C.P.U. No. 131

COMMITTEE ON PUBLIC UNDERTAKINGS (1968-69)

(FOURTH LOK SABHA)

FORTY-SIXTH REPORT

INDIAN DRUGS AND PHARMACEUTICALS LIMITED

(MINISTRY OF PETROLEUM & CHEMICALS AND MINES & METALS)

(DEPARTMENT OF CHEMICALS)

LOK SABHA SECRETARIAT
NEW DELHI
April, 1969/Vaisakha, 1891 (Saka)
Price : *Rs.* 1·10

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C O R R I G E N D A

46th Report of the Committee on Public Undertakings (1968-69)

Page	Para	Line	For	Read
ii	-	Under "Pages"	8	9
			12	13
			15	17
			27	29
			37	40
			45	43
			55	58
			55	58
			57	60
			60	63
			61	64
			63	66
			66	68
			68	70
			68	72
ii	-	Under "Appendices" in item IV	Durgs	Drugs
vii	-	At the bottom	April Vaisakha	April 22 Vaisakha 2
9	4.1	1 from bottom	I struments	Instruments
15	5.9	3	Antibioties	Antibiotics
17	-	In Sub-heading at the top	Plan	Plant
22	6.14	4	states	States
27	6.35	1	in	to
27	-	After para 6.35	6.37	6.36
27	6.36	1	The statement in Appendix IV gives the details regarding	From the information available to the Committee, it is clear that no
27	-	Under "Formulation capacity"	6.73	6.37
28	6.38	9	Pharmaceuticals	Pharmaceutical

Page	Para	Line	For	Read
33	7.10	3	pharmacopeial	pharmacopoeial
33	7.12	14	radial	radical
34	7.13	3	estimates	estimate
34	7.14	4 from bottom	Russion	Russian
34	7.15	2	synethetic	synthetic
35	7.17	2 from bottom	developmental	developmental
35	7.20	1	were	are
43	8.18	4	after 'not' insert	'to'
46	8.27	2 from bottom	its	their
47	8.30	1	government	Government
48	9.4	2	Pencillia	penicillin
49	9.8	3	same	some
50	9.8	1	omit "furnished"	-
50	9.10	4 from bottom	navalgin	novalgin
52	9.16	4	Teachhing	Teaching
54	9.24	5	us	IDPL
55	9.26	5	exihibitions	exhibitions
56	9.31	3 from bottom	converage	coverage
58	10.2	6	71.6	71.5
63	10.23	3 from bottom	Miscelleneous	Miscellaneous
64	Appendix I	16	Drug	Drugs
65	Appendix I	10	disulphite	bisulphite
70	Appendix IV	In heading	Utlisation	Utilisation
70	Appendix IV	Under 'Capsulation' in line 1	84.72	54.72
80	7.20	1	were	are

CONTENTS

287 Aii L.S.—1.

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(1968-69)

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ON

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(1968-69)

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Shri A. L. Rai—*Deputy Secretary.*

Shri M. M Mathur—*Under Secretary.*

INTRODUCTION

I, the Chairman, Committee on Public Undertakings, having been authorised by the Committee to present the Report on their behalf, present this Forty-sixth Report on Indian Drugs and Pharmaceuticals Ltd., New Delhi.

2. This Report is based on the examination of the working of Indian Drugs and Pharmaceuticals Ltd. upto the year ending 31st March, 1968.

3. The Committee visited the Antibiotics Plant at Rishikesh on the 25th and 26th September, 1968; the Surgical Instruments Plant at Madras on the 12th October, 1968, and the Synthetic Drugs Plant at Hyderabad on the 14th October, 1968. The Committee took evidence of the representatives of Indian Drugs and Pharmaceuticals Ltd., on the 14th and 15th January, 1969, and of the Ministry of Petroleum and Chemicals on the 16th January, 1969.

4. The material relating to the Indian Drugs and Pharmaceuticals Ltd. was processed at various stages by the Study Group I on Chemicals and Petroleum Undertakings of the Committee. The Report was adopted by the Committee on the 18th April. 1969.

