
APPENDIX IV

(Referred to in paragraph 1.165)

List of Periodical Returns Printed separately

the tract affected, the sources of existing irrigation, and the means of drainage proposed, if such are required should be dealt with. The lengths of the main channels and distributaries should be given, these lengths being compared with those of channels of similar capacity actually constructed elsewhere, and a full account appended of the considerations governing the designs of all important works, with a careful analysis of any engineering questions involved. The cost of additional communications (other than the cost of construction communications) and other extraneous works involved in the project should not be regarded as part of its cost, but the report should include an estimate of expenses under this head so far as data for such an estimate are available.

6. Figures should be given showing the area of land commanded, the average area usually cultivated and the area probably irrigable. The opinion of the local revenue officers as to the desirability or necessity of the projected work, the fairness of the water rates proposed, and the probability of the anticipated financial results being realised should invariably be stated. The returns expected from the works, with a note as to the basis on which they are calculated, should be exhibited in Form No. 1 appended, part III of the form being signed by the chief revenue authority of the Province.

7. The report should also deal with the question of labour and the sources whence it is obtainable, the probable effects of the operations on the existing rates, the localities whence materials can be obtained and the facilities for manufacture. The manner in which the rates adopted for estimate purposes have been arrived at should also be commented on.

8. The method proposed of carrying out the work should be described and in particular such matters as the extent to which it is intended to use mechanical appliances, to employ manual labour, to give out work to large contractors or to resort to the agency of departmental labour or petty contractors should be dealt with. The number of circles and divisions into which the work is to be divided and the time likely to be occupied in construction should also be stated. Any permanent increase in the cadres of the Punjab Services of Engineers which will be necessary to provide for eventual maintenance of the works should be calculated and explained, and sanction should be applied for any posts, temporary and permanent, which the authorities subordinate to the Punjab Government are not themselves competent to create. [See also Civil Account Code, Article 63-I, Explanation (a).]

9. Special attention should be given to the following matters, which have been the cause of excesses in the past :—

- (a) The preliminary operations, including the surveys both of alignments and soil, with trial borings, where necessary, should be completed, under the orders of competent authority, as far as possible before the project is submitted. It should be clearly stated, in each case, to what extent this has been done and what still remains.

APPENDIX V

(Referred to in paragraphs 2.41, 2.117, 2.122 and 5.12)

RULES GOVERNING THE SUBMISSION OF ESTIMATES FOR, AND THE CONSTRUCTION OF, IRRIGATION WORKS

I—GENERAL

1. The following rules define the procedure to be adopted in connection with Irrigation Projects. Throughout the rules, the term "Irrigation Project" or "Irrigation Work" should be held to include also Navigation, Embankment, Drainage, Water-storage Projects or Works.

The expenditure on Works only should be the criterion for determining the authority whose sanction is necessary to an estimate (Original or Revised).

II—CLASSIFICATION OF WORKS

2. Irrigation works for which capital accounts are kept are classified as either "productive" or "unproductive". The criteria to be adopted in deciding questions of classification are given in paragraphs 1 to 5 of Statement A to Appendix 4 to the Public Works Account Code.

III—RULES REGARDING THE PREPARATION OF IRRIGATION PROJECTS

3. The papers to be submitted with the project for an irrigation work consist of a report, such plans, measurements, quantities, rates and specifications as may be necessary to enable the suitability of the designs and the adequacy of the estimated cost of the project to be adjudicated upon, and an abstract, classified under the heads prescribed in rule 11, bringing the various component items together. These documents together form what is called the "Estimate".

4. Every project for an irrigation work should contain a full report explanatory of the project. It is impossible to lay down headings which will be suitable in all cases, but the following points should, in general, be dealt with.

5. The report should give a general description of the proposed works, including the sources from which the supply of water is to be drawn, the maximum floods likely to be experienced, the quantity of water available at different periods of the year, and the quantity it is proposed to utilize. Reference should also be made to any rights in the water already existing. The reasons for the adoption of the particular scheme recommended in preference to any other should be explained, if necessary. The rainfall and depth of spring level in

- (j) When the circumstances of a project are such that there is reason to suspect that expenditure, other than that which can be definitely foreseen at the time of framing the estimate, may become necessary during the course of construction, provision to meet it, under the head "unforeseen expenditure" should be made in the estimate. When this is done, the circumstances should be fully explained in the Report.
- (k) In estimating the revenue likely to be obtained from a project, consideration should be given to the fact that, in some cases, the full discharge or storage will not invariably be available and that, in others, even if available, it may not be required. The average discharge or storage likely to be utilized, arrived at by analogy from similar works elsewhere, should be the basis of the revenue estimates.
- (l) In calculating what price will be secured for Government land, the sale-proceeds of which form part of the estimated revenue from the project, regard should be paid to the probable relation of supply and demand, especially when a project or different projects, are likely to bring land into the market simultaneously in the Punjab and any other province or an Indian State.

10. The expenditure proposed to be incurred upon a project should in every case be restricted to the minimum amount necessary to ensure the success of the undertaking. Estimates should be framed with a view to the canon that every Public Officer should exercise the same vigilance in respect of expenditure incurred from Government revenue as a person of ordinary prudence would exercise in respect of the expenditure of his own money.

11. The complete estimate for a project besides including all anticipated direct charge should further include as indirect charges the amount required to cover the capitalization of abatement of land revenue on the area occupied by the works, cost of audit and accounts establishment and simple interest on Capital Outlay prior to the work being brought into operation. The direct charges should be classified under the appropriate sub-heads of Account, the main heading being (1) Works, (2) Establishment, (3) Tools and Plant and (4) Leave and Pensionary Charges. The items included under the head "Works" should be classified under the prescribed "service" and "detailed heads" enumerated in Statements B and C of Appendix No. 4 to the Public Works Account Code. The cost of surveys, including expenditure incurred prior to the submission of the project, should also be included in the estimate. An abstract, framed on these lines, in the form given in Form No. II appended, must accompany every project submitted for sanction. In the case of a large project, the sub-works may, if desired, be further sub-divided so as to show individual large works.

12. If it is known that the project will constitute the sole charge of one or more Superintending Engineers, the estimate of the cost of the Superintending

The cost of such operations should in the first instance be charged to the Major Head "18—Other Revenue Expenditure financed from Ordinary Revenues, (2) Miscellaneous Expenditure."

- (b) In addition to the usual charge of 5 per cent for unforeseen contingencies, which percentage may, for reasons recorded be increased if circumstances render it desirable, all incidental expenditure which can be foreseen, such as sheds for workmen and stores, etc., should be separately provided for in the estimate. The utilization of "over-all" rates, intended to include such expenditure is to be deprecated.
- (c) The estimate of the cost of acquisition of land should receive special attention, and a valuation should be obtained in every case from the District Officer concerned.
- (d) The District Officer should also be consulted as to the number of bridges which will be required, and care should be taken that an adequate number of escapes is provided.
- (e) Special attention should be given to the probable cost of foundations, the measures to be adopted in connection with them, and the amount of pumping likely to be necessary.
- (f) The allowance, if any, for special tools and plant should be carefully considered. The inclusion of a lump sum for the purpose is generally to be deprecated and, if this method is adopted, the provision allowed should be tested with reference to the probable cost of the actual plant required. The amount of credit anticipated under this head and the source whence it will be obtained should be fully explained, the account rule in paragraph 231 of the Public Works Account Code being carefully borne in mind.
- (g) Where the estimates of several structures of the same kind are derived from a single type design, the most unfavourable conditions likely to occur should not be overlooked.
- (h) Estimates framed on the basis of analogies from existing work are usually unreliable, and, before this method is adopted the correctness or otherwise of the analogy should be very carefully tested for selected portions of the work. In particular, analogies drawn from small works should never be relied upon for the preparation of larger projects.
- (i) All calculations of quantities and costs should be independently checked to obviate clerical errors.

let off for irrigation. The questions of the available water-supply, number of times the reservoir will probably fill, rainfall and proportion flowing off the catchment, loss by evaporation and absorption, etc., should be fully dealt with, as well as the quantity of flood water for which provision must be made, the flood absorption capacity of the reservoir, and the waterway of the escape weirs or sluices. The results of any experiments bearing upon the strength of the materials proposed for use in the dam should be dealt with, as also the silt content of the water and the probable effective life of the reservoir.

V.—PROJECTS AFFECTING ANY OTHER PROVINCE OR AN INDIAN STATE

17. Where any other Province or an Indian State is also concerned, the report should detail the arrangements mutually agreed upon for financing the works, the terms upon which the water is to be shared, the agency by which the works will be constructed and, where an Indian State is concerned, the agency by whom the accounts are to be audited on behalf of the State. When a project or different projects are likely to bring land into the market simultaneously in the Punjab and any other Province, or an Indian State, and the sale-proceeds of such land form part of the estimated revenue from the project, the report should state what arrangement the Governments concerned have made to meet the contingency. A draft of any formal agreement into which it is proposed to enter to regulate these and any other matters in respect of which agreement is deemed necessary should accompany the project.

18. In all projects which may affect riparian or other interests in Indian States, Government will ascertain the views of the *Durbar* or *Durbars* through the political authorities concerned.

VI—EMBANKMENTS

19. In the case of new lines of river embankments, the report should show clearly the financial responsibilities of Government in connection therewith, and the manner in which it is proposed that the outlay shall be recovered

VII—NATURE OF SANCTION

20. The sanction accorded by the Punjab Government to a project for an irrigation work shall be regarded as in the nature of an administrative approval to the project and not as the final technical sanction to the detailed estimates of the works. Such technical sanction will be accorded by those officers of the Public Works Department, Irrigation Branch, to whom power has been delegated by Government. Detailed working estimates for individual works in excess of Rs. ten lakhs in the case of specified projects and in excess of Rs. five lakhs in the case of all other projects must also be further approved by Government.

