

# COMMITTEE ON PUBLIC UNDERTAKINGS

(THIRD LOK SABHA)

EIGHTH REPORT

## TOWNSHIPS AND FACTORY BUILDINGS OF PUBLIC UNDERTAKINGS



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LOK SABHA SECRETARIAT  
NEW DELHI

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## CORRIGENDA

### EIGHTH REPORT OF THE COMMITTEE ON PUBLIC UNDERTAKINGS ON TOWNSHIPS AND FACTORY BUILD- INGS OF PUBLIC UNDERTAKINGS

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- Page 2, Para 6, table, heading : for "acti" read "anti"  
Page 5, Para 17, table, item 3 : for "Rate" read "Rare"  
Page 8, line 6, for "been" read "even"  
Page 13, Para 36, marginal heading : for "Cotribution"  
read "contribution"  
Page 14, line 2 : delete "PROVISIONS OF THE SCHEME"  
Page 15, line 6 : for "Machines" read "Machine"  
  
Page 20, Para 51, marginal heading : for "wohich"  
read "which"  
Page 21, Para 53, marginal heading : for "law" read "lay"  
add "whom" after "for"  
Page 22, line 3 from below : for "one cotain"  
read "of certain"  
Page 23, Para 61, marginal heading : for "honses"  
read "houses"  
Page 32, col.(5), against item 1 : for "lead" read "led"  
Page 35, table, against item 4 : for "block" read "black"  
Page 56, para 156, marginal heading : for "principals"  
read "principles"  
Page 59, para 165, line 4 from below : for "Sessions"  
read "Session"  
Page 62, line 3 from below : for "Resigns" read "Designs"  
Page 76, heading : read "APPENDIX III"  
Page 82, line 10, add in beginning "and Oil"  
Page 84, line 9 from below for "compleling" read "compelling"

# CONTENTS

	PAGES
COMPOSITION OF THE COMMITTEE . . . . .	(iii)
INTRODUCTION . . . . .	(v)
I.—INTRODUCTORY . . . . .	1
II.—EXPENDITURE ON TOWNSHIPS :	
A. Extent of total capital outlay . . . . .	2
B. Expenditure on housing . . . . .	
(i) Unit costs of houses . . . . .	5
(ii) Subsidised Housing Scheme for industrial workers . . . . .	6
C. Expenditure on Services and other facilities :	
(i) Overall position . . . . .	8
(ii) Services . . . . .	9
(iii) Other Facilities :	
(a) Medical . . . . .	13
(b) Employees' State Insurance Scheme . . . . .	14
(c) Educational . . . . .	17
(d) Recreational and other facilities . . . . .	18
(iv) Element of subsidy . . . . .	18
III.—HOUSING POLICY, STANDARDS, PLAN & DESIGNS :	
A. Housing Policy . . . . .	20
B. Standards & Scales of accommodation . . . . .	25
C. Plans & Designs . . . . .	27
IV.—OTHER MATTERS RELATING TO TOWNSHIPS :	
A. Hostels . . . . .	29
B. Financing & Administration of townships . . . . .	29
V.—CONSTRUCTION DELAYS IN FACTORY BUILDINGS AND SOIL INVESTIGATIONS :	
A. Construction Delays . . . . .	31
B. Soil Investigations . . . . .	35
VI.—CONSTRUCTION EQUIPMENT AND MATERIALS :	
A. Construction Equipment . . . . .	37
B. Construction Materials . . . . .	42
VII.—COSTS OF FACTORY BUILDINGS & CIVIL ENGINEERING ASPECTS :	
A. Costs of Factory Buildings . . . . .	44
B. Civil Engineering Aspects . . . . .	45
VIII.—CONSTRUCTION STAFF AND CONTRACTS :	
A. Construction Staff . . . . .	49
B. Contracts . . . . .	50

	PAGES
<b>IX.—LAND ACQUISITION AND OTHER MATTERS :</b>	
A. Assessment of Land requirements and utilisation . . . . .	53
B. Land acquisition difficulties . . . . .	57
C. Reduction in construction costs . . . . .	61
D. Building Research . . . . .	62
<b>X.—CONCLUSION . . . . .</b>	<b>64</b>
<b>APPENDICES :</b>	
I. List of Public Undertakings covered by the examination . . . . .	66
II. Statement showing the projects/offices of public undertakings where townships have been or are proposed to be set up by public undertakings, total anticipated investment on projects, outlay on townships and cost per dwelling unit . . . . .	68
III. Ministry of Finance O.M. No. 1068/SF/60 dated 23rd March, 1960 as subsequently modified in 1963 . . . . .	76
IV.—Summary of Conclusions/Recommendations . . . . .	79

# COMMITTEE ON PUBLIC UNDERTAKINGS

(THIRD LOK SABHA)

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Shri N. N. Mallya—*Joint Secretary.*

Shri A. L. Rai—*Deputy Secretary.*

## INTRODUCTION

1. The Chairman, Committee on Public Undertakings, having been authorised by the Committee to submit the Report on their behalf, present this Eighth Report on the Townships and Factory Buildings of Public Undertakings.

2. This Report is based on the data furnished by the public undertakings in respect of their Townships and Factory Buildings. The Committee took the evidence of the representatives of the National Buildings Construction Corporation Ltd., Oil & Natural Gas Commission, Fertilizer Corporation of India Ltd., Hindustan Steel Ltd. and the Employees' State Insurance Corporation on the 2nd, 14th and 21st December, 1964 and 15th & 20th January, 1965. They also took the evidence of the representatives of the Ministries of Industry & Supply, Finance, Steel & Mines, Petroleum & Chemicals and Works & Housing on the 20th & 21st January, 1965.

3. The Report was adopted by the Committee on the 15th April, 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 also wish to thank the officers of the Ministries of Industry & Supply, Finance, Steel & Mines, Petroleum & Chemicals and Works & Housing as well as the representatives of National Buildings Construction Corporation, Oil & Natural Gas Commission, Fertilizer Corporation of India, Hindustan Steel and Employees' State Insurance Corporation for giving evidence and placing their views before the Committee.

PANAMPILLI GOVINDA MENON,

NEW DELHI;

May, 2, 1965.

Vaisakha 12, 1887 (S).

*Chairman,*

*Committee on Public Undertakings.*

## INTRODUCTORY

Since independence a large number of public undertakings have been set up by Government. At the end of 1963-64, there were 61 such undertakings in which the total investment stood at Rs. 1,780 crores. The number of these undertakings is on the increase.

2. Considerable expenditure has been incurred on the construction of townships in public undertakings. The total capital outlay on these townships is estimated at Rs. 280 crores which constitutes nearly 11 per cent of the total anticipated investment on the undertakings.

Apart from the initial capital outlay involved, recurring expenditure has to be borne by the undertakings on the up-keep and maintenance of the townships. This adds to their overheads and consequently to the cost of production.

3. The expenditure on factory buildings in public undertakings also constitutes a substantial proportion of the total investment. In certain undertakings, it has been over 26 per cent of the total outlay on the projects.

4. The Committee decided to undertake a horizontal examination of the townships and factory buildings of the public undertakings with a view to understand the problems and difficulties encountered and the manner in which they had been solved. They accordingly called for the necessary information in respect of 42 public undertakings (listed in Appendix I) which had or were likely to build townships and factories. The findings of the Committee are set forth in the succeeding Chapters.



## II

## EXPENDITURE ON TOWNSHIPS

5. A majority of the public undertakings have set up townships or housing colonies with ancillary facilities like schools, hospitals, shopping centres, recreation clubs, etc. for their employees. A statement showing the projects/offices where townships have been or are proposed to be set up by public undertakings, total anticipated investment on the projects (including townships), outlay on townships alone and the cost per dwelling unit is given in Appendix II.

## A. Extent of Total Capital Outlay

6. The table below shows the extent of capital outlay (actual and anticipated) on the townships of public undertakings and its percentage to the total investment:—

Undertaking	Actual/anticipated total outlay on projects (including townships)	Actual/anticipated total Outlay on townships alone	Percentage of (3) to (2)	Percentage of outlay on township to total outlay on a project of the undertaking
(1)	(2)	(3)	(4)	(5)
(Rs. in crores)				
1. Hindustan Aeronautics Ltd. (MIG. Complex Project).	58.91	17.63	30%	Varies from 11.2% at Aircraft Division, Nasik to over 39% at Electronics Division, Sanatnagar.
2. National Coal Development Corporation Ltd.	176.48	30.05	17%	Varies from 3% at Gidi Washery to 49% at Barkakana Workshop.
3. Heavy Electricals Ltd.	62.61	10.51	16.8%	..
4. Heavy Engineering Corporation Ltd.	245.32	39.12	16%	Varies from 15% at Ranchi to 23% at Durgapur.
5. Bharat Heavy Electricals Ltd.	126.43	19.62	15.5%	Varies from 10% at Hardwar to 25% at Tiruchi.
6. Indian Drugs & Pharmaceuticals Ltd.	46.44	7.10	15%	Varies from 11% at Hyderabad to 29% at Madras.
7. Fertilizer Corporation of India Ltd.	154.69	16.36	10.6	Varies from 7.5% at Trombay to 13% at Sindri.
8. Hindustan Steel Ltd.	1,066.61	78.32	7.4%	Varies from 5.7% at Rourkela to 9.5% at Durgapur.
9. Neyveli Lignite Corporation Ltd.	165.05	14.62	8.86%	..
10. Other Undertakings.	387.21	46.17	12%	As between these undertakings the percentage varies from 4 to 43.
<b>TOTAL</b>	<b>2489.75</b>	<b>279.50</b>	<b>11.2%</b>	

7. *The total capital outlay on the townships of public undertakings is of the order of Rs. 280 crores and it constitutes over 11% of the total investment on the projects. The incidence of the costs of townships on the costs of production of these undertakings is therefore considerable. For instance, in the case of Hindustan Steel Ltd. the capital cost of establishing one ton of steel ingot capacity works out to Rs. 1,670 by including the outlay on townships of the three steel plants (Durgapur, Bhilai and Rourkela), and Rs. 1,550 without it—i.e. the townships account for an outlay of Rs. 120 per ton of steel.*

8. It was stated during evidence that the private sector undertakings did not provide housing on the same scale and in one lot as had been done by the public undertakings. In most foreign countries, the industrial undertakings did not generally build their own townships.

Position obtaining in private sector in India and in foreign countries.

9. The following reasons were given by the representatives of the Ministries for high outlay on the townships of public undertakings:—

Reasons for high outlay.

- (i) majority of projects were located in places where there were no sizeable towns nearby; and
- (ii) the public undertakings were model employers and provided facilities on a large scale.

10. *The Committee realise that a majority of public sector projects are located in out of the way places and it may be necessary to provide housing and other facilities on a somewhat larger scale. It is also desirable that public undertakings should aim at being model employers. Nevertheless, the Committee are equally anxious to ensure that public undertakings follow a balanced approach in incurring expenditure on productive and non-productive activities. If a substantial portion of the investment is spent on townships before any significant productive activity of a project starts, as is the case at present, it adds considerably to the overheads of an individual enterprise and affects its profitability. Further it is also necessary that the public undertakings do not follow standards and scales of accommodation which may attract public criticism. All this underlines the need for laying down suitable guiding principles, norms and standards without any delay. These aspects have been dealt with later in the Report.*

Need for finding ways and means of reducing the present outlay on townships.

*The Committee would however, urge that pending issue of detailed instructions, Government should impress upon public undertakings to pay utmost importance to economy in the matter and find ways and means of reducing the present rate of outlay on townships.*

Percentage of expenditure on townships to investment on projects.

11. Government have not yet laid down any principles regarding the proportion which the expenditure on township should bear to the cost of a project. In actual practice, expenditure on townships ranges between 3 to 49 per cent of the investment on projects. In most cases it is 15 to 30 per cent.

12. During evidence one Managing Director stated that normally the expenditure on township should be 7½ per cent of the outlay on a project and that in no case it should exceed 10 per cent. Representatives of the Ministries, however, stated that to limit the expenditure on township to a percentage of the total cost of a project might not be feasible due to difference in the nature of the industries, their location, proximity to other towns, etc.

Desirability of prescribing an upper limit for expenditure on townships.

13. *The Committee appreciate that it is not possible to apply a uniform yardstick for expenditure on townships. But in view of the present high costs of townships and wide variation in its percentage to the total investment on a project it is desirable that Government should prescribe an upper limit for expenditure on townships taking into account the requirements of various types of undertakings.*

Third Plan provision made on ad-hoc basis.

14. In the Third Five Year Plan a sum of Rs. 50 crores has been provided for the townships of all industrial undertakings of the Central Government (including departmental undertakings). As against this, the actual expenditure on the two townships of Heavy Engineering Corporation alone is expected to amount to Rs. 39.12 crores during the Plan period. It was explained during evidence that the Plan provision was not made on any basis. It was an *ad hoc* provision and there was an understanding with the Planning Commission that if an amount set apart for a project was not spent for that purpose, the same could be diverted to housing.

Need for making plan provision for townships in a realistic manner.

15. *The Committee are constrained to observe that the manner in which provision was made in the Third Five Year Plan for townships of public undertakings was casual. It is not correct to provide for such expenditure in the Plan in an ad hoc manner without working out the basis therefor. What is more surprising is that there was an understanding with the Planning Commission that the amount earmarked for capital investment in projects, if unspent, would be diverted to housing. The Committee do not approve of diversion of funds meant for productive purposes to housing. They trust that in future the Plan provision for townships of public undertakings would be made in a realistic manner after assessing the requirements of the various undertakings.*

## B. Expenditure on Housing

### (i) Unit costs of houses

16. It will be seen from Appendix II that there are wide variations in the costs of houses built by various projects. This has been so even in projects of the same undertaking or in undertakings located in the same area. For instance, the cost per house of the lowest category built by Fertiliser Corporation for its various projects varies from Rs. 1,841 in Sindri to Rs. 6,645 in Trombay and of the highest category from Rs. 39,000 in Gorakhpur to Rs. 1,03,000 in Sindri. At Bangalore the cost of a house of highest category built by the Aircraft Division of Hindustan Aeronautics is Rs. 33,000 whereas that of the Hindustan Machine Tools is Rs. 67,710. The average cost per dwelling unit in most of the undertakings has ranged between Rs. 11,000 to Rs. 27,000.

17. The following figures of cost of each bungalow constructed by certain undertakings for high officials are significant:—

Undertaking	Cost of each Bungalow
1. Hindustan Shipyard Ltd.	Rs. 1.75 lakhs (for Managing Director)
2. Hindustan Steel Ltd. :	
(a) Bhilai Steel Plant	Rs. 1.17 lakhs (for General Manager)
(b) Head Office, Ranchi	Rs. 1.14 lakhs (for Chairman)
3. Indian Rate Earths Ltd.	Rs. 1.17 lakhs
4. Sindri Unit of Fertiliser Corporation of India Ltd.	Rs. 1.03 lakhs (for General Manager and other Officers)

18. During evidence the Chairman of Hindustan Steel Ltd. stated that his bungalow at Ranchi had been extravagantly designed and that had the same been put up in his time he would not have allowed such a high cost. Representatives of the Ministries admitted that in the above cases the costs were high. No ceilings of cost for various categories of houses had been fixed so far as there were differences in the cost of labour and materials in different regions of the country.

Need to lay down ceilings on cost of houses.

19. Apparently the present costs of houses, particularly of higher categories, built by public undertakings are high. An expenditure of Rs. 1 lakh to 1.75 lakhs on a single bungalow is indefensible from a commercial stand point much less from the general point of view of the country's economy. It has been rightly said that "to want to live in a house of more than three or four rooms today is to erode development". The Committee, recommend that the plinth areas for higher categories of houses may be reviewed and ceilings on cost for various categories of houses laid down atleast on a regional basis.

(ii) *Subsidised Housing Scheme for Industrial Workers*

20. The Government of India in 1952 introduced a Subsidised Housing Scheme for Industrial Workers. Under this scheme, financial assistance is made available by the Central Government to the State Governments and through them to certain approved agencies\* for the construction of houses for industrial workers whose pay does not exceed Rs. 350/- per month.\*\* public undertakings† are also entitled to this assistance. The quantum of assistance in their case is the same as admissible to the undertakings in the private sector viz. 75% (25% as outright subsidy and 50% as loan) of the cost of construction of houses.

21. The actual utilisation of assistance from this Scheme by public undertakings has so far been as follows:—

(Rs. in lakhs)

Assistance from scheme not largely availed of by Public Undertakings.

Undertaking	Total cost of townships	Extent of Utilisation of assistance		Remarks
		Grant	Loans	
1	2	3	4	5
1. Fertilizer Corporation of India Ltd.	1637.27	6.52	9.79	At Nangal Unit only
2. Indian Telephone Industries Ltd.	75.00	7.33	nil	
3. Hindustan Aeronautics' Aircraft Divison Bangalore	146.33	2.70	16.56	

\* i. e. Statutory Housing Boards, Municipal Bodies, Employers and Registered Co-operative Societies of eligible workers.

\*\* Workers whose pay does not exceed Rs. 350/- p.m. and falling within the meaning of Factories Act, 1948 or persons employed in mines other than coal & mica mines are eligible.

\* Corporations or companies owned in part or in full by the Central or State Governments if liable to income tax, are entitled to assistance under the scheme

I	2	3	4	5
4. Hindustan Machine Tools Ltd.	187.00	4.15	18.26	
5. Air India	82.60	8.00	..	
6. Fertilizers & Chemicals Travancore Ltd.	75.77	0.96	1.93	
7. Hindustan Insecticides Ltd.	29.51	1.59	nil	at Delhi Unit only.
8. Nepa Mills Ltd.	73.18	4.77	nil	
TOTAL		36.02	46.54	

22. Barring eight, other public undertakings have not availed of the assistance. In this connection it is interesting to note that the total disbursements under the scheme upto 31st March, 1963 have been Rs. 45.79 crores. The total amount of assistance (Rs. 82.56 lakhs) availed of by the public undertakings constitutes only 1.8 per cent thereof. When compared to the anticipated expenditure on townships of public undertakings *i.e.* Rs. 280 crores the amount of assistance availed of by them is negligible.

23. In contrast to this the private sector undertakings seem to have availed of the assistance to a larger extent as is evident from the following instances:

(i) *Burmah Shell Refineries Ltd., Bombay*:—

664 houses have been reserved by the Maharashtra Housing Board for Company's staff in three general industrial housing colonies against payment of Rs. 40 lakhs only by the Company. In addition, 144 employees have secured accommodation on direct application to the Board by virtue of their being 'industrial workers'. The Company has itself constructed a small colony for only 30 members of supervisory staff considered on 'operational' duty.

(ii) *Tata Iron & Steel Co., Jamshedpur*:—

1990 houses have been allotted by Bihar Government under the Subsidised Housing Scheme, besides the loans taken by the Company.

24. The main reasons why the public undertakings have not availed of this assistance are generally the following:—

(i) Most of the public undertakings did not approach the State Governments.

Reasons for not availing assistance by public undertakings.

- (ii) The scales of accommodation and costs of houses built by public undertakings are higher than the ceilings laid down under the scheme.
- (iii) Complications regarding allotment, priorities, charging of rent, etc. under the scheme. Hindustan Antibiotics are stated to have been refunded the subsidy of Rs. 70,000 on this account.
- (iv) Applications of certain undertakings (i.e. Trombay fertilizer plant, Heavy Engineering Corporation, Koyali and Barauni refineries, Hindustan Antibiotics) had not been considered by the State Governments concerned on account of paucity of funds, etc.