5. The Committee wish to express their thanks to the officers of the Ministry of Petroleum and Chemicals and the Indian Drugs and Pharmaceuticals Ltd. for placing before them the material and information that they wanted in connection with their examination.

6. The Committee also wish to express their thanks to the non-official organisations/individuals who, on request from the Committee, furnished their views on the working of Indian Drugs and Pharmaceuticals Ltd.

NEW DELHI;
April , 1969.
Vaisakha , 1891 (*S*).

G. S. DHILLON,
Chairman,
Committee on Public Undertakings.

I

INTRODUCTORY

On the 29th May, 1959, the Government of India entered into an agreement with the Government of the U.S.S.R., with a view to establish in the public sector, plants for the manufacture of antibiotics, synthetic drugs, surgical instruments, phyto-chemicals and glandular products with the Soviet collaboration. The Government of the U.S.S.R. undertook to provide a loan of Rs. 9·52 crores to cover technical services including the training of Indian technicians at the Soviet plants and the cost of machinery and equipment to be imported for these plants.

1.2. The project for the production of glandular products was postponed for want of facilities of a modern slaughter house in the country and the phyto-chemical project which was established at Neriamangalam (Kerala) was abandoned later on as an unworkable proposition.

1.3. On the 10th June, 1960, four contracts were signed with M/s. Technoexport, Moscow, for the preparation of Detailed Project Reports in respect of these projects. In the beginning, the projects were executed by the National Industrial Development Corporation.

1.4. On the 5th April, 1961, the Indian Drugs and Pharmaceuticals Ltd., (I.D.P.L.) was set up as a Government company and in November, 1961 Government of India assigned to the company all the rights and obligations under the Agreement with the Soviet Union dated the 29th May, 1959 relating to the loan of Rs. 9·52 crores and the four contracts with M/s. Technoexport, Moscow mentioned above.

1.5. At present I.D.P.L. is concerned with the following 3 projects:—

(i) Antibiotics Project at Rishikesh;
(ii) Synthetic Drugs Project at Hyderabad; and
(iii) Surgical Instruments Project at Madras.

1.6. The working of IDPL was examined by the Committee on Public Undertakings (3rd Lok Sabha) in 1965-66 and their recommendations were contained in the 22nd Report of the Committee which was presented to Parliament on the 29th March, 1966. The Report on the action taken by Government on those recommendations is contained in the 30th Report of the Committee on Public Undertakings (4th Lok Sabha), which was presented to Parliament on the 9th April, 1969.

1.7. In the present Report, the Committee have reviewed the working of I.D.P.L. during the subsequent period and have also touched upon some aspects which had not been covered in their earlier Reports.

II

COLLABORATION ARRANGEMENTS

The Indian Pharmaceuticals Delegation, led by Dr. Kane, which visited Soviet Union and other countries in Europe in 1956 had *inter alia* recommended as follows:—

> "While one must admire the manner in which the pharmaceuticals and drugs industries have been developed in the U.S.S.R. it must be admitted that in the antibiotics field the techniques employed in Western Europe and in the U.S.A. are more advanced and the yields are higher. A similar position exists with respect to some of the vitamins. Since the cost of production of a drug will depend to a great extent upon the yields obtained in each process, it would appear desirable to explore other sources of collaboration in these fields before taking final decisions".

2.2. Dr. Kane submitted a note to Government soon after his return from the USSR in November, 1956 an extract from which is reproduced below:

> "Experts of the Soviet Union have designed pharmaceuticals and Drugs Plants for establishment in some Eastern European countries and in China. Some of these units have capacities similar to those recommended for establishment in India by the USSR team of experts. The drawings and details of equipment are therefore readily available and if it is decided to seek their collaboration, there may be a saving in time."

2.3. In 1955-56, the country was mainly dependent on the imported finished products and manufacture was based on penultimate imported intermediates. The consumption was on the increase and the imports of drugs and dyestuffs was of the order of Rs. 15 crores per annum.

