

# COMMITTEE ON PUBLIC UNDERTAKINGS

(THIRD LOK SABHA)

## THIRTEENTH REPORT

### MANAGEMENT & ADMINISTRATION OF PUBLIC UNDERTAKINGS

(PLANNING OF PROJECTS)



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LOK SABHA SECRETARIAT  
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THIRTEENTH REPORT OF THE  
COMMITTEE ON PUBLIC UNDERTAKINGS  
ON THE 'MANAGEMENT & ADMINISTRATION  
OF PUBLIC UNDERTAKINGS (PLANNING OF  
PROJECTS)'

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118	S.No. 33	7	Neyveri	Neyveli
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**COMMITTEE ON PUBLIC UNDERTAKINGS**  
**(THIRD LOK SABHA)**

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- 4. Shri S. Hansda**
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**Shri N. N. Mallya—*Joint Secretary.***

**Shri A. L. Rai—*Deputy Secretary.***

**Shri H. G. Paranjpe—*Under Secretary.***

## INTRODUCTION

I, the Chairman, Committee on Public Undertakings, having been authorised by the Committee to submit the Report on their behalf, present this Thirteenth Report on the 'Management and Administration of Public Undertakings (Planning of Projects).' This is the first of a series of Reports on various aspects of 'Management and Administration of Public Undertakings, which the Committee contemplate.

2. The present Report on the Planning of Projects is based on the data furnished by the public undertakings. The Committee took the evidence of the representatives of the Ministries of Industry and Supply, Finance, Steel and Mines, Petroleum and Chemicals, on the 5th, 6th and 7th May, 1965.

3. The Report was adopted by the Committee on the 22nd and 23rd September, 1965.

4. The Committee wish to express their thanks to the various Ministries and the Public Undertakings for placing before them the material and information which they wanted in connection with the examination of the subject. They wish to thank in particular the officers of the Ministries of Industry and Supply, Finance, Steel and Mines, Petroleum and Chemicals for giving evidence and placing their considered views before the Committee. They also wish to express their thanks to the non-official organisations|individuals who, on request from the Committee, furnished so readily their views on the subject.

PANAMPILLI GOVINDA MENON,  
*Chairman,*  
*Committee on Public Undertakings.*

NEW DELHI;  
November 30, 1965.  
Agrahayana 9, 1887 (Saka).

## INTRODUCTORY

In a developing country, a substantial proportion of national investment is found in the projects that are under construction. According to the Annual Report on the working of Industrial and Commercial Undertakings of the Central Government for the year 1963-64, the investment in public sector projects under construction in India as on 31st March, 1964 was Rs. 397 crores which was 22 per cent of the total investment in public sector projects on that date. These projects will require about Rs. 900 crores of additional investment before they are completed, according to the present estimates. Besides these several other new projects are proposed to be set up under the Fourth Five Year Plan. In cases of certain projects already completed expansion is proposed. The investment in expansion of Steel Plants alone during the Third Plan period would be over Rs. 380 crores.

2. In order that the benefits of such investments accrue in time and in the measure expected, it is absolutely essential that the projects should be completed expeditiously and at a minimum cost.

3. The experience of projects completed in recent years is not happy. Reports of the Estimates Committee provide a number of instances where the projects were not planned and executed properly—leading to delays, wastages and loss to the undertakings. The Mid-Term Appraisal of the Third Plan has pointed out the same thing. According to this report “the stage is yet far from being reached when it can be claimed that time-schedules, cost estimates, flow of benefits and returns on investments generally conform to the basic assumptions made when industrial projects are approved.” The Memorandum on the Fourth Plan has also observed that “from studies which have been carried out so far, it is apparent that a larger proportion of projects in the public sector have been unable to adhere to time schedules and cost estimates on the basis of which they were first approved. In many cases this has been due to inadequate technical, economic

Investment in Public Undertakings.

Performance of the Public Sector Projects.



and financial planning." The experience of the Committee on Public Undertakings in respect of a few undertakings examined was no better.

**Under-  
takings  
covered  
by the  
study.**

4. The Committee therefore decided to make a horizontal study of the planning of the public undertakings at the project stage, with a view to draw lessons for future guidance. The names of the undertakings included in the study are given in Appendix I.

## II

### OBJECTIVES

5. A clear definition of the objectives with which an undertaking is set up is a *sine qua non* for its success. Most of the public undertakings when asked about the objectives could only say that they were established in pursuance of the Industrial Policy Resolution 1956. Others stated that their objectives had been enumerated in the Memorandum of Association. The Committee noticed that it is only in the case of Indian Oil Corporation Ltd. (Refineries Division), that an Instrument of Instructions laying down the objectives, the methods of work and the principles it should follow had been specified.

Definition of objectives.

6. The Industrial Policy Resolution gives the national policy regarding industries defining the public and private sector and can at best be only a general guide for an undertaking. The Memorandum of Association enumerates all the activities that the undertaking could possibly pursue; several of which may not be undertaken; and it does not prescribe specific targets which an undertaking has to achieve.

7. During evidence the representatives of the Ministries agreed that it would be desirable that Instruments of Instructions are issued by the Administrative Ministries to the public undertakings at the time of their being set up so that it becomes the management's responsibility to achieve the prescribed objectives.

Views of Representatives of Ministries.

8. The Committee, therefore, recommend that at the time of setting up of a public undertaking, Government should indicate the specific objectives for which it is being set up, the precise targets which it has to achieve and also indicate the time schedule for completion and the cost estimated. Although it might not always be possible to spell out in great details some of these matters at the initial stages, nevertheless some broad indications of these could be given at that stage supplemented by further instructions and directions as the project progresses. It is not the inten-

Committee's recommendation.

tion of the Committee that Government should take the initiative in this regard. That initiative should rightly vest in the undertaking. The Committee feel that from time to time Government should indicate what the undertaking should attain in a prescribed period. This would not only serve as an incentive to the undertaking but also give Government a yardstick to measure its performance. The Committee hope that Government would issue suitable Instruments of Instructions to all the public undertakings as and when they are set up.

### III

## TECHNO-ECONOMIC FEASIBILITY STUDIES

### A. TECHNO-ECONOMIC FEASIBILITY STUDIES/PRELIMINARY PROJECT REPORTS

9. The decision to set up a project should generally be taken on the basis of a techno-economic feasibility study. It has sometimes happened that instead of a techno-economic feasibility study, a preliminary project report has been called for. In the following cases both techno-economic feasibility studies and preliminary project reports were prepared:—

Techno-economic feasibility study and Preliminary Project.

1. Bokaro Steel Plant.
2. Gauhati and Barauni Refineries.
3. Hindustan Antibiotics Ltd. (Penicillin Project).
4. Bharat Electronics Ltd.
5. Bharat Earth Movers Ltd.

10. During evidence it was explained by the representatives of the Ministries that the techno-economic feasibility study with respect to a project was undertaken when Government wanted to be satisfied about the justification or basis for a particular project. The preparation of preliminary project report was ordered where the need was fairly well known but a fuller idea of the technical and financial implications of the project was required.

Scope of the two studies.

11. The Committee consider that since the techno-economic feasibility study and the preliminary project report contain almost similar information, it should not ordinarily be necessary to have both the techno-economic feasibility study as well as the preliminary project report before deciding upon to establish a project, because preparation of both led to delay in the execution of the project and increase in the cost. There might, of course, be cases where collaborators who offer foreign credit want for their own satisfaction, a second report (although a techno-economic feasibility study had been made) to determine the technical and economic soundness of the project. The Committee consider that such occasions would be few and far between and if the techno-economic feasibility study was est-

Committee's recommendation.

ried out in a reasonably detailed manner there would be no need for a preliminary project report.

#### B. NEED FOR A CLOSE SCRUTINY OF TECHNO-ECONOMIC FEASIBILITY STUDIES

Case of a faulty techno-economic study.

12. The Committee noticed that in the case of the Phyto Chemical Project of the Indian Drugs & Pharmaceuticals Ltd. although techno-economic feasibility study was carried out, the project had to be abandoned after the preparation of a Detailed Project Report and after incurring other expenses because it was found to be uneconomic.

Reasons.

13. It was explained to the Committee during evidence that the techno-economic study of the Phyto Chemical Project formed part of the study of the entire complex of five projects which the Russians had prepared. Taking the whole complex together, it was a profitable proposition; but when Government examined each project individually it was not found so.

14. In a note furnished to the Committee subsequently it was stated that the main reason for the project to be abandoned was the uneconomic price at which the raw material i.e. tea prunings for the manufacture of caffeine would be available. It was estimated that at the prevailing market price of tea prunings (which constituted 75 per cent raw material for caffeine manufacture) the cost of production per ton of caffeine would come to nearly Rs. 1 lakh as against Rs. 18,000 which was the price at which caffeine could be imported and Rs. 50,000 at which M/s. Bengal Chemicals were marketing the caffeine manufactured by them.

Committee's findings.

15. The Committee learn that the cost of the raw material originally estimated was Rs. 25 per ton. This figure was supplied by the Kerala Government to N.I.D.C. and on that basis a Detailed Project Report was prepared by the Russians. Actually the price came to Rs. 100 per ton. The total expenditure incurred on the project by the company till the end of June, 1964 was above Rs. 13.6 lakhs of which Rs. 8.5 lakhs represented the payment to M/s. Technoexport for the Detailed Project Report. The State Government of Kerala are also stated to have incurred an expenditure of Rs. 12 lakhs on providing the various facilities at the project site.

16. Availability of raw material in adequate quantity and at economic price is one of the primary considerations

in determining the economic feasibility of a project. In this case the techno-economic study failed to take note of this important factor. Thus the study failed in its objective causing loss of valuable foreign exchange.

17. In the light of this experience the Committee would stress the utmost need for closely scrutinising the figures and data supplied which form the basis for embarking on a project. It is worthwhile considering how in cases referred wrong data came to be supplied. It should also be borne in mind that in their eagerness to have the project located in their territories, it is possible that the State Governments may not give the same care and attention to basic data as is necessary. The Committee would therefore recommend that the Central Government should exercise a close and independent check on any data supplied by the State Governments.

Committee's recommendation.

#### C. ASPECTS COVERED IN THE TECHNO-ECONOMIC FEASIBILITY STUDIES

18. It appears that there is no clear understanding as to the various aspects that a techno-economic feasibility study should cover. The Committee, for example, noticed that there were variations in this respect in the case of some projects as the table below shows:—

Aspect	Covered in the techno-economic feasibility study of :	Not covered in the techno-economic feasibility study of :
Market Analysis	Bokaro, Gauhati & Barauni Refineries.	Instrumentation Ltd.
Raw Material	Units under the Fertiliser Corporation of India Ltd.	Hindustan Organic Chemicals Ltd.
Operating cost and working expenditure.	Hindustan Photo Films Manufacturing Co. Ltd.	Barauni and Gauhati Refineries,

19. During evidence, the Committee were informed that Government have not yet evolved a list of items which must be included in the techno-economic feasibility studies.

Committee's recommendation.

20. The Committee feel that absolute uniformity in this respect is not possible and some variation according to the nature and size of the undertaking to be established is inevitable. Information such as demand projections, raw materials, size and technology of the project, location, earning estimate (profitability), however, is basic and should be included in all techno-economic feasibility studies. As it is on the basis of such a study that a project is approved or embarked upon it would be worthwhile undertaking a detailed study of what should be included in the techno-economic studies. Since the techno-economic feasibility study is the only basis on which Cabinet approves a project and subsequent reports do not usually go to it, it is but proper, that when a proposal goes before it all its technical and economic aspects are before it. The Committee would, therefore, recommend that a check list of all the aspects that a techno-economic feasibility study should include should be drawn up for the guidance of all those who have to deal with the planning of projects.

#### D. AGENCY FOR CONDUCTING TECHNO-ECONOMIC FEASIBILITY STUDIES

21. In the course of their examination the Committee noticed that in the following cases foreign agencies had been employed for preparing techno-economic feasibility studies:—

Employment of foreign agencies for preparation of techno-economic feasibility studies.

S. No.	Name of the Project	Name of the foreign agency
(i)	Bokaro Steel Plant	Agency for International Development (USA)
(ii)	Projects of the Indian Drugs & Pharmaceuticals Ltd.	Soviet Experts.
(iii)	Gauhati & Barauni refineries	M/s. Foster Wheeler Corporation Ltd.
(iv)	Hindustan Organic Chemicals Ltd.	Foreign firms viz., Bayers, ACNA and ICI, and USSR experts.
(v)	Hindustan Photo Films Manufacturing Co. Ltd.	Firms : Aefa and Kodak and East German expert
(vi)	National Instruments Ltd.	USSR experts.
(vii)	Projects of the Heavy Engineering Corporation Ltd.	Russian and Czech. Consultants.
(viii)	Heavy Electricals Ltd., Bhopal	British experts.

A recent example of entrusting techno-economic feasibility studies to foreign agencies is the appointment of Bechtel Corporation in 1964 at a cost of Rs. 20 lakhs (to be shared between the Bechtel Corporation and the Government of India) for fertilizer factories.

22. The Committee, in this connection note that V.K.R.V. Rao Committee on the Utilization of External Assistance had recommended that there should be further strengthening of the agencies which undertake feasibility studies. The Government had in accepting this recommendation, stated that such agencies in the public sector undertakings will be asked to prepare detailed proposals for expansion of their activities. During evidence, it was also explained that foreign agencies had to be employed because of their insistence on such studies before making available the foreign credit. However, of late, sufficient know-how had been developed within the country to conduct such studies. *The Committee hope that suitable programme for expansion of such activities will be drawn up and implemented.*

View of  
the Com-  
mittee.

23. *The principal difficulty of developing our own agencies for feasibility studies and Detailed Project Reports is the absence of suitably trained Indian engineers. The Committee note that in a few cases Indian engineers have been associated with foreign agencies in conducting feasibility studies. This has not been done in every case. The Committee would recommend that as long as we have to depend upon foreign agencies for preparation of these studies the Government should invariably insist that a group of our own engineers and technicians be associated with the foreign agencies to learn the preparation of the techno-economic feasibility studies.*

#### E. FEASIBILITY STUDIES IN ADVANCE

24. The Committee noted that at present no advance feasibility studies for the setting up of projects in the public sector were undertaken, except for the steel plants and a few other industries with the result that considerable time had to be spent on preliminary investigations before deciding on them.

Absence  
of  
Feasibi-  
lity  
studies  
in ad-  
vance.

25. During evidence, it was stated that preparation of Govt's feasibility studies in advance of setting up projects was policy.



now the accepted policy of Government. Such studies were being prepared in respect of schemes proposed to be included in the Fourth Plan.

Com-  
mittee's  
observa-  
tion.

26. *The Committee feel that Government should set up an agency with a continuous programme for undertaking feasibility studies in the various industrial spheres so that it may have a large number of such studies in hand and as soon as the resources are available the more promising among them may be chosen for preparation of Detailed Project Reports.*

#### F. GOVERNMENT APPROVAL TO PROJECTS

Procedure  
re: ap-  
proval of  
Projects.

27. The present procedure on receipt of techno-economic feasibility studies is to examine them in consultation with the Ministry of Finance, Planning Commission etc. A committee of experts comprising of technicians and economists is usually formed to scrutinise them. After such a scrutiny, if the project is considered viable, it is put up to the Cabinet for obtaining its approval.

Aspects  
covered  
in the  
note to  
the Cabi-  
net.

28. A list of aspects included in the notes submitted to the Cabinet for approval of some of the projects is given at Appendix II. From a perusal of the list it would appear that there is no uniformity about the information that is included in the notes submitted to the Cabinet. It is noticed that in certain cases e.g. Hindustan Photo Films Manufacturing Ltd., Oil Refineries, the Cabinet approval had been taken on very meagre data such as capital cost, foreign exchange savings or only the demand for the products.

29. During evidence it was admitted that there should be some uniformity in the presentation of the information on which the Cabinet's approval is sought and that the note to the Cabinet should contain a full statement of facts.

Com-  
mittee's  
recom-  
menda-  
tion.

30. *The Committee therefore recommend that Government should lay down the form and the manner in which the Cabinet approval to projects is sought. For this purpose a list of all the basic information to be included in the note should be drawn. It should be ensured that nothing of importance from the technical or economic point of view is omitted. The Committee would further suggest that every proposal which is put up to the Cabinet for*

*approval should invariably contain indication of the investment output ratio, so that the economic viability of the project is clear.*

31. The Committee further noticed that in the following cases Cabinet's approval was obtained without awaiting for the techno-economic feasibility studies:—

- (1) Gauhati and Barauni refineries;
- (2) Heavy Electricals Project, Hardwar;
- (3) Heavy Power Equipment Plan, Hyderabad; and
- (4) High Pressure Boiler Plant.

Cabinet's approval without obtaining feasibility study.

32. During evidence, it was explained that in these cases there were exceptional circumstances in according Government's approval without having techno-economic feasibility studies.

33. While appreciating the possibility of exceptional circumstances, the Committee recommend that since it is only the techno-economic feasibility studies and no other reports pertaining to a project go before the Cabinet, this rule should be made unexceptionable.

Committee's recommendation.

## IV

### DETAILED PROJECT REPORT

Drawing  
up of  
Detailed  
Project  
Report.

34. After the technical and economic feasibility study of a project has been undertaken the next stage in the planning of a project is the drawing up of a Detailed Project Report. The Detailed Project Report provides the basis for the detailed planning of the construction of the project and for each contract within it as well as the cost estimates and time schedules for going into production. It is through the Detailed Project Report that the progress of the project can be watched and evaluated.

#### A. ABSENCE OF DETAILED PROJECT REPORT

Projects  
processed  
without  
Detailed  
Project  
Report.

35. The Committee noticed that in the case of the following projects, no Detailed Project Reports were prepared but tenders were invited nevertheless:—

- (i) Trombay Project of the Fertilizer Corporation of India.
- (ii) Alwaye Project of the Hindustan Insecticides Ltd.
- (iii) Indian Telephone Industries Ltd.
- (iv) Hindustan Teleprinters Ltd.
- (v) Hindustan Organic Chemicals Ltd.
- (vi) Sulphuric Acid Plant of the Pyrites and Chemical Development Co. Ltd.
- (vii) Dugda No. 1, Bhojudih and Patherdih Coal Washeries of Hindustan Steel Ltd.

36. It was explained during evidence that though there were no Detailed Project Reports in the above cases, yet there were certain other reports which were considered to be equivalent to Detailed Project Reports and contained adequate information to go out for tenders. To watch the progress and the execution of the projects detailed time-schedule were worked out separately.

37. As the report of the Committee on Plan Project on Trombay Project and the Estimates Committee's Eleventh Report (Second Lok Sabha) on Indian Telephone Industries Ltd. would show such alternatives to Detailed Project Report have not been satisfactory. According to the report of the Committee on Plan Project, the absence of Detailed Project Report in the Trombay Project had led to schedule stoppages, cost overruns and contractual difficulties. In the case of Indian Telephone Industries Ltd. the absence of a Detailed Project Report had led to excess purchase of plant, delays in getting manufacturing data etc. Difficulties noticed.

38. *The Committee are of the view that no project should be approved unless a Detailed Project Report has been prepared.* Committee's view.

#### B. NUMBER OF PROJECT REPORTS

39. The Committee noticed that in the case of the following projects, project reports were prepared twice:— Preparation of Detailed Project Report twice.

Name of the Undertaking	Extra expenditure incurred	Preparation of Detailed Project Report twice.
(i) Bokaro	Rs. 60 lakhs.	
(ii) National Instruments Limited	Rs. 9.3 lakhs (cost of the revised project report and detailed drawings).	
(iii) Coal Mining Machinery Project (H.E.C.)	Rs. 9.4 lakhs.	
(iv) Panna Diamond Mining Project (N.M.D.C.)	Not worked out.	

40. About Bokaro, it was explained during evidence that although a project report had been prepared by M/s Dastur & Co. the second project report became necessary as the Government of USSR insisted on drawing their own project report before giving aid. Reasons.

41. Regarding National Instruments Limited, it was stated during evidence that initially it was proposed to put up a plant with a capacity of 200 tons of ophthalmic glass and 10 tons of optical glass. The Detailed Project Report was received in July, 1959 from M/s Prommshexport of U.S.S.R.

In the meantime the Central Glass and Ceramics Research Institute who were engaged on developing optical glass succeeded in their efforts and the Government were satisfied that the Institute could make available the technology for six major groups of optical glass required in the country by 1962. It was therefore decided to drop optical glass from the programme of the National Instruments Limited. When the Soviet Team were asked whether they could modify the project report already drawn for the manufacture of ophthalmic glass, they stated that they could not do so. A second report had therefore to be called for for the manufacture of ophthalmic glass only.

42. In regard to the Coal Mining Machinery Project of the Heavy Engineering Corporation, it was explained that this became necessary because after the first Detailed Project Report had been commissioned, the coal targets were revised upward increasing the requirement of Coal mining machinery from 30,000 to 45,000 tons, the manufacture of mining machinery to that extent required the drawing up of a new project report.

43. About the Panna Diamond Mining Project of the National Minerals Development Corporation, it was explained that it was found necessary to prepare a revised scheme as the assumptions on which the first project report was drawn up were later found to be incorrect.

44. About the Mining Project of the Pyrites & Chemical Development Co. Ltd. at Amjhore, it was explained that the project report prepared by the Indian Bureau of Mines was not found satisfactory by a Committee of mining experts and hence the report had to be recast.

Com-  
mittee's  
view.

45. *The Committee feel concerned at the manner in which the project reports have been commissioned, without first having a definite idea of the product mix or the quantity to be produced. Such incomplete reports necessitate supplementary project reports. Apart from the amount spent in getting such further report, the delay they cause in launching of a project is also a matter of concern. Except in the case of Bokaro, the Committee do not feel that a second project report was unavoidable. They feel that with some foresight and proper planning in each case, this could have been avoided and considerable infructuous*

expenditure and time could have been saved. They hope that necessary steps would be taken to prevent recurrence of such shortcomings.