Need to re-  
view the  
Subsidised  
Housing  
Scheme to  
enable Pu-  
blic Under-  
takings to  
avail of as-  
sistance.

25. *Most of the public undertakings have not taken any advantage of the Subsidised Housing Scheme for Industrial workers, under which financial assistance to the extent of 75% (25% as outright subsidy and 50% as loan) of the cost of houses for workers drawing pay upto Rs. 350/- per month is admissible. It is surprising that neither the administrative Ministry nor the Finance Ministry brought this scheme to the notice of the public undertakings and insisted on their availing of the assistance. On the other hand the scales and standards of accommodation fixed by Government in 1960 for public sector projects were higher than those prescribed under the Scheme, thus making it impossible for the public undertakings to avail of the assistance. The proper course would have been to review the scales and standards of the Subsidised Housing Scheme and to bring them on par with those prescribed in 1960 for the public sector projects. This was, however, not done and the public undertakings were placed at a handicap. The Committee recommend that Government should now review the position so as to enable the public undertakings to avail of the assistance under the Subsidised Housing Scheme. Since funds for this Scheme are made available by the Central Government, it is but proper that the public undertakings should get this assistance direct from the Centre rather than through the agency of the State Governments.*

### C. Expenditure on Services and Other Facilities

#### (i) Overall position

26. Apart from utility services (i.e. water, power, sewerage and roads) various other facilities (like medical, educational, shopping, clubs, community centres, auditorium, play grounds, parks, etc.) have been provided in the townships of public undertakings.

27. The percentage of expenditure on these as well as on supervision during construction to the total cost of townships has generally ranged as follows:—

- (i) Services — 17% at Bharat Heavy Electricals Ltd. to 30% at Fertiliser Corporation of India Ltd. \*  
 (ii) Other facilities (including administrative buildings) — 8% at Bharat Heavy Electricals Ltd. to 15% at Neyveli Lignite Corporation. Ltd.  
 (iii) Supervision during construction. — 1.07% at Neyveli Lignite Corporation Ltd. to 13% at Fertiliser Corporation. of India Ltd.

28. The expenditure in some undertakings has been as high as 30% on services, 15% on other facilities and 13% on supervision during construction. Thus out of the total outlay of Rs. 280 crores on townships of public undertakings, a large proportion is spent on these items. These are dealt with in the following paragraphs:—

(ii) *Services*

29. The capital expenditure on services in the townships of certain projects is indicated below:—

*Actual/anticipated expenditure on Services*

(Rs. in lakhs)

Projects/ Undertaking	Water	Power	Sewerage	Roads	
(1)	(2)	(3)	(4)	(5)	
<b>(1) Heavy Electricals Projects :</b>					
(a) Bhopal (9440 quarters)	66.50	42.50	53.50	61.50	(85 miles)
(b) Hardwar (6000 quarters)	25.30	36.00	35.00	18.00	
(c) Hyderabad (4349 quarters)	22.43	28.69	49.45	28.69	
(d) Tiruchi (4300 quarters)	42.00	26.00	23.00	10.00	
<b>(2) Fertiliser Plants :</b>					
(a) Sindri (5502 quarters)	142.22	47.82	21.39	27.16	(38 miles)
(b) Nangal (2254 quarters)	28.92	11.49	36.76	18.89	(18 miles)
<b>(3) Heavy Engineering :</b>					
(a) Ranchi (16,000 quarters)	67.00	90.00	215.00	115.00	(73 miles)



	1	2	3	4	5	
(b) Durgapur Coal Mining Machinery (5000 quarters)		37.00	40.00	48.40	53.91	(28 miles)
(4) <i>Steel Plants :</i>						
(a) Durgapur (15,000 quarters)		220.23	149.67	175.81	188.68	
(b) Bhilai (21297 quarters)			(total Rs. 4.30 crores)			
(c) Rourkela (15040 quarters)			(total Rs. 4.31 crores)			
(5) Neyveli Lig- nite Corporation (9650 quarters.)		98.60	90.04	121.25	100.37	

30. Thus the capital costs on the provision of services in the townships of the public undertakings had varied very widely. For about the same number of quarters, the expenditure on water services has ranged from Rs. 37 lakhs at Durgapur Coal Mining Machinery Project to Rs. 1.42 crores at Sindri Fertiliser Plant. At Ranchi, 73 miles of roads have been provided at a cost of Rs. 1.15 crores and at Bhopal 85 miles of roads at Rs. 61.50 lakhs. At the Durgapur Steel Plant, the total expenditure on these services has been Rs. 7.34 crores as against Rs. 4.31 crores at Rourkela for the same number of quarters. During their visit to Durgapur Steel Plant, the Committee also observed that street lighting has been provided there on a lavish scale even on unfrequented roads. The representatives of the Ministries stated during evidence that it might not be possible to rectify what had already been done, but it was desirable to make a study and establish some norms for the future.

31. *The expenditure on services in the townships of the public undertakings varies very widely and is on the high side. The Committee recommend that Government should undertake a study of the costs and scales of services in the townships of public undertakings and lay down suitable norms and standards therefor.*

*They further suggest that a ceiling on the supervision charges during construction, which in some cases have been as high as 13% of the outlay on township, should also be fixed.*

### (iii) Other Facilities

32. The table below shows the expenditure (actual and anticipated) on other facilities provided in the townships of certain projects:—

(Expenditure figures in lakhs of Rs.)

Projects	Medical			Educational			Expenditure on other facilities i. e. clubs, community centres, auditorium play-grounds and parks etc	Expenditure on shopping centres and other public-utility buildings
	No. of Hospitals/dispensaries	Capita' expenditure	Annual recurring expenditure	No. of schools	Capital expenditure	Annual recurring expenditure		
I	2	3	4	5	6	7	8	9
<b>1. Heavy Electricals Projects :</b>								
(a) Bhopal (20307 employees),*	3 (50-beds hosp'rs)	14.00	11.00	3	8.00	N.K.	10.75	7.59
(b) Hardwar (8,000 employees),	3	11.50	NK	NK	11.50	N.K.	5.70	10.90
(c) Hyderabad (4,349 employees),	2 (75-beds hospital).	11.25	NK	8	14.44	N.K.	8.30	8.13
(d) Tirunelveli (19,000 employees)	3 (75-beds hospital)	12.00	NK	5	14.00	N.K.	10.00	14.00
<b>2. Fertiliser Plants :</b>								
(a) Sindi (8,200 employees),	6 (125 beds hospitals).	13.09	10.13	10	7.73	2.53	3.45	5.94
(b) Nangal (3734 employees),	3 (80 beds hospitals).	4.55	7.22	5	5.13	1.53	4.57	2.92
<b>3. Heavy Engineering Projects :</b>								
(a) Ranchi (19,000 employees),	6 (120 beds hospital).	72.60	11.95	12	27.50	1.00	34.65	40.25
							4 community centres, 8 parks).	

1	2	3	4	5	6	7	8	9
(b) Durgapur (5,000 employees).	3 (30 beds hospital)	34.06	1.80	N.K.	16.17	N.K.	5.77	8.08
<b>4. Steel Plants</b>								
(a) Durgapur (27,048 employees).	4 (350 beds hospital)	80.96	23.04	11	61.55	9.00	30.12	46.37
(b) Bhilai (29,332 employees)	8 (275 beds hospital)	71.50	42.82	N.K.	60.10	N.K.	25.80	N.K.
(c) Rourkela (19,391 employees).	5 (350 beds hospital)	N.K.	27.84	13	60.00 (estimated)	16.33	N.K.	N.K.

\* The figures of employees shown against each project represent total estimated requirements after completion of their present expansion programmes. In the cases of Nagari fertilizer plant and Rourkela steel plant, however, these represent present sanctioned and actual staff strength respectively.

It will be seen that the extent of other facilities provided and the expenditure thereon has varied greatly from project to project. These are dealt with below:—

(a) *Medical:*

34. The capital expenditure on medical facilities provided in the Durgapur and Bhilai Steel Plants alone is Rs. 152.46 lakhs. On the basis of their total staff strength of 56,380 employees (to be reached after expansion) this expenditure works out to Rs. 270 per employee. At Rourkela, a 350 beds hospital has been provided for 19,391 employees, as against the norm of 200 beds for a population of one lakh laid down by the Committee on Plan Projects.

Besides the capital expenditure, the undertakings are incurring heavy recurring expenditure on medical facilities. The annual recurring expenditure on these facilities at Bhilai steel plant is as high as Rs. 42.82 lakhs, which on the basis of their total employees of 29,332 works out to Rs. 146 per employee per annum. As against this, the all-India average expenditure towards medical benefit under the Employees' State Insurance Scheme was Rs. 26.84 per employee during 1962-63.

During evidence the Chairman, Hindustan Steel Limited admitted that the present medical facilities in steel plants were excessive but that they had kept margin for the expansion.

35. *The provision of hospital facilities by public undertakings in places where these are not available is a step in the right direction. The Committee are however, of the view that to begin with, hospital facilities should be provided by the undertakings on a modest scale and they should be gradually developed to meet the full requirements. Instead of following this salutary principle of phasing the provision of hospital facilities, most of the undertakings have provided them on a liberal scale from the very beginning resulting in high capital and recurring expenditure. The Committee recommend that in the light of these remarks, Government should look into the matter and prescribe the stages, extent and the manner in which hospital facilities should be provided by public undertakings.*

36. The Committee understand that certain public undertakings (like Fertiliser and Chemicals Travancore Ltd., Oil and Natural Gas Commission) have introduced contributory health service schemes under which they are getting contribution from the employees for the provision of medical facilities. *The Committee suggest that the feasibility of introducing similar schemes in all the public undertakings may be examined by Government.*

Need to prescribe stages, extent and the manner in which hospital facilities should be provided by public undertakings.

Desirability of getting contribution from the employees.

(b) *Employees' State Insurance Scheme:*

## PROVISIONS OF THE SCHEME

37. The Employees' State Insurance Scheme, as embodied in the Employees' State Insurance Act of 1948, envisages the provision of medical care and certain cash benefits to the factory workers whose wages do not exceed Rs. 400 per month. This Scheme came into force from February, 1952 and is operated by the Employees' State Insurance Corporation. It applies to all industrial undertakings, including those in the public sector.\*

The Employees' State Insurance Corporation is receiving contributions from the employers and the employees of the undertakings as follows:—

A—*From undertakings in places where the Scheme has been extended:*

- (i) 2.5% of the wages as employer's share.
- (ii) 2.31% of wages as employees' share.

B—*From undertakings in places where the Scheme has not been extended:*

3/4% of the wages as employer's special contribution.

Scheme extended to a few undertakings only.

38 In so far as public undertakings are concerned, it appears that the Scheme has so far been extended to a few undertakings/projects at the following places:—

- (i) Bangalore—Indian Telephone Industries Ltd., Hindustan Machine Tools Ltd., Aircraft Division of Hindustan Aeronautics Ltd. and Bharat Electronics Ltd.
- (ii) Delhi—Hindustan Housing Factory Ltd., Hindustan Insecticides' Factory and Ashoka Hotels' laundry and automobile sections.
- (iii) Alwaye—Indian Rare Earths Ltd., Fertilizers & Chemicals Travancore Ltd. and Hindustan Insecticides Factory.
- (iv) Secunderabad—Praga Tools Corporation Ltd.
- (v) Madras—Hindustan Teleprinters Ltd.
- (vi) Dehra Dun—Oil & Natural Gas Commission's workshop.
- (vii) Bombay—Air-India.

In most of these undertakings the Employees' State Insurance Corporation has not set up any hospital or dispensary of its own. But it has an arrangement under

\*There is, however, a provision for exemption of factories belonging to Government or any local authority if the employees in such factories are otherwise in receipt of benefits similar or superior to those under the scheme.

which the employees of the undertakings covered under the scheme are being treated in the hospital/dispensaries set up by the undertakings on payment of certain charges. The amount of such charges paid so far by the Employees' State Insurance Corporation to the three undertakings at Bangalore (*i.e.* Indian Telephone Industries Ltd., Hindustan Machines Tools Ltd. and Bharat Electronics Ltd.) and the amount of contributions received by it from them have been as under:—

(Rs. in lakhs)

Undertaking	Total amount of contributions received by ESIC (both employers & employees share)	Charges paid to undertakings	Remarks
(1) Indian Telephone Industries Ltd.	38.54	4.40	Out of 10,780 employees 10,100 are covered under the scheme.
(2) Hindustan Machine Tools Ltd.	20.29	1.24	Out of 5,556 employees 5,234 are covered under the scheme.
(3) Bharat Electronics Ltd.	11.51	0.27	
<b>TOTAL</b>	<b>70.34</b>	<b>5.91</b>	

39. The undertakings elsewhere in India where the scheme has not been implemented are paying employer's special contribution at the rate of 3/4 per cent of the wage bill. The amount of such contribution paid so far by eight public undertakings\*, in respect of which information is available, has been Rs. 49.04 lakhs.

40. Thus as against the total contribution of Rs. 70.34 lakhs received by the Employees' State Insurance Corporation from the three undertakings at Bangalore, the amount reimbursed by it to them has been Rs. 5.91 lakhs only\*\*

Other public undertakings have paid a contribution of over Rs. 49 lakhs but have received no benefits.

41. During evidence the Chairman, Hindustan Steel Ltd. stated that they had not approached the Employees' State Insurance Corporation for extending the scheme to their plants as they were themselves providing the medical facilities. The Director General, Employees' State Insurance Corporation stated that their policy was to concentrate on areas where no arrangement existed at all and that steel plants would come low in the priority. Regarding the payment of special contribution (i.e. 2% of wage bill) by public undertakings in areas where the scheme has not been implemented, he stated that it was in the nature of a levy which was originally imposed to level up the competitive handicaps of employers in implemented areas. When pointed out that only employees drawing wages upto Rs. 400/- per month were covered under the scheme and for others the undertakings would have to make their own arrangements, he stated that there were two ways of solving this problem. One was that they could reserve certain number of beds in the hospitals of undertakings by payment of a certain sum. The other was that they could take over the hospitals of the undertakings and make available certain number of beds for employees drawing over Rs. 400/- per month.

Whether the Employees' State Insurance Scheme be made applicable to P. Us. needs consideration

42. *It is regrettable that though most of the public undertakings have been paying considerable amount of contribution under the Employees' State Insurance Scheme, they have not taken advantage of the assistance available under it. Even in cases where the scheme has been extended the amounts of contribution paid by the undertakings are much more than the benefits derived by them. It appears that the employees in public undertakings are in receipt of benefits similar or superior to those available under the scheme.*

\*HSL (Rs. 26.39 lakhs), Hindustan Shipyard (Rs. 6.02 lakhs), Neyveli Lignite Corporation (Rs. 1.34 lakhs), Nepa Mills (Rs. 1.17 lakhs), HEC (Rs. 0.45 lakhs), Fertiliser Corporation (Rs. 12.18 lakhs), Hindustan Antibiotics (Rs. 1.26 lakhs), Hindustan Cables (Rs. 0.23 lakhs).

\*\*At the time of factual verification, it was stated by the Employees' State Insurance Corporation that these charges were for utilisation of dispensaries of the undertakings for out-patient treatment only. The medical benefit under the ESI Scheme included not only out-patient treatment but also in-patient treatment in their hospitals, specialists, services, artificial limbs, hearing aids, etc. as well as cash benefits to the employees covered under the Scheme. These benefits were available to both public sector and private sector undertakings.

Further the Scheme covers only 'factory workers' drawing wages upto Rs. 400/- per month. For all other employees, the public undertakings will have to make their own hospital arrangements, even after the scheme is extended to them. It therefore needs consideration whether the Employees' State Insurance Scheme should be applicable to the public undertakings and they should be called upon to contribute to the scheme, in addition to the expenditure on their own facilities. The Committee recommend that Government should examine the matter in the light of the prevailing position.

(c) Educational:

43. The expenditure on educational facilities provided by the public undertakings has also varied widely from project to project. For about the same number of employees, the capital costs on schools have varied from Rs. 8 lakhs at Heavy Electricals project, Bhopal to Rs. 60.00 lakhs at Rourkela steel plant. The cost of a primary school building constructed by the Oil and Natural Gas Commission at Baroda has been Rs. 2.10 lakhs. The total capital cost on schools in the three steel plants has been of the order of Rs. 1.82 crores.

High expenditure on educational facilities.

Besides capital costs, the undertakings are incurring considerable expenditure in running the schools as most of them have not taken any assistance from the State Governments.\* The annual recurring expenditure on educational facilities at Rourkela Steel Plant is Rs. 16.33 lakhs.

44. During evidence the representative of Oil and Natural Gas Commission stated that the State Governments provided educational facilities only in the medium of instructions in the State. The employees of the undertakings were from different States. The Chairman, Hindustan Steel Limited stated that they did not approach the State Governments for assistance in respect of all of their schools as they would have to conform to the education codes of the State Governments. The representatives of the Ministries stated that the educational facilities should be provided by the State Governments and the schools in public undertakings should conform to the State Codes.

45. As public undertakings have to run on a commercial basis, it is not advisable for them to incur heavy capital and recurring expenditure on providing educational facilities which is the responsibility of the State Governments under the Constitution. The most that the undertakings should do

Need to evolve a suitable pattern for provision of educational facilities in Public Undertakings.

\*Only in six undertakings (Hindustan Salts, FACT, H, E, L., Nepa Mills, Aircraft Division, Bangalore, Hindustan Cables), primary or middle schools are being run by State Governments. Few undertakings (HMT, FACT,) Hindustan Antibiotics, Nepa Mills, BEL, HEL, Neyveli Lignite Corporation, etc. have received small amounts of grants.



is to construct buildings at a reasonable cost and to meet recurring expenditure from the assistance obtained from the State Governments and fees from the pupils. It would, however, be desirable if the provision of educational facilities is settled with the State Governments at the time of deciding on the location of the projects in a State. The Committee recommend that Government should look into this matter and evolve a suitable pattern for the provision of educational facilities in the public undertakings.

Feasibility of providing common facilities.

46. They would further suggest that in places (like Ranchi, Durgapur, Bangalore, etc.) where more than one undertaking is located, the feasibility of providing common educational facilities at Secondary and Higher stages and hospitalisation and special treatment facilities should also be considered, as it would enable the undertakings to provide better facilities at a lesser cost.

(d) Recreational and other facilities:

Need for devising norms & standards for recreational and other facilities.

47. The costs of recreational facilities (like clubs, community centres, auditorium, play-grounds and parks etc.) provided by public undertakings is also on the high side. For instance, the Heavy Engineering Corporation, Ranchi has provided these facilities at a cost of Rs. 34.65 lakhs and in the steel plants the cost has ranged from Rs. 26 lakhs to Rs. 30 lakhs. In Heavy Electricals Bhopal, the cost of a community centre, assembly hall and an auditorium has been Rs. 9.15 lakhs. Similarly the costs of shopping centres and other public utility buildings has ranged from Rs. 40 lakhs to Rs. 46 lakhs in these undertakings. The Committee recommend that Government should devise norms and standards for recreational and other facilities and impress upon public undertakings the need for economy in these matters.

(iv) Element of Subsidy

Concealed subsidy higher than that laid down by Government.

48. The Ministry of Finance in March, 1960 laid down the following principles regarding the element of concealed subsidy\* for housing in the public sector projects:—

- (i) the amount of concealed subsidy for 100 houses of mixed types should as far as possible not exceed Rs. 1500/- per month i.e. Rs. 15/- per house; and
- (ii) the accommodation of persons drawing pay of over Rs. 300/- per month should not normally be subsidised.