Engineers and other establishment should be framed in detail, a suitable amount being added to cover an adequate share of the cost of the Chief Engineer's establishment. Even where a Superintending Engineer's charge is not in question, the cost of the establishment required for the supervision of the construction of the project should ordinarily be estimated in detail, but Government may, at their discretion, calculate the provision to be made for establishment in such a case on a percentage basis, provided that the percentages are justified by comparison with past actuals. In the case of ordinary Tools and Plant, either the actual anticipated cost, or a reasonable percentage allowance, based on past actuals, may be entered in the estimate.

Unless Government directs otherwise, the provision to be made for establishment should include 25 per cent on the estimate of Works Outlay for departmental establishment and 1 per cent for Audit and Accounts, while the provision for Tools and Plant will be $1\frac{1}{4}$ per cent on the Works Outlay. Estimates for large surveys for new irrigation projects should, however, provide only for a charge of 5 per cent on the cost of special establishment to cover the supervision charges thereon. In the case of irrigation projects, for which neither Capital nor Revenue Accounts are kept, it is unnecessary, except in the case of large surveys for new irrigation projects, to enter provision for establishment and Tools and Plant in the estimate unless, for any reason, it may be deemed desirable to do so in order to forecast the ultimate result of the project.

13. Charges for capitalization of abatement of land revenue should be calculated at twenty times the amount of land revenue remitted while provision for leave and pension allowances should be at the rate of 21 per cent on the gross charges for establishment.

14. Simple interest on Capital will be calculated at the rate sanctioned by Government from time to time, on the probable annual outlay.

15. No provision should ordinarily be made for the minor head "Suspense", as this head in the accounts represents services of a general character not necessarily pertaining to a particular project. If, however, one or more divisions are expected to be maintained exclusively in connection with stock required for the project, provision for "Suspense" may be included, but only to the extent of the balances likely to be outstanding under "Suspense" on the date of closing the construction estimate.

IV—STOPPAGE PROJECTS

16. The report should, in addition to the information specified in Rules 3—15, give the area of the tank and contents when full, the area to be irrigated per unit of storage, the length of the dam, its maximum height, materials of which it is proposed to construct it, form, etc., and the mode in which the water is to be

(3) General charges for establishment, audit and account, and tools and plant,—*vide* rule 11, should be entered in a project estimate but will not appear in any estimate subsidiary to it, but, after a project estimate has been closed, estimates chargeable to the open capital account should contain provision for these charges, except 1 per cent on account of audit and accounts establishment at the rates given in Rule 12.

25. When it becomes evident that the amount provided for a "Sub-work" or a "detailed" head in the Project estimate will be exceeded, the following rules must be observed :—

- (a) Subject to any orders which Government may pass in the matter the officer-in-charge of the project may transfer provision to meet such excess from another detailed head of the same sub-work on which a saving is anticipated.
- (b) Should it become evident that an excess over the amount provided in the abstract estimate for any sub-work will be exceeded, the officer-in-charge of the project must report the fact immediately to the Finance Department. He should at the same time intimate what savings, if any, are anticipated upon other sub-works of the project.
- (c) The Finance Department may transfer provision from one sub-work on which a saving is anticipated, to meet a probable excess on another or it may permit an excess over the provision made in the abstract estimate for any sub-work up to an amount to be stated by it.

Note.—The sub-works into which the minor head "works" is divided are enumerated in Form No. II, appended to these Rules.

X—MODIFICATION AFTER ACCORD OF SANCTIONS

26. After the approval by Government of the project for an irrigation work, the Chief Engineer, may, if necessary, and subject to the provisions of rule 25, modify the details of the works ; provided that if any such modification is in the opinion of the Chief Engineer substantial, a report of such modification should be made to Government.

NOTE.—Modification will include abandonment of items included in the original estimate, or provision of items not included therein, and an increase or reduction in the area to be irrigated by the Project.

XI—REPORTS OF PROBABLE EXCESSES

27. Wherever it is ascertained that the expenditure upon any project is likely to exceed the amount sanctioned by the Punjab Government by any amount greater than that which the Public Works Department, Irrigation Branch,

VIII—COMMENCEMENT OF WORKS

21. It is a fundamental rule that no work shall be commenced upon an Irrigation Project to which these rules apply until the following conditions have been fulfilled :—

- (a) The approval of Government to the project has been obtained.
- (b) There is a sanctioned design and detailed estimate for the portion to be commenced.
- (c) The project has been scrutinized by the Public Health Department from malarial point of view.
- (d) Funds have been allotted for the work.

When these conditions have been fulfilled, Public Works Department, Irrigation Branch, are competent to authorize the commencement of construction.

22. Government in the Finance Department, in consultation with their Audit Officers, may prescribe rules to regulate expenditure debitable to a sanctioned project upon such survey and preliminary operations as may be necessary in order to enable the detailed estimates to be drawn up.

IX—RULES GOVERNING THE ACCORD OF TECHNICAL SANCTION

23. When a project has been sanctioned by Government, an officer of the Public Works Department, Irrigation Branch, to whom power has been delegated by Government, may sanction detailed estimates for component parts of the Project against the amounts provided for the "Service" or "detailed" head in the abstract estimate (Form No. II). A register of sanctions should be maintained in Form II—A.

24. Detailed estimates, subsidiary to a project estimate, may be for a single work, such as a bridge, a certain number of miles of excavation, etc., or for a distributary, in which a number of small works are included. In the first case the cost of the work should be detailed by detailed head in the abstract (Stereo I. B. Form No. 216), while in the second case the abstract should be prepared to show the component items and localities separately in detail under the various service heads of classification laid down in Appendix 4, Public Works Account Code. But if a work of exceptional magnitude becomes necessary, costing more than Rs 10,000, a separate estimate should be prepared for it.

(2) A separate estimate should be prepared for each distributary or where there are minor channels, two estimates one for the main distributary and its important branches and one for the minor channels, but the whole expenditure under "A—Preliminary expenses" should be provided for in the estimate for the main distributary.

33. As soon as the construction estimate has been closed, the Public Works Department, Irrigation Branch, will prepare, for submission to Government through the Finance Department, a completion report of the project comprising the following documents in Form No. IV appended. Completion report in this form should be prepared only in respect of projects sanctioned by Government. For smaller projects and other open capital works which are sanctioned by the Public Works Department, Irrigation Branch, completion reports should be prepared in one of the forms prescribed in paragraph 2.122 of this Code.

Schedule A. A statement showing, by works and sub-works, classified under the relevant detailed heads, the actual expenditure on works completed up to the date of closure of the construction estimate.

Schedule B.—A statement of works which are within the scope of the sanctioned estimate and of which detailed estimates have been prepared and sanctioned by competent authority, but which were incomplete or had not been begun on the date of the closure of the construction estimate.

Schedule C.—A statement of works, whether included in the construction estimate or not, which have been sanctioned by competent authority under the provisions of paragraph 2.45 of this Code, between the date of closing the construction estimate and the date of the submission of the completion report.

Schedule D.—A statement of works for which no estimates have been sanctioned up to the date of the submission of the completion report, but the probable expenditure on which can be foreseen and which are necessary to complete the project.

Schedule E.—A statement compiled as a combination of statements A, B, C and D. This statement should also show, for purposes of comparison, the sanctioned estimate by works and sub-works, classified under the relevant detailed heads of account.

A report on the works executed up to the time of the closure of the construction estimate, and an index map or maps showing the Project as completed will accompany these documents. The report will discuss the financial result already attained and expected in the future and will be accompanied by forecast financial statements in Form No. I, based on Schedule E above, i.e., on the total anticipated ultimate expenditure on the Project. Part III of this form will be signed by the Chief Revenue Authority of the Province.

34. The Schedules A to E accompanying Completion Reports should initially be signed by the Officer-in-charge of the Project (who is particularly responsible for figures in columns 5—9 of Schedule D and consequently column 10 of Schedule E) and countersigned as "verified" by the Accountant-General, Punjab, in token of his verification of actuals and classification.

35. The financial statement submitted with Completion Reports should

are empowered to pass, the Finance Department should be immediately advised of the anticipated excess, without waiting for a revised estimate. The revised estimate, if necessary, should be prepared in due course and submitted to Government with a full explanation of the causes of the excess and of the probable effect on the financial results of the work. The Finance Department should also be immediately informed if, at any time during the course of construction, it becomes probable that a work, sanctioned as a productive, will fail, in operation, to satisfy the criteria which must be satisfied before a work can be regarded as productive.

XII—SUPPLEMENTARY AND REVISED ESTIMATES

28. Any development of a project thought necessary while the work is in progress, which is not fairly contingent on the proper execution of the work as first sanctioned, must be covered by a supplementary project estimate, accompanied by a full report of the circumstances which render it necessary. The abstract must show the amount of the original estimates and the total of the sanction required including the supplementary amount.

29. A revised estimate must be submitted when an original sanctioned estimate is likely to be exceeded by more than 5 per cent, and a second revised estimate when any excess is anticipated over a sanctioned revised estimate. The revised estimate should be accompanied by a comparative statement in Form No. III appended, comparing the revised estimate with the latest existing sanction of competent authority, and by a report showing the progress made to date.

30. When a revised or supplementary estimate is submitted under Rule 28 or 29, it should be accompanied by revised financial forecast statements as required in the case of an original estimate (*vide* Rule 6).

XIII—UTILIZATION OF COMPLETION REPORT AS REVISED ESTIMATE

31. When excesses occur at such an advanced period in the construction of a work as to render the submission of a revised estimate purposeless, the excess may, with the concurrence of the Finance Department be explained in a completion report prepared as prescribed in Rule 33. The adoption of this procedure in no way dispenses with the necessity for the immediate report of the excess required under Rule 27.