### C. ASPECTS COVERED IN THE DETAILED PROJECT REPORTS

46. From the study of the Detailed Project Reports of the various projects the Committee noticed that the aspects covered in the Detailed Project Reports varied from project to project. The statement given below illustrates some glaring omissions from the Detailed Project Reports of some of the projects:—

Omissions from Detailed Project Reports

Aspects omitted from Detailed Project Report	Names of the Undertakings
Capital outlay (including requirements of working capital etc.)	1. Hindustan Photo Films Ltd. 2. Coal Washeries Project.
Manpower requirements.	1. Nangal and Gorakhpur projects of the Fertilizer Corporation of India Ltd.  2. Khetri Project of N.M.D.C Ltd; and 3. Hindustan Photo Films Ltd.
Economics of the project/Unit cost valuation/Profitability analysis/Production cost/Cost & Profit calculation for the determination of the economic price and the products etc.	1. Instrumentation Ltd. 2. Korba Project of the Fertilizer Corporation of India Ltd. 3. Gauhati Refinery; and 4. Coal Washeries Project of H.S.L.
Location of sites/site of plant/choice of site and site information etc.	Nangal Unit of the Fertilizer Corporation of India Ltd.
Availability of raw materials/consumption figures of raw materials/cost and source of supply of raw material.	Foundry Forge Project and Heavy Machine Building Project of H.E.C. Ltd.
Time schedules of delivery/construction and erection as well as the initial operation of the plants.	1. Instrumentation Ltd. 2. Indian Drugs & Pharmaceuticals Ltd. 3. Neyveli Lignite Corporation Ltd. (Mining Scheme).

Aspects omitted from Detailed Project Report	Names of the Undertakings
Requirements of transport/comparative costs of transportation/possible modes of transportation/equipment and machinery from Indian ports to work site.	Neyveli Lignite Corporation Ltd.
Organisation.	1. Pyrites & Chemical Development Co. Ltd. 2. Coal Mining Machinery Project and Heavy Machine Building Plant of H.E.C.

47. The following Undertakings have themselves pointed out certain omissions in their Detailed Project Reports:

Name of the Undertaking	Omissions
Heavy Electricals (India) Ltd.	Absence of cost and profit calculation for each product or by-product due to which selling prices fixed by the factory could not be compared with those assumed in the Detailed Project Report.
Hindustan Photo Films Manufacturing Co. Ltd.	Machinery layout which have a direct bearing on Civil Works and Services not planned.
National Instruments Ltd.	Technical assistance during construction and erection, construction equipments and training of Indian personnel, not included.
Instrumentation Ltd.	Absence of implementation time schedule.

48. During evidence the Secretary Ministry of Industry and Supply stated that in the case of National Instruments Limited, items viz. the technical assistance during construction and erection and training of Indian personnel should not have been included in the Detailed Project Report. He, however admitted that the omissions pointed out by H.E.L. Hindustan Photo Films Manufacturing Co. Ltd. Instrumentation Limited were mistakes. The Secretary, Department of Heavy Engineering added that although in the case of HEL, the Detailed Project Report did not indicate individual items and products it should still have been possible for the cost of the products to be estimated.

49. *In the opinion of the Committee though some variations in the aspects to be included in such Reports might be occasionally necessary, no Detailed Project Report should lack basic information such as the cost and profit estimates, manpower requirements, source, cost and consumption of raw materials etc. To obviate the chances of omissions of important aspects from the Detailed Project Reports and also in the interest of proper execution, of the projects the Committee would recommend that Government should evolve a standard check list of items which should invariably be included in all the Detailed Project Reports. It should not be difficult to compile such a check list in view of the experience so far gathered in the matter of setting up of public sector projects. The Committee recommend that a team composed of Government officers who have been closely connected with the preparation of Detailed Project Reports, senior executives who have been entrusted with the execution of setting up or operation of projects together with technical experts should be appointed to evolve a standard check list.*

Com-  
mittee's  
recom-  
menda-  
tion.

#### D. SOURCE OF CREDIT AND DETAILED PROJECT REPORT

50. The source of foreign credit from which a project is to be financed has an important bearing on the preparation of the Detailed Project Report because prices of plant and machinery, process and the technique of production differ from country to country. Normally, therefore, it is necessary that before a Detailed Project Report is prepared, one should know the source from which foreign assistance will be forthcoming.



Instances when DPR prepared before knowing the source of foreign credit.

51. The Committee however noticed that in the following cases Detailed Project Reports were prepared before the source of foreign assistance was assured.

- (i) Alloy Steel Project of Hindustan Steel Ltd.,
- (ii) Bokaro Steel Plant,
- (iii) Mining, Fertilizer, briquetting and Carbonization, and Clay Washing Projects of the Neyveli Lignite Corporation Ltd., and
- (iv) Mining Project at Amjhore of Pyrites & Chemical Development Co. Ltd.

52. It was explained during evidence that the decision to prepare Detailed Project Report before ascertaining foreign assistance was found helpful in the cases of Alloy Steel Project and the Projects of the Neyveli Lignite Corporation Ltd. In the case of Bokaro, however, the decision proved wrong because the U.S.S.R. Government who offered the credit made it a condition precedent that they would prepare their own Detailed Project Report, although one such Report had been prepared by M/s Dustoor & Co.

Committee's recommendation.

53. *The Committee appreciate that if a fairly detailed report is available in anticipation of aid the time to be spent on the preparation of a Detailed Project Report could be shortened. In the opinion of the Committee the moral of the Bokaro Steel Project Report is that a Detailed Project Report should not be prepared until, the source of foreign assistance is located. The Committee therefore, recommend that in cases where the implementation of a project is dependent on foreign assistance, being assured, Government should have only a techno-economic study prepared in detail giving enough basic information to the aid-giving country to determine its feasibility.*

#### E. TIME TAKEN IN THE PREPARATION OF DETAILED PROJECT REPORT

54. The time taken in the preparation of a Detailed Project Report in the case of some of the undertakings was as follows:—

Name of the Undertaking	Date of calling of the Detailed Project Report	Date of receipt of Detailed Project Report	Time taken Year Month
1. Rourkela Steel Plant . . . . .	16-6-54	November, 1955	1-5
2. Indian Drugs & Pharmaceuticals Ltd. . . . .	10-6-60		
(i) Antibiotics Project . . . . .	Do.	7-4-61 to 7-7-61	1-1
(ii) Synthetic Drugs Project . . . . .	Do.	15-6-61 to 4-8-61	1-2
(iii) Phyto Chemicals Project . . . . .	Do.	22-5-61 to 17-7-61	1-1
(iv) Surgical Instruments Project . . . . .	Do.	30-5-61 to 7-7-61	1-1
3. Instrumentation Ltd. . . . .	21-12-61	28-6-63	1-7
4. Bhopal Heavy Electricals Project . . . . .	Nov. 1955	17-11-56	1-0
5. Foundry Forge Project (H.E.C.) . . . . .	19th Aug. 1958	21-11-59	1-3

55. It will be noticed that the time taken for the preparation of Detailed Project Reports has varied from 1 year to 1 year 7 months.

Estimates  
Committee's  
suggestion.

56. The Estimates Committee in their 51st Report on Heavy Engineering Corporation Ltd. in 1963 had suggested that since the time taken in the preparation of Detailed Project Report affects the commissioning of the project and the achievement of the production target it would be desirable if a review of the processes involved in the collection of data, preparation and finalisation of Detailed Project Report and the time taken therein is made by Government with a view to reduce the time lag to the minimum in future.

Govt's  
reply.

57. The Government in reply to this recommendation have informed the Committee as follows:—

“The detailed examination of the position has since revealed that the presentation of preliminary data by Government to the Consultants for the preparation of a Detailed Project Report is the main foundation on which the project is built. In a few cases, inadequate investigation at the preliminary stage led not only to delay in the execution of the project but also resulted in extra cost on account of change in site, non-availability of fuel or other raw materials like ores etc. It is, therefore, considered that every effort should be made to eliminate avoidable delay. The preliminary investigation should be both adequate and conclusive if the report is to proceed on sound footings.

Normally the preliminary data would itself be sufficient for the Government to study the feasibility and the economic viability of the proposed project and decide upon calling for the Detailed Project Report. In a few cases, however, even the technological-cum-feasibility report has to be obtained from foreign consultants. The time taken, therefore, for the preparation of Detailed Project Report which sometime includes a preliminary feasibility study, depends very much on the consultant chosen. The pattern also varies from country to country. For example in western countries, the project report takes the form of a techno-economic feasibility study

which indicates, amongst other things, broad specification on the basis of which tenders can be invited. The detailed project engineering is undertaken by the tenderers.

On the other hand, in the case of East European countries, a contract is usually signed for the Detailed Project Report which very often includes a time limit for not only the preparation of the report, but also the scrutiny and final acceptance of the Report by the Government. In view however of the practice in the East European countries to cover in the Detailed Project Report even the techno-economic feasibility study, the specification for raw materials, supply of equipment and production cost etc. the consultant requires more time to submit such finished reports.

Again, in regard to acceptance of the Detailed Project Report, a time limit is prescribed in many cases, within which the project report received from a consultant has to be scrutinised, discussions held with the consultant to seek clarification and a final acceptance. Even where there is no time limit prescribed in the Detailed Project Report, the Government fixes a target time and tries to work within the schedule. To avoid loss of time, examination is also made simultaneously by the Administrative Ministry in consultation with other Ministries/Departments concerned like the Ministry of Finance, Planning Commission, etc., when the report is under scrutiny by the Technical Committee.

58. While appreciating the need for adequate investigation at the preliminary stage and also the divergence of practices in this regard in East European and the Western countries in the nature and contents of the Detailed Project Report prepared by them, the Committee feel that the longer time taken in the preparation of the Detailed Project Report in the past has not been solely for these reasons. It is not clear to the Committee how in the absence of a study of the time taken for the preparation of the Detailed Project Report in foreign countries—a fact which was admitted by the representatives of the Ministries during evidence—the Government was able to

Committee's findings.

determine the reasonableness of the time required for preparation of a Detailed Project Report. Further it is understood that though a certain time limit was stipulated in the agreements with the foreign consultants for the preparation of the project reports quite often the actual time taken exceeded the time agreed upon. The delay in drawing up the Detailed Project Report by foreign consultants was also due to our delay in supplying the required data.

Committee's  
recommendation.

59. In view of the above, the Committee recommend that Government should take necessary measures to avoid any loss of time in preparation of the Detailed Project Report in future. In this connection a study of the normal time taken in the preparation of Detailed Project Report in foreign countries should prove helpful to the Government.

60. Regarding the supply of essential data, to the consultant, the Committee would suggest that as soon as Government decision is taken to set up a project, the collection of data normally required by the Consultant should also be proceeded with. For this purpose Government should also prepare a list of information generally sought by the Consultants for the preparation of the Detailed Project Report.

#### F. FEES PAID FOR DRAWING THE DETAILED PROJECT REPORT

Fees paid  
for preparation  
of  
Detailed  
Project  
Reports.

61. The Committee called for information regarding the fees paid to the Consultants for preparation of Detailed Project Reports. From the information furnished, the Committee notice that quantum of fees has varied from project to project even in the same group of industry.

62. During evidence it was stated that for bigger projects the consultants might be willing to accept a smaller percentage of fees but for smaller projects the percentage was higher.

Committee's  
observation.

63. While understanding the business interests of the consultants, the Committee feel that the difference of fees in the case of projects of a similar nature should not be great. Fees paid to the earlier consultants should be kept in view as a yard stick while negotiating with the consultants for future projects of similar nature. The Committee hope that these aspects will be borne in mind while entering into agreements with the consultants in future.

## G. AGENCY FOR DRAWING DETAILED PROJECT REPORT

64. The Committee noticed that most of the Detailed Project Reports including the reports for expansion (e.g., the expansion of Barauni Refinery) had been drawn by foreign agencies. Only recently some of the projects had set up their own agencies for drawing the Detailed Project Reports, working drawings and other consultancy services, etc., as indicated overleaf.

DPR prepared by foreign agencies.

Name of the Undertaking	Name of the Agency	Detailed Project Report prepared by them
Fertilizer Corporation of India	Planning & Development Division	Gorakhpur, Namrup and Korba Projects
Neyveli Lignite Corporation Ltd.	Planning Cell	Fertiliser, Briquetting & Carbonising and Clay Washing Schemes.
National Mineral Development Corpn. Ltd.	Planning Division	Bailadila Iron Ore Project.
National Coal Development Corpn. Ltd.	Planning Division	Bulk of the new Mines
Hindustan Steel Ltd.	Central Engineering & Design Bureau	Rourkela (Expansion) Durgapur (Expansion) Dugda II Coal Washery (under Coal Washeries Project).

65. During evidence the Committee were informed that it was now the accepted policy of the Government to create such organisation in the public sector projects.

Govt's  
policy.

Committee's  
view.

66. The Committee are glad to know that the future policy of the Government is to set up such organisations in all the projects. But they cannot help remarking that the progress in setting up such organisations has been rather slow. For instance, the Committee cannot understand why in the field of heavy engineering and electrical engineering industries, no Planning and Development units have so far been set up.

67. The Committee are of the opinion that in view of the large sums paid to the consultants for drawing Detailed Project Reports and preparation of Working Drawings the need for setting up such agencies in all the undertakings need hardly be emphasised. Such organisation will not only help in the development of know-how within the country which would avoid dependence on other countries but would also help in the pooling of experience and building up of necessary knowledge which would be available for the future projects. The Committee trust that necessary steps would be taken by Government to develop Planning and Design Organisations in all the industries.

#### H. TIME TAKEN IN TAKING DECISIONS OVER THE DETAILED PROJECT REPORT

68. The table on the next page shows the time taken by Government in taking a decision on the Detailed Project Reports of some of the Projects:



Name of the Undertaking	Date of receipt of Detailed Project Report	Date of Government's decision	Time Year	Month
Bharat Electronics Ltd.	March, 1950	5th July, 1952	2	3
Hindustan Photo Films Manufacturing Co. Ltd.	June, 1961	18th Aug., 1962	1	2
Heavy Machine Tool Project of H.E.C.	April, 1962	May, 1963	1	1
Foundry Forge Plant of H.E.C.	May, 1962	May, 1963]	1	0
Heavy Power Equipment Plant of B.H.E.L.	Aug. 1962	July, 1963	0	11

69. During evidence it was explained to the Committee that 8 months to 12 months was not a long period for taking a decision on a Detailed Project Report. The delays occurred because it took some time to arrange meetings of the *ad hoc* Committee appointed to examine the Detailed Project Report. Some time was also taken in consultations with the designers and the consultants. Normal time for preparation of DPR.

70. While appreciating that the time spent on studying the Detailed Project Report should not be unduly shortened because that might lead to much greater wastes later, the Committee consider that the time taken in the case of some of the undertakings (e.g., B.E.L.) was too long and cannot be justified. The Committee would recommend that a time table should be prescribed for the completion of the scrutiny and submission of a report by an *ad hoc* Committee appointed to examine a Detailed Project Report. Further, with a view to save time, the Detailed Project Reports should be simultaneously circulated to the various concerned agencies so that they might be in a position to give their views as soon as a reference is made to them. Committee's recommendation.

## ANCILLARY AND AUXILIARY INDUSTRIES

### A. SETTING UP OF ANCILLARY AND AUXILIARY INDUSTRIES

#### (a) Ancillary Industries

Ancillary and Auxiliary industries—around few undertakings.

71. A statement showing project-wise, the position regarding the setting up of ancillary/auxiliary industries is given at Appendix III. It will be seen from the Appendix that ancillary and auxiliary industries have been set up around very few undertakings and that too recently.

Govt.'s view.

72. During evidence, it was explained to the Committee that Government's view was that consistent with their desire to promote small-scale industries wherever any large industry was established, growth of ancillaries should also be stimulated.

73. In a note furnished to the Committee subsequently it was stated as follows:

“The Projects Coordination Committee under the Ministry of Industry made the following recommendations some time back:—

- (i) To appoint immediately, a high level technical officer in each of the various public sector undertakings for working out the details for the development of ancillaries, in consultation with the small Industries Service Institute in the respective States.
- (ii) To furnish the progress in the form of quarterly reports from the various public sector undertakings, to the Development Commissioner (S.S.I.), who would coordinate the work of promoting small ancillary units in respect of each of the projects.

The Ministry had written to the various public undertakings under other Ministries to develop as many small scale ancillary units as possible. Further to ensure coordination all the Small Industries Service Institutes have been apprised of the decision of the Project Coordination Committee, and have been asked to work in close contact with the project authorities and to forward reports of the pro-

gress of work done every quarter in regard to the development of ancillary units. An officer of the rank of Deputy Director/Assistant Director has been earmarked in each of the Institutes for the development of ancillary industry. The matter was also pursued through personal visits/meetings of the officers of Central Small Industries Organisation with the authorities of the Public Sector Projects."

74. *From the information furnished to them, the Committee, however, do not feel that enough attention has been given to the setting up of such industries so far although some of the public sector projects have now been established or have been working for more than a decade. This is also confirmed by the Memorandum on the Fourth Plan. In fact the Praga Tools Ltd., Hyderabad has stated that although it attempted to set up ancillary industries through the use of State Government and the Government of India machinery for small scale industries, the progress was very negligible due to cumbersome procedures and not even one such industry could take root even after three years of the inception of the project.*

Committee's view.

75. One disadvantage resulting from the absence of ancillary industries could be that such items might have to be imported. For instance, the H.E.L. has stated that in the absence of a paper covered copper conductor factory, it had to import such conductors of the value of Rs. 20 lakhs annually. Similarly, the H.M.T. has stated that if Industrial Estates around its factory had been established earlier there could have been a saving of Rs. 160 lakhs of foreign exchange per annum.

76. *In view of the tardy growth of ancillary industries and what has been stated by the Praga Tools Ltd., the Committee feel that a study of the procedure for setting up such industries should be made with a view to rationalize and simplify it.*

Committee's recommendation.

#### (b) Auxiliary Industries

77. It will be observed from the Appendix III that while at least some steps have been taken or are proposed to be taken towards setting up ancillary industries, practically no efforts have been made towards setting up auxiliary industries. Barring the Pipe Plant and the Fertilizer Plant of Rourkela, no project has set up any auxiliary industry under its own auspices. The examples of such industries

Absence of auxiliary industries.

being set up (e.g. cement industry in Sindri, using Sindri slag) in the private sector are also very few.

Committee's  
recommendation.

78. *The Committee consider that there is considerable scope for development of auxiliary industries based on the main and by-products of the public sector projects. In the absence of auxiliary industries the by-products are being wasted or not put to proper use or sold at a low price thus resulting in loss to the undertaking. As we industrialise further this loss would become even greater. In view of this, suitable programme for development of these industries is essential and it should be drawn up.*

### B. SURVEY OF NEEDS

79. The Committee enquired whether Government had assessed the need and scope of the ancillary and auxiliary industries for all public sector projects. In reply they were informed that the Central Small Industries Organisation was constantly in touch with all the public sector undertakings and wherever scope existed the requirements of the undertakings were assessed. After discussion with the officers of the undertakings the type of industries and the number of units which could be set up were determined. This work was being continuously pursued.

Committee's  
recommendation.

80. *Considering the urgency and advantages of setting up of ancillary and auxiliary industries on the one hand and near absence of such industries on the other hand, it appears to the Committee that the assessment made by the Central Small Industries Organisation has not been effective, or taken any concrete shape as yet. The Committee would therefore recommend that a team on the lines of Ship Ancillary Industries Committee appointed for the Hindustan Shipyard Ltd., should be appointed to assess the requirements of ancillary and auxiliary industries in the public sector projects and to suggest measures for expeditiously setting up of these industries. This team should suggest which ancillary and auxiliary industries should be set up by the Plants themselves and which should be farmed out to the private sector, with or without assistance from the project. The items which could be farmed out should be properly publicized.*

### C. INDICATION IN THE DETAILED PROJECT REPORT

Absence of  
indication in  
the D.P.R.

81. The Committee noticed that in the case of a large number of undertakings like the Bhilai Steel Plant, Coal

Washeries Project of the Hindustan Steel Limited, Heavy Engineering Corporation Ltd., the Projects of the Indian Drugs & Pharmaceuticals Ltd., etc., no indications regarding their ancillary and auxiliary industries were given in their Detailed Project Reports.

82. During evidence it was explained that it would be desirable to envisage right from the project stage as to what portions of the product could be developed by establishing ancillary industries. It was, however, different in the case of auxiliary industries because it was difficult to visualise what auxiliary industries might spring up from the main product of the undertaking. It was also not expedient to include these in the Detailed Project Report.

Govt.'s  
view.

83. *The Committee consider that suitable principles should be evolved by all the projects. They feel that if the parties who are entrusted with the task of preparation of the Detailed Project Reports are instructed to that effect, it should be possible for them to give enough data and indications in the Detailed Project Reports about the setting up of such ancillary industries. They hope that in the check list of items to be included in the Detailed Project Reports, recommended in para 49 ancillary industries would also be added.*

Committee's  
recommend-  
ation.

84. So far as auxiliary industries are concerned, the Committee visualise that though it might not be possible in the Detailed Project Reports to indicate the auxiliary industries which could be established on the basis of the main product of the undertaking, it might be possible to give some broad indication thereof in the techno-economic feasibility studies. By making a study of the auxiliary industries established abroad it should be possible to make an accurate assessment of the possibilities. Furthermore, whenever we go in for foreign collaboration we could ask the collaborators to make provision or give us the know-how about establishment of suitable auxiliary industries.

## VI CONSULTANCY AND COLLABORATION

**Nature of Foreign consultancy and collaboration.** 85. Foreign consultancy and collaboration in the public enterprises have covered a wide range of assistance: financial assistance to meet the cost of imported plant and equipment and payment for technical services etc., technical assistance for consultancy services, covering design, layout, production know-how, erection and operation and; services of foreign technical personnel and training of Indian personnel abroad. Among the public enterprises that have sought foreign collaboration, some have required only the technical services of the consultants and services of foreign personnel; others have also sought plant and machinery, and still others have sought both technical services and plant and machinery and have also depended on them for erection and commissioning and operation of the plants

86. A statement showing the names of projects together with foreign consultants appointed for them is given in Appendix IV.

### A. TURNKEY CONTRACTS

**Projects set up on turnkey contracts.** 87. The Committee note that the following projects were set up on turnkey basis:

1. Durgapur Steel Plant
2. Sindri Fertilizer Factory
3. Fertilizer Group of Plants of Nangal Factory.
4. Methonal Plant of the Trombay Fertilizer Factory.
5. Always Units of Hindustan Insecticides Limited.

88. The latest examples of projects to be set up on turnkey basis are the Cochin Refinery Limited and Sulphuric Acid Plant of the Pyrites and Chemical Development Co. Ltd.

**Reasons.** 89. During evidence, the Secretary Ministry of Industry and Supply explained that in so far as the Sindri unit of Fertilizer Corporation of India Ltd. was concerned it was the first public sector project to be put up in the country

and since we had no experience of putting up of a fertilizer plant it was done on turnkey basis. The same was true of the Fertilizer Group of Plants at Nangal and the Methonal-Plant of Trombay Project. About the Durgapur Plant, the Secretary, Ministry of Iron and Steel stated that the credit was given by Great Britain. It was to be set up in a very short time and sufficient knowledge about setting up of steel plants was not available within the country.