2.4. The Committee during the evidence of the representatives of I.D.P.L. enquired about the need for going in for collaboration with the U.S.S.R. for drugs which were already being produced in the country. The Chairman, I.D.P.L. stated that nistatin and tetracycline were not being produced in the country at that time. The Hindustan Antibiotics Ltd., Pimpri was producing only 2 to 3 tonnes of penicillin in 1956 though their present production was about 40 tonnes. Asked whether at least penicillin could not have been produced with the help of HAL, Pimpri, the Chairman, IDPL stated that the Kane Committee's Report recommended that this could be done in India. While examining the representatives of the Ministry of Petroleum and Chemicals, the Committee asked why Government of India had decided to go in for collaboration with the USSR

when the Kane Committee of 1956 had observed that the Soviet technology was up-to-date only with regard to one or two items and in respect of all the other drugs, the technology of the Western countries was more advanced. The Secretary of the Ministry stated that going back to 1956 or 1958 when the pharmaceutical industry had developed to a certain point in India only Government was anxious to fill in the wide gaps between the country's requirements and the existing production and there did not appear to be any foreseeable possibility of all these gaps to be filled through private initiative. In deciding to develop the production of these drugs in the public sector, Government took into account the possibility of the technical assistance available from various countries and the terms on which that would be available such as royalties, patent rights and financial assistance for launching the projects. As there did not appear to be any prospect of either technical or financial collaboration becoming available from other sources on suitable terms, the conclusion that emerged was that the most suitable collaboration would be with the USSR though their technology was "second best". The Committee enquired whether any efforts were made to obtain better technical know-how and find out the terms on which it would be available. The Secretary of the Ministry stated that the Kane Committee had also referred in their report to the problems that would be faced over the patents. The problem would be of an onerous nature in respect of payments that would have to be made as a result of patent protection. To a specific question whether the total amount which would have to be paid by way of royalty was calculated and compared with the likely capital cost at which the units of IDPL could be set up, the witness replied that a study on those lines had not been made. He admitted that it was an assumption that the Western technology would not be available except on onerous payments and the assumption was based on the example of one case.

2.5. The Committee enquired whether recourse was taken to the provision in the Patents Act for acquisition of compulsory licence. The representative of the Ministry replied that in order to do that, it was necessary to have the technology first. Moreover in the drugs and pharmaceuticals industry, unpatented know-how was more important than the patent literature.

2.6. Adducing reasons for the selection of the USSR as collaborators, he added that the feeling of Government was that the Western countries had a stake in giving India the know-how because all the products were being imported from them and they would, therefore, demand a very high fee for giving the technology. He added that though the Soviets did not have the first rate technology, they had developed a technological base which could be used in this country. Another factor which supported the view of Government was the result of negotiations conducted by them for certain drug-intermediate projects. The problem of acquiring the know-

how required for such manufacture required special attention and in 1955 the Italian firm M/s. Montecatini was requested to prepare through its subsidiary ACNA a survey report on the best manner of producing all these intermediates. After ACNA was commissioned the German firm Bayer and ICI of U.K. volunteered to prepare their own report. The terms quoted by a German firm were very onerous, 7-1|2 per cent interest and 10 per cent payment immediately on signing of the agreement, in addition to continuous payment of royalties. As against this, the Russians' term was 2-1|2 per cent interest only. The view was, therefore, taken that if this was the case with drug-intermediate projects, it would be more onerous in the case of drug projects. Moreover, a stage had not been reached when Government could make a comparative assessment of different proposals to decide which was more economical. But care was taken to include only those items for which technology was not available from elsewhere, though the Russians had suggested a large number of items to be included in the projects to be set up with their collaboration. Chloramphenicol and other synthetic drugs were the items which were not so included.

2.7. In reply to a question whether it was true that Hindustan Antibiotics Ltd. had offered to put up the plant insofar as penicillin was concerned, the Secretary of the Ministry stated that there was no written proposal from Pimpri to put up the plant. But a mention had been made in one of the discussions that the Pimpri Plant might undertake further production of penicillin. Giving the reasons for not pursuing the idea of entrusting the production to Hindustan Antibiotics Ltd., he stated that the Pimpri Plant had already been allowed to expand its production to the optimum level.