\*Concealed subsidy is the difference between 6 per cent of return on the cost of construction, land and development and the rent at 10 per cent of pay.

Subsequently in August, 1960, the Ministry of Finance amplified that for houses to be constructed in areas where the cost of construction was higher than in Delhi the standard subsidy of Rs. 1,500 for 100 assorted houses might be increased by 15 per cent for every increase of 5 per cent in the construction cost index (compared to Delhi), limited to a maximum of 75 per cent.

49. In actual practice, it is seen that the accommodation for all the employees is being subsidised by public undertakings. Certain undertakings are charging rent at rates lower than the normal. The amount of subsidy in most cases ranges from Rs. 25 to Rs. 124 per month per house, as instances given below show:—

Undertaking	Amount of concealed subsidy per house per month
1. Hindustan Steel Limited	Rs. 11 to 124 at Durgapur, Rs. 25 to 30 at Bhilai, Rs. 39 at Head Office Ranchi.
2. Oil & Natural Gas Commission	Rs. 33 to 80 at Baroda.
3. Fertilizer Corporation of India Ltd.	Rs. 56 at Sindri, Rs. 31 at Trombay Rs. 42 to 53 at Namrup,
4. Heavy Electricals Ltd.	Rs. 54

50. *It is surprising that the instructions issued by the Ministry of Finance in regard to the extent of subsidy for housing in the public sector projects are not being followed by the public undertakings. The Committee trust that Government would look into the matter and ensure that the amount of concealed subsidy in townships of public undertakings is kept within the prescribed limits.*

Need for keeping subsidy within prescribed limits.

### III

## HOUSING POLICY, STANDARDS, PLANS AND DESIGNS

### A. Housing Policy

Extent to  
which accom-  
modation  
provided.

51. The extent to which public undertakings have provided accommodation to the staff has varied widely. In many projects (like Fertilizer Project, Trombay, Heavy Electricals, Hyderabad, Coal Mining Machinery, Durgapur) accommodation has been or is proposed to be provided to 100% staff as would be evident from the following table:—

Undertaking/Project	Total staff requirements	Total No. of houses constructed/or proposed to be constructed	Percentage of (3) to (2)
I	2	3	4
1. Air India, Bombay . . . . .	4000	840*	21.0%
2. Fertilizer Project, Trombay . . . . .	1803	1748	97%
3. Durgapur Steel Plant . . . . .	27048	15001	55%
4. Coal Mining Machinery Project, Durgapur . . . . .	5000	5000	100%
5. H.S.L's Head Office, Ranchi . . . . .	718	574	80%
6. Heavy Engineering Corporation, Ranchi . . . . .	19000	16000	84%
7. Heavy Electricals Project, Hyderabad . . . . .	4349	4349**	100%
8. Drugs Project, Hyderabad . . . . .	2610	1306	50%

52. The Managing Director, Fertilizer Corporation of India admitted during evidence that at Trombay 1748 units of accommodation which had been actually built were not necessary. Regarding Durgapur Coal Mining Machinery Project it had been explained that 1000 of the houses built

\*Excluding 100 flats constructed by Air India for employees of Indian Airlines Corporation.

\*\*At the time of factual verification the Ministry of Industry & Supply stated that the Project has been asked to plan its township for 3000 quarters only.

would be given to Ophthalmic Glass Project. Representatives of the Ministries stated that they had roughly proceeded on the basis of providing accommodation to permanent staff to the extent of 50% for Class IV and 80% for other categories. If there were any towns nearby these percentages were reduced.

53. *Even in cities like Bombay, projects have provided accommodation for the staff on an extensive scale. For example, the Trombay Fertiliser project has provided accommodation for 97% staff as against 21% by the Air India. Evidently the accommodation provided in some cases is on a scale larger than necessary. The present fluidity in the matter is not conducive to economy in the cost of construction of townships. The Committee recommend that Government should lay down the percentage of staff for whom accommodation should be provided by the public undertakings in the beginning having regard to the proximity of projects to any towns or cities.*

Need to lay down percentage of staff for accommodation should be provided.

54. In many projects (Trombay and Nangal Fertiliser Projects, Gauhati and Barauni refineries, etc.) the entire number of houses had been constructed in one lot and much in advance of the needs therefor. Accommodation for staff required for expansion programme has similarly been built in some cases (like Rourkela Steel Plant) before the completion and commissioning of the expansion units. The representatives of the Ministries admitted that the construction of houses must be phased.

Phasing of construction of accommodation.

55. In this connection it is interesting to note that the township of Tata & Iron Steel Company at Jamshedpur has been developed gradually over the past 50 years and facilities like schools, market, hospital, etc. have been provided according to the needs from time to time. About 14,498 houses have so far been built by the Company for its 35,000 permanent employees.

Position in private sector undertakings.

56. *Public undertakings have not properly phased the construction of houses required for their employees. To invest large sums of money on housing in the beginning results in avoidable waste. It also affects adversely the profitability and cost of production of the undertakings. It is imperative that undertakings should manage with a minimum number of houses in the beginning and increase their number later by meeting the expenditure from their earnings to the extent possible. It may also be examined whether sharing of accommodation would be feasible, as is allowed by the Central Government at Delhi. The Committee recommend that Government should lay down suitable guiding principles in this regard.*

Need to lay down principles reg. phasing of construction of township.

Nature of accommodation.

57. Public undertakings have generally built permanent houses having a life expectancy of 50 to 100 years. Even in places like Ankleshwar, Cambay Oil/Gas fields, where the undertakings are based on wasting assets and whose reserves are likely to be exhausted in a period of 15 to 20 years the same permanent type of houses have been built.

58. The representative of Oil and Natural Gas Commission stated that although the initial costs of temporary buildings were less than the permanent ones, the maintenance charges of the former were more. Representatives of the Ministries admitted that they could have certainly gone in for temporary structures at projects which were based on wasting assets. It was also stated that the private sector undertakings (like collieries) did not go in for "pucca" houses but built accommodation of lower specifications.

Need to relate life of houses to that of assets.

59. *To construct permanent houses with a life expectancy of 50 to 100 years at places where the operations of the public undertakings are likely to last for 20 to 25 years only is wasteful. It is surprising that neither the Government nor the public undertakings concerned gave any consideration to this matter for so long. The normal thing in such cases was to go in for semi-permanent or temporary structures lasting for 20 to 25 years as is done by the collieries in the private sector. Had this been done, it would have been possible to effect considerable savings\* in capital costs at places like Ankleshwar and Cambay oil/gas fields. The Committee trust that Government would ensure that in future the public undertakings like the Oil and Natural Gas Commission, National Coal Development Corporation, etc. suitably modify the specifications of accommodation so as to relate its life to that of the assets.*

60. The Committee also discussed the general question of life of houses which should be put up by public undertakings. The representative of the National Buildings Construction Corporation felt that it should be on the basis of "one decade houses" (viz. life ranging from 25 to 30 years) as it would result in considerable saving as well as give a chance to the authorities to build new types of houses according to the changing ideas. Representatives of the Ministries however, felt otherwise and stated that for continuing projects it would be much better to have houses built to the highest specifications as permanent structures. In the case of temporary houses, the maintenance was very expensive but this aspect had not been considered in all its aspects so far.

\*A total amount of Rs. 110.81 lakhs has been spent on Ankleshwar and Cambay housing colonies. Average cost per dwelling unit is Rs. 16,000 as against Rs. 8800 for certain temporary houses built by the Commission at Sibsagar etc. If this basis is assumed, the saving would have been about Rs. 50 lakhs.

61. *In a planned and rapidly developing economy, like ours, there are bound to be various compelling demands on the public resources. The provision of houses in public undertakings is no doubt necessary but more urgent is the need to utilise the available resources for increasing their productive capacity. It is, therefore desirable that investment on housing should be kept as low as possible.. One way of doing so would be by resorting to cheaper structures of semi-permanent type with a life expectancy of 20 to 30 years. Apart from economy, this would enable the public undertakings to construct houses according to the changing pattern and ideas. The Committee recommend that the economics of putting up such houses should be thoroughly got examined by Government, if necessary in collaboration with the National Buildings Organisation and the Central Building Research Institute.*

General question of life of houses need to be examined.

62. The Ministry of Finance in 1960 initiated a proposal of having small blocks of houses in the satellite villages of the public undertakings so as to reduce the burden of cost of housing on the plants (*vide* Ministry of Finance O.M. No. 1068/SF/60 dated the 23rd March, 1960—reproduced in Appendix III). It was intended that the Buildings Projects Team of the Committee on Plan Projects would explore such a possibility. So far, there has been no progress in this regard.

Dispersal of houses to adjoining villages.

63. The Chairman, Hindustan Steel Limited stated during evidence that the difficulty in implementing the proposal was that the local people preferred to live a community life in the township. He apprehended that if the public undertakings were to spread to the villages and help the employees with the assistance for building houses, the costs might be more than at present. He, however, admitted that the idea was worth trying in a new plant. Representatives of the Ministries stated that they left it to the initiative of the projects but none of them had come up with a proposal. They further stated that the matter required to be considered from various angles.

64. *It is regrettable that the Ministry of Finance did not ensure that the proposal of satellite villages was pursued. In the view of the Committee such a scheme would not only result in economy but also be in the interest of rural development and betterment of the surrounding villages. They are strengthened in this view by the fact that such an arrangement obtains in foreign countries as also by the following observation made by the Minister of Irrigation & Power in the Lok Sabha on 6th April, 1965:—*

Proposal of satellite villages deserves consideration.

“If a man goes from the rural areas to the towns, it costs Rs. 100 by way of sewerage disposal and water supply while in the village it costs barely

Rs 10 or Rs. 15. Therefore, to see that people are retained in the rural areas is very important from the economic point of view. In fact, I was very happy to note the other day, in America the trends are now the reverse. These villages with 1500 people are becoming populated and some of the villages have got as much as 20,000 people now. The urban areas are becoming depopulated there and people are going to the villages."

*The proposal of satellite villages therefore, deserves serious consideration. The Committee trust that Government would have it examined in detail and issue specific instruction to the public undertakings.*

Marking plots for sale to private parties or houses to employees.

65. The Ministry of Finance had also made the following suggestions in 1960:—

- (i) a sector of the residential colony should be sold in plots to private individuals for building houses, particularly near the market area; and
- (ii) some of the houses built by undertakings should be sold to their employees on the hire purchase system and a sector of the colony should be set apart for such sales.

66. In actual practice, however, none of the public undertakings has so far made any attempt to implement these suggestions. On the contrary some undertakings have themselves provided accommodation for offices of State and Central Governments. For instance at Rourkela Steel Plant, 1,000 houses have been provided to the employees of these offices.

67. During evidence one Managing Director did not think that it was a good policy to sell houses to the employees as there was no guarantee that an employee's son would also be an employee of the project. Representatives of the Ministries also did not favour the idea of projects acquiring the land and selling it to anybody.

68. The Committee understand that Tata Iron & Steel Company, Jamshedpur leases out sites to non-employees to build their own houses and shops. As far as offices of Central and State Governments are concerned, the practice is to allot land to the respective Governments to build houses for their employees.

Proposal reg. sale of plots to private parties or houses to employees needs re-examination.

69. *It is to be expected that the suggestions made by Government are acted upon by the public undertakings. Strangely none of the undertakings has made any attempt to implement the suggestions regarding the sale of plots to private parties or houses to the employees. The Committee trust that Government will have the matter re-examined in the light of the prevailing position in private sector under-*

takings and issue suitable instructions for observance by the public undertakings.

### B. Standard and Scales of Accommodation

70. The categories of houses constructed and the scales of accommodation have been as follows in some of the undertakings:—

Undertaking/Project	Categories of houses constructed	Highest Category		Lowest Category	
		Plinth area Sq. ft.	Pay range (Rs.)	Plinth area Sq. ft.	Pay range (Rs.)
1. Fertilizer Corporation's Sindri Unit.	16	5062	Senior Officers	227	35—50
2. Hindustan Steel Limited ;					
(a) Bhilai Steel Plant.	56	4285	1500 and above	370	Below 110/-.
(b) Durgapur steel Plant.	16	2872	1600 and above	370	Do.
(c) Head Office Ranchi	14	4156	for Chairman . 3000 for Directors	665	200—400
3. Hindustan Machine Tools Ltd.	8	3800	for Managing Director.	450	Below 130
4. Hindustan Saks' Sambhar Lake	6	9789	above Rs. 1000/-	2264*	Below 17
5. Hindustan Photo Films Manufacturing Co. Ltd.	6	2683	1600 and above	375	Do.
6. Hindustan Insecticides' Always Plant	7	2294	1000—1400	300	Below 55,

71. The categories of houses constructed by public undertakings are numerous. The scales of accommodation have also varied from undertaking to undertaking. At Sindri, servant quarters and garages were provided even for certain members of staff in the pay range of Rs. 275—800.

72. The Managing Director, Fertiliser Corporation of India admitted that their scales had been very lavish. The majority of officers who were entitled to occupy houses with servant quarters and garages at Sindri had no cars. Representatives of the Ministries stated that in the past the scales of accommodation were lavish but that austerity standards had since been laid down in 1960.

At the time of factua' verification the Ministry of Industry & Supply stated that the building comprising a plinth area of 2264 sq. ft contains 10 rooms and is earmarked for class IV and work charged staff and only one room is allotted to each person.



Even scales of accommodation laid down by Government in 1950 not being followed.

73. The Ministry of Finance laid down the following standards and scales of accommodation for public sector projects in 1960:—

Type	Plinth area sq. ft.	Pay range (p.m.)
I	365	Below Rs. 110/-
II	400	Less than Rs. 200/- but not less than Rs. 110/-
III	600	Less than Rs. 400/- but not less than Rs. 200/-.
IV	900	Less than Rs. 850/- but not less than Rs. 400/-
V	1500	Less than Rs. 1600/- but not less than Rs. 850/-
VI	2100 (plus 240 sq. ft. for servant Quarter & 225 sq. ft. for garage)	Rs. 1600/- and above.

74. While certain public undertakings have stated that the above scales are being generally followed, others have stated that they will keep them in view. In fact the old and new standards do not seem to have yet been reviewed by all the undertakings and some of them continue to follow higher standards.

75. The representative of Oil & Natural Gas Commission stated during evidence that in the past they had exceeded these standards but last year they decided to follow them strictly. The Chairman Hindustan Steel Limited also stated that though previously their standards were a little lavish for higher category of houses, they were now following the scales laid down by Government.

Need to ensure that scales of accommodation prescribed by Govt. are followed by all undertakings.

76. *The Committee regret to observe that the public undertakings have followed very liberal scales of accommodation particularly for the higher categories of their employees. No proper standards were fixed by Government in this regard till 1960. In the absence of any direction from the beginning to adhere atleast to Government scales, the public undertakings appear to have fixed their own standards of accommodation. What is more surprising is that the scales of accommodation prescribed by the Ministry of Finance in 1960 are also not being followed by all the*

public undertakings. It is to be expected that the standards once fixed by Government are strictly adhered to by the undertakings. The Committee hope that the newly set up Bureau of Public Enterprises would look into such matters and ensure that all instructions issued by Government are complied with by the public undertakings.

*Quoted*

### C. Plans and Designs

77. The Committee on Plan Projects in their Report (1963) on Industrial Townships had suggested that two or three alternative designs for each category of housing should be prepared and the one most suitable for the particular location adopted. So far, no action has been taken in this regard. During evidence, the Chairman, Hindustan Steel Ltd. stated that it would be better to lay down standard designs with some variety.

78. *It is obviously desirable to lay down two or three alternative standard designs for various categories of houses on a regional basis so as to have variety while ensuring maximum economy. The Committee recommend that this should be done.*

Desirability of laying down Standard designs of houses.

79. Public undertakings have followed different practices in the preparation of plans and designs of their townships. For instance, in the case of Fertiliser Corporation of India, plans and designs for Sindri township were prepared by the Central Public Works Department, while those for Nangal, Trombay, Namrup and Gorakhpur townships by private architects or the Technical Consultancy Bureau of the Government of India. The amount of fees paid to private architects has also varied from project to project. For Nangal (2254 houses) it has been Rs. 3.45 lakhs; for Trombay (1748 houses) Rs. 3.60 lakhs and in the case of Namrup a fee of 4 per cent of cost of original works is payable. Certain undertakings (like Hindustan Steel Ltd., Heavy Electricals Ltd., Heavy Engineering Corporation Ltd.) have set up their own elaborate Architect and Town Planning Organisations for the purpose.

Plans and designs of township.

80. During evidence the Managing Director, Fertiliser Corporation of India admitted that the payment of fee on a percentage basis was not conducive to economy as it tended to increase with any increase in the cost of works. The Chairman, Hindustan Steel stated that they had since abolished their Architect and Town Planning Organisation and that the staff was being transferred to Bokaro. As to how the staff would be utilised after completion of Bokaro, he stated that it was for Government to decide and that they might set up a Central Town and Planning Organisation. Representatives of the Ministries, however, did not favour

entrusting the work to one central organisation. They felt that it was better to have plans and designs prepared by different people otherwise the tendency developed for a standard type without any allowance for local needs, etc.

Setting up of  
elaborate  
Town Plan-  
ning organi-  
sations by  
P. Us. not  
necessary.

81. *It may be desirable to invite competitive tenders for the plans and designs of townships from the various architects so as to secure both economy and suitability to local needs. In that case it is not necessary for the undertakings to set up their own elaborate Architect and Town Planning Organisation with attendant difficulty of retrenchment of staff later on. The Committee recommend that Government should examine the matter and issue suitable instructions to the public undertakings.*

*They further suggest that the desirability of prescribing standard schedules of rates for private architects may also be considered.*

## IV

### OTHER MATTERS RELATING TO TOWNSHIPS

#### A. Hostels

82. A number of hostels have been or are proposed to be constructed by public undertakings entailing a heavy capital expenditure, as instance given below show:—

Undertaking	No. of hostels, (including guest/rest houses)	Capital cost (Rs. in lakhs)
1. Hindustan Steel Limited . . . . .	18	120·41
2. Neyveli Lignite Corporation Ltd.	10	10·34
3. Fertiliser Corporation of India Ltd.	7	36·74
4. Bharat Heavy Electricals Ltd. . . . .	7	50·11
5. Indian Oil Corporation's Refineries . . . . .	3	23·76
6. Heavy Electricals Ltd. . . . .	5	41·73
7. Indian Drugs and Pharmaceuticals Ltd.	3	36·10

83. These hostels are mainly constructed by public undertakings in the beginning for accommodating the foreign experts. After their departure these are converted into apprentice hostels and guest/rest houses, etc. They are not fully occupied and become a burden on the undertakings by way of maintenance costs, etc. For instance, at Nangal 2 hostels were constructed initially for foreign experts. Later on, one was converted into an Apprentice School's hostel and the other into a guest house. The occupancy ratio of the latter which has 40 rooms is only 22 per cent.

84. *The Committee feel that the present level of expenditure on the hostels in the public undertakings is high and it needs to be brought down by laying down suitable norms and standards. The feasibility of using residential flats temporarily as hostels for meeting the needs of foreign experts, as has been done at the Koyali refinery, may also be examined.*

Need for norms and standards for hostels.

#### B. Financing and Administration of Townships

85. Public undertakings have generally financed the outlay on their townships from equity and loans provided by Government for the projects. The Committee discussed the

advisability of meeting the cost of townships from loans, internal resources and subsidies. The representatives of the Ministries did not favour it and stated that they could adopt a "presentational aspect" of showing the expenditure on townships separately.

Suitable pattern of financing the outlay on townships need to be evolved.