90. About Cochin Refinery Ltd., it was stated that saving in time was the main consideration for giving the contract on turnkey basis. About the Alwaye unit of the Hindustan Insecticides Ltd., it was explained that since we did not have the necessary know-how Government decided that tender should be invited on turnkey basis.

91. It was stated by the representative of the Ministries that by and large a turnkey project costs a little more but there was saving in time of say 6 months to 1 year.

92. *The Committee consider that the saving in time in the completion of projects must be weighed against the disadvantage of Indian engineers not being able to experience the setting up of such projects and the extra expenditure that has to be incurred on the project as a whole. The Committee therefore recommend that setting up of plants on turnkey basis should be confined to cases where time is of essence or where we lack the necessary technical skill and know-how.*

*Committee's  
recommendation.*

#### B. EXTENT OF CONSULTANCY

93. The Committee noticed that in the case of the Heavy Power Equipment Plant and the Boiler Plant of the H.E.L. the consultants, M/s Techno-export (Czechoslovakia) prepared besides the outlines of the main sections of the Plants, the outlines for all auxiliary shops (e.g., carpenter shop, oxygen house) and wood storage coke yard, garages and fire stations, locomotive shed, kitchen and dining room, cycle stand, car parking garages, parking places and bus stand. Similarly, in the case of the National Coal Development Corporation, collaborators prepared Detailed Project Reports, designs and working drawings. In the case of Heavy Engineering Corporation contracts were entered into with USSR and Czech consultants for organisation manuals at a total cost of Rs. 27.24 lakhs. Further in the case of the Nangal Unit of the Fertilizer Corporation of



India, the Committee learnt that the consultants were asked to prepare a design of storage silo. Likewise, in the case of Gujarat Refinery, the drawings for the workshop buildings were obtained from abroad.

**Estimates  
Committee's  
view.**

94. The H.E.L. and N.C.D.C. cases had earlier come to the notice of the Estimates Committee. In the case of N.C.D.C. they suggested in their report that to foster indigenous talent and to save avoidable expenditure of foreign exchange, the Government should lay down certain principles regarding the nature and extent of the foreign collaboration so that any work (including the preparation of the Detailed Project Report, Working Drawings etc.), for which we have the necessary technical know-how is not done by foreign collaborators. In reply it has been stated that the general principles underlying the recommendation would be followed to the extent feasible and the Ministries were being requested to issue necessary instructions to the public undertakings under their administrative control.

**Govt.'s  
policy.**

95. During evidence, it was explained that it was now Government's policy not to encourage foreign collaboration if it could be avoided, except in the cases of turnkey jobs. Referring to the Gujarat Refinery case the Secretary, Ministry of Industry and Supply expressed the view that "Even where a turnkey job is given, there is nothing to prevent us from telling them that in regard to these items they need not do anything more than give out a site plan indicating locations so that they may not interfere with the flow of goods in and out of the main factory."

**Committee's  
suggestion.**

96. *The Committee hope that the instructions issued to the Ministries in this regard would be strictly followed. They would suggest that the Committee of Secretaries appointed to negotiate and scrutinise foreign collaboration proposals should pay special attention to this aspect. To assist the Committee of Secretaries in the above job a review of consultancy arrangements should be conducted to prepare a list containing items on which foreign consultancy should not be allowed. The list should be revised from time to time in the light of further progress in technical know-how and availability of plant and machinery in the country.*

### C. TERMS OF CONTRACT

97. The services to be rendered by a Consultant and the payments to be made to him for those services or facilities to be offered by the undertaking are laid down in contracts. The draft of the contract is usually supplied by the Consultants which is scrutinised by the undertaking and Government. It is at this stage that an undertaking can safeguard its interests.

98. While the services to be rendered by the Consultants are bound to differ from undertaking to undertaking according to the nature and extent of collaboration sought, the Committee noticed that in certain basic matters *viz.*, rights of project authorities and obligations of the Consultants also there existed diversities. The table on the next pages shows the diversities in these matters in the contracts entered into by some of the projects with their consultants.

Diversities  
in the terms  
of contracts

Name of the aspect	Not included in the agreement entered for	Included in the agreement entered for
1	2	3
Time limit for completion of project	Heavy Engineering Corpn. (H.M.B.P., C.M.M.P.)	Heavy Engineering Corpn. (F.F.P.)
Penalty clause	Heavy Engineering Corpn. (H.M.B.P., C.M.M.P.)	Heavy Engineering Corpn. (F.F.P.)
Guarantee of performance	Durgapur Steel Plant, Kargali Washery (N.C.D.C) Performance Guarantee in respect of individual unit & sections of plant equipment only and not for the integrated capacity of the Plant as a whole.	1. Bhilai Steel Plant. 2. Indian Drugs & Pharmaceuticals Ltd. 3. Indian Refineries Ltd.
Association of Indian Engineers with the Consultants on designing and construction work.	Durgapur Plant.	1. Rourkela Steel Plant 2. Bhilai Steel Plant.
Settlement of taxation aspect.	1. Alloy Steel Project. 2. Instrumentation Ltd. 3. National Instruments Ltd. 4. Hindustan Photo Films Ltd. 5. NEPA Mills Ltd. 6. Hindustan Machine Tools Ltd. 7. Hindustan Cables Ltd.	1. N.M.D.C. (Panna Diamond Mining Project). 2. Heavy Engineering Corporation Ltd.

No. of foreign staff to be posted by the con-  
sultants.

1. Alloy Steel Project.
  2. Heavy Electricals (India) Ltd.
  1. Sindri & Nangal Units of FCI.
  2. Indian Rare Earth Ltd.
  3. Rourkela Steel Plant.
  4. Instrumentation Ltd.
  5. National Instruments Ltd.
  6. Heavy Engineering Corporation Ltd.
  7. Bharat Heavy Electricals Ltd.
  8. Bharat Electronics Ltd.
  9. Durgapur Steel Plant.
  10. Neyveli Lignite Corporation (Mining Scheme).
-

Shortcomings.

99. Apart from these diversities certain shortcomings in the contracts have also come to the notice of the Committee. For instance, in the case of Rourkela Steel Plant responsibility could not be fixed on the Consultants for the breakdowns in the various units which occurred soon after their commissioning, because the Consultants were responsible only for the commissioning. According to the information supplied by H.E.L. "the commercial prices which had been allowed for in the agreement left things vague". Difficulties had also been experienced by N.D.M.C. in the Consultancy agreement for its Khetri Project.

Committee's recommendation.

100. *The Committee would therefore recommend that a review of all the past consultancy agreements entered into with foreign collaborators should be made with a view to draw up suitable model terms for future guidance of all the public undertakings. Such a review may also include agreements with foreign consultants entered into by large private undertakings.*

#### D. CONSULTANCY FEES

Wide variation of the fees paid.

101. Consultancy fee is usually determined as a percentage of the total cost of the project. In the East European countries this fee is computed after the Detailed Project Report has been prepared for which there is a separate fee. From the information furnished to the Committee, it was noticed that the fees paid to consultants have varied widely between various undertakings.

Principles to determine the fees.

102. The Committee enquired whether it would not be desirable to lay down some principles to determine the reasonableness of the fees to be paid to the consultants. They were informed that it would not be practicable to lay down, in all details the principles to determine such fees as conditions varied substantially from industry to industry and from consultant to consultant. The scale of fees prescribed by various consultancy associations in other countries were however kept in view.

Committee's recommendations.

103. *The Committee consider that although it might be difficult to lay down detailed principles in this regard, some guide lines for those who negotiate with collaborators must be drawn to determine the reasonableness of the fees.*

104. *The Committee would in this connection further add that the skill of our representatives who negotiate*

with foreign collaborators (and most of our consultancy arrangements have been settled in this manner rather than by inviting tenders) lies in obtaining collaboration on favourable terms. If a very high percentage of the foreign credit is to be repaid as fees to the collaborators or the consultants, the advantage of foreign collaboration to that extent is diminished. The Committee would suggest that greater emphasis should be laid in future during negotiations towards reducing the consultancy fees, to the minimum.

#### E. PROGRESS REPORTS BY CONSULTANTS

105. The Committee noticed that in the cases of the following undertakings the Consultants/Collaborators were not required to submit any report regarding progress of work: Consultants not required to submit reports of progress of work.

- (i) Heavy Engineering Corporation Ltd.
- (ii) Instrumentation Limited.
- (iii) Gauhati and Barauni Refineries.
- (iv) Sindri and Nangal Units of Fertilizer Corporation of India.
- (v) National Instruments Limited.
- (iv) Hindustan Machine Tools Limited.
- (vii) Bharat Heavy Electricals Limited (Hardwar, Hyderabad and Tiruchirapalli Units).
- (viii) Hindustan Cables Ltd.

106. It was stated that in most of these cases except Heavy Engineering Corporation, and Bharat Heavy Electricals (Hyderabad and Tiruchirapalli Units) the progress was reported by the consultants at the periodical meetings with the project authorities. In the cases of Heavy Engineering Corporation, and Bharat Heavy Electricals (Hyderabad and Tiruchirapalli Units), it was stated that since our engineers were actually associated with the consultants in the construction and execution of the projects progress reports were not considered necessary.

107. The Committee consider that report from consultants at regular intervals are very necessary to enable Committee's suggestion.

management to attend to any difficulties that the consultants might have and to remedy them. Furthermore if the consultants have to submit reports in writing they would be more careful to comply with the provisions of agreement than otherwise. By reducing such matters to writing chances of there being difference of opinion later on in case the time schedules etc. are not kept will also be minimised. The Committee would, therefore, suggest that in the terms of agreements, there should invariably be a provision that the consultants will submit reports on the progress of work to the undertakings at prescribed intervals. A copy of such reports should also be forwarded to the Government so that the latter can watch the progress of the project and give directions, if necessary.

Payments not related to the progress of work.

108. The Committee noticed that in the cases of certain projects like the Alloy Steel Project of the Hindustan Steel Limited, Instrumentation Ltd. Hindustan Photo Films Manufacturing Co. Ltd., and Gauhati and Barauni Refineries, payments to the Consultants were not related to the progress of work.

Difficulties in including such provision in agreements.

109. It was explained to the Committee that imposition of such a condition in the agreement would depend upon the scope of the consultancy/collaboration agreements. In most of the cases which were non-turnkey jobs, consultants did not undertake responsibilities for implementation or construction.

Committee's suggestion.

110. The Committee however noted that apart from the construction of Projects the duties of the Consultants also included the preparation of Detailed Project Report, supply of working drawings, preparation of tender documents, supply of plant and machinery etc. In the absence of a provision in the agreement relating the payment of fees to the progress of work, it would be difficult to ensure that the performance of the consultants is satisfactory. In the case contract with the consultants does not stipulate payments to be made to them according to the progress of erection/establishment of the project but only links them with the passage of time as is the case with the Alloy Steel Project, payments have to be made to the Consultants at the stipulated time whether the projects makes any progress or not. The presence of such a provision in the contract in respect of other projects such as Instrumentation

*Ltd. Khetri Copper Project of N.M.D.C. would itself prove the utility of such a condition. The Committee therefore suggest that payments should be linked to the performance of the Consultants. The representatives of the Ministries in subsequent replies have agreed to the suggestion.*



**VII**  
**TIME SCHEDULE**

**A. DELAYS IN THE TIMELY COMPLETION OF PROJECTS**

Instances of  
delays.

111. The following table gives the delay in the completion/commissioning of some of the running concerns:—

Name of the Project	Delay
Barauni Refinery (1 m. ton stage)	About 24 months.
Streptomycin Plant of Hindustan Antibiotics Ltd.	About 12 months
Dugda I Coal Washery of H.S.L.	12 months
Bhilai Plant of H.S.L.	5 months to 22 months for different units.
Durgapur Plant of H.S.L.	2 to 8 months for different units.
Rourkela Steel Plant of H.S.L.	2 to 40 months for different units.
Mining Scheme of Neyveli Corporation Ltd.	About 22 months.

112. So far as the projects under construction are concerned, the Committee find from the information supplied to them that the following projects have been delayed or are likely to be delayed:

- (i) Alloy Steel Project of Hindustan Steel Limited.
- (ii) Neyveli Lignite Corporation Ltd.
  - (1) Thermal Power Scheme.
  - (2) Fertilizer Scheme.
- (iii) Project of Instrumentation Ltd.
- (iv) Project of National Instruments Ltd.
- (v) Hindustan Photo Films Manufacturing Co. Ltd.

(vi) Banki & Surakachhar Project of National Coal Development Corporation Ltd.

(vii) National Minerals Development Corporation Ltd.

(a) Kiriburu Iron Ore Project

(b) Khetri Project

(c) Bailadilla Iron Ore Project.

113. The Committee understand that at present the project authorities have to submit a monthly progress report of work to the Ministry. Besides, the project authorities have also to submit a monthly financial review of the project expenditure. Moreover, a representative of the Ministry is also on the Board of the project.

Types of reports submitted at present.

114. The Committee had enquired during evidence as to what action was taken by the Ministries to remove the impediments in the timely completion of the projects, as brought out in these progress reports. The representatives of the Ministers informed the Committee that appropriate action was taken wherever, the project authorities pointed out some difficulties. For instance, to meet the shortage of cement, Government had decided to start a public undertaking viz. Cement Corporation of India Ltd. Similarly, to meet the shortage of fabricated steel, the bigger fabrication units in the private sector producing steel fabrications were being persuaded to expand their capacity. The Ministries also wrote to the State Governments drawing their attention to the difficulties of the projects in this regard.

Action taken by government on the reports.

115. *The Committee realize that a certain measure of delay in Commissioning of the project might be inevitable due to dependence on foreign help or the nature and size of projects or the shortages of materials. They are also appreciative of the steps taken to meet the fundamental needs of the projects such as cement, fabricated steel etc. But they are not convinced that the Ministries have pursued the progress of the projects under them as closely as they should have done. In fact the Secretary, Department of Heavy Engineering admitted that the scrutiny of the reports sent by the project authorities was not as sufficient and detailed as he would have like them to be. The Committee consider that in the formative stages of the project the responsibility of the Ministries should not cease after*

Committee's view

*sanctioning the project and/or entering into agreement with collaborators but they should also see that they progress according to the schedule and whatever difficulties are likely to arise in their implementation are foreseen and attended to. In their report on the Fertilizer Corporation of India Ltd. the Committee have already emphasized the need for setting up of Technical Planning Cells in each Ministry at an early date, as recommended by the Planning Commission. It should be the responsibility of these Cells to analysis the reports received from the projects systematically and suggest remedial action in time.*

### B. DRAWING OF TIME SCHEDULES

116. In their report on Township and Factory Buildings, the Committee have already pointed out that delays of 1 to 3 years in construction of Civil Works and completion of factory buildings "could only be due to lack of planning, proper programming and lack of co-ordination". A similar observation has also been made by the Planning Commission in the Mid Term Appraisal of Third Plan as follows:—

"The progressing of projects could be speeded up if adequate care is taken initially to plan the project in sufficient detail, to define its scope (and adhere to it), to estimate the cost and foreign exchange requirements with sufficient degree of precision and to lay down realistic schedules of implementation. The lack of adequate preparatory planning has largely contributed to the delay in the implementation of certain projects in the public sector for which even foreign exchange credit was available".

Commit-  
tee's recom-  
mendation.

117. *The Committee were informed that instructions had been issued to all the undertakings to draw up a time schedule, if not already done, covering all their construction programmes relating to the different Departments/Wings of their project. The Committee trust that Government would ensure that the Instructions are implemented and if there are any difficulties the same are attended to promptly. The time schedules drawn up by the consultants/project authorities should be fairly detailed to enable*

the management to keep a close watch over the progress of the project.

118. The Committee would further recommended that project authorities should be asked to prepare subsidiary time schedules, within the broad time schedules worked out in the Detailed Project Report as has been done in the cases of the Alloy Steel Plant (separate programme for each shop); Neyveli Lignite Corporation Ltd. (Mining, Thermal Power, Fertilizer and Briquetting and Carborising schemes) (detailed erection schedule for civil works etc.), and Instrumentation Ltd. (detailed subsidiary time-schedules for the training programme and the construction programme). Such schedules would be helpful in achieving the over all time schedules.

119. In this connection the Committee would also recommend to the project authorities the adoption of one of the latest methods of time scheduling prevalent in the Western countries such as PERT. (Programme Evaluation and Review Technique).

#### C. INCLUSION OF TIME SCHEDULES IN THE DETAILED PROJECT REPORT

120. The Committee noticed that in the cases of some projects viz., H.M.B. & C.M.M. Projects of the Heavy Engineering Corporation Ltd., National Instruments Ltd., Indian Drugs & Phamaceuticals Ltd., Bharat Electronics Ltd., and Instrumentation Ltd., time schedules for the completion of the Projects were not included in the Detailed Project Reports, whereas in others like the Alloy Steel Project, Neyveli Lignite Corporation Ltd., Heavy Electricals Ltd., these were included in the Detailed Project Reports.

Instances, where time-schedules were included in D.P.R.

121. It was explained to the Committee that most of the projects in which time schedules were not included in the Detailed Project Reports were set up with Russian collaboration and the time schedules for them were drawn up after study of the Detailed Project Reports.

Govt.'s explanation.

122. The Committee consider the preparation of time schedule as most essential for the timely completion of projects. As far as possible such a schedule should be in the Detailed Project Report, itself but if for any reason it is not possible to do so, it should at least be worked out and laid down immediately after the receipt of the Detailed Project Report.

Committee's recommendation.

## VIII

### RAW MATERIALS, COMPONENTS, PLANT AND MACHINERY

#### A. DIFFICULTIES IN IMPORTS

Non-availability of foreign exchange.

123. A number of projects are stated to have experienced difficulties in import of raw materials, components, plant and machinery. The chief factor responsible for this difficulty was the non-availability of foreign exchange as would be seen from a few replies quoted below:

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Name of the Project	Nature of Difficulty
Alloy Steel Project	"While the bulk of the plant and machinery could be covered by Yen and Canadian Credits difficulties were experienced in the purchase of ancillary plant and equipment."
Mining Scheme of the Neyveli Lignite Corporation Ltd.	"Requirements invariably curtailed due to short allocation of foreign exchange."
N.C.D.C.	"Difficulties experienced in the matter of foreign exchange for spares and parts for projects not covered by foreign collaboration."
Hyderabad Project of the BHEL	"Restrictions on hard currency foreign exchange and delay in timely release of foreign exchange specially of hard currency areas. Even now foreign exchange to the tune of Rs. 90 lakhs from Western countries is yet to be released, over one year after the decision."
Streptomycin project of the Hindustan Antibiotics Ltd.	"Difficulty in obtaining all the requisite foreign exchange from free resources. This limited the procurement of the equipment to U.S.A. and to some extent resulted in higher cost."

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Name of the Project	Nature of Difficulty
O.N.G.C.	Difficulties in getting free foreign exchange for specialised transport equipment costing about Rs. 50 lakhs. This had resulted in delay in installation of rigs.

124. There is no easy solution to the problem of scarcity of foreign exchange. But so far as the plant and machinery and spares required by the undertakings at their initial stages are concerned, the Committee feel that since most of our projects are based on foreign credit, the problem could be largely met by proper advance planning. The Committee have already in para 53 ante recommended that as far as possible the source of foreign assistance should be ascertained before preparing the Detailed Project Report. In order that this salutary principle achieves its purpose it is imperative that the estimates of foreign exchange requirements are made most accurately and no item requiring foreign exchange is left out. Once the estimates are prepared and foreign exchange is made available, public undertakings should exercise the utmost discipline in the use of imported material and machinery. The Committee feel that with better estimation of requirements of foreign exchange before the project is sanctioned and strict discipline in the use of imported material etc. some of the difficulties mentioned above could have been avoided.

Committee's recommendation.

125. Besides the scarcity of foreign exchange, a number of projects are also stated to have experienced difficulty in the matter of procedure of allotment of foreign exchange, even when the foreign exchange was available, as will be seen from the following replies received from some of the undertaking:

Allotment of foreign exchange.

Name of the Project 1	Difficulties experienced 2
1. Neyvell Lignite Corporation Ltd. (a) Mining Scheme	"The sanction is received only by about the middle of the half year in question with the result that by the time the exchange is sanctioned, the validity of the offer invariably get lapsed. The firms naturally quote higher rates and we have to ask for

1

2

additional foreign exchange to meet the increased cost. All these necessarily result in delays in procurement, particularly, of plant and machinery."

- (b) Fertiliser Scheme . "The difficulties experienced in the matter of purchase and import of plant and machinery mainly relate to getting quick clearance from the Development Wing for the import of certain items which, though manufactured in India, are not of high quality. Even the detailed itemised F.O.B. list of plant and equipment furnished by the foreign contractors was not accepted by the Development Wing without further correspondence and clarification was not easily available and ultimately this had to be imported."
- (c) Briquetting & Carbonising Scheme. "There was delay of more than one year in getting foreign exchange required for the project."
- (2) N.M.D.C. "The procedure for inviting tenders and procuring them setting the terms of payment to the suppliers and obtaining sanction for release of requisite foreign exchange caused delay in actual placement of orders."
- (3) B.M.E.L. "When the Ministry issues orders to obtain machinery not on free foreign exchange but against credit facilities and the tenderer is an individual firm in a non-communist country, considerable amount of time has to be spent at this end for negotiation with the firm to accept payment through credit. Most often, the individual firm is not keen on supplying the machinery against

1

2

credit facilities and this again involves further time and correspondence with the Ministries before the final order is placed."

(4) Indian Telephone Industries Ltd.

"For importing items like unequal angles, tested plates and special sections, delays are experienced in the issue of import licences. The licences are given under Aids and loans the operation of which is rather involved."

126. The procedure for release of foreign exchange for public undertakings is generally as follows: The public undertakings intimate to the Ministries, the estimated amount of foreign exchange required. The Administrative Ministries then submit a consolidated half yearly requirement for all the public undertakings under their control to the Department of Economic Affairs in the Ministry of Finance under (1) free foreign exchange (ii) rupee payments and (iii) tied loans. Simultaneously, the Administrative Ministries also refer the matter to the D.G.T.D. for certificate of indigenous non-availability. After the Department of Economic Affairs has sanctioned the quota it is left to the Administrative Ministries to allot foreign exchange between the various undertakings. For actual release order, however, the Department of Economic Affairs is again required to be approached. This order is issued only after that Department is satisfied that the certificate of indigenous clearance has been obtained from the D.G.T.D. There is one exception viz., in the case of maintenance and operational items of spares and stores, the Administrative Ministry is also empowered to certify indigenous clearance and no reference is required to be made to the D.G.T.D.