XIV.—COMPLETION REPORTS

32. The construction estimate of an Irrigation work should be closed as soon as the Project is practically in full operation, although there may be certain works, provided for in the construction estimate, either unfinished or which it is not desirable to construct at once.

FORM I—FINANCIAL STATEMENTS

PART I

Summary of the Estimated Direct Charges to Capital Account

Year	Works	Establishment including leave salary and pension charges	Tools and Plant	Suspense	Total	Less receipts on Capital Account	Net Total
1	2	3	4	5	6	7	8
							Rs
Total	..						

similarly be signed and countersigned but in this case the Audit Officer should do so under the words "Actuals and calculations checked".

36. These documents should ordinarily be prepared and submitted to Government within 6 months of the closure of the construction estimate, or 12 months in the case of an exceptionally large work. If this is not found possible within the period specified, the Finance Department should be advised of the reason for delay when the documents may be expected to be ready.

37. Schedule E will be treated as a revised forecast of expenditure against the sanctioned Project. All important works which had not been commenced and which were within the scope of the sanctioned estimate should be included in Schedule B, C or D as the case may be.

38. Subject to the restriction that the total expenditure against the Project shall not exceed the amount sanctioned for the Project by an amount greater than that which the Department are empowered to pass, the Public Works Department, Irrigation Branch, are competent to incur expenditure between the date of closing the construction estimate and that of the approval of the Completion Report by competent authority on—

(a) works entered in Schedules B and C.

(b) works entered in Schedule D, within the limits and subject to the conditions specified in paragraph 2.45 of this Code.

39. On receipt of approval of the Government to the Completion Report, works included in Schedules B and C may be carried to completion by the Public Works Department, Irrigation Branch, within their powers of sanctioning excesses over estimated amounts, approval of Government being obtained to any higher excess. Public Works Department, Irrigation Branch, may also, on receipt of such approval, sanction further outlay on other works against the open Capital Account of the Project subject to the condition laid down in paragraph 2.45 of this Code.

Forms referred to in the Rules

Form I—Financial Statement—Parts I—IV.

Form II—Abstract estimate of cost.

Form III—Revised Estimate.

Form IV—Completion Report—Schedules A—E.

FORM I—FINANCIAL STATEMENTS—CONTD

PART III

Estimate of Growth of Irrigation and Revenue Receipts and Charges

Year	Irrigated area at end of year	REVENUE RECEIPTS AND CHARGES						REMARKS	
		Gross Revenue due to work		Charges both direct and indirect against revenue account.	Net Revenue due to work				
		Direct receipts	Enhanced land revenue or indirect revenue		Including enhanced land revenue	Excluding enhanced land revenue			
1	2	3	4	5	6	7	8	9	

N.B.—This estimate should be endorsed both by Revenue and Public Works Authorities.

FORM I—FINANCIAL STATEMENTS—CONTD

PART II

Summary of the Estimated Indirect Charges to Capital

Year	Capitalized abatement of land revenue	Charges on account of Audit and Accounts Establishment	Total
	2	3	4
1			
Total	..		

FORM II—ABSTRACT ESTIMATE OF COST

Project

Minor Head	Sub-work	Detailed Head	Amount
	<i>Direct Charges</i>		Rs.
Works ..	A. Head works ..	A Preliminary expenses ..	
		B Land	
		C Works	
		K Buildings	
		O Miscellaneous	
		P Maintenance	
		Contingencies	
	2. Main Canal ..	A Preliminary expenses	
		B Land	
		D Regulators	
		E Falls	
		F River and Hill Torrent Works	
		F(1) Other cross drainage works	
		G Bridges	
		H Escapes	
		I Navigation	
		J Mills	
		K Buildings	
		L Earthworks	
		M Plantations	
		N Tanks and reservoirs	
		O Miscellaneous	
		P Maintenance	
		Contingencies	
	2 (a) Branch No. 1 ..	As for main canal	
	2 (b) Branch No. 2 ..	Ditto	

FORM I—FINANCIAL STATEMENTS—(CONCLD)

PART IV

Estimate of Net Financial Results of years after the probable date of completion of the work

Year	Direct Capital Outlay during the year	Direct Capital Outlay to end of year	Simple interest at—per cent on Capital Outlay to end of previous year plus half outlay during the year	Net Revenue including enhanced land revenue, column 7 of Part III	Simple interest less net revenue	Net Revenue less simple interest
	2	3	4	5	6	7
1						
Net						

FORM II-A—Register of Sanctions to Working Estimate for

Head of Classification—Project—Provision Rs

Item No.	BRIEF PARTICULARS OF WORKING ESTIMATE		Amounts of estimates	Pro- gressive totals	Month in which accounts were closed	Actual excess or saving		Reference to item No. of adjustment entry in this register	Balance available for new sanction	Dated initials of the Superintendent	Remarks (if any)	
	Particulars	Sanctioning authority				Excess	Saving					
	No.	Date										
1	2	3	4	5	6	7	8	9	10	11	12	13

FORM II—ABSTRACT ESTIMATE OF COST—CONCLUDED

Minor Head	Sub-work	Detailed Head	Amount
			Rs.
Works— <i>concl'd</i>	3 (a) Distributaries Group No. 1 3 (b) Distributaries Group No. 2 3 (c) Distributaries Group No. 3 4. Drainage and Protective Works 5. Water courses 6. Special Tools and Plant Un- foreseen Expenditure		
Establi- ment (in- cluding leave salary and pension charges)			
Tools and Plant expense			
<i>Deduct—</i> Receipt on capital account			
Total Direct charges			
	<i>Indirect Charges</i>		
Capitalize abatement of land revenue			
Audit and Accounts			
Total Indirect Charges			
GRAND TOTAL			

N.B.—The number of branches and distributaries (or groups of distributaries) to be separately detailed will, of course, depend upon the nature and size of the project.

FORM IV—COMPLETION REPORT

SCHEDULE A

Schedule of works showing actual expenditure on works completed up to the date of the closure of the construction estimate

Serial Number of item	CLASSIFICATION				Name of work	Cost of work
	Minor head	Sub-work	Detailed Head			
1	2	3	4	5	6	

FORM IV—COMPLETION REPORT—CONTD

SCHEDULE C

Estimates sanctioned against the Open Capital Account subsequent to the date of the closure of the construction estimate

Serial No.	CLASSIFICATION			Name of work	AMOUNT SANCTIONED				Date on which sanction lapses
	Minor Head	Sub-work	Detailed Head		Works	Establishment	Tools and Plant	Total	
1	2	3	4	5	6	7	8	9	10

FORM IV—COMPLETION REPORT—CONTD

SCHEDULE B

Schedule of works of which detailed estimates had been sanctioned prior to the date of the enclosure of the construction estimate, but which were incomplete or had not been begun on that date

Serial Number of item	CLASSIFICATION			Name of work	Outlay to date of the closure of the construction estimate	Probable further outlay	Probable total outlay	Probable date of completion
	Minor Head	Sub-work	Detailed Head					
1	2	3	4	5	6	7	8	9

FORM IV—COMPLETION REPORT—CONCLD
SCHEDULE E

Comparison of expenditure by main and sub-heads with the provision in the estimate sanctioned by Government

CLASSIFICATION	Provision in estimate sanctioned by Government	EXPENDITURE UP TO THE DATE OF CLOSING THE CONSTRUCTION ESTIMATE			PROBABLE FURTHER EXPENDITURE				DIFFERENCE BETWEEN PROBABLE TOTAL OUTLAY AND PROVISION SANCTIONED				
		On complete works Schedule A	On incomplete works Schedule B	Total	On works incomplete or not commenced Schedule B	Sanctioned Schedule C	Open capital account	Unsanctioned Schedule D	Total	Excess	Saving		
Minor Head													
Sub-work Head													
1	2	3	4	5	6	7	8	9	10	11	12	13	14

FORM IV.—COMPLETION REPORT—CONTD
 SCHEDULE D

Schedule of works of which no detailed estimates have yet been sanctioned but the construction of which is necessary for the completion of the Project

Serial Number of item	CLASSIFICATION			Name of work	PROBABLE COST OF WORK			Total
	Minor Head	Sub-work	Detailed Head		Works	Establishment	Tools and Plant	
1	2	3	4	5	6	7	8	9

- (6) *Methods*—The methods proposed for carrying out the work, whether by lump sum contract, rate contract, petty contract, or departmental labour, or combinations of these.
- (7) *Establishment*—The number of Circles and/or Divisions required for construction and for operation after completion, with details of any provision made in the estimate for work-charged establishment when necessary.
- (8) *Construction Plant*—Any special methods of construction to be adopted, with reference to specifications and drawings and arrangements made for the necessary construction plant tools.
- (9) *Land*—Arrangements for the acquisition of Land, where necessary.
- (10) *Time*—Estimated dates of starting and completing the works.

(4) If the scheme concern Production, the aforesaid report should give a general description of the proposed works, including the source from which the supply is to be derived, e.g.,—

(a) in the case of a hydro-electric scheme :

the catchment area rainfall and run-off data, maximum and minimum flow data, available head, riparian and other interest affected if the river or canal is in an Indian State, head works, dams, reservoirs, tunnels, penstocks, power-station buildings, generating plant, control equipment, etc.,

and (b) in the case of a thermal generation scheme :

a description of the site selected for the power-station, with reasons for its selection, e.g., considerations regarding economic loading of system, transport facilities and water-supply, a general description of the main features of the generating plant and control equipment, with reasons, if any, for the adoption of any particular uncommon type of plant recommended.

Alternative schemes, if any such present themselves, should be examined and reasons given for the selection of the particular scheme recommended.

(5) If the scheme concerns Transmission, the aforesaid report should describe the main topographical features of the terrain through which the transmission line is to pass, the methods of surveying to be adopted, the length of span, the types of towers, conductors and insulators, river road and railway crossing, approach roads, compensation in respect of crops, trees and other property, transforming stations, including transformers, switchgear structure buildings, workshops and railway sidings, motor transport. For any works affecting Railway property—See paragraph 2.22.