2.8. The Committee enquired whether the Russians had insisted on the inclusion of penicillin and made a prestige issue of it and whether follow-up action was taken on the recommendations of the Kane Committee that for certain items collaboration should be with the U.S.S.R. and for other items with the Western and other countries. The Secretary of the Ministry replied that Dr. Kane, leader of the delegation to the U.S.S.R. had also recorded a note in November, 1956, that experts of the Soviet Union had designed pharmaceuticals and drugs plants of similar capacities for some East European countries and China. The drawings and details of equipment were readily available and there would be saving in time if it was decided to collaborate with the U.S.S.R. He added that members of the Kane Committee were also associated with the deliberations which ultimately led to the decision that the Russian collaboration should be sought.

2.9. In reply to a question as to why Government had rejected the views of their own experts, about the items that should be included in the final project report, the Secretary of the Ministry stated that the judgment of the Russians was accepted because it was based on reasonable considerations; growth of demand and growth of public health services in India. The programme of the Soviet experts was thoroughly discussed with them

by the Indian team which included members of the delegation to the USSR and DGTD officials. The witness added: "We had very long discussions on each item as to the need for it and its capacity. The Soviet experts modified to a certain extent their programme of manufacture and in certain cases, they insisted on certain items and capacities being included, according to their experience in other countries". It was ultimately a joint opinion of both the Russian and Indian experts as to the programme of manufacture in the plant.

The Secretary of the Ministry also stated that the Russian proposal was supported by the Planning Commission and eventually the matter went up to the Cabinet.

2.10. In a subsequent note submitted to the Committee the Ministry have stated:

> "The entire matter was considered by the Cabinet in the meeting held on the 24th January, 1958 and the proposal of the Ministry of Commerce and Industry for further processing of the drugs projects with USSR assistance by inviting a team of Soviet experts and dyes-intermediates plant with the cooperation of Bayers was approved.
>
> It will be seen from the above that in the action taken by Government, they were guided by the facts as were evident or presented at that time. It cannot be stated that the Indian team which visited U.S.S.R. and other countries was against seeking their assistance. The Indian team was to report not only on the question of seeking aid for the manufacture of drugs but also in the manufacture of intermediates required by the drugs, dyes and plastics industries. The Indian team recommended a sort of selective approach rather than seeking aid for the whole range of drugs and intermediates from the U.S.S.R. It will also be seen that the Planning Commission was closely associated with discussions on the subject and the final decision was generally on the basis of their recommendations".

2.11. The Committee regret to note that in spite of the Kane Committee's observation that "in the antibiotics field, the techniques employed in Western Europe and in the USA are more advanced and the yields are higher" and their specific recommendation that it was desirable "to explore other sources of collaboration in these fields before taking final decisions", Government did not make any enquiries or collect information from any other source to locate the availability of technology and collaborators. They went into an agreement with M/s. Technoexport, Moscow, on the basis of assumption that onerous royalty would have to be paid to the Western countries if they went into collaboration with them. From the facts placed before them and the so far achievements of I.D.P.L., the Committee cannot help stating that the decision to enter into collaboration arrangements with the U.S.S.R. was taken on considerations other than technical and without conducting demand survey or economic feasibility studies.

III

DETAILED PROJECT REPORT

The detailed project reports (DPR) prepared by the collaborators did not indicate the time schedule of construction, capital cost estimates, estimated cost of production. In reply to the Committee's question as to how in the absence of information on such vital aspects the D.P.Rs. were approved by Government, the Ministry have stated as under:

> "The Detailed Project Reports did not contain the time schedule of construction, cost estimates or the estimates of cost of production but the Soviet experts at the request of the I.D.P.L. furnished the following at the time of examination of the Detailed Project Reports:—
>
> (a) Cost estimates of a part of the projects (construction of factory, its services and development; and also for plant and equipment), and
>
> (b) Cost estimates of production.
>
> Taking these into consideration, Government approved of the company signing the Memoranda of Acceptance of the Detailed Project Reports". Government while conveying approval of the Detailed Project Reports observed as follows :—
>
> "The Government note that the cost of construction and cost of production as estimated by the Soviet experts differ to a large extent from those estimated by the Drugs Corporation and that the uneconomic character of the Synthetic Drugs and Phyto Chemicals is accentuated by the difference in these two estimates. Even though the detailed project reports may be accepted and further steps towards the implementation of the four projects may be taken, the estimates prepared by the Company require further detailed scrutiny and examination."