Procedure for release of foreign exchange.

127. It has not been possible for the Committee to examine the procedure regarding sanctioning of foreign exchange but from the above instances it is obvious that the existing procedure has hindered the timely completion of projects. The Committee understand that the procedure

Committee's observation.



*for release of foreign exchange has been enquired into by the V. K. R. V. Rao Committee on the Utilisation of Foreign Aid and the Study Team on the working of the D.G.T.D. The Committee trust that in the light of the recommendations made by these bodies the procedure relating to the sanction of foreign exchange for the public undertakings will be simplified.*

**Difficulties in Customs clearance.**

128. Apart from the foreign exchange difficulties some undertakings are also stated to have experienced difficulties in the matter of customs clearance and of import licences. For instance, the Fertilizer Corporation of India Ltd. had complained that there was delay in customs clearance. The H.E.L. had stated that although at the time of approval of Detailed Project Report a list of plants to be imported is given still before they are imported a number of preliminaries had to be undergone resulting in delay. Similarly the Coal Washeries Project had stated that the non-availability of import licences for their plant and machinery had delayed the project by 6—12 months.

**Committee's observation.**

129. *In a note furnished to the Committee after the evidence, the Government have stated that these procedures are constantly reviewed. The experience of the above undertakings would suggest that the procedures leave much to be desired and cause delays. A study Team headed by Shri H. C. Mathur is stated to have recently examined inter-alia the points at which delays occur and where bottlenecks exist in the matter of import. The Committee trust that in the light of the recommendation of the Mathur Team it will be possible for the Government to simplify the procedure regarding import licences and customs clearance in the case of the public undertakings.*

## B. IMPORT SUBSTITUTION

130. It is a well known fact that most of the public sector projects have to depend for a substantial portion of their raw material supplies, spares and components on imports entailing considerable foreign exchange. The Committee did not call for details of the expenditure on this account, but they observe from the 51st report of the Estimates Committee on H.E.C. that the value of the import of raw materials and components for C.M.M. Project during the year 1964-65 was estimated to be Rs. 1.30 crores; and for H.M.B. Project the value of imports during 1964-65 and 1965-66 together was expected to be Rs. 2.78 crores.

131. The Committee enquired whether Government had taken any special measures to find indigenous sources of supply of raw material spares and component. The Government have stated in reply that "the orientation of the Plan itself is to secure these objectives. Further the DGTD are continuously keeping in view the question of import substitution and the creation of fresh capacity for spares and components. The projects also try to encourage setting up of such capacity."

Indigenous source of raf material, spares and components.

132. The Committee however noticed that in a few cases the undertakings or the Ministries had not taken any concrete step in this direction. For instance it was revealed during the evidence in connection with the examination of the Fertilizer Corporation of India Ltd. that the Ministry of Petroleum & Chemicals had not approached the H.E.C. regarding production of spares.

Concrete steps not taken.

133. Considering the large foreign exchange expenditure incurred on imports of raw materials etc., the Committee can not but too strongly recommend the need for continuous survey of raw materials components and spares within the country and the need for a systematic effort to promote indigenous industry for producing these items. It should be the constant endeavour of the Government and the Public undertakings to achieve, as far as possible self sufficiency in the matter of procurement of raw materials spare and components. The Committee have in para 80 ante suggested the appointment of a Team of experts to assess the requirements of ancillary and auxiliary industries in the public sector projects. When such ancillary industries are set up it might be possible for the indigenous industries to produce more components, spares etc.

Committee's view.

134. Along with such measures Government should also ensure that where indigenous supplies are available, undertakings are not allowed to import. Some undertakings have created agencies for promoting indigenous industries e.g. the Spare Co-ordination Committee set up by the Oil & Natural Gas Commission and the indigenous Procurement Committee set up by the Department of Iron & Steel for H.S.L. The Committee welcome such efforts and would urge that similar steps might be taken by the other major undertakings in consultation with the D.G.T.D.

135. *The Committee would also suggest that it would be desirable if the Annual Reports of the undertakings indicate the percentage of imported raw materials and components used by them in the manufacture of equipment so that the extent of indigenous raw materials and components used by them is known from year to year.*

### C. INDIGENOUS SUPPLY OF PLANT & MACHINERY

**Progress in the setting up of indigenous industry.** 136. Our dependence on imports is more in the case of plant and machinery than in the case of raw materials, spares etc. The reasons for importing plant and machinery, generally, are: firstly there are not enough manufacturers of intricate and heavy plant and machinery in the country as yet; secondly at times the consultant is given a turn key contract and the import of plant & machinery is part of the contract and lastly the aid giving countries/parties have made it a condition that the plant & machinery will be purchased from a particular country. Be that as it may, it cannot be gainsaid that the progress in setting up of indigenous industry for manufacturing various types of plant and machinery has been slow. The Third Plan, for instance, provided for the setting up of a Heavy Structural Plant and also a Heavy Plates and Vessels Projects, but no appreciable progress could be made in these fields.

**Measures taken.** 137. The only major undertaking which can be said to have made some progress towards machine building is the Heavy Engineering Corporation which has four projects viz., H.M.B.P., C.M.M.P., H.M.T.P. and the F.F.P. A new undertaking is proposed to be started for the manufacture of fertilizer equipment. A Detailed Project Report is understood to have been prepared and negotiations started with the consultants Similarly a few other machine and building projects seem to have been recently taken up viz. Pumps & Compressors Project, Power Boiler Project, two new machine tool plants and a new Foundry Forge Project. It is further understood that the Government has recently set up a Committee (viz., Nagaraja Rao Committee) to take stock of the requirements of capital goods, in cement, mining, sugar industries and steel plants.

**Committee's observation.** 138. *While welcoming these measures the Committee hope that necessary lesson would be drawn from the experience of the Third Plan. As plant and machinery constitute the major share of the capital outlay of the pro-*

ject and also of the foreign exchange expenditure, saving on this account would ultimately lead to economy in setting up of projects which in turn will lead to reduction in our cost of production and also save valuable foreign exchange. The Committee realise that to develop indigenous sources of plant and machinery, a great deal of technical know how is necessary. It would be preferable to buy this know how than to continue to buy the plants. The Committee hope that this will be borne in mind while finalising the public sector projects to be included in the Fourth Plan.

#### D. STANDARDISATION

139. A problem intimately connected with the development of indigenous industry both for raw materials, spares and components and plant and machinery is that of standardisation. The Committee observe that while some undertakings (e.g. H.E.L.) have taken steps to rationalize the specification wherever possible in order to bring them in line with the available Indian Standards specifications, others have not done so. Some undertakings (e.g. Hyderabad project of the B.H.E.L.) have also expressed difficulty in doing so because of the difference in the foreign and the Indian standards.

140. The Committee realize that the scope for standardization may be limited in some undertakings. Even so, effort should be made whenever possible to standardise plant, machinery, spares, components etc. if indigenous industry is to be fostered. The Committee consider that it should be one of the responsibilities of the Planning and Development units set up in the various projects to evolve such standards and to give them wide publicity.

Committees' observation.

#### E. INVENTORIES

141. The Committee noticed that in their anxiety to have adequate spares, components and imported raw materials, the projects, often, at the very initial stages acquired heavy inventories, thus blocking up large amount of valuable foreign exchange. Often these heavy inventories were also unbalanced in the sense that there was too much of some items and too little of others. Such unbalanced inventories caused loss of production through inadequacy of particular item of raw material and spares and components, although there was no overall inadequacy.

Heavy inventories.

Difficulties in restricting the inventories.

142. It has been explained by Government that there were difficulties in restricting the inventories to the required quantity because norms for the inventories had not been laid down. In support of this it was argued that the very fact that some undertakings do have large stocks illustrate the difficulties in establishing norms.

Committee's suggestion.

143. *The Committee are not convinced by these arguments. In the opinion of the Committee it should be possible though not with absolute accuracy to determine the requirements of raw materials, spares, construction material and equipment etc. at the initial stages of the project, just as it is now possible to determine the requirements of raw materials etc. of operating units in terms of months of consumption. The Committee would therefore suggest that norms in regard to inventories should be worked out and after working out such norms, stricter control on the acquisition of such materials should be exercised in future.*

144. *The Committee notice from the Report of the Company Auditors of H.S.L. for the year 1963-64 that in the case of the Durgapur Steel Plant construction material and equipment of the value of Rs. 71 lakhs was lying in stock. Similar stocks may be found in other undertakings. The Committee would suggest that the possibility of utilizing it for expansion of the units or of lending it to other public undertakings should be examined. The Committee would further suggest that the position of inventories in projects under construction should be included in the "Annual Report on the working of Industrial and Commercial Undertakings" published by the Ministry of Finance, which at present confines itself only to inventories of running*

**IX**  
**FINANCE**

**A. REVISION OF PROJECTS ESTIMATES**

145. A statement showing important cases of revision of project estimates is given below :—

Name of the Undertaking	Original Estimate	Actual/Anticipated Expenditure	Percentage increase
1	2	3	4
	Rs.		
Durgapur Steel Plant	115·00 crores	Rs. 205·25 crores (Revised Estimate 1963).	78%
Rourkela Steel Plant	128·00 „	Rs. 230·48 crores (Revised Estimate 1963)	80%
Bhilai Steel Plant	110·00 „	Rs. 202·34 crores (Revised Estimate 1963).	83%
Hindustan Teleprinters Ltd.	1·5 „	Rs. 1·65 crores	10%
Gauhati Refinery	13·06	Rs. 14·51 crores	11%
Hindustan Antibiotics Ltd.			
(i) Pimpri Unit	1·15 „	Rs. 1·59 crores	38%
(ii) Penicillin expansion	0·45 „	Rs. 0·61 crores	36%
(iii) Streptomycin Unit	1·73 „	Rs. 2·08 crores	20%
Hindustan Photo Films Manufacturing Company Ltd.	7·38 „	Rs. 8·53 crores	15·5%
National Mineral Development Corporation Ltd. (Kiriburu Iron Ore Project)	9·06 „	Rs. 11·22 crores	24%
Hindustan Machine Tools Ltd. (Watch Factory)	2·50 „	Rs. 3·68 crores	47%
Fertilizer Corporation of India Ltd.			
(i) Trombay Unit	24·34 „	Rs. 33·40 crores	37%
(ii) Nangal	20·90 „	Rs. 31·20 crores	49%
Heavy Electricals Ltd., Bhopal	35·25 „	Rs. 49·30 crores	39·9%
Heavy Engineering Corporation Ltd.	125·95 „	Rs. 206·50 crores	64%

**Extent of increase in estimates.** 146. It will be observed from the above table that the actual expenditure incurred exceeded original estimates by more than 50 per cent in several cases. In some cases (e.g., Steel Plants) the rise has been as high as 80 per cent.

**Reasons for increase in estimates.** 147. The Committee learn that some of the reasons for increase in estimates in some of the cases are as follows:—

*Projects of the HEC*

- (1) The original estimates (as estimated in the Detailed Project Report) did not include several items of expenditure like sand, washing plant, railway siding outside plant area, consultancy fees, customs duty, port trust charges, foreign experts, training of personnel, enabling works etc.
- (2) Rise in quantities of materials and works, pile foundations, more foreign experts and rise in cost of labour and material in the case of Foundry Forge Project.

*H.E.L. Bhopal*

- (1) The original estimate did not include customs duty, purchase commission, hostel for trainees and township.
- (2) Provision of additional bags in Blocks I and II of the factory and heavier and bigger cranes to handle, bigger units of production and increase in prices of machine tools etc.

*Nangal Project*

- (1) Original estimates did not provide for financing charges.
- (2) Revision of capacity also responsible for increase.

*Trombay Project*

- (1) Non inclusion of financing charges to cover the interest on capital employed during the period of construction and working capital in the original estimates.
- (2) Higher cost of American plant and increase in prices over 1957 level and change in the product

pattern of the project which necessitated installation of some additional plants.

*Rourkela Plant of H.S.L.*

- (1) Original estimates did not include items such as townships, mines and quarries, interest on capital.
- (2) Increase in quantity of civil engineering work and increased cost of erection, increased expenditure on customs duties, escalation etc.

148. It is clear from the above that apart from the increase in the cost of construction and addition to factory buildings and plants, omission of certain basic items from the project estimates is responsible for subsequent revisions. These are: consultancy fees, customs duty, training of personnel, townships, financing charges, working capital, enabling works etc.

Omission of items from estimates.

149. *The Committee understand that a check list of project estimates has been prepared by Government for guidance of project authorities and financial advisers and has been in vogue since 1959. It is surprising that in spite of such a check list, the project estimates continue to be incomplete and unrealistic.*

150. *The Committee note that the Estimates Committee in their reports on H.E.C., H.E.L. and H.S.L. have repeatedly recommended that project estimates should be prepared as realistically as possible and should include total commitments before they are made available to Government for sanction. This Committee also in their report on Fertilizer Corporation of India Ltd. and Rourkela Steel Plant deprecated revisions of estimates because they vitiate the basic assumptions on which the project was sanctioned in the first instance. The Committee recommend that project estimates should be prepared realistically and efforts made to adhere to them. The Committee would like to further recommend that with a view to avoiding incomplete estimates being prepared Government should immediately conduct a post review of the reasons for under estimates in the past. Based on the findings of such a review suitable instructions should be issued to authorities concerned with the preparation of project estimates, for their guidance. If the review*

Committee's recommendation.



reveals that the existing check list omits certain items, the same should be added.

### B. FOREIGN EXCHANGE REQUIREMENTS

151. The following table indicates the foreign exchange component of the cost of some of the projects as indicated in the Annual Report on the working of Industrial and Commercial Undertakings of the Central Government for the year 1963-64:—

Project	Estimated cost	Foreign exchange	Percentage
I	2	3	4
	(Rs. crores)	(Rs. crore)	
Hindustan Cables (Expansion Scheme)	2.31	1.3	56
Hindustan Organic Chemicals Ltd.	31.00	11.5	37
Indian Drugs & Pharmaceuticals Ltd. (all the 3 projects)	39.00	10.26	26
National Mineral Development Corporation Ltd.			
(i) Kiriburu Project	10.37	3.65	35
(ii) Bailadila Project	14.56	4.77	32.7
Neyveli Lignite Corporation Ltd.	107.08	52.88	49
Hindustan Teleprinters Ltd.	1.65	0.85	51.5
Hindustan Steel Ltd.			
(i) Rourkela Expansion	132	62	46
(ii) Bhilai Expansion	177	68	38
(iii) Second Expansion of Bhilai	26.5	12.5	47
(iv) Durgapur Expansion	67	26	38.8
(v) Alloy Steel Plant	65	26.5	40

1	2	3	4
(Rs. crores)			
<b>Fertilizer Corporation of India Ltd.</b>			
(i) Trombay Project . . . . .	33·4	3·10	9
(ii) Namrup . . . . .	18·0	6·90	38
(iii) Gorakhpur . . . . .	25·40	13·19	51
(iv) Durgapur . . . . .	31·59	12·09	37·9
<b>Heavy Electricals Ltd. (Bhopal)</b>	<b>167</b>	<b>95</b>	<b>56</b>
<b>Bharat Heavy Electicals Ltd.</b>			
(i) Ranipur . . . . .	61·21	26	42
(ii) Ramchanderpuram . . . . .	28·2	15·2	53·9
(iii) Triuvembur . . . . .	18·3	9	49
<b>Heavy Engineering Corporation Ltd.</b>	<b>207</b>	<b>84</b>	<b>40·5</b>
<b>Pyrites and Chemicals Development Co. Ltd. (Mining Project)</b>	<b>4·39</b>	<b>1·29</b>	<b>29</b>
<b>Cochin Refineries Ltd.</b>	<b>17·00</b>	<b>9·00</b>	<b>53</b>
<b>Instrumentation Ltd.</b>	<b>4·87</b>	<b>1·66</b>	<b>34</b>
<b>Indian Oil Corporation Ltd.</b>			
(i) Gauhati Refinery . . . . .	14·71	6·07	41
(ii) Barauni Refinery . . . . .	34·77	17·71	50

152. It will be noticed from the above that in most of the cases the foreign exchange component has ranged between 30 to 50 per cent of the total outlay on a project. In a number of cases, viz., Hindustan Cables Ltd., Hindustan Teleprinters Ltd., Gorakhpur Project of Fertilizer Corporation of India, Hyderabad Project of Bharat Heavy Electricals Ltd. and Cochin Refinery, it had exceeded fifty per cent of the estimated cost of the project.

High foreign exchange component.

Basis for determining the foreign exchange component.

153. The foreign exchange requirement of a project is determined on the basis of:—

- (i) Plant and machinery required to be imported.
- (ii) Raw materials and components to be imported.
- (iii) Consultants fees.
- (iv) Training of Indian Engineers abroad and the employment of foreign personnel.

154. During evidence, the Committee were informed that at the time of formulating a project, effort was made to keep the foreign exchange component to the minimum.

Committee's recommendation.

155. *The Committee, however, consider it a matter of serious concern that in certain projects more than half of the outlay should be in foreign exchange. The Committee have already referred to the scope for reduction in consultants fees. As regards the raw materials and components, it has been stated in a note submitted by the Ministry of Finance that due to difficulties in establishing norms of raw materials and spares and components, their requirements were not always correctly estimated and tended to be over stated. The same thing could be said to some extent about certain plant and machinery.*

156. *The Committee would therefore recommend that to meet the foreign exchange shortage which the country has been faced with for some time past, the estimates of foreign exchange expenditure should be prepared more realistically and while scrutinising them a thorough examination should be made of the raw materials, plant and machinery etc. to be imported with a view to determining their necessity and non-availability in India. The fact that in most cases the foreign exchange is assured by the collaborators, should not in the opinion of the Committee, make the Government relax proper scrutiny of the foreign exchange expenditure in the public sector projects because, the larger is the amount of foreign credit the greater is the liability towards servicing of such foreign loans and their repayment, which has ultimately to come from our free foreign exchange resources.*

157. *The Committee also consider that the projects set up with high proportion of foreign exchange should be under an obligation to earn foreign exchange for the country when they go into production. Therefore, while deciding on the feasibility of the project the period within*

which the foreign exchange expenditure on the capital cost and the recurring cost (spares, raw materials, etc.) of the project will be redeemed by the reduction in imports and earnings from exports should invariably be considered. The representative of the Ministry of Finance has agreed with the suggestion.

### C. MEASUREMENT OF PROFITABILITY DURING CONSTRUCTION

158. An important problem which arises in the case of projects which are in a continuous phase of expansion (by increasing their capacity or increasing the range of their products) is that of determining their profitability or the return on investment. The case of H.E.L. Bhopal may be cited as an example. The H.E.L. started with the production of static items of heavy electrical equipment viz., switch gears and transformers. Subsequently, they have begun to produce rotating items like motors (industrial and traction) and are now proceeding to manufacture generators. The production of switch gears and transformers was in full swing, production of motors was progressing and that of generators was being arranged. The value of production in the year ending 31st March, 1965 was slightly above Rs. 6 crores. As regards the profitability of the undertaking, it was learnt that until production went upto Rs. 33 crores profits could not be expected, and that this target would be reached after 1966-67.

Deter-  
mination  
of Profi-  
tability.

159. The Committee consider that in public undertakings like H.E.L. where production and expansion take place simultaneously, profitability and economy of working should be tested from time to time otherwise the capital invested during the course of expansion is mixed up with the capital invested for the original capacity and there is no means to determine the return on the investment originally made. Mistakes made in the initial stages could also be concealed through mid-term expansion.

Commit-  
tee's  
recom-  
menda-  
tion.

160. The Committee therefore recommend that in such cases, there should be a separate computation of production cost and profit with respect to the completed units of the industry so that it would be possible for the management and the Government to watch the performance of the project.

## D. CAPITAL STRUCTURE

161. A statement showing the composition of equity and debt in the capital structure of the major undertakings included in the study as noticed from the Annual Report on the working of Industrial and Commercial Undertakings for the year 1963-64 is given below:—

Sl. No.	Undertaking	Equity	Loan	Ratio of equity to loan
1	2	3	4	5
(Rs. in lakhs)				
1.	Aeronautics India Limited, Bombay*	163.0		1:0
2.	Cochin Refineries Ltd., Ernakulam	614.2		1:0
3.	Fertilizer Corpn. of India Ltd.	4805.1	3426.3	1:0.71
4.	Heavy Electricals (India) Ltd.**	3549.9	3696.8	1:1.04
5.	Hindustan Antibiotics Ltd.	247.3		1:0
6.	Hindustan Cables Ltd.	160.5	177.7	1:1.1
7.	Hindustan Machine Tools Ltd.	800.0	678.7	1:0.85
8.	Hindustan Insecticides Ltd.	247.3	..	1:0
9.	Hindustan Organic Chemicals Ltd.	152.0	..	1:0

\*Aeronautics India Ltd. has since been converted to form Hindustan Aeronautics Ltd.

\*\*Heavy Electricals (India) Ltd., was bifurcated on 13th November, 1964. After adjustment of liabilities and assets, the composition of equity and debt in the Capital structure of Heavy Electricals (India) Ltd. and Bharat Heavy Electricals Ltd. on 31st March, 1965 was of the following order:

	Rs. in lakhs		Ratio
	Equity	Debt	
Heavy Electricals (India) Ltd.	2588.80	3873.23	1:1.5
Bharat Heavy Electricals Ltd.	2761.31	728.77	1:0.26

1	2	3	4
10. Hindustan Photo Films Manufacturing Co. Ltd.	300.0	236.7	1:0.79
11. Hindustan Shipyard Ltd.	598.5	6.3	1:0.01
12. Hindustan Steel Ltd.	44700.0	357.10	1:0.80
13. Hindustan Teleprinters Ltd.	75.0	90.0	1:1.2
14. Indian Drugs and Pharmaceuticals Ltd.	1278.4		1:0
15. Instrumentation Ltd.	1.00		1:0
16. Indian Oil Company Ltd.	497.2	475.0	1:0.96
17. Indian Refineries Ltd.	3000.0	3726.3	1:1.24
18. National Coal Development Corporation Ltd.	4440.2	4339.4	1:0.98
19. National Building Construction Corporation Ltd.	94.5	94.0	1:1
20. National Mineral Development Corporation Ltd.	821.0	534.4	1:0.65
21. NEPA Mills Ltd	494.5	55.0	1:0.11
22. National Instruments Ltd.	114.0	15.0	1:0.13
23. Oil & Natural Gas Commission	5761.8		1:0
24. Pyrites & Chemical Development Co. Ltd.	54.2		1:0

162. It will be observed from the above table that barring a few instances where the debt is slightly more than the equity capital, in all other cases, the equity was more than the debt.