86. *The present practice of meeting the entire cost of townships out of the capital provided for the execution of the projects is neither sound nor in consonance with prudent commercial practice. It results in the over-capitalisation of the projects and renders the evaluation of their performance or comparisons with other similar undertakings unrealistic. The outlay on townships should normally be met from loans, internal resources and subsidies. The Committee recommend that the matter may be examined by Government and a suitable pattern of financing the outlay on townships of the public undertakings evolved.*

87. *It is also desirable that the estimates of cost of townships should be shown separately while seeking approval of Parliament for investment in public undertakings. The expenditure incurred on townships should also be shown separately in the Annual Accounts of the public undertakings.*

Administration of Townships.

88. Public undertakings have set up elaborate organisations for the administration of their townships. Certain undertakings (like Hindustan Steel, Neyveli Lignite Corporation, Heavy Engineering Corporation, Hindustan Machine Tools) have appointed Town Administrators assisted by departmental heads for allotment, maintenance, horticultural, etc. Some (like Fertiliser Corporation of India, Heavy Electricals, Nepa Mills) have appointed Administrative Officers or Estate Officers, assisted by engineers and other staff.

Desirability of a separate body to look after Townships of Public Undertakings.

89. *The entire cost of maintaining the township is at present borne by the undertaking concerned. The maintenance charges which are high not only affect the cost of production of that undertaking but also of other undertakings which depend on its products. It was stated during evidence that a proposal to set up a separate body to look after the townships of the public undertakings was under consideration of Government. The Committee trust that Government would examine the matter in all its aspects and arrive at a suitable decision at an early date.*

## V

### CONSTRUCTION DELAYS IN FACTORY BUILDINGS AND SOIL INVESTIGATIONS

#### A. Construction Delays in Factory Buildings

90. The table below shows the delays in the construction of factory buildings of public undertakings, overall time taken in completion of projects *vis-a-vis* position in foreign countries and in private sector in India:—

Sl. No.	Undertaking	Project	Actual or anticipated delay in construction/completion of factory buildings & other civil works		Effect of Delays	Overall time taken between calling of Detailed Project Report & completion/commissioning		Overall time aken in similar plants in	
			Year	Months		Year	Months	Foreign countries	Private sector in India
			(4)	(5)		(6)	(7)	(8)	
1.	Neyveli Corporation Ltd.	(a) Thermal Plant .	1	3	(i) Delay in Thermal Plant lead partly to delay in commissioning of mining scheme.	6	4	2 to 3 yrs.	
		(b) Fertiliser Plant	3	..		8	6	4 yrs.	
		c) Briquetting Plant	1	4	(ii) Spare plant, machinery & manpower diverted from one unit to another.	5	9		
2.	Fertiliser Corporation of India Ltd.	(a) Trombay .	2	0	Manpower remained idle.				
		(b) Namrup .	1	10	..	6	7	3 to 4 yrs.	
		(c) Nangal .		10		6	0		
3.	Indian Oil Corporation Ltd.	Barauni Refinery .	2	0	Plant, machinery & manpower remained idle.	5	..	3 years by ESSO & 4 years by Caltex & Burmah Shell.	
4.	Hindustan Steel Ltd.	(a) Rourkela .			Ranges from 2 months to over 3 years in various units.			..	..
		(b) Durgapur .			1 year & 2 months.	..	..	..	..

	(c) Bhilai . . .	Ranges from 8 mths to 1 year.	Do.	\$	..	About 4 years for new works and 2 to 3 years for expansion in U.S.S.R.
(d) Alloy Steel Plant	1	4	..	..	..	..
(e) Coal Washery Project.	..	..	..	2 to 5 years in various washeries.	..	1½ years.
5. Heavy Electricals Ltd.	Bhopal	Over two years in certain units.	Machine tools, testing equipment etc remained idle.	4	8	..
6. Bharat Heavy Electricals Ltd.	(i) Hyderabad	0	10	..	5	0 1½ to 2 years in USSR.
	(ii) Tiruchi	0	9	..	4	0
7. Hindustan Photo Films Manufacturing Co. Ltd.	..	2	0	About 50% of plant and machinery remained idle.	..	..



Delays in  
Construction  
of factory  
building.

91. It would appear that the construction of factory buildings has been delayed in many projects. The delays range from 1 to 3 years. This not only led to delays in their commissioning and increase in costs but also resulted in keeping the plant, machinery and manpower idle.

Reasons for  
delays.

92. The delays have been mainly attributed to the following factors:—

- (i) Delays in the supply of complete working drawings by consultants—  
(e.g. at Neyveli and Nangal Fertiliser Plants, Koyali Refinery, Rourkela, Bhilai and Alloy Steel Plants, Hind. Photo Films).
- (ii) Changes in the basic designs and layout during the course of construction due to:—
  - (a) revision of capacities—  
(e.g. at Namrup Fertiliser Project, Hyderabad Electricals Project, H.E.C., Ranchi, Rourkela Steel Plant).
  - (b) Changes in production process—  
(e.g. at Neyveli and Nangal Fertiliser Plants, Barauni Refinery).
- (iii) Increase in quantities of civil works on account of initial tenders having been called on approximate data—  
(e.g. at Rourkela and Bhilai Steel Plants).
- (iv) Inadequate initial soil investigations resulting in change in sites, revision of plans, resorting to pile foundations, etc.—  
(e.g. at Namrup Fertiliser Plant, Barauni Refinery).
- (v) Delays and difficulties in the procurement of construction equipment and materials, release of foreign exchange therefor,—  
(this happened in cases of several projects).
- (vi) Non-availability of suitable experienced contractors and skilled workers—  
(e.g. Neyveli Lignite Corporation, Rourkela Steel Plant).

93. It was explained during evidence that in many cases the delays could not have been avoided due to changes in the scope of projects, foreign exchange difficulty and the tight time schedules.

Comprehensive study into causes of delays suggested.

94. *The Committee are greatly concerned at these abnormal delays in the construction of factory buildings and other civil works which adversely affect the economy of the projects. A certain measure of delay during construction might*

*be inevitable due to our dependence on foreign help and nature of the projects. But the delays of 1 to 3 years could only be due to lack of planning, proper programming and lack of co-ordination with the consultants. It is surprising that these delays continue to recur even in the expansion programmes of old plants. With the experience of planning and development for more than a decade, it should be possible to reduce these delays considerably. The Committee recommend that a comprehensive study into the causes of the delays should immediately be undertaken by Government and proper remedial measures devised.*

### B. Soil Investigations

95. At present the selection of sites for various projects is not preceded by a thorough soil investigation. In a number of projects detailed soil investigations have been carried out subsequent to selection of sites leading to change of sites, revision of plans and drawings, extra expenditure on foundations and consequent delay in construction, as would be evident from the following instances:—

Site selection not preceded by thorough soil investigations.

Project	Subsequent detailed soil investigations led to
1. Rourkela Steel Plant.	Shifting of plant sites involving cost of Rs. 2.62 crores. (812 houses in the township have also developed cracks for want of proper soil investigations).
2. Foundry Forge Project, Ranchi.	Pile foundations involving cost of Rs. 1.15 crores.
3. Barauni Refinery.	Treatment of soil involving cost of Rs. 20 lakhs.
4. Heavy Electricals, Bhopal.	Removal of block cotton soil and deeper foundations.
5. Trombay Fertiliser project.	Revision of plans and resorting to pile foundations.
6. Gorakhpur Fertiliser Project.	Change of sites.
7. Namrup Fertiliser Project.	Detailed investigation going on and expenditure so far Rs. 1.75 lakhs.
8. Thermal Power Plant, Neyveli.	Revision of foundation drawings of main building.

96. During evidence, the representatives of the Ministries stated that location was decided on some "test boring" which involved certain risks. While conceding that it was desirable to have detailed survey they pointed out the following difficulties:—

- (i) A detailed survey would take anything between 12 to 18 months to get the results.
- (ii) It would involve payment of compensation in respect of private land.

Need to lay down principles reg. soil investigations

97. *As choice of a wrong site would involve the projects into costly delays, it is necessary that prior detailed soil investigations must be conducted. In the light of the past experience, it appears that it will be cheaper to pay compensation for private land rather than incur expenditure on fresh investigations during the construction phase. The Committee recommended that the matter may be examined by Government and suitable principles laid down for future guidance.*

Agency for soil investigations.

98. There is no one agency to whom the detailed soil investigations are entrusted at present. It is done in some cases by the State Governments, in some by the project authorities and in others by the consultants. Representatives of the Ministries stated during evidence that it would have been useful if one agency had grown up by this time. It was not easy to build up such an agency due to paucity of equipment and transporting them from one place to another. In the light of this, it was better to allow the foreign collaborators to bring in their own equipment and do the testing.

Desirability of developing a suitable agency for soil investigations.

99. *As the number of big projects in the public sector is increasing it would be advantageous to develop a single organisation in the country for carrying out proper soil investigations rather than leaving it to consultants who differ from project to project and have to bring in their own equipment every time. The setting up of such an agency should not present any great difficulty as the technical know-how is available in the country. The Committee, therefore recommend that steps may be taken by Government to develop a suitable agency for the purpose.*

## VI

### CONSTRUCTION EQUIPMENT AND MATERIALS

#### A. Construction Equipment

100. A majority of public undertakings have procured construction equipment for hiring out to the contractors or for departmental use. The table on the next page shows the value of such equipment procured by certain undertakings, hire charges recovered from contractors and the items lying surplus to requirements:—

Undertaking/Project	Procurement			Hire Charges recovered etc.			Items lying surplus to requirement
	Total value of equipment procured	Value of equipment procured from other public undertakings	Annual hire charges recovered from contractors	Annual maintenance, depreciation & interest charges	Extent of departmental use		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	
<b>1. Damodar Valley Corporation</b>							
	4.71 (At Bokaro, Paschet, Konar & Chandrapura only; other projects; information not available)		0.02 (at Chandrapura only; other projects; information not available)	0.34 (at Chandrapura only)	0.37	57 items at Pan- chet Dam.	ω 8
<b>2. Hindustan Steel Ltd.</b>							
(a) Bhilai	3.73	Nil	0.10	0.60	0.14	No serviceable equipment surplus.	
(b) Durgapur	1.98		0.05	0.13	0.03		
(c) Rourkela	1.81		..	0.25	..		
3. Heavy Engineering Corporation Ltd.	1.76	0.03 (from Bhilai, Hirabud, etc.)	0.10	0.25	No separate account	None	
4. Fertiliser Corporation of India Ltd.	0.98	..	Full information not given.	Full information not given.	Not available	4 items at Nangal	
5. Heavy Electricals Ltd. Bhopal	0.23	..	Do.	Do.	..	No serviceable equipment surplus.	

6. Bharat Heavy Electricals Ltd.	0.51	..	Full information not given	..	..
7. Bokaro Steel Co. Ltd.	1.54	..	Full information not given	..	..
8. Oil & Natural Gas Commission (including Koyali Refinery)	0.38	0.08 (at Koyali)	..	..	..
9. Indian Oil Corporation's Refineries	No information furnished.	..	..	..	..
10. Neyveli Lignite Corporation Ltd.	0.38	..	Full information not given	Mainly (in terms of value not indicated)	..
11. Indian Drugs & Pharmaceuticals Ltd.	0.10	..	..	..	..
<b>Total</b>	<b>18.11</b>				

101. The following main features are noticeable in the procurement and use of the construction equipment:—

(i) *Procurement*

Construction equipment costing over Rs. 18 crores has been/or is being procured by various undertakings. Most of it has been imported. Of this, surplus equipment worth about Rs. 11 lakhs only has been obtained from the completed projects. During evidence, the representatives of the Ministries admitted that it was possible that too much equipment had been procured. It was also probable that equipment had been imported by some projects while it might be lying idle or surplus at certain other projects in the country.

(ii) *Hire charges recovered from contractors*

102. The Committee enquired about information regarding the annual maintenance charges (*i.e.*, depreciation, interest and running expenses of crew, etc.) and hire charges recovered from the contractors. Most of the undertakings have not furnished the same. However, from the data available in respect of some of the undertakings, the following facts emerge:—

- (a) At Baroda office of O.N.G.C. the equipment was being hired out to contractors for 2 months only in a year. Thus the equipment is not being put to full use.
- (b) In all the projects, hire charges recovered from contractors are far less than the maintenance costs of the equipment. Even after taking into account the incidence of departmental use, the recoveries in terms of total use are much less in most cases. The representative of Oil & Natural Gas Commission admitted that hire charges were fixed on an *ad hoc* basis and that they had not yet worked out an economic rate of recovery.

Lack of planning in procurement & use of construction equipment.

103. *It appears that in many cases construction equipment in excess of requirements has been imported by the public undertakings and it is not being put to full use. It is also possible that equipment has been imported by some projects which might be lying idle or surplus at certain other projects in the country. The Committee regret to observe that there has been lack of proper planning in the procurement of costly construction equipment by the public undertakings and lack of co-ordination in pooling the equipment with a view to its maximum utilisation by the various projects in the interest of the national economy. It is surprising that*

*before sanctioning foreign exchange Government did not satisfy itself regarding the need for such equipment and ensure that the equipment which was lying idle or surplus in projects was not imported. In this connection paragraph 106 of the Report may further be seen.*

104. *The most disquieting feature has been that in many cases hire charges are recovered from the contractors on an ad hoc basis and these are much less than even the maintenance costs of the equipment. This indicates failure to safeguard the financial interests of the undertakings. It also shows that the Finance and Accounts Officers are not properly trained and oriented to take care of the interests of the undertakings. The Committee recommend that Government should investigate the reasons for not fixing economic rates of hire charges by the various undertakings and fix responsibility therefor. They also urge that it should be ensured that in future economic rates of hire charges are fixed and followed by all the public undertakings.*

Investigation:  
for not fixing  
economic  
hire charges.  
recommended.

105. Regarding the availability of surplus construction equipment, the Damodar Valley Corporation has stated that at Panchet Dam 57 items are lying surplus. At Konar Dam, equipment worth Rs. 6.20 lakhs has been sold to private parties. As regards other projects of this Corporation, the information is either stated to be nil or not readily available. Fertiliser Corporation of India has stated that four items of equipment are lying surplus at Nangal. Other undertakings (like Durgapur and Bhilai Steel Plants, Heavy Engineering Corporation) have stated that no serviceable equipment is lying surplus or it has not yet been classified as such. During evidence the Chairman, Hindustan Steel Ltd. stated that they were cannibalising serviceable spare parts. He admitted that it needed to be looked into whether the equipment in all the steel plants had gone in for cannibalisation and whether any survey Committee had condemned it, etc.

Surplus  
equipment.

106. *The manner in which the costly construction equipment is being maintained and disposed of by the public undertakings is disturbing. It is not unlikely that large quantities of this equipment are lying surplus to requirements in various projects which could be reconditioned. Considering the value of known construction equipment which is over Rs. 18 crores in the public undertakings, the Committee suggest that Government should appoint an expert Committee to ascertain the total quantity of such equipment obtained by undertakings (both imported and indigenous), its life, its utilisation and the extent of surpluses. That Committee may also consider the advisability of pooling the construction*

Setting up  
of an expert  
committee  
recommended.



equipment on a regional or other basis with a view to its maximum utilisation and avoidance of unnecessary imports.

### B. Construction Materials

107. Most of the public undertakings have experienced delays and difficulties in the procurement of construction materials (like steel structurals, G.C.I. and G.P. Sheets, A.C. Sheets G.I. Pipes, Steel Sections, Plates, Refractories, etc.). The result has been that the projects have resorted to imports of these items as would be evident from the following instances:—

(Rs. in Lakhs)		
Undertaking	Value of imported materials	Items
1. Heavy Engineering Corporation Ltd.	460.44	Steel structurals, reinforced rod, pipes, hystensile steel wire and armoured glasses.
2. Neyveli Lignite Corporation Ltd.	110.25	Structurals, reinforced steel.
3. Heavy Electricals Ltd.	62.38	Steel, wired-glasses.
4. Hindustan Steel Ltd:		Structural and refractories to the extent of 84% and 73% of requirements imported.
(i) Bhilai Steel Plant	..	
(ii) Durgapur Steel Plant.	..	63451 tons of structural and 57102 tons of refractories imported.
(iii) Alloy Project	..	3000 tons of steel being imported.
5. Fertiliser Corporation's Nangal Unit.	26.00	Structural.
6. Gauhati Refinery	12.00	Reinforced Steel.

Reasons.

108. The difficulties have been ascribed to the following main reasons:—

- (i) Designs of foundations and buildings having been based by consultants in some cases to foreign specifications.

- (ii) Delays in supply of steel from indigenous sources; steel mills not able to indicate any definite delivery period for even sections offered by them; demand for A.C., G.C.I. sheets, etc. not being fully met and supply unsatisfactory.

109. It was explained during evidence, that steel sections, sheets, plates, pipes, etc. were part of the Third Plan expansion programme of the steel plants. Till that matured the shortages were likely to continue. Regarding structurals, it was stated that there were just half a dozen fabrication firms in the country. Every public sector project depended on them and the work was getting delayed. The establishment of more heavy structural fabricators in the public sector was included in the Third Five Year Plan but no progress had yet been made in this regard for want of foreign exchange. Representatives of the Ministries admitted that this project had not been accorded due priority.

110. *Production of construction materials has not kept pace with the demand in the country. This has not only led to delays in the construction of projects but has also entailed heavy imports. The Committee recommend that necessary steps should be taken by Government to assure timely availability of construction materials for the various projects from indigenous sources.*

111. *Though the establishment of heavy structural works was recommended by the U.K. Heavy Engineering Mission as far back as 1957, nothing has yet been done to set up the same despite their inclusion in the Third Five Year Plan. These works are the pre-requisite for establishment of any heavy engineering industry. The Committee recommend that Government should now accord the highest priority for setting up adequate capacity for steel structural fabrication in the country.*

## VII

### COST OF FACTORY BUILDINGS AND CIVIL ENGINEERING ASPECTS

#### A. Costs of Factory Buildings

Wide variation of costs in same industry. 112. The table below shows the percentage of cost of factory buildings to the total cost of certain projects:—  
(Rupees in Crores)

Sl. No.	Project	Actual/anticipated cost of Factory buildings (including auxiliary buildings and services.)	Actual/anticipated total cost of Projects	Percentage of (3) to (4)
1	2	3	4	5
<b>1. Fertiliser Projects</b>				
	(a) Sindri . . . . .	4·35	39·73 (excluding services)	
	(b) Nangal . . . . .	4·43	31·20	14·2
	(c) Trombay . . . . .	3·52	33·40	10·6
	(d) Gorakhpur . . . . .	2·32	26·57	8·7
	(e) Namrup . . . . .	4·20	18·03	23·3
<b>2. Heavy Electrical Projects</b>				
	(a) Bhopal . . . . .	15·58	58·91	26·4
	(b) Hardwar . . . . .	13·69	68·02	20·1
	(c) Hyderabad . . . . .	8·87	27·48	32·3
	(d) Tiruchi . . . . .	7·10	18·14	39

113. *There are wide variations in the percentages of costs of factory buildings to the total costs of the projects. In the case of fertilizer projects these percentages range from 8 to 23 and those for heavy electricals projects range from 20 to 39. That there should be such variation from project to project in the same industry would seem to indicate that there is scope for economy.*

114. In this connection the Committee understand that a new factory shed design has been perfected by the Central Mechanical Engineering Research Institute, Durgapur. It is stated that by the use of this design the requirements of structural steel for factory buildings can be reduced by about 40 per cent and the total expenditure on factory buildings by 10 per cent.

