the head works, but also the cost of the general workshops, head-quarter, station and other buildings required for the general projects. Station drainage, roads, enclosure walls and conservancy works will be charged to the same sub-head as the buildings for which they are intended. Buildings designed for water-mills will be excluded from this head.

L.—Earth work.—Excavations and embankments for the bed and side-roads and protective works for beds of main and branch canals, distributaries and drainage works; trimming, turfing, or revetting slopes. Excavation for foundations or other earth work required specially for all masonry works and buildings will be considered as part of the charge for those works, and not as Earth work. Retaining walls for embankments will be entered under Earth work.

M.—Plantations.—The cost of land separately and specially taken up for plantations, together with the first cost incurred in clearing land and planting trees.

N.—Tanks and Reservoirs.—In connection with canals, including earth work and masonry.

O.—Miscellaneous.—Expenditure on experiments, small irrigation outlets, or colabas, minor works constructed in the banks of main canals, branches or distributaries for the direct delivery of water.

P.—Maintenance.—To include charges for repairs of works previous to canal being brought into operations—*vide* Public Works Department Circular No. 52 of 1871.

NOTE.—In all cases of combined works, the particular sub-head to which the cost of the work is to be charged, is to be settled by the Chief Engineer.

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II.—ESTABLISHMENT.

(5.) **DIRECTION AND ACCOUNT.**—Includes establishment of Chief Engineers, Superintending Engineers, Superintendents of Works (not holding Executive charges), and Account Office.

(6.) **EXECUTIVE ESTABLISHMENT.**—Includes the entire establishment under the charge of Executive Engineers.

(7.) **MEDICAL ESTABLISHMENT.**—Includes the entire medical establishment of every grade.

(8.) **SURVEY ESTABLISHMENT.**—Includes special survey establishments only, but not ordinary survey establishments, such as are generally attached to Divisions, and the cost of which will appear as part of the charge under the main head (6).

(8½.) **SPECIAL FIELD SURVEY ESTABLISHMENT.**—Includes establishment for measuring fields when that establishment proceeds the construction and opening of a canal.

NOTE.—All charges for Presidency house-rent and local allowances to be shown as a distinct sub-head under Chief Engineer, Superintending Engineer, Accounts, Executive Establishment, &c., &c.

III.—TOOLS AND PLANT.

(9.) **NAVIGATION PLANT.**—Includes steamers, boats, and all plant and gear purchased for navigation, excepting component parts of the sub-head I, which are included under that head.

(10.) **MILL PLANT.**—Includes mill-stones, machinery, and all mill-work purchased for the water-mills.

(11.) **RAILWAY PLANT AND ROLLING STOCK.**—To include all permanent-way materials and rolling stock obtained for works to facilitate the transport of materials. The works constructed, such as embankments and masonry works, in connection with the Railway, should be charged to the heads benefited, *viz.*, *G.—Bridges*, *K.—Buildings*, or *L.—Earth work*, as the case may be.

(12.) **MISCELLANEOUS PLANT.**—Includes workshop machinery, and all machines, tools and plant not included under main heads (9), (10), (11). Boats built for construction purposes should also be debited to this head.

NOTE.—Sales of Tools and Plant will be credited to Receipts on Capital Account. Transfers of Tools and Plant from one Capital work to another, or to another Province, will be credited to the main heads (9) to (12), as the case may require. Sales or transfers of Tools and Plant, the original cost of which was debited to Revenue, should be credited to Receipts on Revenue Account, or treated as reduction of charge.

REVENUE CHARGES.

11. The classification of the outlay under the head of Revenue will, as far as possible, follow the classification of Capital outlay, and be as follows:—

(IA).—EXTENSIONS AND IMPROVEMENTS.

(1.)—HEAD WORKS—

B.—Land.

C.—Works.

K.—Buildings.

(2.)—MAIN CANALS AND BRANCHES—

(Each main canal or branch being kept distinct.)

B.—Land.

D.—Regulators.

E.—Falls and Weirs.

F.—River and Hill Torrent works.

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F(1).—Other cross drainage works.

G.—Bridges.

H.—Escapes.

I.—Navigation works.

J.—Mills.

K.—Buildings.

L.—Earth works.

M.—Plantation.

N.—Tanks and Reservoirs.

(3.)—DISTRIBUTARIES—

(Each main canal or branch being kept distinct.)

B.—Land.

C.—Works.

L.—Earth works.

(4.)—DRAINAGE AND PROTECTIVE WORKS—

(As above.)

(IB).—MAINTENANCE AND REPAIRS.

(1.)—HEAD WORKS—

O.—Works.

K.—Buildings.

(2.)—MAIN CANALS AND BRANCHES—

O.—Works, other than Navigation Works, Mills, Buildings, Plantations, and Tanks and Reservoirs.

I.—Navigation works.

J.—Mills

K.—Buildings.

L.—Earth works.

M.—Plantations.

N.—Tanks and Reservoirs.

(3.)—DISTRIBUTARY CHANNELS—

(Each main canal and branch being kept distinct.)

O.—Works.

L.—Earth works.

(4.)—DRAINAGE WORKS—

(As above.)

(IC).—COMPENSATION.

II.—ESTABLISHMENT.

(5.)—DIRECTION AND ACCOUNT—

In cases where a distinct establishment is employed solely on Revenue purposes, the heads should be the same as those under the corresponding main head of Capital, otherwise the proportion of the charge for Direction should be entered as one item only.