163. It has been explained that the present imbalance between equity and loans was mainly due to past investments and investments in new units and expansions being initially in the form of equity. Exploration for imbalance.

164. It was stated during evidence that to rectify the situation the entire equity debt ratio in the public sector has been changed to 50 : 50. The intention was to have more or less the same kind of structure for the public as well as the private sector. It was also explained that in a capital intensive plant, there was some justification for having a higher equity ratio otherwise the servicing of debt itself would cost so much to the project that its product would become uncompetitive.

Commit-  
tee's re-  
commen-  
dation.

165. *While appreciating that in capital intensive plants, it might be necessary to have higher proportion of equity, the Committee do not feel that the present ratio of 50 : 50 between equity and loan is conducive in bringing about cost-consciousness in the management of the public undertakings. Unlike a private enterprise there is no compulsion in the public undertakings to declare dividends on the equity capital. A larger proportion of equity (and lower proportion of debt) can also enable the management of the public undertakings to artificially show lower cost of production and hence lower prices. But if the loan capital is more the management is bound to be vigilant because it has to pay interest on the loan. The Committee would therefore recommend that the present equity debt ratio which was fixed in 1960 should be reviewed with a view to raising the proportion of debt. In the opinion of the Committee a ratio of 1 : 2 could be safely adopted, as it was also the ratio obtaining in industry generally. The representatives of the Ministries agreed with this view.*

## X

### ORGANISATION

#### A. APPOINTMENT OF PROJECT OFFICERS

166. The present policy in the matter of appointment of project officers in the initial stages of setting of projects is to appoint a well qualified and experienced officer suitable for the particular project as O.S.D. in the administrative Ministry. This officer and his staff usually constitute the nucleus of the essential administrative machinery and when the project advances, an implementing authority was formed. Thereafter it is registered under the Companies Act. Steps are then taken to constitute a Board and appoint Managing Director/General Manager/Financial Controller/Adviser etc. Thereafter it becomes the responsibility of the Board to recruit the necessary engineers and other technical staff and stationing of project authorities. Government's policy.

167. The Committee however noticed that in a number of cases there was a long time-lag in the appointment of the Project Officer and the Financial Adviser or Chief Accounts Officer after the Government's decision to set up a project as is evident from the cases cited in the following table. Long time-lag in the appointments.



Name of the Undertaking	Date of Govt. decision	Date of appointment of Project Officer	Time taken	Date of appointment of Financial Adviser	Time taken
Alloy Steel Project . . . .	Feb. 1961 (Govt. decision).	1-6-61 Project Officer	4 ms.	Dec. 1962 (F.A. & CAO)	1 yr. 2 ms.
<b>Heavy Engineering Corporation</b>					
(a) Heavy Machine Building Project.	Oct. 1957	9-3-59 (Chief Planning & Development Officer)	1 yr.—5 ms.	7-12-59 (FA & CAO for entire HEC). 1-2-64 (Controller of Finance & Account )	2 yrs. 2ms. 6yrs.-5ms.
(b) Coal Mining Machinery Project.	Oct. 1957	31-8-59 (Chief Planning Officer)	1 yr.—10 ms.	7-12-59 (FA & CAO for entire HEC).	2 yrs.
(c) Foundry Forge Project. . .	Jan. 1958	13-10-59 (Chief Planning Officer).	1 yr.—5 ms.	1-2-64 (Controller of Finance & Accounts) 1-2-64 (Controller of Finance and Accounts).	6 yrs-4ms. 6 yrs.—4ms.

(d) Heavy Machine Tool Project.	Nov. 1960	27-1-61	3 ms.	1-2-64	3yrs.—2 ms.
Hindustan Photo Films Manufacturing Co. Ltd.	25-4-60 (Agreement signed.)	16-1-61 (General Manager).	9 ms.	25-5-61 (Financial Adviser).	1 yr
Indian Drugs & Pharmaceutical Ltd.	Jan. 1960 (contract for the project signed.)	5-4-61 (Chief Executive).	3 ms.	29-6-61 (FA& CAO.)	1 yr—6ms.
Hindustan Cables Ltd.	1949	Not indicated	.	March 1953 (Financial Adviser).	3yrs.—3 ms.
Gauhati Refinery	20-10-58 (Agreement concluded)	1-8-59 (General Manager).	9 ms.	1-9-60 (Financial Controller).	1 yr—11ms.
Barauni Refinery	28-9-59 (Agreement concluded.)	...		1-9-60 (Financial Controller)	0—10ms.
Heavy Electrical Ltd.	.	Nov. 1955	20-11-56 (General Manager)	1 year (Financial Adviser).	1 yr. 7ms.

168. It will be noticed from the above table that there was delay of more than 1 year in the appointment of Project Officer in the case of H.M.B.P. C.M.M.P. and F.F.P. of Heavy Engineering Corporation Ltd. Similarly, there was a delay of 2 to 3 years in the appointment of Financial Advisers|Chief Accounts Officers in the cases of the H.M.B.P. C.M.M.P. H.M.T.P. and F.F.P. of Heavy Engineering Corporation Ltd. and the Hindustan Cables Ltd.

169. In a note furnished to the Committee, after the evidence the Government have stated as follows:

“Normally there should be no time lag. In the majority of cases, the officers who are appointed as Chief Executive Officers were already associated with the project from their inception as O.S.D.”

Commit-  
tee's  
View.

170. *The Committee note with satisfaction that Government appreciate that there should not be any time lag normally. They trust that Project Officers and Financial Advisers will in future be appointed as early as possible after the Government has decided to set up a project and in any case before the receipt of the Detected Project Report as delays in this respect are bound to prove detrimental to the expeditious execution of the projects.*

#### B. CHANGES IN THE TOP EXECUTIVES

171. The Committee were informed that in the cases of the following undertakings persons held charge as Project Officers from the start till the projects went into production:—

- (i) Hindustan Cables Ltd.
- (ii) Hindustan Steel Ltd.
  - (a) Durgapur Steel Plant
  - (b) Bhilai Steel Plant
- (iii) Indian Telephone Industries Ltd.
- (iv) Hindustan Teleprinters Ltd.
- (v) Hindustan Insecticides Ltd.
  - (a) Delhi Factory
  - (b) Always Factory

- (vi) Fertilizer Corporation of India Ltd.
  - (a) Sindri
  - (b) Nangal Unit
- (vii) Heavy Engineering Corporation Ltd.
  - (a) Coal Mining Machinery Project.
  - (b) Heavy Machine Building Plant
  - (c) Foundry Forge Project
- (viii) Bharat Heavy Electricals Ltd., (High Pressure Boiler Plant, Tiruchirapalli)
- (ix) Bharat Electronics Ltd.
- (x) Hindustan Aeronautics Ltd.
- (xi) Hindustan Antibiotics Ltd., Pimpri.

172. It would appear that it has not been possible for Government to retain the same persons as Project Officers until the project went into production in other cases (e.g. Rourkela Steel Plant, and Hindustan Machine Tools Ltd.)

173. During evidence it was stated that these changes were effected because it was felt that the public interest would be better served by those changes though there would be a temporary set-back for the project. For instance, sometimes the project officer did not get on well with the State Government or with the foreign experts and had therefore to be shifted; at other times he became due for promotion in his parent department and had therefore to leave the project. Reasons for frequent changes.

174. *In their report on the Rourkela Steel Plant the Committee have already taken exception to the frequent changes in the post of General Manager during the crucial formative years of the Plant. The Committee view with concern similar changes that have taken place in so many other projects. With a view to ensure continuity of management the Committee would recommend that once a person is posted as General Manager or Project Officer, he should not ordinarily be changed until the project has reached a certain stage where the change would not affect the smooth progress of the Project. The Committee do not intend that the individual so posted should suffer in any way, if promotion* Committees' recommendation.

*' is due to him in his parent department. At the same time the interests of the project cannot also be sacrificed. Government should therefore examine the feasibility of extending the benefit of promotions to such persons in the projects itself, so that they may continue to serve the projects.*

## XI

### EXPANSION

#### A. POLICY REGARDING EXPANSION

175. The Committee noticed that in the case of following undertakings expansions were decided upon by Government even before the original plants achieved the rated capacity:—

Expansions before reaching the rated capacity.

- (i) Rourkela, Bhilai and Durgapur Steel Plants.
- (ii) Barauni and Gauhati Refineries.
- (iii) Penicillin and Streptomycin units of the Hindustan Antibiotics Ltd.
- (iv) Heavy Electricals Ltd.
- (v) Heavy Engineering Corporation Ltd.
- (vi) Namrup Project of Fertilizer Corporation of India Ltd.

176. The Committee were informed by the Ministry of Petroleum and Chemicals that "it was not necessary or feasible in all instances to reach full production before expansion was considered because expansion had to be considered on the basis of anticipated demand and delay in such decisions merely by insistence of prior achievement of full production might not be in the public interest." Other Ministries have also stated that they did not necessarily insist on achievement of rated capacity before sanctioning expansion, because expansion depended upon demand.

Govt's View

177. In a note furnished to the Committee after evidence they were informed that wherever expansions had been decided upon before original plans were put into operation, it was more in the nature of advanced planning to meet future shortages and that such decision had not adversely affected the original schedule of implementation.

178. The Committee are surprised at its being maintained that the decision to expand before the achievement of full rated capacity had not affected the commissioning of projects. The Committee would refer to the reports of

the Estimates Committee on H.E.C. (vide paras 15—21 of 51st Report (Third Lok Sabha) and H.E.L. (vide paras 68—75 of 35th Report) (Third Lok Sabha) where it has been clearly established that these projects had been delayed and had to incur extra expenditure on account of decision to expand before achieving full rated capacity. To quote the Estimates Committee's Report on H.E.C. "Besides numerous complexities that have been created due to changes in the schedules of commissioning, cost estimates etc., there is little doubt that if the revised capacities had been planned from the initial stages various delays and extra expenditure on civil works and other items would have been avoided". So far as the H.E.L. is concerned the Chairman of H.E.L. had himself stated before the Estimates Committee that the revisions had delayed the completion of the projects by about a year. About the Namrup Project of the Fertilizer Corporation of India this Committee had also occasion to note that the change in rated capacity had delayed the execution of project by one year.

Committee's recommendation.

179. *The Committee realise that advance planning must be done to meet future shortage but the proper occasion for such planning is before the project is sanctioned and not afterwards. The Committee are not able to appreciate as to how the demands could suddenly increase within one or two years of the approval of the original Detected Project Report by nearly 100 per cent. e.g., in the case of Heavy Engineering Corporation (H.M.B.P.) from 45,000 tons to 80,000 tons. This only proves that the earlier estimates of demand were gross under-estimates. Ours is a developing economy where demands are always expected to rise and hence it is safer to provide a cushion for future increases in demands rather than be conservative. The Committee therefore recommend that as far as possible a realistic and firm production programme of a project should be decided upon in advance, after making a thorough study and keeping in view the future demands and no change, diversification or expansion should normally be thought of till the project has been commissioned, unless it is technically possible to change the capacity etc. without disturbing the original production schedule.*

180. *The Committee would also reiterate the recommendation of the Estimates Committee made in their 51st Report on Heavy Engineering Corporation Ltd. that Government should examine all cases of revisions of capacities*

of projects during construction with a view to assessing the delays in commissioning and the consequent loss to the national economy apart from any infructuous expenditure involved in such revisions. The Committee believe that such a review would reveal valuable lessons for planning of future projects.

#### B. INDICATION IN THE DETAILED PROJECT REPORT

181. The Committee noticed that in the Detailed Project Reports of some undertakings indication about the future expansion was given while in others it was missing as the following table would show:

Indication  
of future  
expansion

Included in the Detailed Project Report of	Not included in the Detailed Project Report of
(i) Neyveli Lignite Corporation Ltd.	(i) Neyveli Lignite Corporation.
(a) Mining Scheme	(a) Fertilizer Scheme.
(b) Thermal Power Scheme	(b) Clay Washing Scheme.
(c) Briquetting & carbonising scheme.	
(ii) Heavy Engineering Corporation Ltd.	(ii) Pyrites & Chemical Development Co. Ltd., (Sulphuric Acid Plant).
(a) Heavy Machine Building Project	
(b) Foundry Forge Project	
(c) Heavy Machine Tools Project	
(iii) Indian Drugs & Pharmaceuticals Ltd.	(iii) Instrumentation Ltd.
(iv) Gauhati Refinery	(iv) National Instruments Ltd.
(v) National Mineral Development Corporation Ltd. (Khetri Copper Project)	(v) Hindustan Cables Ltd.
(vi) Bharat Heavy Electricals Ltd.	(vi) Barauni Refinery.
	(vii) Projects under Fertiliser Corporation of India.



Included in the detailed Project Report of	Not included in the detailed Project Report of
(a) Hyderabad Project (b) Tiruchirapalli Project. (c) Hardwar Project.	(viii) National Mineral Development Corporation Ltd. (a) Kiriburu Iron Ore Project  (b) Bailadila Iron Ore Project.  (c) Panna Diamond Mining Project.  (ix) Bharat Electronics Ltd.  (x) Bhilai Steel Plant  (xi) Rourkela Steel Plant.

182. It was explained to the Committee that where no specific mention was made in the Detailed Project Reports, technical details did indicate the possible lines of expansion. In some other cases like National Instruments Ltd. (Ophthalmic Glass Project) and Instrumentation Ltd. since the targeted capacity would meet the requirements of the country upto the end of the Fourth Plan it was not considered necessary to include these in the Detailed Project Report.

Committee's View:

183. *The Committee consider that irrespective of the requirements of the Fourth Plan, it would be advantageous to have some indication in each Detailed Project Report of the lines of future expansion, so that if eventually (whether in Fourth Plan or later) it was decided to expand, its provision in the Detailed Project Report might be economical and would help facilitate matters.*

#### C. CABINET APPROVAL

184. The Committee have also noticed that in the case of certain projects like the Fertiliser Plant and the Pipe Plant of Rourkela Steel Plant and Hindustan Machine Tools Ltd. (Expansion Scheme and new units) approval

of the Cabinet was obtained for setting up of new units or for taking up new lines of production, whereas in other cases such as Blending Plant of Indian Oil Corporation Ltd. approval of the Cabinet was not sought.

185. The Committee were informed that under the rules of procedure every case of expansion of an existing project was not put up before the Cabinet but these could be settled by the Administrative Ministry with the Ministry of Finance. Only important cases went up to the Cabinet. Proce-  
dure.

186. *The Committee consider it desirable that uniform procedure should be evolved in this regard. They feel that after setting up a project, where subsequently there are departures from the original line of production or expansion is embarked upon involving considerable fresh investment such cases should be put up to the Cabinet for approval.* Committ-  
tees'  
View.

## OTHER ASPECTS

## A. LOCATION OF PROJECTS

Procedure followed so far.

187. The Committee noticed that for location of certain projects like Barauni and Gauhati Refineries, the Projects of the Indian Drugs and Pharmaceuticals Ltd. the Alloy Steel Plant, the H.E.L. Bhopal and the Projects of the H.E.C. Location Committees were formed to obtain expert advice on technical and economic aspects of locating the Plants. In certain other cases e.g., the Alloy Steel Project, the Rourkela Steel Plant, the Bhilai Steel Plant, the Durgapur Steel Plant, Hindustan Photo Films Manufacturing Co. Ltd., and National Instruments Ltd. the advice of the Consultants had been taken before deciding upon the location. Neither of these procedure, however, seem to have been followed in the case of certain other undertakings.

Committees' recommendation.

188. *The Committee consider that proper selection of location of a project is of utmost importance. A careful scrutiny is essential of technical matters such as climatic and geological considerations, raw material availability and economic factors like availability and cost of utilities and transport. The Committee therefore recommend that Plant Location Committees composed of experts in technical and economic matters should invariably be formed which should consider in detail the suitability of various locations of the future industrial projects.*

189. *So far as the advice of Consultants for location of a project is concerned, the Committee have no objection to Indian Consultants being utilised for this matter. But the Committee are definitely concerned about foreign consultants being engaged for deciding location of a project. The most recent example of a foreign consultant being asked to advise on the location of a project is the selection of site by Anglo-American Consultants for the Fifth Steel Plant.*

190. It has been stated by the Government that where the industries are of large magnitude or entirely new to India and the products are of a highly sophisticated nature it is desirable to have the advice of the foreign consultants.

191. The Committee consider that circumstances in which the advice of the foreign consultants should be sought for location of the plants should be exceptional. We have enough experience by now in setting up public undertakings. The functions of the Planning and Development Units that have been set up in some of the projects also include studies in location. Occasion for seeking the advice of the foreign consultants should therefore be confined only to such projects for which we have no experience at all. The Committee hope that this would be borne in mind in the case of undertakings to be set up in future.

Com-  
mittee's  
View.

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193  
194

#### B. POWER DIFFICULTIES

192. The Committee noticed that a number of public undertakings particularly those in the Southern Region such as F.A.C.T. Hindustan Insecticides Ltd. (Alwaye unit) the Travancore Minerals Ltd., Indian Rare Earths Ltd., Bharat Heavy Electricals Ltd. (Tiruchirapalli) faced acute power shortage affecting the production in these factories. The Hindustan Insecticides Ltd. (Alwaye unit) suffered power cut upto 50 per cent. during certain months.

Projects  
affected.

193. During evidence, it was stated that these aspects were gone into pretty thoroughly before sanctioning a project, but the main snag was that of total power shortage in that region.

194. The Committee learn from the Ministry of Irrigation and Power that it had already been decided to establish certain inter-state links in the Southern Region and their construction was expected to be completed during 1966. In working out these links, the power requirements of the aforesaid undertakings, along with others had been taken into account.

Inter-  
state  
links.

194  
195

195. The Committee hope that the decision to set up the Southern Regional Grid would be implemented as scheduled.

Commit-  
tee's ob-  
servation.

ed so that the problems of these undertakings along with other industries in the private sector are solved. When such a grid comes into being it would be necessary to ensure that no State is deprived of electricity by others and that the rate at which electricity is supplied by one State to the other is not discriminating.

### C. TRANSPORT DIFFICULTIES

**Difficulties experienced.**

196. A statement showing the difficulties experienced by the public sector projects in the matter of transportation of their goods is given at Appendix V. The main difficulties are as follows:—

- (i) Difficulties in the transportation of oversized consignments for which railway facilities were not available.
- (ii) Congestion at the ports.
- (iii) Paucity of wagons.
- (iv) Normal capacity of the bridges and culverts not enough to bear extra heavy load.
- (v) Railway restriction on movement.

197. The Estimates Committee while examining the National Coal Development Corporation Ltd. noticed that the Corporation faced transportation difficulties though the annual requirements for railway wagons had been placed with the Railway authorities in advance. The wagons allotted to the Corporation were less than indented and those actually supplied were even less than these allotted. This Committee were also informed while examining the Rourkela Steel Plant last year that though there had been no difficulty with regard to movement of finished material, in case of raw materials there had been occasional difficulties in getting wagons of suitable size.

**Committee's observation.**

198. *The Committee hardly need emphasize the importance of timely movement of plant and machinery to the project sites. Failure to fulfil transport needs has resulted in delays in several projects. The Committee feel that while deciding the location and working out the time schedules of the project, the transport requirements should also be properly assessed and as soon as the location of a project is decided upon advance action towards meeting*

its transport needs should be undertaken. Further during the construction stage there should be a close liaison between the project authorities on the one hand and the Railways, Port authorities and State Departments in charge of Roads etc. on the other.

#### D. COMPLETION REPORTS

199. It has been laid down in the Third Five Year Plan that for each major project a comprehensive completion report should be prepared giving the entire history of the project, including mistakes which occurred and risks taken, this report may serve as a reference book and guide to engineers charged with the erection of similar projects in future. The preparation of the completion report should begin while the works are in progress, and events are fresh in memory and the report completed, as far as possible simultaneously with or soon after the completion of the project.

200. The Committee however noticed that barring the Gauhati Refinery, Bhilai Steel Plant and Heavy Electricals Ltd. (Bhopal) (only some aspects) preparation of such reports has not been attempted. **Completion Reports not prepared.**

201. During evidence, it was stated that the idea of preparation of such reports was accepted and instructions to all the public undertakings had also been issued in October 1964, but there were some difficulties in this regard. If the report was made public, there will be public discussion on it which might prove detrimental to the undertakings.

202. *The Committee are surprised that instructions to compile completion reports as recommended in the Third Plan should have been issued more than 3 years after the commencement of the Plan. The Committee consider the suggestion for the preparation of completion report made in the Third Five Year Plan as very important for the proper execution of future public sector projects. They recommend that Government should ensure the preparation of completion reports in case of all the projects which have been recently completed. In the case of projects under construction the Committee would suggest that as far as possible attempt should be made to prepare such reports as the construction of the project progresses.* **Committee's recommendation.**

203. The Committee would further suggest that in order that the future public sector projects benefit from the experience of planning and construction of various projects suitable instructions should be issued for their guidance. So far as the apprehension about making it public is concerned the Committee feel that the same could be prevented by keeping the completion reports confidential.

204. It was mentioned during evidence that the completion report on Gauhati Refinery had been written in a very subjective manner and "needed sound editing." The Committee feel that if the reports are written in this fashion, according to Ministry's own admission, the purpose of such reports would be defeated. The Committee recommend that Government should issue suitable instructions in this regard so that the reports are written in an objective manner and present a true picture of the past events.

### XIII

#### CONCLUSION

205. *There is an intimate relationship between the quality of planning and execution that attends in the setting up of a project and its subsequent operational phase. Project planning is the foundation on which the edifice of the operational phases of the project rests. Any wrong decision taken at this stage, be it in the matter of laying down of objectives for the undertaking, its viability or the details to be given in the project report or the time schedules or the capital outlay or the import of plant and machinery are bound to affect the timely execution, operational efficiency and economy of the project. Considering the comparative inexperience in the matter of setting up of industrial enterprises, it cannot be said that our public undertakings have fared badly. The time in which some of our public enterprises have gone into production can compare well with similar industries in other countries. Committee also noted with satisfaction that some of the undertakings even in the construction stage had started manufacturing items materials which were being used for their own set up. This not only expedited their construction but also resulted in utilisation of their men and overcoming of certain bottlenecks. However, many of the present uneconomic legacies of our undertakings can certainly be related to inadequate attention having been paid to various aspects at the planning stage of the projects.*

Importance of proper planning of Projects.

206. The report reveals that the public sector undertakings generally suffered from the following shortcomings:

Short-comings noticed.