115. *The Committee recommend that besides other avenues of cost reduction, Government should impress upon the public undertakings the need to adopt new techniques and designs for effecting savings in the construction of factory buildings.*

Need for economy in construction of factory buildings.

### B. Civil Engineering Aspects

116. The Committee understand that plans and designs for even ordinary types of civil works have been obtained from the consultants by some public undertakings. For instance, in the case of Heavy Electricals Project, Hyderabad the detailed project report contained even the outlines for cycle stand, car parking garages, bus stand, etc. The designs for the Baroda repair workshop of Oil and Natural Gas Commission (including designs for store house, storage racks, etc.) have been obtained from the Rumanian Collaborators at a cost of Rs. 4.21 lakhs. Based on collaborators' designs, the buildings of that workshop have been constructed to bear the weight of snow in winter, a condition which does not prevail at Baroda.

Designs for ordinary civil works obtained from consultants.

117. The representative of Oil and Natural Gas Commission admitted during evidence that considerable avoidable expenditure had been incurred on the Baroda workshop. He also agreed that the Indian Engineers could have prepared the designs of the Workshop. Representatives of the Ministries stated that they were increasingly trying to maximise the indigenous content in design and specifications.

118. *It is obviously not necessary to seek assistance of foreign collaborators for plans and designs for buildings which could be prepared by the Indian Engineers. The Committee recommend that Government should issue instructions to the public undertakings to avoid recurrence of such cases. In this connection paragraph 127 of the Report may also be seen.*

Need to issue instructions to avoid recurrence.

119. The Committee note that different practices have been followed in the scrutiny of plans, designs and specifications of factory buildings suggested by consultants. In the case of Heavy Electricals Limited, Bhopal, these were examined by the Committee on Plan Projects and on their suggestions economics to the tune of Rs. 20 lakhs were accepted by the consultants. In the case of Instrumentation Limited, the plans were examined by the Technical Consultancy Bureau of the Government of India and several suggestions aimed at economy were stated to have been accepted by the Soviet Design organisation. In other cases, they have either not been examined at all or have been examined by *ad hoc* technical teams.

Different practices in scrutiny of plans.

120. The representatives of the Ministries admitted during evidence that it would be prudent to have an independent check over the designs and specification suggested by the Consultants.

**Careful examination of plans, designs and specifications proposed by consultants.**

121. *Evidently it is possible to effect considerable economies in construction costs of factory buildings if an independent check is exercised over the plans, designs and specifications suggested by the Consultants. It will also have the additional advantage of our acquiring the technical know-how. The Committee recommend that plans, designs and specification suggested by Consultants should be carefully examined before they are accepted.*

122. So far no standard plans, models and codes for design and construction of factory buildings have been drawn up in the country. It is understood that such standards plans and codes exist in other countries like U.S.S.R.

**Need to evolve standard plans, models & codes for factory buildings etc.**

123. *There is a large area of civil works where the same plans and designs could be utilised in a number of projects. This will result not only in expeditions completion of factory buildings and other civil works but will also result in economy. The Committee therefore recommend that suitable standard plans, models and codes for factory buildings and other civil works like administrative offices, canteens, etc. should be evolved which could be commonly adopted by all or most of the public undertakings.*

**Contracts on turn-key basis.**

124. In a number of projects (like Durgapur Steel Plant, Alloy Steel Plant), public undertakings have entered into contracts with plant suppliers on turn-key basis. Under such contracts they are given the entire responsibility for preparing layouts, giving designs, civil engineering and erection works, commissioning of plants, etc.

125. The Chairman, Hindustan Steel Limited stated during evidence that such contracts meant less worry to the managements as the whole job was done by the plant suppliers. There was a view that such contracts were cheaper in the long run because there were no delays. But he personally felt that they were constlier. In his view the main disadvantage of such contracts was that our people did not acquire the necessary knowledge and experience. He, therefore felt that it was not a good thing to enter into contracts on turn-key basis but risks should be taken by our own people. The representatives of the Ministries stated that the tendency now progressively was not to resort to turn-key contracts. But sometimes there were advantages in

giving unified responsibility to one party so as to make them responsible for performance. Measures were, however, taken to see that the entire thing was not done by that party and that certain things were specifically allotted to the Indian side.

126. The Ratnam Committee, which enquired into the civil engineering and other problems connected with the setting up of steel plants, in their Report (1964) has stated that the quantum of overheads in the case of turn-key jobs has been unduly high. For instance, in the case of expansion work at Durgapur, the rate for concreting in the turn-key jobs worked to an average of Rs. 547 per cbm. and in non turn-key jobs to an average of Rs. 288 per cbm. That Committee has, therefore, not favoured turn-key contracts and has suggested that all civil engineering works in complex projects should be undertaken departmentally.

Views of  
Ratnam  
Committee.

127. *Contracts on turn-key basis do not afford opportunity to our engineers to learn new techniques and become self-reliant. They are also costlier. The Committee feel that the assistance of foreign collaborators should be sought only for jobs in respect of which 'know-how' is not available in the country. For the rest they may be asked to indicate their requirements on the basis of which the planning, designing and construction should be undertaken by Indian Engineers. Besides effecting considerable economy, this would reduce the dependence on foreign collaboration and instil the necessary confidence in our men. The Committee recommend that Government should lay down suitable principles in this regard for guidance of the public undertakings.*

Need to lay  
down suitable  
guiding  
principles.

128. A Technical Consultancy-Bureau has been set up by Government under the National Industrial Development Corporation for undertaking civil engineering works connected with public sector projects i.e. preparation of detailed projects reports, working drawings and designs of structurals, etc. Besides this, some public undertakings (like Hindustan Steel Limited, Heavy Engineering Corporation Ltd., Fertilizer Corporation of India Ltd., Fertilizers and Chemicals Travancore Ltd.) have set up their own civil engineering organisations for this purpose.

Planning and  
design  
organisation  
for civil  
engineering  
works.

129. It has been suggested to the Committee that a central organisation for civil engineering (having different specialised Bureaus for building and architectural, public health, electrical, etc. with a co-ordinating Branch) should be set up in the country as has been done in U.S.S.R. The Committee discussed this suggestion with the witnesses. The Chairman, Hindustan Steel Limited stated that on the

designing side a central organisation was very useful. Representatives of the Ministries felt that there were some advantages in decentralisation due to specialised requirements of plants. It was also stated that the existing organisations were created to satisfy some specific requirements and not as a part of overall planned development.

Need to pool and co-ordinate the experience gained.

130. *It appears that each major undertaking has developed a planning and design organisation for civil engineering works. A Technical Consultancy Bureau has also been set up by Government under the National Industrial Development Corporation to undertake preparation of detailed project reports, working drawings and designs of structurals, etc. for the public sector projects. So far, there has been little attempt at pooling and co-ordinating the experience gained by the various undertakings in the field of planning and designing for civil engineering, for which there is an urgent need to reduce our dependence on foreign countries. The Committee recommend that Government should take suitable steps towards this end. The representatives of the Ministries have agreed to rationalise the present design organisations.*

## VIII CONSTRUCTION STAFF & CONTRACTS

### A. Construction Staff

131. Public undertakings have employed construction staff for supervision or doing work departmentally. The table below shows the present strength of such staff and the basis of determining the same in some undertakings:—

Undertaking	Present construction staff strength	Basis of determining strength	Remarks
1	2	3	4
1. Hindustan Steel Limited :			
(a) Bhilai Steel Plant.	16352*	Not indicated	Works mainly done departmentally. Some work load fixed for earthwork & erection staff.
(b) Rourkela Steel Plant.	2099	Recruitment made according to requirements.	
(c) Durgapur Alloy Steel Project.	N.K.	Do.	
(d) Durgapur Steel Plant.	1533	Generally Rs. 50 lakhs per annum for a division headed by an Executive Engineer.	
2. Neyveli Lignite Corporation Ltd.	4413	Recruitment made according to requirements.	Works mainly done departmentally.
3. Heavy Electricals, Ltd.	1236	Rs. 60 lakhs per annum for a Division.	
4. Bharat Heavy Electricals Ltd.	N. K.	At Tiruchi & Hardwar Rs. 30 to 40 lakhs for a division; at Hyderabad according to requirements.	

\*Including work charged staff.



132. Thus while in some public undertakings, no work load has been fixed for determining the strength of construction staff, in others it varies from Rs. 30 to Rs. 60 lakhs per annum for a division. They have a hierarchy of officers in their construction departments and in certain undertakings (like Hindustan Steel Limited, Heavy Engineering Corporation Limited, Heavy Electricals Limited) there are as many as 8 to 9 layers of supervisory staff. The Chairman, Hindustan Steel Limited admitted during evidence that they had not yet carried out a detailed analysis of construction staff requirements and followed a suitable norm for all the Plants.

Need to fix norm for construction staff.

133. *It appears that public undertakings have not yet fixed a norm for determining the strength of their construction staff. The present ad hoc basis of recruiting such staff is not satisfactory. There is need for a careful review of the construction staff requirements in the public undertakings and fixing a suitable norm therefor. The Committee recommend that Government should look into this matter and have the necessary review made.*

#### B. Contracts

System of letting out contracts.

134. There are various systems of letting out contracts, viz. item-rate, overall percentage and lump sum basis. Public undertakings have generally resorted to item-rate basis i.e. entering into contracts on approximate quantities and cost and ensuring the parties against any variations.

135. The Committee on Plan Projects in their Report (1962) on Public Works Administration has recommended the adoption of lump sum system of contracts as it leads to speedier completion of works and reduction in contractual problems. The Heavy Electricals, Bhopal in their comprehensive completion Report has also observed that item-rate tenders are very risky in the hands of inexperienced contractors and engineers. Representatives of the Ministries stated that the lump sum contracts were better.

Contracts on lump sum basis suggested.

136. *The entering into item-rate contracts indicates that the details and quantities of works required to be executed have not been worked out. It is recognised that the lump sum contracts are the best. The Committee recommend that the public undertakings should enter into contracts on lump sum basis as far as possible.*

Acceptance of tenders other than the lowest and awarding contracts without calling for tenders.

137. The table on the next page shows the number of cases in which tenders other than the lowest have been accepted and contracts awarded without calling for tenders in some of the undertakings.

Undertaking/Project	Number of cases of acceptance of tenders other than the lowest	Number <sup>1</sup> of cases of awarding contracts without calling for tenders
1	2	3
1. Namrup Fertilizer Project . . .	26	41
2. Barauni Refinery . . . . .	16	Nil
3. Durgapur Alloy Steel Project . . . . .	7	80*
4. Koyali Refinery . . . . .	11 (including 2 townships)	7
5. Heavy Electricals, Bhopal . . . . .	2	30
6. Bharat Heavy Electricals . . . . .	9 (including 2 townships)	17
7. Heavy Engineering Corporation, Ranchi.	20 (including 7 townships)	61
8. Durgapur Ophthalmic Project . . . . .	1	3

138. It would appear that there are a large number of cases in various projects in which tenders other than the lowest have been accepted and contracts awarded without calling for tenders. Reasons given are inexperience of lowest tenderer, urgency, extension of work of existing contractors, etc. These cases have generally not been reported to the Boards of Directors of the undertakings at any stage as they were within the delegated powers of the General Managers or other officers. Representatives of the Ministries agreed during evidence that it was desirable to report all such cases to the Board.

139. *The acceptance of tenders other than the lowest and award of contracts without calling for tenders is not usual and is open to criticism. Such cases should be few and far between. All such cases should be reported to the Board of Directors for their review. The Committee recom-*

Need to report such cases to Board for review.

\*At the time of factual verification, the Ministry of Steel & Mines stated that the amount involved in these contracts was Rs. 3.66 lakhs only.

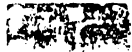
*mend that Government should issue necessary instructions to the public undertakings in this regard.*

**Revision in the value of contracts.**

140. There have been a large number of cases in the public undertakings in which the value of contracts has been increased after they were awarded. For instance, there have been 43 such cases in the Sindri Fertilizer Plant, 46 in the Heavy Electricals, Bhopal and 38 in the Heavy Engineering Corporation, Ranchi. In Bhilai Steel Plant additional payments made on this account amounted to Rs. 9.21 crores and constituted 94 per cent of the original value of contracts.

**Need to work out plans and specifications before award of contracts.**

141. *The upward revision in the value of contracts in such a large number of cases is another instance of inadequate attention being paid by the public undertakings to the planning and programming of works. They indicate that the works have been rushed through. This not only results in wastage but also tends to vitiate the very basis of the contract system. The Committee recommend that as far as possible all the detailed plans and specifications should be worked out by the public undertakings before the award of a contract.*



**Terms and Conditions of contracts.**

142. There have been unusual provisions in the contracts entered into by certain public undertakings with the contractors. For instance, some undertakings (like Durgapur Steel Plant, Heavy Electricals, Bhopal, Hindustan Photo Films Manufacturing Co.) have provided electricity and/or water free of charge to the contractors. Similarly, Hindustan Photo Films Manufacturing Company has advanced interest free loans and the contracts entered into by Heavy Engineering Corporation contained provisions like compensation for not giving further work, etc.

143. It has been suggested to the Committee that standard terms and conditions for contracts should be evolved. The Chairman, Hindustan Steel Limited stated during evidence that it was a good idea. Representatives of the Ministries felt that it might not always be possible to work to a uniform practice but agreed to examine the matter.

**Desirability of broadly standardising terms and conditions of contracts.**

144. *The grant of unusual facilities to the contractors has implications on the cost of a project. It is also open to public criticism. It is therefore desirable that terms and conditions of contracts should be broadly standardised for guidance of the public undertakings. Any variations in the standard terms after they have been prescribed should be brought to the notice of the Boards of Directors for review.*

## IX

### LAND ACQUISITION & OTHER MATTERS

#### A. Assessment of Land Requirements and Utilisation

145. The table below shows the land acquired/to be acquired by certain major projects and allocation thereof as between the factories and the townships:—

Project	Total land acquired or/to be acquired (Acres)	Allocation	
		Factory	Township
		(Acres)	
<b>1. Steel Plants :</b>			
(a) Durgapur . . . . .	16,940	6,000	10,940
(b) Bhilai . . . . .	20,597	10,890	9,617
(c) Rourkela . . . . .	19,561	8,388	11,177
(d) Bokaro . . . . .	36,830	n.k.	n.k.
<b>2. Refineries :</b>			
(a) Gauhati . . . . .	510	410	100
(b) Barauni . . . . .	1,700	1,250	450
(c) Koyali . . . . .	1,800	1,350	450
<b>3. Fertiliser Plants :</b>			
(a) Sindri . . . . .	6,156	748	5,408
(b) Nangal . . . . .	3,690	500	1,989
		(excluding surplus)	
(c) Trombay . . . . .	825	537	288
(d) Gorakhpur . . . . .	1,017	667	350
(e) Namrup . . . . .	809	392	417
<b>4. Drugs and Pharmaceutical Plants :</b>			
(a) Rishikesh . . . . .	900	690	210
(b) Hyderabad . . . . .	800	620	180
(c) Madras . . . . .	200	110	90
<b>5. Heavy Electricals:</b>			
(a) Bhopal . . . . .	6,400	755	5,645
(b) Hyderabad . . . . .	6,748	6,248	500

146. Thus it would appear that the land requirements vary widely among projects in the same industry. In the case of steel plants it ranges from 16,940 acres at Durgapur to 36,830 acres at Bokaro. The area earmarked for factory ranges from 6,000 acres at Durgapur to 10,890 acres at Bhilai. Land requirements for factories.

Position in  
foreign  
countries.

147. In contrast to this, the areas occupied by the steel works of even higher capacities in foreign countries is far less, as would be evident from the following instances:—

Steel works	Area in acres	Capacity M/T
Richard Thomas Baldwins Spencer work (U.K.) . . . . .	1700	4·0
Dunkirk (U.K.) . . . . .	1860	6·0
United Steel Gary (U.S.A.)	2400	7·2
Kawasaki Chiba (Japan) . . . . .	800	4·0
Yawata Sakai (Japan) . . . . .	600	3·5
Tokai (Japan)	1000	4·5
Kobe Nadahama (Japan) . . . . .	195	1·5

Basis of  
Assessment  
of require-  
ments.

148. The Chairman, Hindustan Steel Limited stated during evidence that the requirement of areas for the factories proper were indicated by the consultants. In addition, they themselves provided for water supply arrangement, marshalling yard, railway siding, etc. and the expected expansion. He, however, admitted that it was not right to acquire land ten or fifteen years in advance. Representatives of the Ministries stated that the total area of plants within the perimeters of the three steel plants (Rourkela, Durgapur and Bhilai) was 4124 acres and that fairly large areas had been acquired for expansion. The requirements for Bokaro were likely to be revised downward on receipt of the Detailed Project Report from the consultants.

Land require-  
ments for  
factories not  
assessed  
properly.

149. *The Committee regret to observe that the land requirements for factories in most of the public undertakings have not been assessed in a proper and systematic manner. Too much margin has been kept for expansion and fairly large areas in excess of requirements have been acquired and are lying unutilised. In the case of three steel plants alone, such areas are as much as 21154 acres. In this connection para 156 of the Report may further be seen.*

150. The table below shows the average number of dwelling units in an acre (on the basis of total area) in the townships of certain undertakings:—

Land utilisation in townships.

Undertakings	Township	Total area (Acres)	Number of houses built/proposed to be built	Average number of dwelling units in an acre (gross)
1. Fertiliser Corporation of India Ltd.	(a) Sindri	5,408	5,502	1.0
	(b) Nangal	1,989	2,254	1.1
	(c) Namrup	417	900	2.1
2. Hindustan Steel Ltd.	(a) Durgapur	10,940	15,000	1.4
	(b) Rourkela	11,177	15,040	1.2
	(c) Bhilai	9,617	21,297	2.2
3. Heavy Engineering Corporation Ltd.	Ranchi	5,390	16,000	3.0

Thus it would appear that the average number of dwelling units in an acre ranges from 1 to 3.

151. The Committee on Plan Projects in their Report (May, 1963) on Industrial Townships had recommended that the following residential densities should be obtained in the townships:—

Norm laid down by the Committee on Plan Projects.

(a) Sector density—14 to 20 dwelling units per acre.

(b) Township density—9 to 12 dwelling units per acre.

152. It was admitted by the Managing Director of Fertiliser Corporation of India and the Chairman, Hindustan Steel during evidence that the land utilisation in their townships had been on a lavish scale. The latter also stated that certain sectors in the townships of steel plants were lying unbuild and that in the expansion programme they were trying to provide greater concentration of dwellings in an acre. Representatives of the Ministries stated that the Committee on Plan Projects' Report had been circulated to the public undertakings but it had not been ensured whether the specifications and standards laid down therein were being followed by the undertakings.

Proper attention to economical use of land in townships not given.

153. *The Committee are constrained to observe that neither Government nor the public undertakings have given proper attention to the efficient and economical use of land in the townships. The layouts of the townships are sprawling resulting in high expenditure on roads, streets, lighting, transport, sewerage and maintenance, apart from hampering agricultural production by keeping the land unutilised. Had the norm of a minimum of nine dwelling units per acre been followed from the beginning, as has now been suggested by the Committee on Plan Projects, about 6,500 acres of land could have been saved at Sindri and Nangal alone. It is surprising that even after the Report of the Committee on Plan Projects was published in 1963, no attempt was made by Government to ensure that the recommendations made therein were followed by the public undertakings in actual practice. The Committee recommend that Government should issue instructions to the public undertakings to adhere to the norms laid down in the Report of the Committee on Plan Projects. The Committee further suggest that the feasibility of constructing multi-storeyed buildings by the public undertakings should also be considered.*

Surrender of land.