(6.)—EXECUTIVE ESTABLISHMENT—

(As above.)

(7.)—MEDICAL ESTABLISHMENT—

(As above.)

(7A.)—REVENUE ESTABLISHMENT—

Revenue Superintendent, Deputy Collectors and Deputy Magistrates, Baro-
gahs, Peons, Ameens, Chowkedars, and inferior servants.
Travelling allowances.
Contingencies.

Fees and allowances for collection of revenue.

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(7B.) NAVIGATION ESTABLISHMENT—

Traffic Manager and Assistant, Toll Collectors, and other Establishments.
Establishment for opening locks and sluices.

Travelling allowances.

Contingencies.

(7C.) PLANTATIONS—

Foresters, gardeners, &c.

Travelling allowances.

Contingencies.

(7D.) MILLS AND MACHINERY—

III.—TOOLS AND PLANT.

(9.) NAVIGATION PLANT.

(10.) MILL "

(11.) RAILWAY PLANT AND ROLLING STOCK.

(12.) MISCELLANEOUS.

(13.) REPAIRS AND CARRIAGE.

NOTE.—If there are any suspense balances under Revenue, a new class corresponding to IV. under Capital should be opened.

12. By this classification the Capital outlay on irrigation works will be grouped into classes, main and sub-heads of account. It should be understood that the sub-heads laid down for establishment are intended to be applied only in cases where distinct establishment is employed on the work. In cases where works are carried out by existing establishment, the Capital Account being debited with a certain proportion of its cost, the charges for that proportion need not be sub-divided, but may be entered in the Capital Account as one item under each of the main heads (5) to (8). It may be added that the charges under the Classes II. to VII. for the head works, branch and main canals, distributaries and drainage works need not be kept separately in the detailed accounts.

CLASSIFICATION OF OUTLAY ON TANKS AND RESERVOIRS AND EMBANKMENTS NOT IN CONNECTION WITH CANALS.

13. In the case of tanks or reservoirs, embankments, and drainage works not in connection with canals, the classification of expenditure will be as follows:—

I.—WORKS.

(A).—Preliminary expenses.

(B).—Land.

(C).—Masonry works other than buildings.

(K).—Buildings.

(L).—Earth works.

II.—ESTABLISHMENT.

[Similar main heads and sub-heads, when possible, as under Capital.]

III.—TOOLS AND PLANT.

and, where necessary, the other classes of account IV. to VII.

14. A similar classification may be adopted in the case of river embankments.

15. This classification of outlay should be finally adopted without any delay, revised abstracts of estimates for the several works now in progress being prepared accordingly and submitted, where necessary, to the Government of India. Particular importance is attached to this point, and the Governor-General in Council looks to the several Governments concerned to see that no delay is allowed to occur in the prepara-

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tion of a general abstract of the total cost of each project, classified and arranged in accordance with these orders, so as to admit of the outlay being properly recorded. For the future, estimates for new works as well as for extensions and improvements and maintenance and repairs will, of course, be submitted under the heads herein laid down. It should be understood that each estimate of a project should have detailed on it the head to which the outlay is to be charged, thus—

—PROJECT.
—Canal.

A.—Preliminary.

16. The Capital outlay already incurred should likewise be arranged, as far as possible, according to the classification now laid down. The Accountant-General, Public Works Department, should issue the necessary instructions on this point, the opportunity being also taken to revise the forms of books and appropriation accounts kept in Controllers' Offices.

ORDER.—Ordered that this Resolution be communicated to the several Governments and Administrations noted in the margin for information and guidance, and to the other Governments and Administrations and the Financial Department for information.

Governments of Madras, Bombay, Bengal, North-Western Provinces, and the Punjab.
Chief Commissioners of Central Provinces, British Burmah, and Mysore.
The Resident at Hyderabad.
Governor-General's Agent, Rajpootana.

2. Ordered, also, that a copy be forwarded to the Accountant-General, Public Works Department, for the purpose indicated in paragraph 16.
(Signed) C. H. DICKENS, Colonel, R.A.,
Secy. to the Govt. of India.

No. 321.

ORDER THEREON, 10th July 1875, No. 1,968.

IRRIGATION, No. 32.

Account.

COMMUNICATED to all District Engineers, to the Chief Engineer for Irrigation, and to the Controller of Public Works Accounts, for information and guidance, in continuation

of G. O., No. 2,568, of the 10th September 1874.

(True Extract.)

Major, R.E.,

Offg. Joint Secretary to Government.

To the Chief Engineer for Irrigation.
" Controller of Public Works Accounts.
To all Superintending and District Engineers.
To the Revenue Department.

Exd. A. Grubert.
Spare Copies

GOVERNMENT OF INDIA.

PUBLIC WORKS DEPARTMENT.

ACCOUNT.
Irrigation.

To

CIRCULAR No. 38 PUBLIC WORKS.

Dated June 7, 1875.

Received July 2-3

Classification of outlay on Irrigation Works.

G. C. B. Press,—8-6-75.

4312

Govt. of India
PUBLIC WORKS.

To

The Chief Engineer
Bengal

Dated

Received

By

Signature

G. O. Duly 1-15, 1915

No. 320-321

Classification of outlay on
Irrigation Works. - Circular
of the Government of India
forwarding Resolution on
the subject of the —
communicated to all Dist.
Engineers, to the Chief Engineer
for Irrigation and to the Controller
of P. W. Accounts, for information
and guidance.