- (1) Failure to specify the objectives for an undertakings making managements responsible for their achievement.
- (2) Cabinet approval given without full and sound techno-economic feasibility studies.
- (3) Dependence on foreign consultants for conducting feasibility studies, preparation of Detailed



Project Reports and working drawings, and in the matter of location of projects at considerable cost to the exchequer even when this was avoidable.

- (4) Projects started without Detailed Project Report leading to waste and delays; sometimes more than one Detailed Project Report ordered costing more to the undertaking and also consuming more time; in cases where Detailed Project Reports were prepared, they omitted many important items.
- (5) Delays in completion of projects due to longer time being taken at various preliminary stages such as preparation of Detailed Project Reports, Government decision thereon etc.
- (6) Failure to plan or start ancillary and auxiliary industries simultaneously or immediately after a project goes into production.
- (7) Tendency to go in for foreign collaboration including turnkey contracts without exploring the areas in which Indian know-how was available—a feature which led to huge sums being paid by way of consultancy charges.
- (8) Scanty attention given to preparation of time schedules.
- (9) Tendency to expand even before the undertaking has reached rated capacity causing delays and also making it difficult to judge the profitability of the original unit.
- (10) Frequent revision of project estimates upsetting all calculations about the profitability of the concern; excessive use of foreign exchange even when it could be reduced and equity dominated capital structure which did not provide any incentive to the management to be cost conscious.

**Government's  
Responsibility.**

207. *The Committee have indicated the measures necessary to remedy the above shortcomings at appropriate places in the report. They are glad to notice that there is*

increasing awareness in the public undertakings towards the need to plan projects in greater details than hitherto. Some of the public undertakings have set up regular agencies to attend to better planning and execution of future units and the expansion of the present units. There are however some matters e.g. a suitable financial structure, setting up of ancillary and auxiliary industries, determining the extent of foreign collaboration where decisions must be taken by Government. The Committee trust decisions taken by Government in these matters will be such as would leave no scope for the types of shortcomings mentioned above.

208. One aspect of the subject of 'Management and Administration of Public Undertakings' about which the Committee feel particularly concerned is our extreme dependence on foreign consultants and collaborators for setting up projects. There is hardly any industrial public undertaking in the country which has been set up without the help of foreign consultants and collaborators. The Committee feel that by now we should have acquired enough technical knowledge as to be able to set up some of the plants ourselves, but it seems no conscious effort has been made in this direction. The habit of seeking the help of foreign consultants and collaborators continues. The Committee feel that it is time that we make efforts to stand on our own legs. In this connection the Committee would also recommend that some study of the industrial development of the countries which like us struggle to industrialise should be made. Such a study would be of immense help for our own efforts towards self-reliance.

Extreme dependence on foreign consultants and collaborators.

209. While planning and execution of projects is essentially the responsibility of the undertaking and the Government, the Committee also feel that since the execution of these projects involved sums of money and is also part of national planning, Government which keeps itself informed of the execution of progress of various projects should also keep Parliament so informed. Not unoften in the past serious difficulties/revisions of estimates etc., have come to light only when some Members raised the matter on the floor of the House. The Annual Reports of the projects and the Audit Reports which are supposed to contain such information are no doubt placed on the Table of the House but Parliament knows of these difficulties at a late

Need to keep Parliament informed.

*stage or ex-post facto. The Committee feel that if Parliament is kept informed periodically it will provide an institutional check against any rush-decisions being taken on the one hand and care and caution being exercised on the other.*

**PANAMPILLI GOVINDA MENON,**  
Chairman,  
Committee on Public Undertakings.

NEW DELHI;  
November 30, 1965  

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Agrahayana 9, 1887 (Saka).

**APPENDIX I**  
(Vide para No. 4)

*Names of Undertakings included in the study.*

1. Bharat Earth Movers Ltd. Bangalore.
2. Bharat Electronics Ltd. Bangalore.
3. Bharat Heavy Electricals Ltd., New Delhi.
4. Bokaro Steel Ltd., Calcutta.
5. Cochin Refineries Ltd., Ernakulam.
6. Fertilisers Corporation of India Ltd., New Delhi.
7. Fertilizers & Chemicals Travancore Ltd., Alwaye.
8. Heavy Electricals Ltd., Bhopal.
9. Heavy Engineering Corporation Ltd., Ranchi.
10. Hindustan Aeronautics Ltd., Bombay.
11. Hindustan Antibiotics Ltd., Pimpri.
12. Hindustan Cables Ltd., Rupnarainpur, (West Bengal).
13. Hindustan Machine Tools Ltd., Bangalore.
14. Hindustan Insecticides Ltd., Bangalore.
15. Hindustan Organic Chemicals Ltd., Bombay.
16. Hindustan Photo Films Manufacturing Co. Ltd., Ootacamund.
17. Hindustan Shipyard, Visakhapatnam.
18. Hindustan Steel Ltd., Ranchi.
19. Hindustan Teleprinters Ltd., Madras.
20. Indian Drugs and Pharmaceuticals Ltd., New Delhi.
21. Instrumentation Ltd., Jaipur.
22. Indian Oil Corporation Ltd., Bombay.
23. National Coal Development Corporation Ltd., Ranchi.

24. National Buildings Construction Corporation, Ltd., New Delhi.
  25. National Industries Development Corporation Ltd., New Delhi.
  26. National Instruments Ltd., Calcutta.
  27. National Mineral Development Corporation Ltd., New Delhi.
  28. National Newsprint and Paper Mills Ltd., Neapanagar.
  29. Neyveli Lignite Corporation Ltd., Neyveli (Madras).
  30. Oil and Natural Gas Commission, Dehra Dun.
  31. Praga Tools Ltd., Secunderabad.
  32. Pyrites and Chemicals Development Co. Ltd., New Delhi.
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**APPENDIX II**  
(Vide para No. 28)

*Aspects covered in the note to the Cabinet*

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Name of the Project	Aspect
<b>Hindustan Steel Ltd.</b>	
(i) Rourkela Steel Plant	(a) capacity of the plant. (b) foreign financial and technical participation. (c) arranging for detailed investigations and preparation of detailed estimates of costs.
(ii) Bhilai Steel Plant	(a) proposed agreement to be entered into with the Soviet Team. (b) location of the plant. (c) preliminary report submitted by the Soviet team.
(iii) Durgapur Steel Plant	(a) location (b) appointment of Chief Project Officer. (c) appointment of Consultants. (d) authorisation to the Ministry to enter into discussion with the Indian Iron and Steel Works Construction for ascertaining the best method of carrying out the construction of the project.
<b>Hindustan Teleprinters Ltd.</b>	salient features of the collaboration Agreement.
<b>Fertilizer Corporation of India Ltd.</b>	(a) location. (b) capacity. (c) economics of the project. (d) foreign exchange involved. (e) cost of production. (f) completion schedule.

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Name of the Project	Aspect
Indian Drugs & Pharmaceuticals Ltd.	<ul style="list-style-type: none"> <li>(a) estimated cost.</li> <li>(b) quantum and terms of credit offered by the USSR Govt.</li> <li>(c) items to be manufactured.</li> </ul>
Indian Oil Corporation Ltd. (Marketing Division)	<ul style="list-style-type: none"> <li>(a) economic advantage of following the integrated scheme of operations.</li> <li>(b) likelihood of availability of deficit products from East European Countries on rupee payment basis.</li> <li>(c) economic and strategic considerations.</li> <li>(d) need for putting up storage and other facilities.</li> <li>(e) estimated investment for the Government distribution organisation.</li> <li>(f) possibility of arresting price rise tendencies, if any, through Govt. organisation.</li> </ul>
Gauhati & Barauni Refineries (Refineries Division, I. O. C.) Gujarat Refinery (ONGC Project) Cochin Refinery Ltd.	<ul style="list-style-type: none"> <li>(a) estimates of consumption.</li> <li>(b) additional demands of the Defence services.</li> <li>(c) products demand in the near future.</li> </ul>
Hindustan Organic Chemicals Ltd.	<ul style="list-style-type: none"> <li>(a) Need and estimated cost of the project.</li> <li>(b) foreign exchange component.</li> <li>(c) terms of collaboration and credit for the import of equipment.</li> </ul>
Hindustan Photo Films Manufacturing Co. Ltd.,	<ul style="list-style-type: none"> <li>(a) capital cost.</li> <li>(b) foreign exchange savings.</li> </ul>
Instrumentation Ltd.	<p>Note does not cover the technical aspects—deals with only the approval for location. Economic and other aspects were separately submitted to the Economic Committee.</p>

Name of the Project	Aspect
Oil & Natural Gas Commission	<ul style="list-style-type: none"> <li>(a) organisation.</li> <li>(b) functions.</li> <li>(c) financial arrangements.</li> <li>(d) powers.</li> <li>(e) responsibility of the Commission.</li> <li>(f) governments control.</li> </ul>
National Instruments Ltd.	<ul style="list-style-type: none"> <li>(a) technical and economic problems.</li> <li>(b) cost involved.</li> <li>(c) targeted capacity.</li> <li>(d) location.</li> </ul>
Hindustan Machine Tools Ltd.	<ul style="list-style-type: none"> <li>(a) need for setting up of the factory.</li> <li>(b) urgency of the implementation of the project.</li> <li>(c) capital cost.</li> <li>(d) profitability.</li> <li>(e) savings in foreign exchange.</li> <li>(f) scope for export etc.</li> </ul>
HEC, HEL, Bharat Heavy Electricals Ltd.	<ul style="list-style-type: none"> <li>(a) objectives.</li> <li>(b) demand.</li> <li>(c) capacity.</li> <li>(d) foreign exchange involved and source thereof.</li> <li>(e) selection of consultants.</li> </ul>



### APPENDIX III

(Vide para No. 71)

*Statement showing project-wise the position regarding setting up of ancillary and auxiliary industries.*

Name of the Undertaking	Whether set up or not	Remarks
1	2	3
Bhilai Steel Plant	Yes	An Industrial Estate sponsored by the Madhya Pradesh Government has developed around Bhilai and is being utilized by the Project.
Rourkela Steel Plant	Yes'	(i) Industrial Estates set up by the State Government. (ii) Pipe Plant for producing Steel Pipes from strip produced by the Rourkela Steel Plant.
Hindustan Teleprinters Ltd.'	Not set up so far. But proposed to be set up.	The following items are to be farmed out :— (1) Aluminium and cast iron castings. (2) Plastic moulding. (3) Rubber moulding cables.
Fertilizer Corporation of India Ltd.	Not set up	
Pyrites and Chemical Development Co. Ltd.	Not set up	Not much scope for ancillary and auxiliary industries because the sulphuric acid produced will be supplied to the Sindri Fertilizer Factory and Bihar Superphosphate factory.

1	2	3
		Great quantities of limestone and other raw materials necessary to support a heavy chemical industry are available in the Amjhore area. In order to obtain the maximum advantage of this, it may be desirable at a later stage to explore the feasibility of having a chemical industry within a distance of a few miles around Amjhore.
Indian Drugs and Pharmaceuticals Ltd.	Not set up so far. Proposed to be set up.	Establishment of ancillary and auxiliary industries will be pursued by the Company in the light of their requirement. The Company is taking up the matter with the State Governments in consultation with Public Sector Undertakings situated closely.
Indian Oil Corporation Ltd. (Marketing Division)	Yes	Blending plant set up.
Indian Oil Corporation Ltd. (Refineries Division)	Not set up	
Coal Washeries Project	Not set up	No ancillary and auxiliary industries were contemplated for Bhojudih and Patherdih Washeries. However, Chandrapura Power Station was planned by the Government of India to be constructed in the proximity of Dugda Washery to consume washery by-products (i.e., middlings and rejects from Dugda Coal Washery)
Bharat Earth Movers Ltd.	Not set up so far.	The establishment of Ancillary and Auxiliary Industries was not considered in the Project Report. However,

1	2	3
Hindustan Organic Chemicals Ltd.	Not set up	<p>it is envisaged that quite a few items will be bought out like engines, tyres, transmission batteries, forgings and castings, etc. from indigenous sources.</p> <p>Does not arise because the Undertaking is still in a formative state.</p>
Hindustan Antibiotics Ltd.	Yes	<p>The following ancillary industries have been established by the indigenous entrepreneurs and wherever assistance was required for the import of machinery, the same has been given.</p> <p>(i) Glass factory for the manufacture of the requirements of glass vials—</p> <p>(ii) Fabrication factory for the manufacture of chemical plant and equipment required for the operation and maintenance of the factory and also for newer projects.</p> <p>(iii) manufacture of phosphoric acid.</p> <p>(iv) manufacture of rubber stoppers for vials.</p> <p>(v) manufacture of sterile surgical cotton.</p> <p>(vi) printing press for printing cartons, labels, inserts, literatures etc.</p> <p>The following are under contemplation :—</p> <p>(i) manufacture of packing cases.</p> <p>(ii) manufacture of phenyle-acentric acid and acetamide.</p>

1	2	3
Hindustan Insecticides Ltd.	Yes	Some small scale industries have been granted licences for formulation of DDT.
Instrumentation Ltd.	Not set up so far. But proposed to set up.	It is proposed to farm out manufacture of packing cases and cardboard carton and manufacture of packing cases and recording charts to indigenous manufacturers at a later stage.
NEPA Mills Ltd.	Yes	Project has set up a caustic soda plant of its own.
ONGC	Yes	In the Oil Industry, it is principally the utilisation of crude oil and gas that is to be considered. Accordingly, on the basis of crude oil available in Gujarat, a refinery of two million tons per annum capacity (initially to be expanded to 3 million tons capacity almost immediately) was planned to be set up by the Commission. It is now under construction and is expected to be completed progressively from early 1965 to the first half of 1966 (from an initial processing capacity of one million tons to the ultimate 3 million tons.)
Hindustan Machine Tools Ltd.	Yes	30 units completed and 20 more expected to start production during 1965-66 (located at Pinjore, Kalamassery and Sonatnagar).
Heavy Engineering Corporation Ltd.	Not set up so far. But proposed to set up.	There are proposals to set up ancillary industries to produce items such as Tools single point, special cutter-drills-reamers etc. Jigs-fixtures, clamp de-

1

2

3

Heavy Electricals Ltd.

Yes. More are proposed to be set up.

vices, Technological structure Non-Standard Equipment mechanised and fabricated jobs, springs (helical and flat). It has been decided by the Bihar Government and the Heavy Engineering Corporation that an Industrial Estate will also cater to the requirements of some other large scale enterprises in Ranchi such as NCDC etc.

Government of M.P. is establishing a factory for our requirements of paper covered copper conductors.

The following are being taken up departmentally:—

- (i) Die casting in Aluminium, mazak Brass etc.
- (ii) Plastic moulding in Phenolic resins, polythene, Nylone, Fibre, Glass Rubber etc.

The following will be taken up in the Third Phase of development of ancillary industries.

- (i) Production of Indicating Instrument such as Pressure Gauges, Dial Thermometers Liquid Level gauges, Revolution indicators and counters.
- (ii) Production of pipe fittings valves cocks drains fittings, level gauges.

1	2	3
Bharat Heavy Electricals Ltd.	Not set up so far. But proposed to be set up.	<p>For certain other products ancillary industries already exist.</p> <p>For Hardwar Unit, the ancillary industry is being set up by the State Government in consultation with Bharat Heavy Electricals Ltd. In the case of Tiruchirapalli list of bought out items as shown in the DPR has been supplied to the Industries department of the State Government who are contemplating establishment of an industrial estate near this factory. Much progress has not been made since the intending entrepreneurs would need some greater details on the equipment and this cannot be given till final designs for the products to be manufactured by the factory are completed.</p>
Alloy Steel Project	Not set up so far. But proposed to set up.	<p>Project envisages setting up of (a) Ferro Alloy Plant for production of Ferro Alloy of Tungsten Vanadium molybdenium together with low carbon Ferro chromium and Ferro manganese and (b) an electrode plant may be set up by Alloy Steel Plant itself.</p>
Neyveli Lignite Corporation Ltd.	Yes	<p>Briquetting and carbonising plant, fertilizer plant, the clay washing plant and Thermal Plant are in the nature of ancillary industries set up as part of the project.</p>
National Instruments Ltd.	Not set up. Need does not arise.	<p>The nature of the products to be turned out does not necessitate any outside</p>

1	2	3
		cooperation for production to be provided for the project.
Hindustan Photo Films Manufacturing Co. Ltd.	Not set up so far; but being set up.	Ancillary units for organic synthesis of chemical and for refining similar and making silver nitrate being set up as part of the project and are expected to commence production by end of 1965. For others indigenous manufacture in the country is being encouraged and their supplies will be available by end of 1965.
Hindustan Cables Ltd.	Not set up	No ancillaries contemplated in the original project.
N.C.D.C. Ltd.	Not set up so far but proposed to be set up.	Proposals for setting up low temperature/high temperature/carbonisation under consideration. For this necessary investigations are being made. It is too early to state how far these proposals would materialise.
Indian Telephone Industries Ltd.	Not set up so far.	Required terminals for capacitors. Number of units have been recommended to I.T.I.
F.A.C.T. Ltd.	Not set up	Does not arise
Hindustan Aeronautics (Kanpur) Ltd.	Yes	Light Alloy sheets for Aircraft use being produced by M/s. Indian Aluminium Co. Ltd. Two private firms producing plywood and spruce wood for use in glider construction.
N.M.D.C. Ltd.	Not set up	
Cochin, Refineries Ltd.	Not set up	No ancillary and auxiliary industries are contemplated at present.

1	2	3
Praga Tools Ltd.	Yes	
Bharat Electronics Ltd.	Not set up [Ancillary] units for producing so far. But [some of the parts expected proposed] to commence production to be set up in 1965. Land has been earmarked for the development of 13 small scale ancillary units.	



## APPENDIX IV

(Vide para No. 86)

*Statement showing names of projects and their foreign consultants.*

Indian Telephone Industries Ltd.	Automatic Telephone and Electric Co. Ltd., U.K.
Gauhati Refinery . . . . .	M/s. Industrialexport, Rumania.
Barauni Refinery . . . . .	M/s. Taijpromexport, Moscow.
Fertilizer Corporation of India Ltd.	
Sindri Factory.	Chemical Construction Corporation, U.S.A.
Nangal Factory . . . . .	M/s. Vitro Engineering Division.
National Mineral Development Corporation	
Kiriburu Project. . . . .	Japan Consulting Institute, Japan.
Khetri Project . . . . .	M/s. Western Krapp Engineering Co., U.S.A.
Panna Diamond Mining Project . . . . .	M/s. John Taylor & Sons, U.K.
NEPA Mills Ltd. . . . .	Ebasco Services Incorporated, U.S.A.
Heavy Electricals Ltd., Bhopal . . . . .	(i) M/s. Associated Electrical Industries Ltd. (ii) M/s. English Electric Co. Ltd. (iii) M/s. British Insulated Cables Ltd.
Bharat Heavy Electricals Ltd.	
Hardwar Unit] . . . . .	M/s. Prommashexport, USSR.
Hyderabad Unit . . . . .	M/s. Technoexport, Czechoslovakia.
Tiruchirapalli . . . . .	Do.
●ochin Refinery . . . . .	Phillips Petroleum Co., U.S.A.
Mindustan Organic Chemicals Ltd. . . . .	A consortium of Bayers, Bodische, Hoechst & Udidi; firms of West Germany.

**Hindustan Machine Tools Ltd.**

- Machine Tool Factory . . . M/s. Oerlikons, Switzerland.  
 Watch Factory . . . M/s. Citizen Watch Co. Ltd.,  
 Japan.  
 Bharat Earth Movers Ltd. . . M/s. A.T. Kearney International,  
 U.S.A.  
 Bharat Electronics Ltd. . . M/s. C.S.F., France.

**Hindustan Aeronautics Ltd.**

- (i) Gnat Project . . . (i) M/s. Folland Aircraft, U.K.  
 (ii) Alouvette Helicopter Project . . (ii)(a) M/s. Sud Aviation  
 (b) Turbo Mecca  
 (iii) Aero Engines . . . (iii) Bristol Siddley/Engines and  
 Rolls Royce Ltd., U.K.  
 (iv) Foundry & Forge Projects . . M/s. High Duty Alloys, U.K.  
 (v) MIG Project . . . U.S.S.R.

**Hindustan Steel Ltd.**

- (i) Durgapur Steel Plant . . . International Construction Co.  
 Ltd., U.K.  
 (ii) Bhilai Steel Plant . . . Tjazhpromexport, USSR.  
 (iii) Rourkela Steel Plant . . M/s. Krup & Demag, Ger-  
 many.  
 (iv) Coal Washeries Project (Dugda M/s. International Construction  
 Bhojudih) Co. Ltd.  
 (v) Alloy Steel Project . . . (a) M/s. M.N. Dastur Co. (P)  
 Ltd., India.  
 (b) M/s Atlas Steel Ltd.,  
 Canada.

Bokaro Steel Ltd. . . . Giprommez, USSR.

Hindustan Shipyard Ltd. . . . M/s. Atlier et Chantiers de la  
 loire, France.

**Neyveli Lignite Corporation Ltd.**

- Mining Scheme . . . (i) M/s. Powell Duffryn Tech-  
 nical Services, U.K.

**Heavy Engineering Corporation Ltd.**

- Heavy Machine Building and Coal (f) M/s. Prommashexport, USSR.  
 Mining Machinery Projects.  
 Foundry Forge Project and Heavy (ii) M/s. Technoexport, Czecho-  
 Machine Tools Project. slovakia.

Instrumentation Ltd.	.	M/s. Prommashexport, USSR.
National Instruments Ltd.	.	Do.
Hindustan Photo Films Mfg. Co. Ltd.	.	Ets. Bauchet & Cie, France.
Indian Drugs & Pharmaceuticals Ltd.	.	M/s. Technoexpert, USSR and Technological Consultancy Bureau of NIDC.
Hindustan Cables Ltd.	.	M/s. Standard Telephones and Cables Ltd., U.K.
Hindustan Teleprinters Ltd.	.	M/s. Ing. C. Olivetti & Co., Italy.

## APPENDIX V

(Vide para No. 196)

*Difficulties experienced in the matter of transport.*

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Name of the Project	Nature of difficulties
<i>Hindustan Steel Ltd.</i>	
Bhilai Steel Plant . . .	Difficulties were experienced in the transportation of oversized consignment for which various Indian Railway facilities were not originally contracted.
Durgapur Steel Plant . . .	Experienced difficulties in the initial stages.
Rourkela Steel Plant . . .	During construction stage there had been difficulties in the movement of equipment to Rourkela since there was congestion in the port due to which bulk of the equipment for the construction of the plant had to be transported during a short period.
Coal Washeries Project . . .	During 1960-61 wagons scarcity was felt for transport of cement from Sindri to Bhojudih and practically whole of cement had to be transported by bullock carts and trucks. Similarly several consignments despatched from Calcutta to Bhojudih took unreasonable time even to the extent of 2-3 months to reach site which are generally expected within a week or so. Part of the consignments were transported by trucks.
<i>Hindustan Insecticides Limited</i>	Delays in the movement of benzene wagons.