154. In some public undertakings a part of the acquired land has been surrendered subsequently as the following instances would show:—

	<i>Land surrendered</i>
(i) Nangal Fertilizer Plant	1000 acres
(ii) Heavy Electricals Projects Tiruchira-	1284 acres

palli.

155. The Managing Director of Fertiliser Corporation of India stated during evidence that they had to surrender the land at Nangal as they had no immediate need for it. In returning the land to original owners the Corporation suffered a loss of over Rs. 5 lakhs as under the rules they could not recover 15 per cent solatium which was paid originally.

Urgent need to lay down suitable principles for assessment of land requirements.

156. *The acquisition of land in excess of requirement and its subsequent surrender at a loss by certain undertakings (like Nangal Fertiliser plant, etc.) is another example of waste and lack of proper care and planning. In many other projects excessive land has been acquired and is lying unutilised. It needs no emphasis that the land requirements should be initially determined in a proper and planned manner after taking into account the immediate needs as well as keeping a suitable margin for foreseeable expansion of plants and townships, needs of ancillary industries, if any. The Committee recommend that Government should lay down suitable guiding principles for proper assessment of*

land requirement for public sector projects without any delay.

157. The Committee discussed the advisability of leasing out surplus land temporarily for agricultural and other purposes. While the representatives of the Ministries favoured the idea, the Chairman, Hindustan Steel Ltd. stated that they had to be very cautious in view of the difficulty of the cultivators getting the occupancy rights, etc.

158. *The Committee feel that in view of the food shortage in the country it would be desirable if the land which has been acquired for expansion and is not being used, is leased out temporarily for cultivation. Such an arrangement would provide some income to the undertakings, besides augmenting agricultural production. When leasing out such land preference should be given to persons displaced from that area. Representative of the Ministry have stated that they would welcome it.*

Desirability of leasing out surplus land.

### B. Acquisition Difficulties

159. Land for the public sector projects has been acquired either under the Land Acquisition Act, 1894 or under the respective State Laws and Rules. The acquisition has been done through the State Governments concerned on request either from the Central Government or the public undertakings. In 1963, the Central Government framed the Land Acquisition (Companies) Rules under which the public undertakings are required to start private negotiations with the land owners.

160. Several public undertakings have experienced and continue to experience delays and difficulties in the acquisition of land leading not only to high costs but also to delays in the commissioning of projects. A few instances are cited below:—

Several undertakings experienced delays and difficulties in land acquisition.

- (i) *Heavy Engineering Corporation Ltd., Ranchi.*—Delay of over two years in taking possession of land; cost of land increased by Rs. 1.92 crores.
- (ii) *Fertiliser Corporation of India Ltd.*—Delay of about two years at Gorakhpur; completion of project delayed.
- (iii) *Hindustan Steel Ltd.*—Undue delay in execution of agreement at Rourkela; Acquisition by private negotiation challenged at Bhilai.
- (iv) *Bokaro Steel Company Ltd.*—Earlier Notifications issued in 1961 and 1963 cancelled due to legal, procedural and practical difficulties. Under fresh notifications issued in 1964 higher price being paid for about 9000 acres of land.



**Reasons.**

161. These delays and difficulties are mainly due to the following factors:—

- (i) Legal lacunae under the Land Acquisition Act, 1894 and the Rules framed thereunder *i.e.*, the Land Acquisition (Companies) Rules, 1963.
- (ii) Procedural delays in issuing notifications, processing acquisition proceedings, award and payment of compensation, execution of agreements, etc.

162. The Chairman, Hindustan Steel Ltd. stated during evidence that the main difficulty was that under the Land Acquisition (Companies) Rules, 1963, when the land was acquired other than for the use of Government, the price had to be settled by private negotiations which created serious difficulties. In his opinion the solution lay in either the Central Government or the State Government acquiring the land for themselves and thereafter giving it to public undertakings on a long-term lease. Representatives of the Ministries admitted that the land acquisition problem had continued to be very difficult. They stated that a Committee had been appointed under the Chairmanship of Prof. M. S. Thacker to go into the question of land acquisition for housing schemes and that the difficulties experienced by public sector projects would be placed before that Committee.

Study of causes of delays and difficulties in land acquisition needed.

163. *The Committee regret to observe that though delays and difficulties in land acquisition have been a recurring feature with the public undertakings for a long time, Government have not taken expeditious action to remedy them. The problem calls for fresh studies in the light of the actual experience of the public undertakings and in co-operation with the State Governments. They trust that the Thacker Committee will streamline and simplify the procedures so as to obviate delays and difficulties in this regard in future. The advisability of the Central Government or the State Governments first acquiring the land for themselves and then transferring it to the public undertakings or leasing out on a long term basis may also be examined.*

Cost of Land.

164. The price of land acquired by public undertakings has also varied widely. In some cases, a very high cost has been paid, as would be evident from the following instances:—

- (i) The Oil & Natural Gas Commission acquired 130 acres of land at Rs. 58,750 per acre for housing colony at Sibsagar (Assam). For Gauhati refinery land has been acquired at Rs. 10,000 per acre.

- (ii) The Hindustan Steel Ltd. acquired land for Ranchi township at an average cost of Rs. 16,048 per acre. The cost of land acquired by Heavy Engineering Corporation ranges from Rs. 2,180 to Rs. 5,250.
- (iii) The Fertiliser Corporation of India acquired some land for Trombay project at Rs. 20,000 per acre. At Nangal the price of land increased from Rs. 24 lakhs to Rs. 81 lakhs due, *inter-alia*, to payment of enhanced compensation to even those land owners who had not appealed against the original award of Land Acquisition Officer.

165. The representative of Oil & Natural Gas Commission admitted that the cost of land paid at Sibsagar was exorbitant. He also stated that they had no alternative as under the present Law the buyer could not appeal against the award of the Land Acquisition Officer. The Managing Director, Fertiliser Corporation of India stated that in all cases they got an advance estimate of the cost of land from State Governments but the actual payments depended not only on the award of Land Acquisition Officer and the court but the "behest of the executive Government." He stated that at Nangal the price was originally settled at Rs. 1,400 per acre between him and the then Chief Minister of Punjab. Afterwards the tenants agitated against the price and on Chief Minister's advice some of them went up on a test appeal. On their succeeding in appeal, compensation was paid to all the land owners (including those who had not appealed) in accordance with an understanding between him and the Chief Minister of Punjab, with the approval of the Central Government. Regarding Ranchi, the Chairman, Hindustan Steel stated that originally the idea was that the land would cost about Rs. 8 to 10 thousand per acre. But a party went to court and the Sessions Judge, acting as an arbitrator raised the price to Rs. 30,000 per acre. Even the State Government considered this price to be exorbitant and on their behalf had gone in appeal to the High Court.

166. *Evidently, the estimates regarding the cost of land given by the State Governments in the beginning have proved to be very low. After the decision to locate a project had been taken the prices had increased due to various reasons. This not only led to acquisition delays but also increased the cost of projects. It is therefore necessary to undertake a study of land costs in various projects and find ways and means by which the prices could be limited to a ceiling in the beginning. It may also be desirable to rectify the present lacunae in the existing law regarding appeal by the project*

Need for  
a study of  
land prices.

*authorities against the award of the Land Acquisition Officer. The representatives of the Ministries have agreed to undertake the necessary study and place the difficulties before the Thacker Committee referred to in paragraph 162 above.*

Deviation from original assurances given by State Governments.

167. The Committee note that there have been deviations from the original assurances given by State Governments in regard to land, power, water etc. in respect of a number of projects, particularly the following:—

- (i) *Indian Oil Corporation Ltd.*—For Gauhati & Barauni Refineries, the State Governments originally promised to give land free of cost. Later on, it was decided to convert the cost of land borne by State Governments into equity shares.
- (ii) *Cochin Refineries Ltd.*—Originally State Government promised to give free land. Later on, Company agreed to buy land from State Government to meet Government of India's wishes.
- (iii) *Heavy Engineering Corporation Ltd.*—Originally understanding with State Government was that land at Ranchi (both for factories and township) would be given free. Later on, the Company had to purchase land for township at a considerable cost.

168. Representatives of the Ministries stated that there had been some departures but that by and large the State Governments had fulfilled their promises.

Need to clearly settle terms with state Governments.

*168. It appears that departures from original assurances may have been due to lack of clear understanding with the State Governments. It is therefore necessary that all the terms regarding land, water, power, etc. should be clearly settled at the time of determining the location of the projects.*

Rehabilitation of families displaced by acquisition of land.

169. The rehabilitation of families displaced on account of acquisition of land for the projects is the responsibility of the State Governments. In the following cases, however, the public undertakings have either arranged the rehabilitation of such persons or incurred considerable expenditure in connection therewith:—

- (i) *Neyveli Lignite Corporation*—Rehabilitation arranged by Corporation at a cost of Rs. 9·95 lakhs in the forest area given free by State Government.
- (ii) *Fertiliser Corporation of India*—
  - (a) *At Nangal* the Corporation acquired an area of 151·6 acres at a cost of Rs. 2·14 lakhs and

contributed another amount of Rs. 1·34 lakhs for amenities (total Rs. 3·48 lakhs). Actual resettlement done by State Government.

(b) At Sindri Rs. 25,000 paid for resettlement.

(iii) *Rourkela Steel Plant*—The plant had to bear half of the cost of resettlement amounting to Rs. 15·42 lakhs.

170. The Managing Director, Fertiliser Corporation of India stated during evidence that at Nangal they incurred the expenditure as a special case because of the many concessions extended to them by the then Chief Minister of Punjab. Regarding Rourkela, the representative of Hindustan Steel stated that the State Government was not agreeable to the transfer of ownership of the land unless the undertaking bore the entire resettlement cost of displaced persons. Eventually a compromise formula was arrived at between the State and the Central Governments that resettlement cost should be borne half and half by Hindustan Steel Limited and the State Government. Representatives of the Ministries admitted that once the compensation for land had been paid by the public undertakings they should normally have nothing to do with rehabilitation. However, quite often compensation did not meet the needs of rehabilitation fully and some understanding had to be reached with the State Governments in some cases.

171. *The Committee, while appreciating the difficulties, feel that once the compensation for the land has been paid the projects should not be burdened further on that account. If any additional expenditure becomes necessary on rehabilitation it should be borne by the Central or the State Governments. They would recommend that some guiding principles should be laid down by Government in the matter.*

Need to lay down guiding principles.

*They would, however, urge that while recruiting persons for posts in the lower categories in the public undertakings preference should be given to persons displaced from the areas acquired for the projects.*

### C. Reduction in construction costs

172. For economy and efficiency in the construction of major projects, the Third Five Year Plan in 1961 envisaged that each major project should establish a cost reduction unit as a part of the construction organisation under the exclusive control of the Chief Engineer of the project. The functions of such a unit would be to carry out work studies, continuously analyse factors effecting costs, recommend suitable adjustments from time to time in materials, techniques, procedures

and organisation, evaluate the results of such adjustments and keep a watch on the progress in achieving economies in construction costs.

173. This suggestion was reiterated subsequently in 1962 by the Planning Commission in its Memorandum on 'Reduction in cost of major construction projects'. In addition the following specific suggestions for economy in building costs were made in that Memorandum:—

- (i) Discontinuance of the construction of 'prestige' buildings.
- (ii) Construction of multi-storeyed buildings and economy in land utilisation;
- (iii) Adoption of designs for building strictly according to functional requirements including austerity standards, type designs, standard plinth areas, etc.;
- (iv) Improving structural efficiency by rationalisation.
- (v) Avoiding or reducing the use of costly materials in short supply.
- (vi) Using local materials to the maximum extent possible.
- (vii) Planning in advance for the procurement of materials and for site management.

Need for Govt. instructions reg. setting up of cost reduction units, etc.

174. *The Committee note that cost reduction units have not been set up by most of the public undertakings. They were informed by the representatives of the Oil & Natural Gas Commission, Fertiliser Corporation of India and Hindustan Steel that the Ministries concerned did not bring the suggestions made by the Planning Commission to the notice of the undertakings. The Committee recommend that Government should issue necessary instructions now and ensure their implementation.*

#### D. Building Research

175. Three institutions\* under the Central Government and eight under the State Governments are engaged on Building Research in the country. It is understood that though considerable work has been done in this field, little has yet been done towards application of that research. For instance, the Central Building Research Institute has, developed under-reamed pile foundation process suited to

\* The three Central Institutes in the field of Building Research are the Central Building Research Institute, Roorkee, Research Resins and standards organisation set up by the Ministry of Railways at Lucknow, Engineering Research wing of the College of Military Engineering, Kirkee.

avoid cracks in buildings. Similarly they have developed economical type layouts for various categories of industrial houses. These have not yet been brought to the notice of and utilised by the public undertakings.

176. Representatives of the Ministries stated during evidence that the results of research were being widely circulated but they could not say to what extent the actual utilisation had taken place. Moreover it was for public undertakings to contact the research organisations and take advantage of the research.

177. *It is regrettable that while large amounts of money are being spent on Building Research in the country no serious attempt has been made by the public undertakings to apply the results of research in their construction works. It was not enough to have left it to the individual undertaking to contact the research organisations as they would be hesitant to initiate the new techniques. The Committee consider that Government should have taken the initiative and ensured that the results of research were put into practical use by the public undertakings. They trust that this will now be done by Government.*

Need to  
apply results  
of building  
research.

## CONCLUSION

178. *As model employers, it is necessary for the public undertakings to provide housing, medical, educational and other facilities for their employees, particularly in places where such facilities are not available. But the examination has revealed that much avoidable expenditure has been incurred in providing these facilities and there is scope for economy in this regard. In the absence of proper norms and standards, the scales of accommodation have been on the high side. Expenditure on utility services and other facilities has been lavish. The layouts of the townships are sprawling resulting in high expenditure on water, power, sewerage, roads and maintenance. In many cases houses have been built in excess of requirements. Business prudence required that the construction of townships should have been phased and related to the actual needs as they arise from time to time. Most of the undertakings have not availed of the financial assistance from the State Governments and other specialised agencies for their housing, educational and medical facilities which would have considerably reduced their burden. The Committee are constrained to observe that the public undertakings have not been adequately cost-conscious.*

179. *The Committee noticed various shortcomings in the planning and construction of the factory buildings and other civil works. Some of the important ones are:*

- (i) Inadequate soil investigations.*
- (ii) Inadequate planning regarding purchase and use of construction equipment.*
- (iii) Delays and difficulties in the procurement of construction materials.*
- (iv) Delays and difficulties in land acquisition.*
- (v) Enormous delays in the construction of factory buildings resulting in the plant, machinery and manpower being kept idle.*

180. *The Committee are concerned to note that delays and difficulties of the above types continue to recur in most of the public undertakings. If the experience in the execution of projects for more than a decade had been pooled, it should have been possible to plan the projects better and execute them speedily and economically. Unfortunately this has not been done. There is also no indication that these aspects of the public undertakings are receiving adequate attention. The instructions issued by the Ministry of Finance in 1960 regarding housing standards in public sector projects were not followed. The valuable suggestions in the Reports of the Committee on Plan Projects and in the Third Five Year Plan itself aimed at economy and efficiency in construction remain largely unimplemented. The Committee feel that a stage has come when Government should pool the experience gained, issue suitable instructions to the public undertakings and ensure their implementation.*

PANAMPILLI GOVINDA MENON,

*Chairman,*

*Committee on Public Undertakings.*

NEW DELHI;

May 2, 1965.

Vaisakha 12, 1887 (S).



## APPENDIX I

(Vide Para 4)

### List of Public Undertakings covered in the examination

S. No.	Name of the Undertakings and its Registered office	Remarks
1	2	3
1.	Air India, Bombay.	
2.	Ashoka Hotels Ltd., New Delhi.	
3.	Hindustan Aeronautics Ltd., Bombay.	
4.	Bharat Electronics Ltd., Bangalore.	
5.	Bharat Heavy Electricals Ltd., New Delhi.	
6.	Bokaro Steel Ltd., Calcutta.	No Township, DPR not yet finalised.
7.	Cochin Refineries Ltd., Ernakulam.	
8.	Damodar Valley Corporation, Calcutta.	
9.	Fertilisers & Chemicals Travancore Ltd., Alwaye.	
10.	Fertiliser Corporation of India Ltd., New Delhi.	
11.	Garden Reach Workshops Ltd., Calcutta.	No Township.
12.	Heavy Electricals Ltd., Bhopal.	
13.	Heavy Engineering Corporation Ltd., Ranchi.	
14.	Hindustan Antibiotics Ltd., Pimpri.	
15.	Hindustan Cables Ltd., Rupnarainpur, (West Bengal).	
16.	Hindustan Housing Factory Ltd., New Delhi.	No Township.
17.	Hindustan Machine Tools Ltd., Bangalore.	
18.	Hindustan Insecticides Ltd., Delhi.	
19.	Hindustan Organic Chemicals Ltd., Bombay.	
20.	Hindustan Photo Films Manufacturing Co. Ltd., Ootacamund.	
21.	Hindustan Salts Ltd., Jaipur.	
22.	Hindustan Shipyard, Visakhapatnam.	
23.	Hindustan Steel Ltd., Ranchi.	

1	2	3
24.	Hindustan Teleprinters Ltd., Madras.	
25.	Indian Drugs & Pharmaceuticals Ltd., New Delhi.	
26.	Instrumentation Ltd., Jaipur.	
27.	Indian Oil Corporation Ltd., Bombay.	
28.	Indian Rare Earths Ltd., Bombay.	
29.	Indian Telephone Industries Ltd., Bangalore.	
30.	Life Insurance Corporation of India, Bombay.	
31.	Mazagon Dock Ltd., Bombay.	No Township.
32.	Manganese Ore (India) Ltd., Nagpur.	
33.	National Coal Development Corporation Ltd., Ranchi.	
34.	National Instruments Ltd., Calcutta.	
35.	National Mineral Development Corporation Ltd., New Delhi.	
36.	National Newsprint and Paper Mills Ltd., Neapanagar (M.P.).	
37.	Neyveli Lignite Corporation Ltd., Neyveli (Madras).	
38.	Oil & Natural Gas Commission, Dehra Dun.	
39.	Praga Tools Corporation Ltd., Secunderabad	No Township.
40.	Pyrites & Chemicals Development Co. Ltd., New Delhi.	
41.	State Trading Corporation of India Ltd., New Delhi.	-do-
42.	Travancore Minerals Ltd., Quilon.	No Township. Took over running concerns.