APPENDIX VI

(Referred to in paragraphs 2.29 and 2.122).

RULES GOVERNING THE PREPARATION AND SUBMISSION TO THE PROVINCIAL GOVERNMENT OF ESTIMATES FOR THE CONSTRUCTION OF ELECTRICAL SUPPLY SCHEMES

Classification of Works

(1) Electrical Supply Projects for which capital accounts are kept are classified as either "Productive" or "Unproductive". The criteria to be adopted in deciding questions of classification are the same as given for Irrigation Projects in paragraphs 1 to 5 of Statement A to Appendix 4 to the Public Works Account Code. The interest should, however, be calculated at 5½ per cent.

Preparation of estimate

(2) The papers to be submitted with the project for an Electrical Supply Scheme consist of (i) a report, (ii) such plans, measurements, quantities, rates and specifications as may be necessary to enable the suitability of the designs and the adequacy of the estimated cost of the project to be adjudged upon, and (iii) an abstract classified under the heads prescribed in Rule 9 below bringing the various component items together. These documents together form what is called the "Estimate". As an Electrical Supply Scheme may be concerned with one or two of, or all, the three sub-heads of Production, Transmission and Distribution, the estimate should correspond with the system of classification laid down for the Commercial Administrative Accounts and should, therefore, comprise separate estimates under each of these three sub-heads as may be required.

(3) The aforesaid report should be framed under the following 10 heads :—

- (1) *History*—An account of the genesis of the proposed scheme and its general purpose, including references to previous correspondence, documents and specifications where necessary.
- (2) *Design*—Original and final designs with references to specifications, calculations and drawings where necessary.
- (3) *Scope*—An explicit statement of the work which is, and the work which is not covered by the estimate, and an indication of the arrangements being made for those portions not included in the estimate.
- (4) *Rates*—Explanation of how rates have been arrived at with references to the standard schedule of rates.
- (5) *Cost*—The resulting total cost of the work and a comparison with that originally provided for under any previous administrative sanction, or detailed estimates in case of revision. Allocation should also be given.

portions of the work. In particular analogies drawn from small works should never be relied upon for the preparation of larger projects.

- (h) All calculations of quantities and costs should be independently checked to obviate clerical errors.
- (i) When the circumstances of a project are such that there is reason to suspect that expenditure other than that which can be definitely foreseen at the time of framing the estimate may become necessary during the course of construction, provision to meet it under the head "Unforeseen Expenditure" should be made in the estimate. When this is done the circumstances should be fully explained in the report.
- (j) The revenue likely to be derived from a project should not be overestimated. The average energy consumed arrived at by analogy from similar works elsewhere should be the basis of the revenue estimates.

(8) The expenditure proposed to be incurred upon a project should in every case be restricted to the minimum amount necessary to ensure the success of the undertaking. Estimates should be framed with a view to the canon that every Public Officer should exercise the same vigilance in respect of expenditure incurred from Government revenues as a person of ordinary prudence would exercise in respect of the expenditure of his own money.

(9) The complete estimate for a project, besides including all expected direct charges (in which leave salary, Government Contributory Fund and pension charges should be taken into account) should, further, include as indirect charges the amount required to cover the capitalization of abatement of land revenue on the area occupied by the works and an allowance for the cost of audit and accounts. The direct charges should be classified under the appropriate minor heads of accounts,— *vide* page 140 of the List of Major and Minor Heads of Account issued by the Auditor-General, the minor head "Works" being sub-divided into appropriate detailed heads—see paragraph 2.44 and Appendix X of this Code. The cost of surveys, including expenditure incurred prior to the submission of the project, should be included in the estimate. An abstract framed on these lines in the form given in Form No. II appended to Appendix V of this Code should accompany every project submitted for sanction the detailed heads used being those prescribed in paragraph 2.44 and Appendix X of this Code.

(10) If it is known that the project will constitute the sole charge of one or more Superintending Engineers, or Executive Engineers the estimate of the cost of the Superintending Engineers and other Establishment should be framed in detail, a suitable amount being added to cover an adequate share of the cost of the Chief Engineer's establishment. Even where a Superintending Engineer's charge is not in question, the cost of the establishment required for the supervision of the construction of the project should ordinarily be estimated in detail,

(6) If the scheme concerns Distribution, the aforesaid report should give a list of the towns to be served by the scheme, with particulars of the locality, size, population, industries, railway and road facilities, water-supply and drainage amenities, etc. An estimate should be given of the number of consumers, connected load and annual consumption expected in each category of supply, e.g., General (including Domestic) Industrial, Bulk, Public Lighting, Irrigation Pumping, etc. The number of sub-stations should be stated and the kilowatt capacity of each. The estimated length of H.T. and L.T. mains also should be given, and the length of the Public Lighting lines and the minimum number of public lamps required.

(7) Special attention should be given to the following matters which have caused excesses in the past :—

- (a) The preliminary operations including the surveys should be completed as far as possible before the project estimate is submitted. It should be clearly stated, in each case, to what extent this has been done and what still remains.
- (b) In addition to the usual charge of 5 per cent for unforeseen contingencies, which percentage may, for reasons recorded, be increased if circumstances render it desirable, all incidental expenditure which can be foreseen, such as sheds for workmen and stores, etc., should be separately provided for in the estimate. The utilization of "over-all" rates intended to include such expenditure is to be deprecated.
- (c) The estimate of the cost of acquisition of land should receive special attention, and valuation should be obtained in every case from the District Officer concerned subject to the provisions of paragraph 2.82 of this Code.
- (d) The preparation of site for the erection of the requisite buildings, plant machinery, etc., and the cost of such buildings, plant and machinery and connected works.
- (e) The allowance, if any, for special tools and Plant. The inclusion of a lump sum for the purpose is generally to be deprecated and if this method is adopted the provision should be tested with reference to the probable cost of the actual plant required. The amount of credit expected under this head and the source whence, it will be obtained should be fully explained the account rule in paragraph 231 of the Public Works Account Code being carefully borne in mind.
- (f) Where the estimates of several structures of the same kind are derived from a single type design, the most unfavourable conditions likely to occur should not be overlooked.
- (g) Estimates framed on the basis of analogies from existing works are usually unreliable and before this method is adopted the correctness or otherwise of the analogy should be very carefully tested for selected

the minor head concerned in the Abstract Estimate, a register of sanctions may be maintained in Form II-A referred to in rule 23 of Appendix V when it becomes evident that the amount provided for such detailed head will be exceeded, the following rules should be observed :—

- (a) The Chief Engineer may transfer in the Project Estimates provision to meet such excesses from another detailed head of the same minor head on which a saving is expected.
- (b) Should it become evident that the amount provided in the abstract estimate for any detailed head under a Minor Head will be exceeded and the excess can be met from the savings from the amount provided for any other detailed head under that Minor Head, the Chief Engineer may readjust the amounts provided for the relevant detailed heads accordingly, but he should intimate the changes thus made to the Provincial Government. If, however, the excess under one Minor Head is to be met from the savings under another Minor Head in respect of the same project or estimate the Chief Engineer must report that fact immediately to the Provincial Government for sanction to the transfer of the amount from one to the other Minor Head.

Modifications after accord of sanction by the Provincial Government

(15) After the approval by the Provincial Government of the project, the Chief Engineer may, if necessary, and subject to the provisions of rule 14 above, modify the details of the works, provided that if any such modification is in the opinion of the Chief Engineer substantial a report of such modification should be made to the Finance Department through the Administrative Department of the Provincial Government.

NOTE.—Modifications will include abandonment of items included in the original estimate or provision of items not included therein, and an increase or reduction in the population to be served by the Project.

Reports of probable excesses over the Project as a whole

(16) Whenever it is ascertained that the expenditure upon any project sanctioned by the Provincial Government is likely to exceed the sanctioned amount by any amount greater than that which the Chief Engineer is empowered to pass a report should be made immediately by the Chief Engineer to the Administrative Department showing the probable amount of the excess and by the Administrative Department to the Finance Department without waiting for the revised estimate. Full explanations for the causes of the excess and of the probable effect on the financial results of the project, also the revised estimate if necessary should be submitted in due course. The Finance Department should be immediately informed if at any time during the course of construction it becomes probable that a work sanctioned as productive will fail in operation to satisfy the criterion which must be satisfied before it can be regarded as productive.

but the Chief Engineer may at his discretion calculate the provision for establishment in such a case on a percentage basis, provided that the percentages are justified by comparison with past actuals in the case of other similar projects. In the case of ordinary tools and plant either the actual anticipated cost or a reasonable percentage allowance based on past actuals may be entered in the estimate. See also paragraph 2.44 and Appendix X of this Code—Detail of overhead charges.

(11) No provision should ordinarily be made for the minor head "Suspense" as this head in the accounts represents services of a general character not necessarily pertaining to a particular project. If, however, one or more divisions are expected to be maintained exclusively for stock required for the project, provision for suspense may be included, but only to the extent of the balances likely to be outstanding under suspense on the date of closing the construction estimate.

Nature of Sanction

(12) The sanction accorded by the Governor for an Electrical Supply Scheme shall be regarded as in the nature of an administrative approval to the project and not as the final technical sanction to the detailed estimates for the works. Such technical sanction will be accorded by those officers of the Public Works Department to whom power has been delegated by the Provincial Government.

Commencement of Work

(13) It is a fundamental rule that no work shall be commenced upon an Electrical Supply Scheme to which these rules apply until the following conditions have been fulfilled :—

- (a) The approval of the Governor to the project has been obtained.
- (b) There is a sanctioned design and detailed estimate for the portion to be commenced.
- (c) Funds have been allotted for the work. When these conditions have been fulfilled the Chief Engineer is competent to authorize the commencement of construction.