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Name of the Project	Nature of difficulties
<i>Neyveli Lignite Corporation Ltd.</i> Thermal Power Scheme	Heavy Equipment upto 98 tonnes were required to be carried over the road from Madras to Neyveli for about 145 miles. This was far above the normal capacity of bridges and culverts enroute. Hence special works for strengthening of road and culverts and where necessary diversions of road were taken up, to overcome the difficulties of moving heavy loads. A 120 ton tractor trailer was specially procured and employed for the transport. Similarly a number of 75 ton capacity mobile cranes were purchased for handling these heavy loads in the harbour area.
Fertilizer Scheme	Some of the heavy equipment could be moved from Madras Harbour only in trailer by road. Railway wagons had also to be modified. Certain indigenously fabricated materials from Bombay and Calcutta had to be brought by road incurring extra expenditure due to difficulty in getting timely railway wagons allotment.
Briquetting and carbonising scheme	Culverts and bridges on the highway from Madras to Neyveli had to be strengthened or diversions provided.
<i>Heavy Engineering Corporation Ltd.</i>	Considerable difficulty in the clearance of oversized consignments through Calcutta Port. In a solitary case regarding transport of precipitator items which were very oversized difficulties had to be faced and the same were overcome by transporting the items by Durgapur canal upto Durgapur and by road to Ranchi from Durgapur.

Name of the Project	Nature of difficulties
<i>Fertilizer Corporation of India.</i>	
Sindri . . . . .	Some of the equipments acquired from abroad could not be moved by rail. The same were transported in barges from Calcutta to Patna from where they were moved on trailers.
Trombay . . . . .	Difficulties were experienced in transporting plant and machinery as some packages consigned were over-dimensioned and could not be transported by rail from the docks to the factory site. They had to be brought by special road transport with trailers during night time on account of restrictions on the movement of such packages during day time.
<i>National Mineral Development Corporation Ltd:</i>	
Bailadila Iron Ore Project . . . . .	Plant has not arrived. Certain difficulties expected for the transport of the heavy equipment because the bridges and the culverts are not strong enough to carry the load. State Governments have been addressed and the work is going on at some major bridges and culverts.
Khetri Project . . . . .	Location is such that it does not lie on any railway line. For the present the mode of transport has been a meter gauge railway line about some distance away from the project site.
<i>Heavy Electricals Ltd.</i> . . . . .	Attempt is made to move the oversize consignments by the Road.

Name of the Project	Nature of difficulties
<i>Bharat Heavy Electricals Limited.</i>	
Hardwar Unit	Lot of material that was transported was oversized. The same had therefore to be brought by Road.
<i>Indian Oil Corporation Limited</i>	In view of the shortage of the BFR wagons, there has been delay in construction of some of our depots, as tanks could not be transported to up country sites in time.
<i>Hindustan Machine Tools Ltd.</i>	Shortage of wagons particularly BFR, and crane facilities.
<i>Hindustan Shipyard Ltd.</i>	At times experiencing difficulties for movement of the materials by rail due to railway restrictions in movements.
<i>Oil and Natural Gas Commission</i>	Difficulty in transporting rigs to well sites.

## APPENDIX VI

### *Summary of Recommendations/Conclusions of the Committee on Public Undertakings contained in the Report.*

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Sl. No.	Ref. to Para No. in the Report	Summary of Conclusions/Recommendations
(1)	(2)	(3)
1	8	<p>The Committee recommend that at the time of setting up of a public undertaking, Government should indicate the specific objectives for which it is being set up, the precise targets which it has to achieve and also indicate the time schedule for completion and the cost estimated. Although it might not always be possible to spell out in great details some of these matters at the initial stages of the undertakings, nevertheless some broad indications of these could be given at that stage supplemented by further instructions and directions as the project progresses. It is not the intention of the Committee that Government should take the initiative in this regard. That initiative should rightly vest in the undertaking. The Committee feel that from time to time Government should indicate what the undertaking should attain in a prescribed period. This would not only serve as an incentive to the undertaking but also give Government a yardstick to measure its performance. The Committee hope that Government would issue suitable Instruments of Instructions to all the public undertakings as and when they are set up.</p>
2	II	<p>The Committee consider that since the techno-economic feasibility study and the preliminary project report contain almost similar information, it should not ordinarily be necessary to have both the techno-economic feasibility study as well as the preliminary project report before deciding upon a project because preparation of both led to delay in the execution of the project and increase in cost. There might of course be cases where collaborators who offer foreign credit want for their own satisfaction, a second report</p>

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(although a techno-economic feasibility study had been made) to determine the technical and economic soundness of a project. The Committee consider that such occasions would be few and far between and if the techno-economic feasibility study was carried out in a reasonably detailed manner there would be no need for a preliminary project report.

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The Committee would stress the utmost need for closely scrutinising the figures and data supplied which form the basis for embarking on a project. It is worthwhile considering how in the case of Phyto Chemical Project of Indian Drugs and Pharmaceuticals Ltd., wrong data came to be supplied. It should also be borne in mind that in their eagerness to have the project located in their territories, it is possible that the State Governments may not give the same care and attention to basic data as is necessary. The Committee would, therefore, recommend that the Central Government should exercise a close and independent check on any data supplied by the State Governments.

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18-20

It appears that there is no clear understanding as to the various aspects that a techno-economic feasibility study should cover. The Committee feel that absolute uniformity in this respect is not possible and some variation according to the nature and size of the undertaking to be established is inevitable. Information such as demand projections, raw materials, size and technology of the project, location, earning estimate (profitability) is, however, basic and should be included in all techno-economic feasibility studies. As it is on the basis of such a study that a project is approved or embarked upon it would be worthwhile undertaking a detailed study of what should be included in the techno-economic feasibility studies. Since the techno-economic feasibility study is the only basis on which the Cabinet approves a project and subsequent reports do not usually go to it, it is but proper that when a proposal goes before it all its technical and economic aspects are placed before it. The Committee would, therefore, recommend that a check list of all the aspects that a techno-economic feasibility study should include should be drawn up for the guidance of all those who have to deal with the planning of projects.

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| 5   | 22    | The Committee hope that suitable programme for expansion of the activities of public sector undertakings in the matter of conducting techno-economic feasibility studies will be drawn up and implemented.  |
| 6   | 23    | The principal difficulty of developing our own agencies for feasibility studies and Detailed Project Reports is the absence of suitably trained Indian engineers. The Committee note that in a few cases Indian engineers have been associated with foreign agencies in conducting feasibility studies. This has not been done in every case. The Committee would recommend that as long as we have to depend upon foreign agencies for preparation of these studies the Government should invariably insist that a group of our own engineers and technicians be associated with the foreign agencies to learn the preparation of the techno-economic feasibility studies.   |
| 7   | 24-26 | At present no advance feasibility studies for the setting up of projects in the public sector were undertaken, except for the steel plants and a few other industries with the result that considerable time had to be spent on preliminary investigations before deciding on them. The Committee feel that Government should set up an agency with a continuous programme for conducting feasibility studies in the various industrial spheres so that it may have a large number of such studies in hand and as soon as the resources are available the more promising among them may be chosen for preparation of Detailed Project Reports.  |
| 8   | 28-30 | There is no uniformity at present about the information included in the note submitted to the Cabinet seeking approval for a public sector project. In certain cases, e.g. Hindustan Photo Films Ltd., Oil Refineries Ltd., the Cabinet approval had been taken on very meagre data such as capital cost, foreign exchange savings or only the demand for the products. The Committee recommend that Government should lay down the form and the manner in which the Cabinet's approval to projects is sought. For this purpose a list of all the basic information to be included in the note should be drawn. It should be ensured that nothing of importance from the technical or economic point of view is omitted |

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The Committee would further suggest that every proposal which is put up to the Cabinet for approval should invariably contain indication of the investment output ratio, so that economic viability of the project is also clear.

- 9                    33    While appreciating the possibility of exceptional circumstances, the Committee recommend that since it is only the techno-economic feasibility studies and no other reports pertaining to a project go before the Cabinet, this rule should be made unexceptionable.
- 10                  35-38 Detailed Project Reports had not been prepared in the case of certain projects. It was explained during evidence that in the above cases, there were certain other reports which were considered equivalent to Detailed Project Reports. The reports of the Estimate Committee and the Committee on Plan Projects, however, show that the absence of such reports had led to delays, schedule stoppages, cost overruns etc. The Committee are, therefore, of the view that no project should be approved unless a Detailed Project Report has been prepared.
- 11                  39-45 The Committee noticed that in the case of a number of projects, project reports were prepared twice, because either the product mix of the project was revised (e.g. National Instruments Ltd.) or the target of production was revised (e.g. Coal Mining Machinery project of HEC) or the assumptions on the basis of which the first project report was prepared were later found to be not correct (e.g. Panna Diamond Mining Project of the N. M. D. C.) or the report was not found satisfactory (e.g. Mining Project of Pyrites & Chemicals Developments Co., Ltd.). The Committee feel concerned at the manner in which the project reports have been commissioned, without first having a definite idea of the product mix or the quantity to be produced. Such incomplete reports necessitate supplementary project reports. Apart from the amount spent in getting such further reports, the delay they cause in launching of projects is also a matter of concern. Except in the case of Bokaro, the Committee do not feel that a second project report was unavoidable. They feel that with some foresight and proper planning in each case, this could have been avoided and considerable infructuous expenditure and time could have

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been saved. They hope that necessary steps would be taken to prevent recurrence of such shortcomings.

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46-49

From the study of the Detailed Project Reports of the various projects, the Committee noticed that the aspects covered in the Detailed Project Reports varied from project to project. In the opinion of the Committee, though some variations in the aspects to be included in the such Reports might be occasionally necessary, no Detailed Project Report should lack basic information such as the cost and profit estimates, manpower requirements, source, cost and consumption of raw materials etc. To obviate the chances of omissions of important aspects from the Detailed Project Reports and also in the interest of proper execution of the projects the Committee would recommend that Government should evolve a standard check list of items which should invariably be included in all the Detailed Project Reports. It should not be difficult to compile such a check list in view of the experience so far gathered in the matter of setting up of public sector projects. The Committee recommend that a team composed of Government officers who have been closely connected with the preparation of Detailed Project Reports, senior executives who have been entrusted with the execution of, setting up or operation of projects together with technical experts should be appointed to evolve a standard check list.

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The Committee appreciate that if a fairly detailed report is available in anticipation of aid, the time to be spent on the preparation of a Detailed Project Report could be shortened. In the opinion of the Committee the moral of the Bokaro Steel Project Report is that a Detailed Project Report should not be prepared until, the source of foreign assistance is located. The Committee, therefore, recommend that in cases where the implementation of a project is dependent on foreign assistance, being assured, Government should have only a techno-economic feasibility study prepared in detail giving enough basic information to the aid giving country to determine its feasibility.

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The time taken for the preparation of Detailed Project Reports has varied from 1 year to 1 year

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7 months. While appreciating the need for adequate investigation at the preliminary stage and also the divergence of practices in this regard in the East European and the Western countries in the nature and contents of the Detailed Project Report prepared by them the Committee feel that the longer time taken in the preparation of the Detailed Project Reports in the past has not been solely for these reasons. It is not clear to the Committee how in the absence of a study of the time taken for the preparation of the Detailed Project Report in foreign countries—a fact which was admitted by the representatives of the Ministries during evidence—the Government was able to determine the reasonableness of the time required for preparation of a Detailed Project Report. Further, it is understood that though a certain time limit was stipulated in the agreements with the foreign consultants for the preparation of the Detailed Project Reports quite often the actual time taken exceeded the time agreed upon. The delay in drawing up the Detailed Project Report by foreign consultants was also due to our delay in supplying the required data. In view of the above, the Committee recommend that Government should take necessary measures to avoid any loss of time in the preparation of Detailed Project Report in future. In this connection a study of the normal time taken in the preparation of Detailed Project Report in foreign countries should prove helpful to the Government.

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Regarding the supply of essential data to the consultant, the Committee would suggest that as soon as Government decision is taken to set up a project, the collection of data normally required by the consultant should also be proceeded with. For this purpose Government should also prepare a list of information generally sought by the Consultants, for the preparation of the Detailed Project Report.

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61-63

From the information furnished, the Committee notice that quantum of fees paid to the Consultants for the preparation of the Detailed Project Report has varied from project to project even in the same group of industry. While understanding the business interests of the consultants, the Committee feel that the difference of fees in the case of projects of a similar nature

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should not be great. Fees paid to the earlier consultants should be kept in view as a yard stick while negotiating with the consultants for future projects of similar nature. The Committee hope that these aspects will be borne in mind while entering into agreements with the consultants in future.

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66-67

The Committee are glad to know that the future policy of the Government is to set up organisations such as the Planning and Development Division of the Fertilizer Corporation of India Ltd., in all the projects. But they cannot help remarking that the progress in setting up such organisations has been rather slow. For instance, the Committee cannot understand why in the field of heavy engineering and electrical engineering industries, no Planning and Development units have so far been set up. The Committee are of the opinion that in view of the large sums paid to the consultants for drawing Detailed Project Reports and preparation of working Drawings, the need for setting up agencies, for drawing of Detailed Project Reports, in all the undertakings need hardly be emphasised. Such organisations will not only help in the development of know-how within the country which would avoid dependence on other countries but would also help in the pooling of experience and building up of necessary knowledge which would be available for the future projects. The Committee trust that necessary steps would be taken by Government to develop Planning and Design Organisations in all the industries.

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While appreciating that the time spent on studying the Detailed Project Report should not be unduly shortened because that might lead to much greater wastes later, the Committee consider that the time taken in the case of some of the undertakings was too long and cannot be justified. The Committee would recommend that a time table should be prescribed for the completion of the scrutiny by an *ad hoc* Committee appointed to examine a Detailed Project Report. Further, with a view to save time, the Detailed Project Reports should be simultaneously circulated to the various concerned agencies so that they might be in a position to give their views as soon as a reference is made to them.

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19	71-76	<p>Ancillary and auxiliary industries have been set up around very few undertakings, and that too recently. During evidence, it was explained to the Committee that Government's view was that consistent with their desire to promote small-scale industries wherever any large industry was established, growth of ancillaries should also be stimulated. From the information furnished to them the Committee, however, do not feel that enough attention has been given to setting up of such industries so far although some of the public sector projects have now been established or have been working for more than a decade. This is also confirmed by the Memorandum on the Fourth Plan. In view of the tardy growth of such industries and what has been stated by the Praga Tools Limited, the Committee feel that a study of the procedure for setting up such industries should be made with a view to rationalize and simplify it.</p>
20	77-78	<p>The Committee observe that while at least some steps have been taken or are proposed to be taken towards setting up ancillary industries, practically no efforts have been made towards setting up auxiliary industries. The Committee consider that there is considerable scope for development of auxiliary industries based on the main and by products of the public sector projects. In the absence of auxiliary industries the by-products are being wasted or not put to proper use or sold at a low price thus resulting in loss to the undertakings. As we industrialise further this loss would become even greater. In view of this, suitable programme for development of these industries is essential and it should be drawn up.</p>
21	80	<p>Considering the urgency and advantages of setting up of ancillary and auxiliary industries on the one hand and near absence of such industries on the other hand, it appears to the Committee that the assessment made by the Central Small Industries Organization of the need and scope of the ancillary and auxiliary industries for all public sector projects has not been useful, or taken any concrete shape as yet. The Committee would, therefore, recommend that a</p>

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Team on the lines of Ship Ancillary Industries Committee appointed for the Hindustan Shipyard Limited, should be appointed to assess the requirements of ancillary and auxiliary industries in the public sector projects and to suggest measures for expeditiously setting up such industries. This team should suggest which ancillary and auxiliary industries should be set by the Plants themselves and which should be farmed out to the private sector, with or without assistance from the project. The items which could be farmed out should be properly publicized.

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81-83

The Committee noticed that in the case of a large number of undertakings like the Bhilai Steel Plant, Coal Washeries Project of the Hindustan Steel Limited, Heavy Engineering Corporation and the projects of the Indian Drugs and Pharmaceuticals Ltd. etc., no indications regarding their ancillary and auxiliary industries were given in their Detailed Project Reports. The Committee consider that suitable principles regarding inclusion of ancillary and auxiliary industries in the Detailed Project Reports should be evolved by all the projects. They feel that if the parties who are entrusted with the task of preparation of the Detailed Project Reports are instructed to that effect, it should be possible for them to give enough data and indications in the Detailed Project Reports about the setting up of such ancillary industries. They hope that in the check list of items to be included in the Detailed Project Reports, recommended in para 49 ancillary industries would also be added.

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So far as auxiliary industries are concerned, the Committee visualize that though it might not be possible in the Detailed Project Reports to indicate the auxiliary industries which could be established on the basis of the main product of the undertaking, it might be possible to give some broad indication thereof in the techno-economic feasibility studies. By making a study of the auxiliary industries established abroad, it should be possible to make an accurate assessment of the possibilities. Furthermore, whenever we go in for foreign collaboration we could ask the collaborators to make provision or give us the know-how about establishment of suitable auxiliary industries.



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24	87-92	<p>The Committee observe that a large number of projects have been set up on turnkey basis, which according to the representatives of the Ministries cost more but there was saving in time of say 6 months to 1 year. The Committee consider that the saving in time in the completion of projects must be weighed against the disadvantage of Indian engineers not being able to learn the setting up of such projects and the extra expenditure that has to be incurred on the project as a whole. The Committee therefore recommend that setting up of plants on turnkey basis should be confined to cases where time is of essence or where we lack the necessary technical skill and know-how.</p>
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25	93-96	<p>The Committee noticed that in the case of the Heavy Power Equipment Plant and the Boiler Plant of the HEL the consultants, M/s Techno-export (Czechoslovakia) prepared, besides the outlines of the main sections of the Plants, outlines for all auxiliary shops (e.g. carpenters shop, oxygen house) and wood storage coke yard, garages and fire station, locomotive shed, kitchen and dining room, cycle stand car parking garages, parking places and bus stand. Similarly, in the case of the National Coal Development Corporation Ltd., collaborators prepared Detailed Project Reports, designs, working drawings. In the case of Heavy Engineering Corporation contracts were entered into with USSR and Czech Consultants for organisation manuals at a total cost of Rs. 27.24 lakhs. Further in the case of the Nangal Unit of the Fertilizer Corporation of India Ltd., the consultants were asked to prepare a design of storage silo. Likewise, in the case of Gujarat Refinery, the drawings for the workshop buildings were obtained from abroad.</p>
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During evidence, it was explained that it was now Government's policy not to encourage foreign collaboration if it can be avoided except in the cases of turnkey jobs. According to the Secretary, Ministry of Industry and Supply "Even where a turnkey job is given, there is nothing to prevent us from telling them that in regard to these items they need not do anything more than give out a site plan indicating locations so that they may not interfere with

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the flow of goods in and out of the main factory." Government is understood to have requested all Ministries to issue instructions to this effect to all the public undertakings.

The Committee hope that the instructions issued to the Ministries in this regard would be strictly followed. They would suggest that the Committee of Secretaries appointed to negotiate and scrutinise foreign collaboration proposals should pay special attention to this aspect. To assist the Committee of Secretaries in the above job a review of consultancy arrangements should be conducted to prepare a list containing items on which foreign consultancy should not be allowed. This list should be revised from time to time in the light of further progress in technical know how and availability of plant and machinery in the country.

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98-100

While the services to be rendered by the Consultants are bound to differ from undertaking to undertaking according to the nature and extent of collaboration sought, the Committee noticed that in certain basic matters viz. rights of project authorities and obligations of the consultants there also existed diversities. Apart from these diversities, certain shortcomings in the contracts have also come to the notice of the Committee. The Committee would, therefore, recommend that a review of all the past consultancy agreements entered into with foreign collaborators should be made with a view to draw up suitable model terms for future guidance of all the public undertakings. Such a review may also include agreements with foreign consultants entered into by large private undertakings.

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101-103

The Committee observe that fees paid to the Consultants have varied widely between various undertakings. The Committee consider that although it might be difficult to lay down detailed principles to determine the reasonableness of the fees to be paid to the Consultants, some guidelines for those who negotiate with collaborators must be drawn to determine the fees.

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The Committee would in this connection further add that the skill of our representatives who negotiate with foreign collaborators (and

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most of our consultancy arrangements have been settled in this manner rather than by inviting tenders) lies in obtaining collaboration on favourable terms. If a very high percentage of the foreign credit is to be repaid as fees to the collaborators or the consultants, the advantage of foreign collaboration to the extent is diminished. The Committee would suggest that greater emphasis should be laid in future during negotiations towards reducing the consultancy fees to the minimum.

29. 105-107 It is noticed that in the cases of a number of undertakings, the consultants/collaborators were not required to submit any report regarding progress of work. The Committee consider that reports from consultants at regular intervals are very necessary to enable management to attend to any difficulties that the consultants might have and to remedy them. Furthermore if the consultants have to submit reports in writing they would be more careful to comply with the provisions of agreement than otherwise. By reducing such matters to writing, the chances of there being difference of opinion later on in case the time schedules etc. are not kept will also be minimised. The Committee would, therefore, suggest that in the terms of agreements, there should invariably be a provision that the consultants will submit reports on the progress of work to the undertakings at prescribed intervals. A copy of such reports should also be forwarded to the Government so that the latter can watch the progress of the Project and give directions, if necessary.

30. 110 The Committee noted that apart from the construction of Projects, the duties of the Consultants also included the preparation of Detailed Project Report, supply of working drawings, preparation of tender documents, supply of plant and machinery etc. In the absence of a provision in the agreement relating the payment of fees to the progress of work, it would be difficult to ensure that the performance of the consultants is satisfactory. In case the contract with the consultants does not stipulate payments to be made to them according to the progress of erection/establishment of the project but only
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links them with the passage of time, as is the case with the Alloy Steel Project, payments have to be made to the Consultants at the stipulated time whether the projects makes any progress or not. The presence of such a provision in the contract in respect of other projects such as Instrumentation Ltd., Khetri Copper Project of N.M.D.C. would itself prove the utility of such a condition. The Committee, therefore, suggest that payments should be linked to the performance of the Consultants. The representatives of the Ministries agreed to the suggestion.