## APPENDIX II

(Vide para 5)

*Statement showing the projects/offices where townships have been set up, actual or anticipated outlay or projects (including township) outlay on township alone and cost per dwelling unit of houses.*

Public Undertakings	Projects/Offices where township set up	Actual or anticipated outlay on project (including township) (Rs. in lakhs)	Actual or anticipated outlay on township alone (Rs. in lakhs)	Percent- age of (4) to (3)	Cost per dwelling unit of houses			Remarks
					Highest category	Lowest Category	Average	
1	2	3	4	5	6	7	8	9
1. Air India	Bombay Office	..	82.60	..	29528	11250	13766	
2. Ashoka Hotels Ltd.	New Delhi	278.00	16.42	6.22	12062	4065	6414	
3. Hindustan Aeronautics Ltd.								
	A—Aircraft Division, Bangalore	741.09	146.33	19.75	33000	6570	6762	
	B—Mig Project							
	(i) Aircraft Division, Nasik	1788.00	200.00	11.2				
	(ii) Aero Engine Div. Koraput	3553.00	1347.00	37.9				
	(iii) Electronics Div. Sanatnagar	550.00	216.33	39.33	..	..	..	
	<b>TOTAL MIG Project</b>	<b>5891.00</b>	<b>1763.33</b>	<b>30</b>				

4. Bharat Electronics Ltd.	Bangalore	217.63	69.15	32	NK	4500	7310
5. Bharat Heavy Electricals Ltd.	(i) Tiruchirapalli	2423.00	609.00	25	48000	6073	13800
	(ii) Hyderabad	3418.00	670.75	15	46000	4620	13410
	(iii) Hardwar	6802.00	682.05	10	46680	4620	11367
	TOTAL B.H.E.	12643.00	1961.80	15.5			
6. Cochin Refineries Ltd.	Ernakulam	NK	57.00	NK	NK	NK	NK
7. Damodar Valley Corporation.	(i) Bokaro Thermal Stn.	1912.08	110.55	5.78	48200	2600	12781
	(ii) Panchet Dam	1678.15	112.10	6.84	30351	1551	10595
	(iii) Tilaiya Dam	377.30	8.57	2.27	18300	3600	12239
	(iv) Maithon Dam	1757.82	116.77	6.64	..	..	..
	(v) Durgapur Thermal Stn.	1663.70	111.07	6.68	48464	5000	..
	(vi) Chandrapura Thermal Stn.	2843.00	126.00	4.5	84770	6716	11240
	(vii) Konar Dam	927.42	22.38	2.41	15197	1726	6489
	TOTAL D.V.C.	11159.47	607.44	5.4			
8. Fertilizers & Chemicals Travancore Limited.		1894.00	75.77	4	31000	3950	14000

I	2	3	4	5	6	7	8	9	
9. Fertiliser Corporation of India, Ltd.	(i) Sindri	.	4548.44	615.25*	12.66	103000	1841	4813	*Including Rs. 39.33 lakhs for Planning & Development Division.
	(ii) Nangal	.	3119.72	375.00	12	41122	4055	16208	
	(iii) Trombay	.	3343.43*	261.02	7.8	62132	6645	15000	*Excluding the cost of Rs. 4.43 crores of methanol project.
	(iv) Gorakhpur	.	2657.00	200.00	7.5	39000	5018	9090	
	(v) Namrup	.	1803.00	185.00	9.73	NK	NK	20555	
	TOTAL F. C. I.	.	15468.59	1636.27	10.6				
10. Heavy Electricals Ltd.	Bhopal	.	6261.00	1051.00	16.8	44,000	3850	11,000	
11. Heavy Engineering Corpn. Ltd.	(i) Ranchi	.	20600.00	3000.00	15	..	..	11,080	
	(ii) Durgapur	.	3932.00	911.84	23.2	..	..	11,300	
	TOTAL H.E.C.	.	24532.00	3911.84	16				
12. Hindustan Antibiotics Limited.	Pimpri	.	529.00	108.00	21.28	76,302	NK	12048	
13. Hindustan Cables Ltd.	Rupnarainpur	.	530.00	145.00	28	50,000	5745	16000	
14. Hindustan Machine Tools Limited.	Bangalore	.	938.00	187.00	20	67,710	6,000	9925	

15. Hindustan Insecticides Limited	(i) Delhi			51.26	13.30	25	11,145	6,548	10,000
	(ii) Alwaye			90.10	16.21	18	36,117	3,977	18,520
TOTAL H. I. L.				141.36	29.51	20.8			
16. Hindustan Organic Chemicals Limited.	Bombay.			3500.00	400.00	11	53,322	5,335	NK
17. Hindustan Photo Films Manufacturing Co., Limited.	Ootacamund.			1104.00	169.00	15.3	84,233	11,320	22,226
18. Hindustan Salts Ltd.	..			..	..	..	..	..	..
Information not given. Housing colonies are at Sambhar lake Kharagodia and Mandi mines.									
19. Hindustan Ship - yard Ltd.	Visakhapatnam			524.00	93.58	17.85	1,75,000	4,225	6,000
20. Hindustan Steel Ltd.	(i) Rourkela			23,426.00	1,433.00	6.11	NK	NK	8,600
	(a) Million ton stage						..	..	6,400
	(b) Expansion (0.8 mill. ton)			13,103.00	649.00	4.9	..	..	..
Total upto 1.8 mill. stage				36,529.00	2,082.00	5.7			



(ii) Hyderabad	1,937.00	218.00	11.27	42,607	5,413	16,716
(iii) Madras	512.00	150.00	29.37	63,788	7,746	23,355
TOTAL I. D. P.	4,644.00	710.00	15			

23. Instrumentation

(i) Kotah	700.00	200.00	28.6			
(ii) Palghat	701.00	220.00	31			
TOTAL INSTRUMENTATION	1,401.00	420.00	30			

24. Indian Oil Corporation Ltd.

(i) Gauhati Refinery	1,763.00	152.00	8.6	68,000	7,900	24,900
(ii) Barauni	4,077.00	344.00	8.40	63,624	6,722	20,760
TOTAL I. O. C.	5,840.00	496.00	5.6			

25. Indian Rare Earths Always Ltd.

	92.13	7.10	7.8	1,17,000	2,108	27,315
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26. Indian Telephone Industries Ltd. . . . . Bangalore

	200.00	75.00	37.5	63,709	2,618	3,000
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27. Life Insurance Corporation of India. . . . . Bombay, Chandigarh, Poona & Calcutta Offices.

	90.38					
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28. Manganese Ore (India) Ltd.

Various Mines	61.96	26.57	43	NK	NK	NK
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	1	2	3	4	5	6	7	8	9
29. National Coal Development Corporation Ltd.		40 Mines/Washeries etc.	17,648.00	3,005.00	17				
30. National Instruments Ltd.		Ophthalmic Glass Project, Durgapur.	NK	..	..	..	..		Required accommodation will be provided by Coal in Pr.
31. National Mineral Development Corporation Ltd.		(i) Kiriburu	1,122.00	81.70	7.3	46,550	6,935	13,333	
		(ii) Biladila	1,683.00	101.50	6.03	70,441	7,637	21,660	
		(iii) Khetri	2,444.00	437.00	18	40,500	4,340	10,975	
		(iv) Panna	206.00	7.80*	4	31,100	4,960	19,500	*Excludes cost of non-residential buildings.
		TOTAL N.M.D.C.	5,455.00	628.00	11.5				
32. NEPA Mills Ltd.		Nepanagar	546.23	73.18	13.40	38,313	3,000	7,000	
33. Neyveli Lignite Corporation Ltd.		Neyveli	16,505.00	1,462.00	8.86	79,492	4,000	7,833	
34. Oil & Natural Gas Commission		A. Oil/Gas Fields:							
		(i) Cambay	NK	32.66	..	NK	NK		
		(ii) Ankleshwar	..	78.15	..	..	..	16,000	

(iii) Baroda . . . . .	NK	48.44			
(iv) Sibsagar . . . . .	"	28.85			
(v) Ahmedabad . . . . .	"	51.31			8,800
(vi) Jwalanukhi . . . . .	"	4.27			
<b>TOTAL Oil/gas fields</b>		<b>243.68</b>			

B. Koyali Refinery . . . . .	3,021.00	233.00	7.71	49,400	5,600	23,300
B. Pylites & Chemicals Amjhore . . . . .	520*.00	127.43	24	20,300	4,680	7,840

**GRAND TOTAL . . . . .** 2,48,974.56 27,950.08 11.2

35. Pylites & Chemicals Development Company Ltd.

\*At the time of factual verification, the Ministry of Petroleum & Chemicals stated that as per Government sanction the total outlay on project is Rs. 439 lakhs and on township Rs. 40 lakhs.

### APPENDIX III

(Vide Para 62)

*Ministry of Finance O.M. No. 1068/SF/60 dated 23-3-1960 as subsequently modified vide their O.M. No. 14(16)/60-W dated 29-8-1963 addressed to all Ministries of the Government of India, etc.*

#### OFFICE MEMORANDUM

SUBJECT: *Industrial Housing in the Public Sector.*

The question of policy regarding the houses to be provided for various projects in the public sector has been considered in the Committee of Economic Secretaries and certain broad principles have been decided upon in the interest of economy. The reduction in cost can principally be secured by ensuring that the standards of accommodation while adequate, are kept down as far as possible. Apart from the capital investment in housing, the projects would also have to incur recurring cost to the extent that the rents charged are lower than the reasonable return from the capital invested in housing. This difference between the rent charged and the reasonable return from such capital investment is in the nature of a concealed subsidy which should be kept as low as possible.

2. The following conclusions have been arrived at in respect of the scales of accommodation, the extent of coverage, that is, the number of houses *vis-a-vis* number of employees, the investment of private capital in housing and other related matters.

I. There should not be more than six types of quarters that may be constructed corresponding to the various pay ranges:—

Type	Plinth area	Pay range (p.m.)
1	2	3
	sft.	
I	365	Below Rs. 110.
II	400	Less than Rs. 200/- but not less than Rs. 110.
III	600	Less than Rs. 400/- but not less than Rs. 200/-.

I	2	3
IV	900	Less than Rs. 850/- but not less than Rs. 400.
V	1500	Less than Rs. 1600 but not less than Rs. 850.
VI Main Bldg. for servants & garage.	2100 240 225	} Rs. 1600 and above.

Having regard to the cost of construction on the basis of the 6 per cent of return on the cost of construction, land and development and on the assumption that rent fixed would be subject to a ceiling of not more than 10 per cent of the emoluments, the concealed subsidy in the form of difference between 6 per cent return and the rent at 10 per cent of pay should work out approximately to Rs. 1500 per month for 100 assorted houses, in the proportion of say, 80 per cent for types I—III, 13·5 per cent for type IV, 6 per cent for type V and 5 per cent for type VI. It may be necessary to vary the percentage of various types to suit the requirements of individual projects, but the specifications, scales of accommodation, etc. should be so adjusted that:

- (a) the amount of such subsidy for the said 100 houses of mixed types should, as far as possible, not exceed Rs. 1500 per month, and
- (b) the accommodation of persons drawing over Rs. 300 per month should not normally be subsidised.

II. It is not possible to lay down the extent to which houses should be provided for the employees by way of a percentage of the total number of employees since this will vary from project to project and the decision on the point would largely depend on the overall local conditions and the requirements of housing in the project from time to time. In this connection, the Buildings Projects Team of the Committee on Plan Projects has also been asked to explore the possibility of having small blocks of houses in the satellite villages as the pattern of rural housing would not be an exact replica of industrial houses near the factories and their total cost will be comparatively low.

III. It may also be possible that a sector of the residential colony could be sold out in plots to private individuals for building houses, particularly near the market area. However, it would be necessary to ensure that the development of

**this sector is subject to Town Planning Regulations. Projects may also consider whether some of the houses built by them could be sold to their employees on the hire-purchase system and a sector of the Housing Colony could be set apart for such sales to workers.**

3. The above conclusions would apply to all projects in the public sector under the direct administrative control of the various Ministries. In regard to corporations, companies and other autonomous bodies managing projects, it is requested that a copy of this letter may be passed on to them as well.

4. All Ministries, in particular, the Ministries of Works, Housing and Supply, Defence, Railways, Posts & Telegraphs and others who have to arrange construction for Government employees are requested to review their existing criteria and standards of the scales of accommodation and specifications in the light of the above conclusions. It is expected that considerable economy can result in respect of expenditure on housing if the above conclusions are borne in mind. The result of the review of their existing standards and the new standards that they may propose to adopt may kindly be communicated to the Ministry of Finance, as soon as the review has been carried out.

## APPENDIX IV

### *Summary of Conclusions/Recommendations*

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Serial No.	Reference to the Para No. in the Report	Summary of Conclusions/Recommendations
1	2	3
1	7-10	<p>(a) The total capital outlay on the townships of public undertakings is of the order of Rs. 280 crores and it constitutes over 11% of the total investment on the projects. The incidence of the costs of townships on the costs of production of these undertakings is therefore considerable. The Committee realise that a majority of public sector projects are located in out of the way places and it may be necessary to provide housing and other facilities on a somewhat larger scale. It is also desirable that public undertakings should aim at being model employers. Nevertheless, the Committee are equally anxious to ensure that public undertakings follow a balanced approach in incurring expenditure on productive and non-productive activities. If a substantial portion of the investment is spent on townships before any significant productive activity of a project starts, as is the case at present, it adds considerably to the overheads of an individual enterprise and affects its profitability. Further it is also necessary that the public undertakings do not follow standards and scales of accommodation which may attract public criticism. All this underlines the need for laying down suitable guiding principles, norms and standards without any delay.</p> <p>(b) The Committee would urge that pending issue of detailed instructions, Government should impress upon public undertakings to pay utmost importance to economy in the matter and find ways and means of reducing the present rate of outlay on townships.</p>

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- 2 11—13 The expenditure on townships of the public undertakings ranges between 3 to 49 per cent of the investment on projects. In most cases it is 15 to 30 per cent. The Committee appreciate that it is not possible to apply a uniform yardstick for expenditure on townships. But in view of the present high costs of townships and wide variation in its percentage to the total investment on a project it is desirable that Government should prescribe an upper limit for expenditure on townships taking into account the requirements of various types of undertakings.
- 3 15 The Committee are constrained to observe that the manner in which the provision of Rs. 50 crores was made in the Third Five Year Plan for townships of public undertakings was casual. It is not correct to provide for such expenditure in the Plan in an *ad-hoc* manner without working out the basis therefor. What is more surprising is that there was an understanding with the Planning Commission that the amount earmarked for capital investment in projects, if unspent, would be diverted to housing. The Committee do not approve of diversion of funds meant for productive purposes to housing. They trust that in future the Plan provision for townships of public undertakings would be made in a realistic manner after assessing the requirements of the various undertakings.
- 4 16—19 There are wide variations in the costs of houses built by various projects. The average cost per dwelling unit in most of the undertakings has ranged between Rs. 11,000 to Rs. 27,000. The cost of the highest type of bungalow constructed for high officials in certain undertakings has ranged from Rs. 1.03 lakhs to Rs. 1.75 lakhs. Apparently the present costs of houses particularly of higher categories, built by public undertakings are high. An expenditure of Rs. 1 lakh to 1.75 lakhs on a single bungalow is indefensible from a commercial standpoint much less from the general point of view of the country's economy. The Committee, recommend that the plinth areas for higher categories of houses may be reviewed and ceilings on cost for various categories of houses laid down at least on a regional basis.
- 5 25 Most of the public undertakings have not taken advantage of the Subsidised Housing Scheme for Industrial Workers under which financial assistance to the extent of 75% (25% as

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outright subsidy and 50% as loan) of the cost of houses for workers drawing pay upto Rs. 350/- per month is admissible. It is surprising that neither the administrative Ministry nor the Finance Ministry brought this scheme to the notice of the public undertakings and insisted on their availing of the assistance. On the other hand the scales and standards of accommodation fixed by Government in 1960 for public sector projects were higher than those prescribed under the Scheme, thus making it impossible for the public undertakings to avail of the assistance. The proper course would have been to review the scales and standards of the Subsidised Housing Scheme and to bring them on par with those prescribed in 1960 for the public sector projects. This was, however, not done and the public undertakings were placed at a handicap. The Committee recommend that Government should now review the position so as to enable the public undertakings to avail of the assistance under the Subsidised Housing Scheme. Since funds for this Scheme are made available by the Central Government, it is but proper that public undertakings should get this assistance direct from the Centre rather than through the agency of the State Governments.

- 6      31      (a) The expenditure on utility services (*i. e.* water, power, sewerage and roads) in the townships of public undertakings varies very widely and is on the high side. The Committee recommend that Government should undertake a study of the costs and scales of services in the townships of public undertakings and lay down suitable norms and standards therefor.
- (b) They further suggest that a ceiling on the super-  
vision charges during construction, which in some cases have been as high as 13% of the outlay on townships, should also be fixed.
- 7      35      The provision of hospital facilities by public undertakings in places where these are not available is a step in the right direction. The Committee are however, of the view that to begin with, hospital facilities should be provided by the undertakings on a modest scale and they should be gradually developed to meet full requirements. Instead of following this salutary principle of phasing the provision of hospital facilities, most of the undertakings have provided



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them on a liberal scale from the very beginning resulting in high capital and recurring expenditure. The Committee recommend that in the light of these remarks, Government should look into the matter and prescribe the stages, extent and the manner in which hospital facilities should be provided by the public undertakings.

- 8     36     The Committee understand that certain public undertakings (like Fertilisers & Chemicals Travancore Ltd. & Natural Gas Commission) have introduced contributory health service schemes under which they are getting contribution from the employees for the provision of medical facilities. The Committee suggest that the feasibility of introducing similar schemes in all the public undertakings may be examined by Government.
- 9     42     It is regrettable that though most of the public undertakings have been paying considerable amount of contribution under the Employees' State Insurance Scheme, they have not taken advantage of the assistance available under it. Even in cases where the scheme has been extended, the amounts of contribution paid by the undertakings are much more than the benefits derived by them. It appears that the employees in public undertakings are in receipt of benefits similar or superior to those available under the scheme. Further the scheme covers only 'factory workers' drawing wages upto Rs. 400/- per month. For all other employees, the public undertakings will have to make their own hospital arrangements, even after the Scheme is extended to them. It therefore needs consideration whether the Employees' State Insurance Scheme should be applicable to the public undertakings and they should be called upon to contribute to the scheme, in addition to the expenditure on their own facilities. The Committee recommend that Government should examine the matter in the light of the prevailing position.
- 10    45-46(a) As public undertakings have to run on a commercial basis, it is not advisable for them to incur heavy capital and recurring expenditure on providing educational facilities which is the responsibility of the State Governments under the Constitution. The most that the undertakings should do is to construct buildings at a reasonable cost and to meet recurring expenditure from the assistance obtained from the State Governments and fees from the pupils.

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It would, however, be desirable if the provision of educational facilities is settled with the State Governments at the time of deciding on the location of the projects in a State. The Committee recommend that Government should look into this matter and evolve a suitable pattern for the provision of educational facilities in the public undertakings.

- (b) They would further suggest that in places (like Ranchi, Durgapur, Bangalore, etc.) where more than one undertaking is located, the feasibility of providing common educational facilities at Secondary and Higher stages and hospitalisation and special treatment facilities should also be considered, as it would enable the undertakings to provide better facilities at a lesser cost.
- 11      47 The costs of recreational facilities (like clubs, community centres, auditorium, play-grounds, parks etc.), as well as of shopping centres and other public utility buildings provided by the public undertakings in their townships are also on the high side. The Committee recommend that Government should devise norms and standards for recreational and other facilities and impress upon public undertakings the need for economy in these matters.
- 12      50 It is surprising that the instructions issued by the Ministry of Finance in regard to the extent of subsidy for housing in the public sector projects are not being followed by the public undertakings. The Committee trust that Government would look into the matter and ensure that the amount of concealed subsidy in townships of public undertakings is kept within the prescribed limits.
- 13      53 Even in cities like Bombay, projects have provided accommodation for the staff on an extensive scale. For example, the Trombay Fertiliser project has provided accommodation for 97% staff as against 21% by the Air India. Evidently the accommodation provided in some cases is on a scale larger than necessary. The present fluidity in the provision of accommodation for the employees of the public undertakings is not conducive to economy in the cost of construction of townships. The Committee recommend that Government should lay down the percentage of staff for whom accommodation should be provided
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by the public undertakings in the beginning having regard to the proximity of projects to any towns or cities.