Technical Sanction

(14) After a project has been sanctioned by the Provincial Government officer of the Electricity Branch to whom power has been delegated by the Provincial Government may sanction detailed estimates for component parts of the project against the amounts provided for the detailed head subordinate to

Schedule A—A statement showing, by works and sub-works, classified by minor heads and detailed head, the actual expenditure on works completed up to the date of the closure of the construction estimate.

Schedule B—A statement of works classified as in Schedule A which are within the scope of the sanctioned estimate and of which the detailed estimates have been prepared and sanctioned by competent authority, but which were incomplete or had not been begun on the date of the closure of the Construction Estimate.

Schedule C—A statement of works similarly classified, whether included in the construction estimate or not which have been sanctioned by competent authority between the date of closing the construction estimate, and the date of submission of the completion report.

Schedule D—A statement of works for which no estimates have been sanctioned up to the date of the submission of the Completion Report but the probable expenditure on which can be foreseen, and which are necessary to complete the project and are in its interest whether contemplated in the sanctioned Project Estimate or not, such as extension of Electricity to towns not contemplated in the sanctioned estimate.

Schedule E—A statement compiled as a combination of statements A, B, C and D. This statement should also show, for purposes of comparison, the sanctioned estimate by works and sub-works and by minor and detailed heads.

A report on the works executed up to the time of the closure of the construction estimate and an Index Map or Maps showing the Project as completed will accompany these documents. The Report will discuss the financial result already attained and expected in the future and will be accompanied by forecast financial statements in Form No. 1 appended to Appendix V, altered *mutatis mutandis* to suit the Electricity Branch based on Schedule E above, i.e., on the total anticipated ultimate expenditure on the Project.

Schedules A to E accompanying the Completion Report should initially be signed by the officer-in-charge of the Project who is particularly responsible for the figures in columns 5 to 9 of Schedule D and consequently column 10 of Schedule E, and countersigned as verified by the Accountant-General in token of verification of actuals and classification.

The financial statements should similarly be signed and counter-signed but in this case the Audit Officer should do so under the words "Actuals and Calculations Checked".

(23) These documents should ordinarily be forwarded within 6 months or in the case of an exceptionally large work within 12 months of the closure of the construction estimate. If this is not found possible within the period specified the Chief Engineer should within these periods report to the Finance Department through the Administrative Department the reason for the delay and when the documents may be expected.

Supplementary and Revised Estimates

(17) Any development of a project thought necessary while the work is in progress which is not fairly contingent on the proper execution of the project as first sanctioned, must be covered by a supplementary project estimate accompanied by a full report of the circumstances which render it necessary. The abstract must show the amount of the original estimate and the total of the sanction required including the supplementary estimate.

(18) A revised estimate must be submitted when an original sanctioned estimate is likely to be exceeded by more than 5 per cent, and a second revised estimate when any excess is anticipated over a sanctioned revised estimate. The revised estimate should be accompanied by a comparative statement in Form No. III appended to Appendix V of this Code, altered *mutatis mutandis* to suit the Electricity Branch comparing the revised estimate with the latest existing sanction of competent authority, and by a report showing the progress made to date.

(19) When a revised or supplementary estimate is submitted under Rules 17 and 18, it should be accompanied by revised financial forecast statements as required in the case of an original estimate.

Utilization of Completion Report as Revised Estimate

(20) When excesses occur at such an advanced period in the construction of a project as to render the submission of a revised estimate purposeless the excesses may with the concurrence of the Finance Department be explained in the Completion Report. The adoption of this procedure in no way dispenses with the necessity for the immediate report of the excess required under Rule 16.

Completion Reports

(21) The construction estimate of an Electric Supply Project should be closed as soon as it is practically in full operation although there may be certain works provided for in the construction estimate which are either unfinished or *not* considered desirable to construct at once. The date of closing the construction estimates will be fixed by the Provincial Government in consultation with the Chief Engineer.

(22) *As soon as the construction estimate has been closed, the Chief Engineer will prepare for submission to the Finance Department of the Provincial Government through the Administrative Department a completion report of the project comprising the following documents in Form No. IV appended to Appendix V of this Code:—altered *mutatis mutandis* to suit the Electricity Branch.

*Completion report in the form prescribed in this paragraph should be prepared only in respect of projects for which Government desires that such completion reports be prepared. For other projects the completion reports should be prepared in one or the other of the forms prescribed in paragraph 2.122 of the P.W.D. Code.

Schedule A—A statement showing, by works and sub-works, classified by minor heads and detailed head, the actual expenditure on works completed up to the date of the closure of the construction estimate.

Schedule B—A statement of works classified as in Schedule A which are within the scope of the sanctioned estimate and of which the detailed estimates have been prepared and sanctioned by competent authority, but which were incomplete or had not been begun on the date of the closure of the Construction Estimate.

Schedule C—A statement of works similarly classified, whether included in the construction estimate or not which have been sanctioned by competent authority between the date of closing the construction estimate, and the date of submission of the completion report.

Schedule D—A statement of works for which no estimates have been sanctioned up to the date of the submission of the Completion Report but the probable expenditure on which can be foreseen, and which are necessary to complete the project and are in its interest whether contemplated in the sanctioned Project Estimate or not, such as extension of Electricity to towns not contemplated in the sanctioned estimate.

Schedule E—A statement compiled as a combination of statements A, B, C and D. This statement should also show, for purposes of comparison, the sanctioned estimate by works and sub-works and by minor and detailed heads.

A report on the works executed up to the time of the closure of the construction estimate and an Index Map or Maps showing the Project as completed will accompany these documents. The Report will discuss the financial result already attained and expected in the future and will be accompanied by forecast financial statements in Form No. 1 appended to Appendix V, altered *mutatis mutandis* to suit the Electricity Branch based on Schedule E above, i.e., on the total anticipated ultimate expenditure on the Project.

Schedules A to E accompanying the Completion Report should initially be signed by the officer-in-charge of the Project who is particularly responsible for the figures in columns 5 to 9 of Schedule D and consequently column 10 of Schedule E, and countersigned as verified by the Accountant-General in token of verification of actuals and classification.

The financial statements should similarly be signed and counter-signed but in this case the Audit Officer should do so under the words "Actuals and Calculations Checked".

(23) These documents should ordinarily be forwarded within 6 months or in the case of an exceptionally large work within 12 months of the closure of the construction estimate. If this is not found possible within the period specified the Chief Engineer should within these periods report to the Finance Department through the Administrative Department the reason for the delay and when the documents may be expected.

(24) Subject to the restriction that the total expenditure against the project shall not exceed the amount sanctioned for the Project by an amount greater than that which he is empowered to pass, the Chief Engineer is competent to incur expenditure between the date of closing the construction estimate and that of the approval of the Completion Report by competent authority on—

- (a) Works entered in Schedules B and C.
- (b) Works entered in Schedule D within the limits of his power of sanctioning detailed estimates.

(25) On receipt of approval of competent authority to the Completion Report, works entered in Schedules B and C may be completed within Chief Engineer's power of sanctioning excesses over estimated amounts, any higher excess requiring the sanction of competent authority as usual.

The Chief Engineer may also, on receipt of such approval, sanction further outlay on other works against the open capital account of the Project within the limits and subject to the conditions in Rule 26 below.

Open Capital Account

(26) If subsequent to the closure of the Construction Estimate, it be found necessary to construct other works, whether included in the Construction Estimate or not, of which no detailed estimate had been sanctioned when the Construction Estimate was closed, the following procedure will be observed :—

- (a) Any work or group of connected works, the portion of the estimated aggregate cost of which chargeable to capital does not exceed the limits of the Chief Engineer's power, may be sanctioned by the Chief Engineer.
- (b) Revised and supplementary estimates for open capital works the original estimates of which were sanctioned by the Provincial Government may be dealt with by that authority.
- (c) The papers which should accompany a project estimate chargeable to the Open Capital Accounts of an existing Project and to which the approval of the Provincial Government is required will be the same as those prescribed in the case of an original project.

Schedule A—A statement showing, by works and sub-works, classified by minor heads and detailed head, the actual expenditure on works completed up to the date of the closure of the construction estimate.

Schedule B—A statement of works classified as in Schedule A which are within the scope of the sanctioned estimate and of which the detailed estimates have been prepared and sanctioned by competent authority, but which were incomplete or had not been begun on the date of the closure of the Construction Estimate.

Schedule C—A statement of works similarly classified, whether included in the construction estimate or not which have been sanctioned by competent authority between the date of closing the construction estimate, and the date of submission of the completion report.

✦
Schedule D—A statement of works for which no estimates have been sanctioned up to the date of the submission of the Completion Report but the probable expenditure on which can be foreseen, and which are necessary to complete the project and are in its interest whether contemplated in the sanctioned Project Estimate or not, such as extension of Electricity to towns not contemplated in the sanctioned estimate.

Schedule E—A statement compiled as a combination of statements A, B, C and D. This statement should also show, for purposes of comparison, the sanctioned estimate by works and sub-works and by minor and detailed heads.

A report on the works executed up to the time of the closure of the construction estimate and an Index Map or Maps showing the Project as completed will accompany these documents. The Report will discuss the financial result already attained and expected in the future and will be accompanied by forecast financial statements in Form No. 1 appended to Appendix V, altered *mutatis mutandis* to suit the Electricity Branch based on Schedule E above, i.e., on the total anticipated ultimate expenditure on the Project.

Schedules A to E accompanying the Completion Report should initially be signed by the officer-in-charge of the Project who is particularly responsible for the figures in columns 5 to 9 of Schedule D and consequently column 10 of Schedule E, and countersigned as verified by the Accountant-General in token of verification of actuals and classification.

The financial statements should similarly be signed and counter-signed but in this case the Audit Officer should do so under the words "Actuals and Calculations Checked".