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III-115

A number of projects or their units which had been completed/commissioned had been delayed. Besides a number of projects under construction (such as Alloy Steel Project) were also likely to be delayed. The Committee realize that a certain measure of delay in the commissioning of the projects might be inevitable due to dependence on foreign help or the nature and size of the projects or the shortages of materials. The Committee also appreciate the steps taken to meet the fundamental needs of the projects such as cement, fabricated Steel etc. But they are not convinced that the Ministries have pursued the progress of the projects under them as closely as they should have done. In fact the Secretary, Department of Heavy Engineering admitted that the scrutiny of the reports sent by the project authorities was not as sufficient and detailed as he would have liked them to be. The Committee consider that in the formative stages of the project, the responsibility of the Ministries should not cease after sanctioning the project and or entering into agreement with collaborators, but they should also see that they progress according to the schedule and whatever difficulties are likely to arise in their implementation are foreseen and attended to. In their report on the Fertilizer Corporation of India Ltd., the Committee have already emphasized the need for setting up Technical Planning Cells in each Ministry at an early date as recommended by the Planning Commission. It should be the responsibility of these Cells to analyse the reports received from the projects systematically and suggest remedial action in time.

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32	117	The Committee were informed that instructions had been issued to all the undertakings to draw up a time schedule, if not already done, covering all their construction programmes relating to the different Departments/Wings of their project. They trust that Government would ensure that the Instructions are implemented and if there are any difficulties the same are attended to promptly. The time schedules draw up by the consultants/project authorities should be fairly detailed to enable the management to keep a close watch over the progress of the project.
33	118	The Committee would further recommend that project authorities should be asked to prepare subsidiary time schedules, within the broad time schedules worked out in the Detailed Project Reports as has been done in the cases of the Alloy Steel Plant (separate programme for each shop); Neyveri Lignite Corporation Ltd.—Mining, Thermal Power, Fertilizer and Briquetting & Carborising schemes (detailed erection schedule for civil works etc.), and Instrumentation Ltd. (detailed subsidiary time-schedules for the training programme and the construction programme). Such schedules would be helpful in achieving the over-all time schedules.
34	119	The Committee would also recommend to the project authorities the adoption of one of the latest methods of time scheduling prevalent in the Western countries such as PERT. (Programme Evaluation and Review Technique).
35	120-122	The Committee noticed that in the cases of some projects viz., H.M.B. & C.M.M. Projects of the Heavy Engineering Corporation Ltd., National Instruments Ltd. etc., time schedules for the completion of the Projects were not included in the Detailed Project Reports, whereas in others like the Alloy Steel Project, Neyveli Lignite Corporation Ltd., Heavy Electricals Ltd., these were included in the Detailed Project Report. The Committee consider the preparation of time schedule as most essential for the timely completion of projects. As far as possible such a schedule should be in the Detailed Project Report itself but if for any reason it is not possible to do so, it should at least be worked out and laid down immediately after the receipt of the Detailed Project Report.

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| 36  | 124     | <p>There is no easy solution to the problem of scarcity of foreign exchange. But so far as the plant and machinery and spares required by the undertakings at their initial stage are concerned, the Committee feel that since most of our projects are based on foreign credit, the problem could be largely met by proper advance planning. The Committee have already in para 53 ante recommended that as far as possible the source of foreign assistance should be ascertained before preparing the Detailed Project Report.</p> <p>In order that this salutary principle achieves its purpose it is imperative that the estimates of foreign exchange requirements are made most accurately and no item requiring foreign exchange is left out. Once the estimates are prepared and foreign exchange is made available, public undertakings should exercise the utmost discipline in the use of imported material and machinery. The Committee feel that with better estimation of requirements of foreign exchange before the project is sanctioned and strict discipline in the use of imported material etc. some of the difficulties mentioned in the para 123 could have been avoided.</p> |
| 37  | 127     | <p>It has not been possible for the Committee to examine the procedure regarding sanctioning of foreign exchange but from the instances cited (in paragraph 125) it is obvious that the existing procedure has hindered the timely completion of projects. The Committee understand that the procedure for release of foreign exchange has been enquired into by the V.K.R.V. Rao Committee on the Utilisation of Foreign Aid and the Study Team on the working of the D.G.T.D. They trust that in the light of the recommendations made by these bodies the procedure dealing with the sanction of foreign exchange for public undertakings will be simplified.</p>  |
| 38  | 128-129 | <p>Apart from the foreign exchange difficulties some undertakings are also stated to have experienced difficulties in the matter of customs clearance and of import licenses. In a note furnished to the Committee after the evidence, the Government have stated that the procedures in this regard are constantly reviewed. The ex-</p>   |

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perience of some of the undertakings would suggest that the procedures leave much to be desired and cause delays. The Committee trust that in the light of the recommendation of the Mathur Team it will be possible for the Government to simplify the procedure regarding import licences and customs clearance in the case of the public undertakings.

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130-133

The orientation of the Plan itself is stated to be to secure indigenous sources of supply of raw materials, spares and components. Further the D.G.T.D. was also stated to be continuously keeping in view the question of import substitution. The Committee, however, noticed that in a few cases the undertakings or the Ministries had not taken any concrete step in this direction. Considering the large foreign exchange expenditure incurred on imports of raw materials etc., the Committee cannot but too strongly recommend the need for continuous survey of raw materials, spares and components within the country and the need for a systematic effort to promote indigenous industry for producing these items. It should be the constant endeavour of the Government and the public undertakings to achieve, as far as possible, self-sufficiency in the matter of procurement of raw materials, spares and components. The Committee have in para 80 suggested the appointment of a Team of experts to assess the requirements of ancillary and auxiliary industries in public sector projects. When such ancillary industries are set up, it might be possible for the indigenous industries to produce more components, spares etc.

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Along with such measures Government should also ensure that where indigenous supplies are available, undertakings are not allowed to import. Some undertakings have created agencies for promoting indigenous industries e.g. the Spares Co-ordination Committee set up by the Oil and Natural Gas Commission and the Indigenous Procurement Committee set up by the Department of Iron and Steel for H.S.L. the Committee welcome such efforts and would urge that similar steps might be taken by the other major undertakings in consultation with D.G.T.D.

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41                    13    The Committee would also suggest that it would be desirable if the Annual Reports of the undertakings indicate the percentage of imported raw materials and components used by them in the manufacture of equipment so that the extent of indigenous raw materials and components used by them is known from year to year.

42                    136—138    Our dependence on imports is more in the case of plant and machinery than in the case of raw materials, spares etc. The progress in setting up of indigenous industry for manufacturing various types of the plant and machinery has been slow. The Committee learn that Government have recently taken steps to set up industrial units in the public sector which would reduce our dependence on imports for the above items of imports. A Committee had also been set up to take stock of the requirements of capital goods in cement, mining, sugar, industries and steel plants.

While welcoming these measures, the Committee hope that necessary lesson would be drawn from the experience of the Third Plan. As plant and machinery constitute the major share of the capital outlay of the project and also of the foreign exchange expenditure, saving on this account would ultimately lead to economy in setting up of projects which in turn will lead to reduction in our cost of production and also save valuable foreign exchange. The Committee realise that to develop indigenous sources of plant and machinery, a great deal of technical know-how is necessary. It would be preferable to buy this know-how than to continue to buy the plants. The Committee hope that this would be borne in mind while finalising the public sector projects to be included in the Fourth Plan.

43                    140    The Committee realize that the scope for standardization may be limited in some undertakings. Even so, effort should be made whenever possible to standardise plant, machinery, spares, components etc., if indigenous industries are to be fostered. The Committee consider that it should be one of the responsibilities of the Planning and Development Units set up in various projects to evolve such standards and to give them wide publicity.

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The Committee noticed that in their anxiety to have adequate spares, components and imported raw materials, the projects, often, at the very initial stages acquired heavy inventories, thus blocking up large amount of valuable foreign exchange. Often these heavy inventories were also unbalanced in the sense that there was too much of some items and too little of others. Such unbalanced inventories caused loss of production through inadequacy of particular item of raw material and spares and components, although there was no overall inadequacy. It has been explained by Government that there were difficulties in restricting the inventories to the required quantity because norms for the inventories have not been laid down. In support of this it was argued that the very fact that some undertakings do have large stocks illustrate the difficulties in establishing norms. The Committee are not convinced by these arguments. In the opinion of the Committee it should be possible though not with absolute accuracy to determine the requirements of raw materials, spare, construction material and equipment etc., at the initial stages of the project, just as it is now possible to determine the requirements of raw materials etc., of operating units in terms of months of consumption. The Committee would therefore suggest that norms in regard to inventories should be worked out and after working out such norms, stricter control on the acquisition of such materials should be exercised in future.

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The Committee notice from the Report of the Company Auditors of HSL for the year 1963-64 that in the case of the Durgapur Steel Plant construction material and equipment of the value of Rs. 71 lakhs was lying in stock. Similar stocks may be found in other undertakings. The Committee would suggest that the possibility of utilizing it for expansion of the units or of lending it to other public undertakings should be examined. The Committee would further suggest that the position of inventories in projects under construction should be included in the 'Annual Report on the working of Industrial and Commer-

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cial Undertakings' published by the Ministry of Finance, which at present confines itself only to inventories of running concerns.

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148-149 The actual expenditure incurred exceeded original estimates by more than 50 per cent in several projects. In some cases (e.g. the steel plants) the rise has been as high as 80 per cent. From a few explanations offered for rise in estimates it is clear that apart from the increase in cost of construction and addition to factory buildings and plants, omission of certain basic items from the project estimates is responsible for subsequent revisions. These are: consultancy fees, customs duty, training of personnel, townships, financing charges, working capital, enabling works etc.

The Committee understand that a check list of project estimates has been prepared by Government for guidance of project authorities and financial advisers in 1959 and has been in vogue since. It is surprising that in spite of such a check list, the project estimates continue to be incomplete and unrealistic.

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The Committee note that the Estimates Committee in their reports on H.E.C. H.E.L. and H.S.L. have repeatedly recommended that project estimates should be prepared as realistically as possible and should include total commitments before they are made available to Government for sanction. This Committee also in their report on Fertilizer Corporation of India Ltd. and Rourkela Steel Plant deprecated revisions of estimates because they vitiate the basic assumptions on which the project was sanctioned in the first instance. They recommend that project estimates should be prepared realistically and efforts made to adhere to them. The Committee would like to further recommend that with a view to avoiding incomplete estimates being prepared government should immediately conduct a post review of the reasons for under-estimates in the past. Based on the findings of such a review suitable instructions should be issued to authorities concerned with the preparation of project estimates, for their guidance. If the review reveals that the existing check list of project estimates omits certain items, the same should be added.

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The Committee consider it a matter of serious concern that in most of the projects the foreign exchange component should have ranged between 30 to 50% of the total capital outlay. In a number of cases it exceeded fifty per cent of the estimated cost of the project. The Committee have already referred to the scope for reduction in consultants fees. As regards the raw materials and components, it has been admitted in a note submitted by the Ministry of Finance that due to difficulties in establishing norms of raw materials and spares and components, their requirements were not always correctly estimated and tended to be over stated. The same thing could be said to some extent about certain plant and machinery. The Committee would therefore recommend that to meet the foreign exchange shortage which the country has been faced with for some time past, the estimates of foreign exchange expenditure should be prepared more realistically and while scrutinising them a thorough examination should be made of the import of raw materials, plant and machinery etc. to be imported with a view to determining their necessity and non-availability in India. The fact that in most cases the foreign exchange is assured by the collaborators should not in the opinion of the Committee make the Government relax proper scrutiny of the foreign exchange expenditure in public sector projects because the larger is the amount of foreign credit the greater is the liability towards servicing of such foreign loans and their repayment, which has ultimately to come from our free foreign exchange resources.

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The Committee also consider that the projects set up with high proportion of foreign exchange should be under an obligation to earn foreign exchange for the country when they go into production. Therefore, while deciding on the feasibility of the project the period within which the foreign exchange expenditure on the capital cost and the recurring cost (spares, raw materials etc.) of the project will be redeemed by the reduction in imports and earnings from exports should invariably be considered. The representative of the Ministry of Finance has agreed with the suggestion.

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50 159-160

The Committee consider that in public undertakings like Heavy Electricals Ltd., where production and expansion take place simultaneously, profitability and economy of working should be tested from time to time otherwise the capital invested during the course of expansion is mixed up with the capital invested for the original capacity and there is no means to determine the return on the investment originally made. Mistakes made in the initial stages could also be concealed through mid-term expansion. The Committee recommend that in such cases there should be a separate computation of production cost and profit with respect to the completed units of the industry so that it would be possible for the management and the Government to watch the performance of the project.

51 162-165

The Committee observe that barring a few instances where the debt is slightly more than the equity capital, in all other cases, the equity was more than the debt. While appreciating that in capital intensive plants, it might be necessary to have higher proportion of equity, the Committee do not feel that the present ratio of 50 : 50 between equity and loan is conducive to bringing about cost-consciousness in the management of the public undertakings. Unlike a private enterprise there is no compulsion in the public undertakings to declare dividends on the equity capital. A larger proportion of equity (and lower proportion of debt) can also enable the management of public undertakings to artificially show lower cost of production and hence lower prices. But if the loan capital is more, the management is bound to be vigilant because it has to pay interest on the loan. The Committee would therefore recommend that the present equity debt ratio which was fixed in 1960 should be reviewed with a view to raising the proportion of debt. In the opinion of the Committee a ratio of 1 : 2 could be safely adopted, as it was also the ratio obtaining in industry generally. The representatives of the Ministries agreed with this view.

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The Committee note with satisfaction that Government appreciate that there should not be

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any time lag in the appointment of Project Officers and Financial Advisers/Chief Accounts Officer normally. They trust that Project Officers and Financial Advisers will in future be appointed as early as possible after the Government have decided to set up a project and in any case before the receipt of the Detailed Project Report as delays in this respect are bound to prove detrimental to the expeditious execution of the projects.

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In their report on the Rourkela Steel Plant, the Committee have taken exception to the frequent changes in the post of General Manager during the crucial formative years of the Plant. The Committee view with concern similar changes that have taken place in so many other projects. With a view to ensure continuity of management the Committee would recommend that once a person is posted as General Manager or Project Officer, he should not ordinarily be changed until the project has reached a certain stage where the change would not affect the smooth progress of the Project. The Committee do not intend that the individual so posted should suffer in any way if promotion is due to him in his parent department. At the same time the interests of the project cannot also be sacrificed. Government should, therefore, examine the feasibility of extending the benefit of promotions to such persons in the project itself, so that they may be enabled to continue to serve the projects.

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175-179

The Committee observe that in a number of projects expansions were decided upon by Government even before the plants achieved the original rated capacity, resulting in delays and extra expenditure. The Committee realise that advance planning must be done to meet future shortages but the proper occasions for such planning is before the project is sanctioned and not afterwards. The Committee are not able to appreciate as to how the demands could suddenly increase within one or two years of the approval of the original Project Report by nearly 100 per cent e.g., in the case of Heavy Engineering Corporation (H.M.B.P.) from 45,000 tons to 80,000 tons. This only proves that the earlier estimates of demand were gross under-estimates. Ours is a

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developing economy where demands are always expected to rise and hence it is safer to provide a cushion for future increases in demands rather than be conservative. The Committee therefore recommend that as far as possible a realistic and firm production programme of a project should be decided upon in advance, after making a thorough study and keeping in view the future demands and no change, diversification or expansion should normally be thought of till the project has been commissioned, unless it is technically possible to change the capacity etc. without disturbing the original production schedule.

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The Committee would also reiterate the recommendation of the Estimates Committee made in their 51st Report on Heavy Engineering Corporation Ltd., that Government should examine all cases of revisions of capacities of projects during construction with a view to assessing the delays in commissioning and the consequent loss to the national economy apart from any infructuous expenditure involved in such revisions. The Committee believe that such a review would reveal valuable lessons for planning of future projects.

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181-183

The Committee noticed that in some Detailed Project Reports indication about the future expansion was given while in others it was missing. It was explained to the Committee that where no specific mention was made in the Detailed Project Reports, technical details did indicate the possible expansion. In some other cases like National Instruments Ltd. (Ophthalmic Glass Project) and Instrumentation Ltd. since the targeted capacity would meet the requirements of the country upto the end of the Fourth Plan it was not considered necessary to include these in the Detailed Project Report. The Committee consider that irrespective of the requirements of the Fourth Plan, it would be advantageous to have some indication in each Detailed Project Report of the lines of future expansion so that if eventually (whether in the Fourth Plan or later) it was decided to expand its provision in the Detailed Project Report might be economical and would help facilitate matters.

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The Committee were informed that under the rules of procedure every case of expansion of an

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existing project was not put up before the Cabinet. Only important cases went up to the Cabinet. The Committee consider it desirable that uniform procedure should be evolved in this regard. They feel that after setting up a project where subsequently there are departures from the original line of production or expansion is embarked upon involving considerable fresh investment such cases should be put up to the Cabinet for approval.

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The Committee consider that proper selection of location of a project is of utmost importance. A careful scrutiny is essential of technical matters such as climatic and geological considerations, raw material availability and economic factors like availability and cost of utilities and transport. The Committee, therefore, recommend that Plant Location Committees composed of experts in technical and economic matters should invariably be formed which should consider in detail the suitability of various locations of all the future industrial projects.

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So far as the advice of Consultants for location of a project is concerned, the Committee have no objection to Indian Consultants being utilised for this matter. But the Committee are definitely concerned about foreign consultants being engaged for deciding location of project etc. The Committee consider that circumstances in which the advice of the foreign consultants should be sought for location of the plants should be exceptional. We have enough experience by now in setting up public undertakings. The functions of the Planning and Development Units that have been set up in some of the projects also include studies in location. Occasion for seeking the advice of the foreign consultants should therefore be confined only to such projects for which we have no experience at all. The Committee hope that this would be borne in mind in the case of undertakings to be set up in future.

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A number of public undertakings particularly those in the Southern Region suffered from power cut upto 50 per cent, during certain months. The Committee hope that the decision to set up the Southern Regional Grid would be implemented as scheduled so that the problems

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of these undertakings along with other industries in the private sector are solved. When such a grid comes into being it would be necessary to ensure that no State is deprived of electricity by others and that the rate at which electricity is supplied by one State to the other is not discriminating.

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The Committee hardly need emphasize the importance of timely movement of plant and machinery to the project sites. Failure to meet transport needs has resulted in delays in several projects. The Committee feel that while deciding the location and working out the time schedules of the project, the transport requirements should also be properly assessed and as soon as the location of a project is decided upon, advance action towards meeting its transport needs should be undertaken. Further during the construction stage there should be a close liaison between the project authorities on the one hand and the Railways, Port authorities and State Departments in charge of Roads etc., on the other.

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The Committee are surprised that instructions to compile completion reports as recommended in the Third Plan should have been issued more than 3 years after the commencement of the Plan. The Committee consider the suggestion for the preparation of completion Report made in the Third Five Year Plan as very important for the proper execution of future public sector projects. They recommend that Government should ensure the preparation of completion reports in case of all the projects which have been recently completed. In the case of projects under construction, the Committee would suggest that as far as possible attempt should be made to prepare such reports to the extent possible as the construction of the project progresses.

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The Committee further suggest that in order that the future public sector projects benefit from the experience of planning and construction of various projects suitable instructions should be issued for their guidance. So far as the apprehension about making it public is concerned the Committee feel that the same



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could be prevented by keeping the completion Reports confidential.

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It was mentioned during evidence that the Completion Report on Gauhati Refinery had been written in a very subjective manner and "needed sound editing". The Committee feel that if the reports are written in this fashion, according to Ministry's own admission, the purpose of such reports would be defeated. The Committee recommend that Government should issue suitable instructions in this regard so that the reports are written in an objective manner and present a true picture of the past events.

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There is an intimate relationship between the quality of planning and execution that attends in the setting up of a project and the subsequent operational phase. Project planning is the foundation on which the edifice of the operational phases of the project rests. Any wrong decision taken at this stage, be it in the matter of laying down of objectives for the undertaking, its viability or the details to be given in the project report or the time schedules or the capital outlay or the import of plant and machinery are bound to effect the timely execution, operational efficiency and economy of the project. Considering the comparative inexperience in the matter of setting up industrial enterprises, it cannot be said that our public undertakings have fared badly. The time in which some of our public enterprises have gone into production can compare well with similar industries in other countries. The Committee also noted with satisfaction that some of the undertakings even in the construction stage had started manufacturing items/materials which were being used for their own set up. This not only expedited their construction but also resulted in utilisation of their men and overcoming of certain bottlenecks. However, many of the present uneconomic legacies of our undertakings can certainly be related to inadequate attention having been paid to various aspects at the planning stage of the projects.

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The Committee have indicated the measures necessary to remedy the shortcomings (given in para 206) at appropriate places in the report.

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They are glad to notice that there is increasing awareness in the public undertakings towards the need to plan projects in greater details than hitherto. Some of the public undertakings have set up regular agencies to attend to better planning and execution of future units and the expansion of the present units. There are however some matters e.g. a suitable financial structure, setting up of ancillary and auxiliary industries, determining the extent of foreign collaboration where decisions must be taken by Government. The Committee trust that decisions taken by Government in these matters will be such as would leave no scope for the types of shortcomings mentioned above.

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One aspect of the subject of 'Management and Administration of Public Undertakings' about which the Committee feel particularly concerned is our extreme dependence on foreign consultants and collaborators for setting up projects. There is hardly any industrial public undertaking in the country which has been set up without the help of foreign consultants and collaborators. The Committee feel that by now we should have acquired enough technical knowledge as to be able to set up some of the plants ourselves, but it seems no conscious effort has been made in this direction. The habit of seeking the help of foreign consultants and collaborators continues. The Committee feel that it is time that we make efforts to stand on our own legs. In this connection the Committee would also recommend that some study of the industrial development of the countries which like us struggled to industrialise should be made. Such a study would be of immense help for our own efforts towards self-reliance.

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While planning and execution of projects is essentially the responsibility of the undertaking and the Government, the Committee also feel that since the execution of these projects involves huge sums of money and is also part of national planning, Government which keeps itself informed of the execution of progress of various projects should also keep Parliament so informed. Not unoften in the past serious difficulties/revisions of estimates etc. have come to

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light only when some Members raised the matter on the floor of the House. The annual reports of the projects and the Audit Reports which are supposed to contain such information are no doubt placed on the Table of the House but Parliament knows of these difficulties at a late stage or *ex post facto*. The Committee feel that if Parliament is kept informed periodically it will provide an institutional check against any rush-decisions being taken on the one hand and care and caution being exercised on the other.

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