- 14      56 Public undertakings have not properly phased the construction of houses required for their employees. To invest large sums of money on housing in the beginning results in avoidable waste. It also affects adversely the profitability and cost of production of the undertakings. It is imperative that undertakings should manage with a minimum number of houses in the beginning and increase their number later by meeting the expenditure from their earnings to the extent possible. It may also be examined whether sharing of accommodation would be feasible, as is allowed by the Central Government at Delhi. The Committee recommend that Government should lay down suitable guiding principles in this regard.
- 15      59 To construct permanent houses with a life expectancy of 50 to 100 years at places where the operations of the public undertakings are likely to last for 20 to 25 years only is wasteful. It is surprising that neither the Government nor the public undertakings concerned gave any consideration to this matter for so long. The normal thing in such cases was to go in for semi-permanent or temporary structures lasting for 20 to 25 years as is done by the collieries in the private sector. Had this been done, it would have been possible to effect considerable savings in capital costs in Ankleshwar and Cambay oil/gas fields. The Committee trust that Government would ensure that in future the public undertakings like the Oil and Natural Gas Commission, National Coal Development Corporation, etc. suitably modify the specifications of accommodation so as to relate its life to that of the assets.
- 16      61 In a planned and rapidly developing economy, like ours, there are bound to be various compleing demands on the public resources. The provision of houses in public undertakings is no doubt necessary but more urgent is the need to utilise the available resources for increasing their productive capacity. It is, therefore, desirable that investment on housing should be kept as low as possible. One way of doing so would be by resorting to cheaper structures of semipermanent type with a life expectancy of 20 to 30

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years. Apart from economy, this would enable the public undertakings to construct houses according to the changing pattern and ideas. The Committee recommend that the economics of putting up such houses should be thoroughly got examined by Government, if necessary in collaboration with the National Buildings Organisation and the Central Building Research Institute.

- 17      64    It is regrettable that the Ministry of Finance did not ensure that the proposal of satellite villages was pursued. In the view of the Committee such a scheme would not only result in economy but also be in the interest of rural development and betterment of the surrounding villages. They are strengthened in this view by the fact that such an arrangement obtains in foreign countries also. The proposal of satellite villages, therefore, deserves serious consideration. The Committee trust that Government would have it examined in detail and issue specific instruction to the public undertakings.
- 18      69      It is to be expected that the suggestions made by Government are acted upon by the public undertakings. Strangely none of the undertakings has made any attempt to implement the suggestions regarding the sale of plots to private parties or houses to the employees. The Committee trust that Government will have the matter re-examined in the light of the prevailing position in private sector undertakings and issue suitable instructions for observance by public undertakings.
- 19      76      The Committee regret to observe that the public undertakings have followed very liberal scales of accommodation particularly for the higher categories of their employees. No proper standards were fixed by Government in this regard till 1960. In the absence of any direction from the beginning to adhere at least to Government scales, the public undertakings appear to have fixed their own standards of accommodation. What is more surprising is that the scales of accommodation prescribed by the Ministry of Finance in 1960 are also not being followed by all the public undertakings. It is to be expected that the standards once fixed by Government are strictly adhered to by the undertakings. The Committee hope that the newly set up Bureau of Public Enterprises would
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look into such matters and ensure that all instructions issued by Government are complied with by the public undertakings.

- 20 78 It is desirable to lay down two or three alternative standard designs for various categories of houses on a regional basis so as to have variety while ensuring maximum economy. The Committee recommend that this should be done.
- 21 81 (a) It may be desirable to invite competitive tenders for the plans and designs of townships from the various architects so as to secure both economy and suitability to local needs. In that case it is not necessary for the undertakings to set up their own elaborate Architect and Town Planning Organisations with attendant difficulty of retrenchment of staff later on. The Committee recommend that Government should examine the matter and issue suitable instructions to the public undertakings.
- (b) They further suggest that the desirability of prescribing standard schedules of rates for private architects may also be considered.
- 22 84 The Committee feel that the present level of expenditure on the hostels in the public undertakings is high and it needs to be brought down by laying down suitable norms and standards. The feasibility of using residential flats temporarily as hostels for meeting the needs of foreign experts, as has been done at the Koyali refinery, may also be examined.
- 23 86-87 (a) The present practice of meeting the entire cost of townships from out of the capital provided for the execution of the projects is neither sound nor in consonance with prudent commercial practice. It results in the over-capitalisation of the projects and renders the evaluation of their performance or comparisons with other similar undertakings unrealistic. The outlay on townships should normally be met from loans, internal resources and subsidies. The Committee recommend that the matter may be examined by Government and a suitable pattern of financing the outlay on townships of the public undertakings evolved.
- (b) It is also desirable that the estimates of cost of townships should be shown separately while seeking

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approval of Parliament for investment in public undertakings. The expenditure incurred on townships should also be shown separately in the Annual Accounts of the public undertakings.

- 24 89 The entire cost of maintaining the township is at present borne by the undertaking concerned. The maintenance charges which are high not only affect the cost of production of that undertaking but also of other undertakings which depend on its products. It was stated during evidence that a proposal to set up a separate body to look after the townships of public undertakings was under consideration of Government. The Committee trust that Government would examine the matter in all its aspects and arrive at a suitable decision at an early date.
- 25 91—94 The construction of factory buildings has been delayed in many projects. The delays range from 1 to 3 years. This not only led to delays in their commissioning and increase in costs but also resulted in keeping the plant, machinery and manpower idle. The Committee are greatly concerned at these abnormal delays in the construction of factory buildings and other civil works which adversely affect the economy of the projects. A certain measure of delay during construction might be inevitable due to our dependence on foreign help and nature of the projects. But the delays of 1 to 3 years could only be due to lack of planning, proper programming and lack of co-ordination with the consultants. It is surprising that these delays continue to recur even in the expansion programmes of old plants. With the experience of planning and development for more than a decade, it should be possible to reduce these delays considerably. The Committee recommend that a comprehensive study into the causes of the delays should immediately be undertaken by Government and proper remedial measures devised.
- 26 95—97 In a number of projects detailed soil investigations have been carried out subsequent to selection of sites leading to change of sites, revision of plans and drawings, extra expenditure on foundations and consequent delay in construction. As choice of a wrong site would involve the projects into costly delays, it is necessary that prior detailed

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soil investigations must be conducted. In the light of the past experience, it appears that it will be cheaper to pay compensation for private land rather than incur expenditure on fresh investigations during the construction phase. The Committee recommend that the matter may be examined by Government and suitable principles laid down for future guidance.

- 27 99 As the number of big projects in the public sector is increasing it would be advantageous to develop a single organisation in the country for carrying out proper soil investigations rather than leaving it to consultants who differ from project to project and have to bring in their own equipment every time. The setting up of such an agency should not present any great difficulty as the technical know-how is available in the country. The Committee, therefore, recommend that steps may be taken by Government to develop a suitable agency for the purpose.
- 28 103 It appears that in many cases construction equipment in excess of requirements has been imported by the public undertakings and it is not being put to full use. It is also possible that equipment has been imported by some projects which might be lying idle or surplus at certain other projects in the country. The Committee regret to observe that there has been lack of proper planning in the procurement of costly construction equipment by the public undertakings and lack of co-ordination in pooling the equipment with a view to its maximum utilisation by the various projects in the interest of the national economy. It is surprising that before sanctioning foreign exchange Government did not satisfy itself regarding the need for such equipment and ensure that the same type of equipment which was lying idle or surplus in projects was not imported.
- 29 104 The most disquieting feature has been that in many cases hire charges are recovered from the contractors on an *ad-hoc* basis and these are much less than even the maintenance costs of the equipment. This indicates failure to safeguard the financial interests of the undertakings. It also shows that the Finance and Accounts Officers are not properly trained and oriented to take care of the interests of the undertakings. The Committee recommend that Government should investigate the reasons for not fixing economic rates of hire charges by the various under-
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takings and fix responsibility therefor. They also urge that it should be ensured that in future economic rates of hire charges are fixed and followed by all the public undertakings.

- 30 106 \* The manner in which the costly construction equipment is being maintained and disposed of by public undertakings is disturbing. It is not unlikely that large quantities of this equipment are lying surplus to requirements in various projects which could be reconditioned. Considering the value of known construction equipment which is over Rs. 18 crores in the public undertakings, the Committee suggest that Government should appoint an expert Committee to ascertain the total quantity of such equipment obtained by undertakings (both imported and indigenous), its life, its utilisation and the extent of surpluses. That Committee may also consider the advisability of pooling the construction equipment on a regional or other basis with a view to its maximum utilisation and avoidance of unnecessary imports.
- 31 110—111 (a) Production of construction materials has not kept pace with the demand in the country. This has not only led to delays in the construction of projects but has also entailed heavy imports. The Committee urge that necessary steps should be taken by Government to assure timely availability of construction materials for the various projects from indigenous sources.
- (b) Though the establishment of heavy structural works was recommended by the U. K. Heavy Engineering Mission as far back as 1957, nothing has yet been done to set up the same despite their inclusion in the Third Five Year Plan. These works are the prerequisites for establishment of any heavy engineering industry. The Committee recommend that Government should now accord the highest priority for setting up adequate capacity for steel structural fabrication in the country.
- 32 113—115 (a) There are wide variations in the percentages of costs of factory buildings to the total costs of the projects. In the case of fertilizer projects these percentages range from 8 to 23 and those for heavy electricals projects range from 20 to 39. That there should be such variations from project to project in the same industry would seem to indicate that there is scope for economy.



- (b) The Committee understand that a new factory shed design has been perfected by the Central Mechanical Engineering Research Institute, Durgapur and by its use the expenditure on factory buildings could be reduced by about 10 per cent. They recommend that besides other avenues of cost reduction, Government should impress upon the public undertakings the need to adopt new techniques and designs for effecting savings in the construction of factory buildings.
- 33 116—118 Plans and designs for even ordinary types of civil works have been obtained from the consultants by some of the public undertakings. It is obviously not necessary to seek assistance of foreign collaborators for plans and designs for buildings which could be prepared by the Indian Engineers. The Committee recommend that Government should issue instructions to the public undertakings to avoid recurrence of such cases.
- 34 121 It is possible to effect considerable economies in construction costs of factory buildings if an independent check is exercised over the plans, designs and specifications suggested by the Consultants. It will also have the additional advantage of our acquiring the technical know-how. The Committee recommend that plans, designs and specifications suggested by Consultants should be carefully examined before they are accepted.
- 35 123 There is a large area of civil works where the same plans and designs could be applied in a number of projects. This will result not only in expeditious completion of factory buildings and other civil works but will also result in economy. The Committee therefore recommend that suitable standard plans, models and codes for factory buildings and other civil works like administrative offices, canteens, etc., should be evolved which could be commonly adopted by all or most of the public undertakings.
- 36 127 Contracts on turn-key basis do not afford opportunity to our engineers to learn new techniques and become self-reliant. They are also costlier. The Committee feel that the assistance of foreign collaborators should be sought only for jobs in respect of which 'know-how' is not available in the country. For the rest they may be asked to indicate their requirements on the basis of which the planning, designing and construction should be undertaken by Indian Engineers. Besides effecting considerable economy, this would reduce the dependence on foreign

- collaboration and instil the necessary confidence in our men. The Committee recommend that Government should lay down suitable principles in this regard for guidance of the public undertakings.
- 37 130 Each major undertaking has developed a planning and design organisation for civil engineering works. A Technical Consultancy Bureau has also been set up by Government under the National Industrial Development Corporation to undertake preparation of detailed project reports, working drawings and designs of structurals, etc. for the public sector projects. So far, there has been little attempt at pooling and co-ordinating the experience gained by the various undertakings in the field of planning and designing for civil engineering, for which there is an urgent need to reduce our dependence on foreign countries. The Committee recommend that Government should take suitable steps towards this end. The representatives of the Ministries have agreed to rationalise the present design organisations.
- 38 133 Public undertakings have not yet fixed a norm for determining the strength of their construction staff. The present *ad-hoc* basic of recruiting such staff is not satisfactory. There is need for a careful review of the construction staff requirements in the public undertakings and fixing a suitable norm therefor. The Committee recommend that Government should look into this matter and have the necessary review made.
- 39 134-136 Public undertakings have generally resorted to item-rate contracts. The entering into contracts on this basis indicates that the details and quantities of works required to be executed have not been worked out. It is recognised that the lump sum contracts are the best. The Committee recommend that the public undertakings should enter into contracts on lump sum basis as far as possible.
- 40 138-139 The acceptance of tenders other than the lowest and award of contracts without calling for tenders, is not usual and is open to criticism. Such cases should be few and far between. All such cases should be reported to the Board of Directors for their review. The Committee recommend that Government should issue necessary instruction to the public undertakings in this regard.

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- 41 140-141 There have been a large number of cases in public undertakings in which the value of contracts has been increased after they were awarded. The upward revision in the value of contracts in such a large number of cases is another instance of inadequate attention being paid by the public undertakings to the planning and programming of works. They indicate that the works have been rushed through. This not only results in wastage but also tends to vitiate the very basis of the contract system. The Committee recommend that as far as possible all the detailed plans and specifications should be worked out by the public undertakings before the award of a contract.
- 42 142-144 There have been unusual provisions in the contracts entered into by certain public undertakings with the contractors. The grant of such unusual facilities to the contractors has implications on the cost of a project. It is also open to public criticism. It is therefore desirable that terms and conditions of contracts should be broadly standardised for guidance of the public undertakings. Any variations in the standard terms after they have been prescribed should be brought to the notice of the Boards of Directors for review.
- 43 149 The Committee regret to observe that the land requirements for factories in most of the public undertakings have not been assessed in a proper and systematic manner. Too much margin has been kept for expansion and fairly large areas in excess of requirements have been acquired and are lying unutilised. In the case of three steel plants alone, such areas are as much as 21,154 acres.
- 44 153 The Committee are constrained to observe that neither Government nor the public undertakings have given proper attention to the efficient and economical use of land in the townships. The layouts of the townships are sprawling resulting in high expenditure on roads, streets, lighting, transport, sewerage and maintenance, apart from hampering agricultural production by keeping the land unutilised. Had the norm of a minimum of nine dwelling units per acre been followed from the beginning, as has now been suggested by the Committee on Plan Projects, about 6,500
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acres of land could have been saved at Sindri and Nangal alone. It is surprising that even after the Report of the Committee on Plan Projects was published in 1963, no attempt was made by Government to ensure that the recommendations made therein were followed by the public undertakings in actual practice. The Committee recommend that Government should issue instructions to the public undertakings to adhere to the norms laid down in the Report of the Committee on Plan Projects. The Committee further suggest that the feasibility of constructing multi-storeyed buildings by the public undertakings should also be considered.

- 45 156 The acquisition of land in excess of requirement and its subsequent surrender at a loss by certain undertakings (like Nangal Fertiliser plant) is another example of waste and lack of proper care and planning. In many other projects excessive land has been acquired and is lying unutilised. It needs no emphasis that the land requirements should be initially determined in a proper and planned manner after taking into account the immediate needs as well as keeping a suitable margin for foreseeable expansion of plants and townships, needs of ancillary industries, if any. The Committee recommend that Government should lay down suitable guiding principles for proper assessment of land requirement for public sector projects without any delay.
- 46 158 The Committee feel that in view of the food shortage in the country it would be desirable if the land which has been acquired for expansion and is not being used, is leased out temporarily for cultivation. Such an arrangement would provide some income to the undertakings, besides augmenting agricultural production. When leasing out such land preference should be given to persons displaced from that area.
- 47 163 The Committee regret to observe that though delays and difficulties in land acquisition have been a recurring feature with the public undertakings for a long time, Government have not taken expeditious action to remedy them. The problem calls for fresh studies in the light of the actual experience
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of the public undertakings and in co-operation with the State Governments. They trust that the Thacker Committee will streamline and simplify the procedures so as to obviate delays and difficulties in this regard in future. The advisability of the Central Government or the State Governments first acquiring the land for themselves and then transferring it to public undertakings or leasing out on a long term basis may also be examined.

- 48 166 The estimates regarding the cost of land given by the State Governments in the beginning have proved to be very low. After the decision to locate a project had been taken the prices had increased due to various reasons. This not only led to acquisition delays but also increased the cost of projects. It is therefore necessary to undertake a study of land costs in various projects and find ways and means by which the prices could be limited to a ceiling in the beginning. It may also be desirable to rectify the present lacunae in the existing law regarding appeal by the project authorities against the award of the Land Acquisition Officer. The representatives of the Ministries have agreed to undertake the necessary study and place the difficulties before the Thacker Committee.
- 49 167-168 There have been deviations from the original assurances given by State Governments in regard to land, power, water etc. in respect of a number of projects. It appears that departures from original assurances may have been due to lack of clear understanding with the State Governments. It is therefore necessary that all the terms regarding land, water, power, etc. should be clearly settled at the time of determining the location of the projects.
- 50 171 The Committee, while appreciating the difficulties regarding rehabilitation of families displaced by acquisition of land for the projects, feel that once the compensation for the land has been paid the projects should not be burdened further on that account. If any additional expenditure becomes necessary on rehabilitation it should be borne by the Central or the State Governments. They would recommend that some guiding principles should be laid down by Government in the matter.
- They would however urge that while recruiting persons for posts in the lower categories in the pub-

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lic undertakings preference should be given to persons displaced from the areas acquired for the projects.

- 51 174 The Committee note that cost reduction units have not been set up by most of the public undertakings. They were informed by the representatives of the Oil & Natural Gas Commission, Fertiliser Corporation of India and Hindustan Steel that the Ministries concerned did not bring the suggestions made by the Planning Commission to the notice of the undertakings. The Committee recommend that Government should issue necessary instructions now and ensure their implementation.
- 52 177 It is regrettable that while large amounts of money are being spent on Building Research in the country, no serious attempt has been made by the public undertakings to apply the results of research in their construction works. It was not enough to have left it to the individual undertaking to contact the research organisations as they would be hesitant to initiate the new techniques. The Committee consider that Government should have taken the initiative and ensured that the results of research were put into practical use by the public undertakings. They trust that this will now be done by Government.
- 53 178 As model employers, it is necessary for the public undertakings to provide housing, medical, educational and other facilities for their employees, particularly in places where such facilities are not available. But the examination has revealed that much avoidable expenditure has been incurred in providing these facilities and there is scope for economy in this regard. In the absence of proper norms and standards, the scales of accommodation have been on the high side. Expenditure on utility services and other facilities has been lavish. The layouts of the townships are sprawling resulting in high expenditure on water, power, sewerage, roads and maintenance. In many cases houses have been built in excess of requirements. Business prudence required that the construction of townships should have been phased and related to the actual needs as they arise from time to time. Most of the undertakings have not availed of the financial assistance from the State Governments and other specialised agencies for their housing, educational and
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medical facilities which would have considerably reduced their burden. The Committee are constrained to observe that the public undertakings have not been adequately cost-conscious.

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The Committee are concerned to note that delays and difficulties in the construction of factory buildings and other civil works continue to recur in most of the public undertakings. If the experience in the execution of projects for more than a decade had been pooled, it should have been possible to plan the projects better and execute them speedily and economically. Unfortunately this has not been done. There is also no indication that these aspects of the public undertakings are receiving adequate attention. The instructions issued by the Ministry of Finance in 1960 regarding housing standards in public sector projects were not followed. The valuable suggestions in the Reports of the Committee on Plan Projects and in the Third Five Year Plan itself aimed at economy and efficiency in construction remain largely unimplemented. The Committee feel that a stage has come when Government should pool the experience gained, issue suitable instructions to the public undertakings and ensure their implementation.

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