(23) These documents should ordinarily be forwarded within 6 months or in the case of an exceptionally large work within 12 months of the closure of the construction estimate. If this is not found possible within the period specified the Chief Engineer should within these periods report to the Finance Department through the Administrative Department the reason for the delay and when the documents may be expected.

(24) Subject to the restriction that the total expenditure against the project shall not exceed the amount sanctioned for the Project by an amount greater than that which he is empowered to pass, the Chief Engineer is competent to incur expenditure between the date of closing the construction estimate and that of the approval of the Completion Report by competent authority on—

- (a) Works entered in Schedules B and C.
- (b) Works entered in Schedule D within the limits of his power of sanctioning detailed estimates.

(25) On receipt of approval of competent authority to the Completion Report, works entered in Schedules B and C may be completed within Chief Engineer's power of sanctioning excesses over estimated amounts, any higher excess requiring the sanction of competent authority as usual.

The Chief Engineer may also, on receipt of such approval, sanction further outlay on other works against the open capital account of the Project within the limits and subject to the conditions in Rule 26 below.

Open Capital Account

(26) If subsequent to the closure of the Construction Estimate, it be found necessary to construct other works, whether included in the Construction Estimate or not, of which no detailed estimate had been sanctioned when the Construction Estimate was closed, the following procedure will be observed :—

- (a) Any work or group of connected works, the portion of the estimated aggregate cost of which chargeable to capital does not exceed the limits of the Chief Engineer's power, may be sanctioned by the Chief Engineer.
- (b) Revised and supplementary estimates for open capital works the original estimates of which were sanctioned by the Provincial Government may be dealt with by that authority.
- (c) The papers which should accompany a project estimate chargeable to the Open Capital Accounts of an existing Project and to which the approval of the Provincial Government is required will be the same as those prescribed in the case of an original project.

air, and in such circumstances it will also be advisable that the people should sleep on raised cots.

It is very important that there should be no overcrowding ; each person should be allowed at least 54 superficial feet and care should be taken to see that the huts are kept clean and in good order.

(b) As regards food, no special arrangements will be necessary in places where the work-people can draw their supplies from a neighbouring market without any difficulty.

Where no such facilities exist, it will be advisable to organize a bazar, and to see that the food provided is suitable both as regards quantity and quality. It is of importance also to secure a sufficient variety, and in addition to the ordinary staple articles of diet such as atta, rice, dal, ghee and condiments, such valuable additions to diet as meat, fowls, fruit and vegetables should not be omitted. A supply of good milk is necessary.

(c) Good and pure drinking water is of hardly less consequence than good food. Wells should be covered and fitted with some forms of apparatus for drawing water which does not necessitate the introduction into the well of any vessel or bucket handled by any individual.

A hand-pump or hand-persian wheel is a suitable form of apparatus.

If the only source of water-supply be a pond it should be adequately fenced off ; water should be pumped from it and led through clarification and chlorination tanks to a storage and distribution tank with taps.

(d) General cleanliness of the lines and their vicinity should be enforced. As the encampment will probably be constantly moving with the progress of the works, it is often impracticable to establish regular latrines. Under the circumstances, the trench system is most suitable. Every morning one or more fresh trenches should be dug according to the number of people to be provided for. They should not be deeper than one foot and should be covered in daily. The greatest dangers likely to arise from trench latrines are :—

(i) Contamination of water, and

(ii) Fly breeding.

In selecting a place for trenches, it is indispensable that they should be removed as far as possible, consistent with convenience, from the water-supply.

Fly breeding can be prevented if excreta be properly covered with dry earth immediately on deposition and the trench filled in at the end of each day.

APPENDIX VII

[Referred to in paragraph 2.106 (2)]

SANITARY RULES ON EXTENSIVE WORKS

1. On recruitment, members of a labour force, including women and children attached, should be vaccinated against smallpox and received anti-typhoid inoculation. Should cholera be present any where in the Province they should also receive anti-cholera inoculation.

Prior to engagement, inquiry should be made from individuals regarding bowel diseases, particularly chronic dysentery. Any individual suffering therefrom should be excluded from the force. Such individuals are uneconomic from a labour point of view and are a danger to the force as a whole. So also are individuals infected with malaria. Spleen examination should be carried out on all candidates for work and any one suffering from enlargement of spleen should be put under treatment with quinine.

Malaria is a particularly dangerous disease wherever large forces of labour are congregated and especially where labour has been imported into the area from outside and local conditions are such as to permit of mosquito breeding. Every effort should be made to prevent malaria occurring; *anti-mosquito* measures should be undertaken where necessary and every case of malaria, whether fresh or relapse, should be thoroughly treated with quinine.

Precautions should be taken in the course of construction work to avoid creating conditions conducive to mosquito breeding.

2. The great requisites for preserving the health of work-people may be conveniently considered under the following four heads, viz.,—shelter, food, water and conservancy. The measures which should be adopted on the actual appearance of disease, and specially of any disease likely to assume an epidemic form, will be separately discussed :—

(a) Huts of grass can be constructed at little expense in most parts of the country, and they will be sufficient for the accommodation of work people for short periods.

In erecting them, it is of great importance to select a good site. High ground removed from jungle, but well provided with trees, ought to be chosen wherever it is available. The neighbourhood of rank jungle grass or weeds is particularly to be avoided.

The huts themselves should be raised on an earthen plinth of 2 feet, and with open spaces of at least 10 yards between different rows. When a good natural site cannot be procured, the drainage should be particularly attended to. Whenever, owing to unavoidable circumstances, the huts occupy a situation in a low, swampy or otherwise unhealthy situation, the sides should be carefully and thinly plastered with mud so as to exclude the night

air, and in such circumstances it will also be advisable that the people should sleep on raised cots.

It is very important that there should be no overcrowding ; each person should be allowed at least 54 superficial feet and care should be taken to see that the huts are kept clean and in good order.

- (b) As regards food, no special arrangements will be necessary in places where the work-people can draw their supplies from a neighbouring market without any difficulty.

Where no such facilities exist, it will be advisable to organize a bazar, and to see that the food provided is suitable both as regards quantity and quality. It is of importance also to secure a sufficient variety, and in addition to the ordinary staple articles of diet such as atta, rice, dal, ghee and condiments, such valuable additions to diet as meat, fowls, fruit and vegetables should not be omitted. A supply of good milk is necessary.

- (c) Good and pure drinking water is of hardly less consequence than good food. Wells should be covered and fitted with some forms of apparatus for drawing water which does not necessitate the introduction into the well of any vessel or bucket handled by any individual.

A hand-pump or hand-persian wheel is a suitable form of apparatus.

If the only source of water-supply be a pond it should be adequately fenced off ; water should be pumped from it and led through clarification and chlorination tanks to a storage and distribution tank with taps.

- (d) General cleanliness of the lines and their vicinity should be enforced. As the encampment will probably be constantly moving with the progress of the works, it is often impracticable to establish regular latrines. Under the circumstances, the trench system is most suitable. Every morning one or more fresh trenches should be dug according to the number of people to be provided for. They should not be deeper than one foot and should be covered in daily. The greatest dangers likely to arise from trench latrines are :—

(i) Contamination of water, and

(ii) Fly breeding.

In selecting a place for trenches, it is indispensable that they should be removed as far as possible, consistent with convenience, from the water-supply.

Fly breeding can be prevented if excreta be properly covered with dry earth immediately on deposition and the trench filled in at the end of each day.

The importance of preventing fly-breeding cannot be overemphasised, since flies are carriers of deadly disease, particularly bowel diseases, such as dysentery, typhoid fever and cholera.

3. The precautions referred to in the foregoing paragraph, if carefully attended to, are calculated to safeguard the health of the people employed.

Should sickness occur in a labour force, those diseases which are liable to assume epidemic proportions require special attention. The more important of these are :—

Smallpox, cholera, plague, influenza and enteric, relapsing and cerebro-spinal fevers, but other infectious diseases require that special precautions be taken.

On the occurrence of a case of infectious disease the patient should be removed at once to an Infectious Diseases Hospital or Dispensary, if one exists in the neighbouring station, and the District Medical Officer of Health notified. The latter will arrange for the necessary measures to be undertaken for the immunization of contacts and the prevention of spread of the disease. If there be no special hospital or dispensary for the reception of such a case, the patient must be isolated in a separate hut well removed from the main camp. All communications between the case and the camp should be restricted to the absolute minimum. On termination of the illness, clothing, bedding and all other infected articles should either be thoroughly disinfected or destroyed by burning according to the instructions of the District Medical Officer of Health.

The occurrence of a case of cholera should at once be notified to the District Medical Officer of Health by telegram or through a special messenger. The patient should be isolated. Body discharges should be received in receptacles containing a suitable disinfectant and should be disposed of by burning or burial. All local sources of water-supply such as wells should be disinfected by treatment with potassium permanganate or chlorine according to the instructions of the Medical Officer of Health. Articles of food-and-drink must be protected from flies and dust, and all water and milk boiled before consumption. Uncooked food, particularly fruits and salads, should be avoided. All individuals should be inoculated against cholera as early as possible and contacts kept under surveillance for a period of at least a week. All cases of diarrhoea should be isolated, treated with Tomb's Essential Oil Mixture "A", and kept under observation.

Similar precautions must be observed on the occurrence of typhoid fever or dysentery.

Smallpox will not occur in a labour force if vaccination has been thoroughly carried out on recruitment.

All cases of malaria should receive adequate quinine treatment.

Should plague occur the strictest precautions must be taken at once to prevent its spread. Cases must be isolated, protective inoculation carried out and anti-rat and anti-flea measures instituted.

4. The following rules should be observed for the disinfection of bedding and clothing :—

- (1) All articles that may, by any chance, have come in contact with a case of infectious disease must be disinfected.
- (2) Straw, rags and articles of no value should be burnt.
- (3) Clothing, bedding, etc., should be completely immersed in boiling water and the water maintained at the boiling point for fifteen minutes ; the clothing etc., should subsequently be dried in the sun.
- (4) The cot, articles of furniture, the floor, etc., should be scrubbed with a solution of perchloride of mercury 1 : 1,000 or with a solution of Carbolic acid 1 : 20 or with a solution of Izal 1—600, and subsequently washed with soap and water and, if possible, dried in the sun.
- (5) The room should be thoroughly aired and the walls limewashed.

5. The general sanitation of the area in which a labour force is operating should be under the control of the District Medical Officer of Health and a subordinate Health Officer should be specially engaged to institute and supervise all health measures necessary for the well-being of the workers.

6. The question of general medical supervision apart from infectious disease has to be considered. It will be advisable that a Sub-Assistant or Assistant Surgeon with a small hospital should be attached to each large gang, or set of gangs, of work-people. In most cases, a central establishment will be sufficient for several miles of work. The hospital should be reserved for treating accidents and cases of a trifling nature, in which complete recovery may be soon expected. As a rule, it will be better to transfer the sick suffering from more severe illness to the neighbouring station where they can be better cared for. It is also necessary that the Assistant Surgeon or Sub-Assistant Surgeon should be under supervision. Whenever circumstances admit of it, the camp should be frequently visited by the Civil Surgeon of the District. Even when distant from his headquarters, it is very desirable that he should pay at least one visit in the month to ascertain that the Sub-Assistant or Assistant Surgeon is carrying on his duties properly. A weekly report should be submitted by the Sub-Assistant or Assistant Surgeon to the Civil Surgeon. He would thus be informed of what was going on, and on the occurrence of any emergency his services would always be available when called for by the Engineer-in-charge.

APPENDIX VIII

(Referred to in paragraphs 2.74, 4.20, 5.26 and 5.31)

STORE RULES FRAMED BY THE PUNJAB GOVERNMENT
WITH INSTRUCTIONS REGARDING THE PREPARATION
OF INDENTS

These rules shall regulate all future purchases of stores by all Departments and officers of the Government of the Punjab.

Punjab Government,
Electricity and Industries Departments
Resolution No. 4847.I.
& L. 38/32634,
dated 29th September, 1938.

2. The main features of the new rules consist in the assertion of a definite reference for stores produced and manufactured wholly or partly in India and of the utilization of the agency of the Indian Stores Department.

3. These rules should be taken as superseding the rules issued with Punjab Government, Finance Department Resolution No. 33118, dated the 10th November, 1926, as subsequently amended from time to time.

RULES FOR THE SUPPLY OF ARTICLES REQUIRED FOR
THE PUBLIC SERVICE

PART I

PURCHASES IN INDIA

Preamble

The policy of the Government of the Punjab is to make their purchases of stores for the public service in such a way as to encourage the development of the industries of the country to the utmost possible extent consistent with economy and efficiency. In pursuance of this policy the following rules are

prescribed and except in the case of those Articles for the purchase of which special orders have been issued from time to time are applicable to all purchases of stores made through the Indian Stores Department and to all purchases of stores made by the Heads of Departments specified in Annexure A or by officers subordinate to them who are empowered to purchase stores, whether through the Indian Stores Department or otherwise :—

Rule 1—Conditions regarding quality and price being equal, preference in making purchases will be given in the following orders :—

Firstly, to articles which are produced in India in the form of raw materials, or are manufactured in India from raw materials produced in India ; further preference should be given to articles produced in the Punjab ;

Secondly, to articles wholly or partially manufactured in India from imported materials ; further preference should be given to articles produced in the Punjab ;

Thirdly, to articles of foreign manufacture held in stock in India ;

Fourthly, to articles manufactured abroad which need to be specially imported.

Even where conditions of quality and price are not equal, Heads of Departments should normally prefer articles which are produced in India in the form of raw material or are manufactured in India from materials produced in India, provided the quality is sufficiently good for the purpose and the price is reasonable. But the assent of the Finance Department will be required in all such cases, except where in any one case the total loss to Government involved in purchasing the more expensive article of Indian manufacture does not exceed Rs 200.

Rule 2—Save as provided in Rule 8 all articles required to be purchased for the public service shall be purchased on the condition that delivery shall be made in India for payment in rupees in India.

Rule 3—Tenders shall be invited in India, and abroad also when considered desirable, for the supply of all articles which are purchased under Rules 2 to 5, unless the value of the order to be placed is small or sufficient reasons, to be recorded in writing, exist which indicate that it is not in the public interest to call for tenders. No tender which fails to comply with the condition as to delivery and payment prescribed in Rule 2 shall be accepted.

Rule 4—All articles, whether manufactured in India or abroad, shall be subject to inspection before acceptance, and articles for which specifications and/or tests have been prescribed by competent authority shall be required to conform to such specifications and/or to satisfy the prescribed test or tests which may be carried out during manufacture or before/after despatch from the suppliers' premises.

Rule 5—Important plant, machinery and iron and steel work shall be obtained only from firms in India or abroad (as the case may be) approved by the Chief Controller of Stores, Indian Stores Department, and specified in the lists issued by him from time to time.

Rule 6—In the case of important construction works let out on contract, articles required for the construction of such works may be supplied by the contracting firm provided that when specifications and/or tests have been prescribed for such articles they shall conform to such specifications and/or shall satisfy such tests.

Rule 7—Nothing in these rules shall be deemed to prohibit the purchase of articles by one Department from another.

Rule 8—The articles enumerated in Annexure B, or any other articles of a special or unusual character, may, when suitable and economical purchase cannot be made in accordance with the preceding rules,

be obtained without reference to these rules, subject to the following conditions :—

- (a) Where the value of the purchase exceeds Rs. 1,000 for any one article or aggregates Rs 2,000 for a number of articles purchased at a time the purchasing officer shall place on record his reasons for not effecting the purchase in accordance with the preceding rules.
- (b) The purchasing officer may at his discretion, either obtain the article that he requires by indent on the India Store Department, London, or purchase it direct from manufacturers or dealers abroad. Where resort is had to direct purchase from manufacturers or dealers abroad, tenders shall, whenever practicable, be first obtained.
- (c) When articles are purchased abroad under this rule through the agency of the India Store Department, London, payment shall be made by that Department. In other cases payment shall be made :—
 - (i) in countries other than Great Britain and Northern Ireland direct to the suppliers by the purchasing officer by means of a bill of exchange to be obtained through the Accountant-General ;
 - (ii) In Great Britain and Northern Ireland, through the High Commissioner for India.

Rule 9—In the case of purchases made under these rules through the agency of the India Store Department, London, or direct from the manufacturers abroad, officers empowered to incur contingent expenditure and officers empowered to incur expenditure on stores debitable to works may continue to exercise full powers subject to the usual restrictions regarding budget appropriation.

In the case of purchases made in India under these rules they may exercise full powers of purchase subject to such money limits and such other conditions as may have been prescribed by Government from time to time in regard to specific articles or classes of articles, e.g. furniture, and subject to the usual restrictions regarding appropriations. Where it is necessary to enter into a formal contract for the purchase of stores, the sanction also of the person directed or authorized by the Governor under the provisions of sub-section (3) of section 175 of the Government of India Act, 1935, to make such contracts shall be obtained.

Rule 10—Departures from the rules in cases in which the departure is in the public interest will be sanctioned by the Administrative Department of the Secretariat after previous consultation with the Finance Department. Orders in these cases should be communicated to the Accountant-General through the Finance Department.

ANNEXURE A

(See preamble)

Department Buildings and Roads

- (2) Chief Engineer, Public Works Department, Electricity Branch.
 (3) Chief Engineer, Public Works Department, Irrigation Branch.
 (21) Secretary to Government, Punjab, Electricity and Industries
 Departments. * * * *

ANNEXURE B

(See Rule 8)

- (i) Seeds.
 (ii) Cinchona bark.
 (iii) Articles for experimental or research purposes required by officers approved by the Government of the Punjab from time to time up to a limit of £ 50 in each case. The Finance Department of the Punjab Government may in special cases remove the limit of £ 50 prescribed herein subject to the condition that no single article of which the estimated cost exceeds £ 50 shall be ordered from England otherwise than through the High Commissioner. A list of the officers thus approved is given in Annexure C. * * * *
 (vi) Chemicals and scientific instruments which do not require careful inspection and testing, or which are of standard description usually quoted by well-known firms, provided that the articles cannot be procured from the Medical Stores Depots.
 (vii) Articles required for His Excellency the Governor's residences in special and urgent cases. * * * *

ANNEXURE C

- See item (iii) in Annexure B. * * * *
 Principals of Technical and Industrial Institutes. * * *

PART II

PURCHASES IN ENGLAND

Instructions regarding the Preparation of Indents on the India Store Department London, based on the Secretary of State's Despatch No. S.-10831/1924, dated 27th May, 1925.

1. On the front page of the indent, the following information should be given :—
 (i) Head of Service (number and description), and whether "Central" or "Provincial" the name of the Province in the latter case being

given, e.g., "50—Civil Works—Central" or "50—Civil Works—Punjab, Provincial".

(i) Whether "Voted" or "Charged".

(ii) A certificate of funds in the following form:—

"Funds provided in the High Commissioner's budget for the financial year 19_____".

N. B.—If no provision exists in the High Commissioner's budget (although it may exist in the Indian portion of the budget of the Government), the indent should be accompanied either by a formal order transferring the necessary provision or by an intimation from or with the concurrence of Government that the indent may be complied with and that funds will be transferred to the High Commissioner's budget for the financial year concerned (the year being always stated).

2. It is not desired to restrict indentors to the use of a particular indent form, but it is suggested that the specimen form annexed might be adopted as a model where revision or reprint of existing forms is considered necessary.

3. Indent should be sent in sextuplicate. If the indent is accompanied by lengthy specifications, three copies of the later will suffice. If the indent is accompanied by drawings, these should be tracings. If for any reason tracings cannot be sent, not less than six ferro-prints are desirable.

4. Indents may be either printed or type-written, but should not be in manuscript.

Note.—As already decided in Finance Department, Memo No. 2163-F., dated 21st January, 1924 type-written skeleton forms of indents should be used.

5. Charges for all stores shall be passed through the current account for final adjustment in India. A certificate should be given on every indent that the necessary funds are available in India.

6. In the case of demands made by telegram, all essential data should be included, also the address to which the stores are to be despatched, the estimated cost, the head of service, and intimation that provision is included in the High Commissioner's budget.

7. Indents should be transmitted as early as possible in the financial year in which the funds are provided, and, wherever practicable, should be despatched from India so as to arrive in London by at the latest the 30th November. No usual purpose is served by certifying against the grant for a given financial year indents which are sent forward so late that they obviously cannot be complied with and paid for within the financial year.

8. Indents sent forward in one financial year which are to be met from funds which are expected to be provided in the budget for the ensuing financial year should invariably state either (a) that orders are not to be placed until the funds have been voted or sanctioned, or (b) that the Government concur in the orders being placed in anticipation of the necessary provision being made in the budget for the ensuing year (it being of course, understood that no payments will actually be made before the commencement of the financial year in which the necessary provision is made).

9. Each item should be separately priced, in pounds sterling, and additions should be made at the end of the indent for the estimated cost of freight, and, where applicable, for departmental expenses, etc. Shillings and pence should be omitted where this can conveniently be done. No items should be left unpriced, a rough estimate being inserted where reliable information of the cost is not

10. Each indent should be confined to one financial year and to one head of service.

11. When sending to the India Store Department London, indents which are subject to financial limits, a separate limit should be shown for each item. In such cases it is preferable to state that the limit of the sum allotted for each item should not be appreciably exceeded rather than to impose an absolute limit which must not be exceeded. It is advisable in these cases to leave it to the discretion of the Director-General whether—

- (i) stores under any one item should be purchased up to the limit of the amount allotted against the item and the balance of the item referred to India for further instructions, or
- (ii) the whole item should be referred to India before any order is placed, or
- (iii) the item should be ordered in full when it is known that savings more than covering the excess have been effected in the purchase of other items in the same indent.

12. The date by which the stores are required to be landed in India should be stated definitely. Vague phrases such as "urgently required", "as soon as possible", etc., should not be used. A brief explanation of the urgency should be furnished when necessary, especially in cases where the success of a scheme depends upon the early arrival of stores.

13. The address to which the stores are to be consigned should be clearly stated and should, preferably, consist of:—

- (1) the name of the Department or title of officer ;
- (2) the town ;
- (3) the Indian port of landing.

14. The items should be numbered consecutively, only a single series of numbers being used in an indent. This applies also to indents sent in the forms of a letter.

15. When demands have been made by letter or telegram, confirming indents are unnecessary and should not be sent.

16. When correspondence has taken place between indenting officers and manufacturers or direct quotations obtained, it is essential that copies of such correspondence should accompany the indent.

17. When it is desired that supply should be restricted to a particular firm, a specific statement to that effect should be made in the indent, and the reason stated briefly for the information of the High Commissioner. As it is necessary that competition in supply must be obtained wherever practicable,

such restrictions should be exceptional. Catalogue references and references to previous supplies are very useful, but, in the absence of any special marginal note, are interpreted as merely indicating the type or description of article required. The date of any catalogue quoted should be given.

18. When indenting for plant, machinery or electrical apparatus, the purpose for which it is required should be stated as fully as possible or reference given to previous suitable supply. In the absence of information to the contrary it is assumed that the latest model or type of the machine demanded will be acceptable. If for any reason an exact duplicate of an old type is required this should be stated.

19. Indents for spare parts should be compiled from maker's spare parts catalogues, where available, and care should be taken to quote the correct symbol number and nomenclature or code word applicable to the particular type of engine or plant. The maker's number of the machine should also be stated. Failing this, the date and source of original supply should be given.

20. Supplies of certain bulky articles, such as stoneware pipes, rainwater pipes, light castings, etc., are usually sent out unpacked, a percentage increase being made to the quantity actually required in order to cover possible breakages in transit. When such addition has been made by the Indenting Officer, the indent should be noted to that effect. In the absence of such note, the addition will be made by the Store Department.

21. When drawings are asked for in indents, they are usually despatched immediately after the plant has been inspected and approved. When advance drawings are required for foundations or other reasons, the demand should be noted accordingly. Instructional and erection drawings should always be asked for when demanding unfamiliar or complicated plant and machinery.

22. The stores should be examined immediately on their receipt at destination, and, whenever possible under the personal supervision of a responsible officer.

23. Particular attention should be given to the instructions on the front of the Packing Account, which should be in the hands of the Supervising Officer during the examination of the stores.

24. If stores are found to be in accordance with the particulars in the Packing Account, a receipt should be furnished in the following terms :—

“Stores received.....(date) and examined.....
(date) found to be correct as to quantity and in accordance with the
particulars in this Packing Account.”

25. All articles not enclosed in packages or loose bulk consignments, are held to have been counted or weighed by the master of the vessel on shipment consequently any discrepancy should first be referred to Port Officer, with an enquiry whether the ship discharged the full quantity.

26. Should any articles appear to have original defects, samples, upon which judgement may be formed, should in all cases be sent to the Director-General, India Store Department, with the complaint whether it relates to quality or to pattern.

27. If any article not described in the Packing Account be received, full particulars thereof should be entered in the Packing Account and reported by letter to the Director-General, India Store Department.

28. The Packing Account should in all cases be signed by the Senior Officer of the Department at the station to which the stores are consigned.

29. When any discrepancy, except as provided for in paragraph 30 is found on receipt of the stores, and especially where early replacement is required, the earliest possible intimation may be made by letter addressed to the Director-General, India Store Department, Lambeth, London, and a reference to this letter noted on the Packing Account. This letter should quote the shipping number of package and name of steamer by which the stores were shipped. In the case of damage, the report should state whether it is considered to be due to defective packing or to rough handling in transit and in what condition the case containing the stores was received by the consignee. In the case of deficiency it should in addition state whether the case showed any indication of pilfering in transit and whether the weight on receipt agreed with the weight shown on the Packing Account.

30. When discrepancies are discovered and are considered not of sufficient importance to be reported, having regard to the value, nature of the stores and percentage of Loss, the receipt of the Packing Account should be qualified as follows :—

“Except for sundry trifling discrepancies on which no action is required”. Reports of trivial discrepancies or breakages should be avoided, since correspondence with suppliers in cases in which the value involved is trivial is liable to prejudice the settlement of more important claims.

31. It should invariably be stated in Reports and Packing Accounts whether replacement is required or not. In ordinary circumstances, replacement will not be made unless specially asked for.

Estimates of Expenditure in England

32. These estimates represent the charges to be incurred in England, on behalf of the Punjab Government, by the High Commissioner for India on stores purchased or payable in England.

Stores

33. The Budget estimate of stores will be based on forecasts prepared by the Government and forwarded to the High Commissioner in the manner prescribed in Rule 34 following, and may be modified, if necessary by the High Commissioner with reference to more up to date information at his disposal as regards prices, etc., and with reference to the estimated carry over of previous year's indents.

34. Various indenting departments of the Government will prepare and forward annually forecasts of the value of their probable requirements in respect of stores which under the rules governing the supply of stores for the public service will be procured from England during the ensuing financial year. For purpose of these forecasts, stores should be divided into two categories, viz :—

- (1) consumable stores such as drugs, chemicals and such ordinary apparatus as from its frequent and general use is liable to breakage and regular replacement, and
- (2) special apparatus (including, e.g., microscopes models and costly materials for specialized investigations) the purchase of which does not frequently occur.

The forecast will be in Form A (Form B.M. 19) annexed to these rules, and will be submitted in two parts (i) for ordinary expenditure, (ii) for new expenditure, to the Government in the Finance Department through the Administrative Department not later than 15th October in the year preceding that to which it relates. Annual allotments fixed by Government for stores falling in category (i) should be included in the forecasts under a separate head 'ordinary recurring expenditure.' For stores falling in category (ii), an itemwise list of proposed purchases should be submitted with suitable explanatory remarks for consideration of the Government in the Administrative Department. The total approved by Government in the Administrative Department will be basis of the budget provision. The items falling in category (ii) will be treated as items of new expenditure. The serial number of an item in the forecast should be its budget number and reference should be made to it in the subsequent indent. When in the course of a year unforeseen emergency demands arise for stores falling in category (ii), indents should be sent with the previous approval of the Government in the Administrative Department. With the forecast for the budget year a revised forecast for the current year will be submitted in duplicate in Form B (Form B.M. 20). As regards ordinary expenditure the estimates should be carefully framed on the basis of previous experience, modified to meet the known or probable requirements of the ensuing year. The amounts entered in the forecasts should invariably be given in English money. It should be remembered that all charges paid at ports or elsewhere in India in connection with stores obtained from England, including now any customs duty payable, should be treated as Indian expenditure. These estimates are intended to show the probable amount expended in England in the financial year next following the date of their receipt, and as an interval must of necessity elapse between the arrival of an indent and the payment for stores demanded therein, it may, as a general rule, be assumed in their preparation that stores for which indents are received in the India Office after January 1 in any financial year will not be paid for until the following year. Hence indents should not be despatched between December 15 and the date of communication of grants without consulting Government as they anticipate the vote of the Assembly. The forecasts will be consolidated by the Finance Department, and the consolidated statements forwarded to the High Commissioner so as to reach him by the first mail in November.