3.2. During evidence the Chairman, Indian Drugs & Pharmaccuticals Ltd. stated that his personal view was that 'the detailed project report was not complete in all respects' and the Committee set up to examine it 'was

not fully competent' to go into it, as there was no techno-economist on the Committee. He said that one of the biggest omissions on the Committee was that of a cost accountant. He added that in the Committee's Report, certain costs had been indicated which were 'extremely incorrect'. If the Cost Accountant had been on the Committee, he could have drawn attention to certain costing aspects of the project. Citing an example he said that the cost of production of vitamin B1 was given as Rs. 100 per Kg., while even in Russia it was not being produced at less than Rs. 750 per Kg. and the actual cost in India was about Rs. 1,200. Similarly the cost of production of streptomycin was given as Rs. 63 per Kg., whereas its production cost was not less than Rs. 200 to Rs. 220 anywhere in the world. The Chairman, I.D.P.L., further stated: "I can, certainly prove certain things which were accepted at that time (of examination of the DPR) which were wrong".

3.3. While examining the representatives of the Ministry, the Committee pointed out that a number of shortcomings had been noticed in the detailed project reports and enquired whether the Ministry had any machinery for examining the detailed project reports on a technical basis. The Secretary of the Ministry replied that the technical people in the company and in Government were expected to examine the detailed project reports. In the present case the question was how in the absence of various details like capital cost, production schedule, cost of production etc., detailed project reports were accepted. He said that he could only say that these were accepted "on the basis of faith".

3.4. The representative of the Ministry added that a Committee was constituted to scrutinise the detailed project reports. At the time of approval, Government noticed that there were differences between the estimates made by the Russians and those made by the Company. At that time Government approved the detailed project reports with the remark that these must be further scrutinised. Asked whether that Committee took into account the fact that details about production schedule, capital cost were not available, the Secretary of the Ministry stated that IDPL had been able to obtain certain partial information from the Russians and made its own estimates regarding capital cost, cost of production etc. Government took note of the difference between these two estimates, but were of the view that the projects being intrinsically important, steps should be taken to go ahead while the cost estimates and other details were being worked out. As regards the production schedules he stated that no attempt was made to obtain those from the Russians.

3.5. The Committee are unable to understand how Government accepted detailed project reports which did not include basic and vital information about the plants and their working results. They are surprised

at the Secretary's statement that these were accepted merely "on the basis of faith". This was not the first project undertaken in the public sector and Government had sufficient experience about the setting up of big and important projects by then. The Committee feel that before committing the country to such a huge expenditure Government should have carried out feasibility studies and insisted upon inclusion of all essential information in D.P.R. in order to thoroughly satisfy itself about the technical and economic soundness of such huge projects.

3.6. At this stage when the projects are *fait accompli* the Committee can only hope that proper scrutiny would be carried out in future to see that the project reports are complete in all respects before accepting them.

IV

CONSTRUCTION AND COMMISSIONING

The table given below indicates the date of commencement of construction work in each plant and its completion:—

Project	Year of Commencement of Construction work	Year of Completion
Antibiotics Project	1962	1967-68
Synthetic Drugs Plant	1962	1967-68
Surgical I struments Plant	1962	1965-66

4.2. As has been stated earlier, the detailed project reports did not contain any time schedules for completion of the plants. But in 1964 while reviewing the progress of construction of each project the Company drew up schedules for completion of the construction work. The progress of construction was again reviewed in 1966 and the commissioning dates for the various units were refixed. The Company reviewed the progress of construction once again in 1967 and drew up revised commissioning dates. The schedules fixed in 1967 for various blocks are given in Appendix I.

4.3. It is seen that although the schedules for completion of construction were revised twice, the last revision being as late as 1967, these could not be adhered to. The Company has attributed delay in construction and commissioning of various units mainly to the following reasons.

1. Late receipt of working drawings.
2. Late receipt of indigenous as well as imported equipment.
3. Finalisation and procurement of special flooring material.
4. Additional work involved due to modifications suggested by Russians to suit the latest technology upto the last stage.
5. Delays in construction by contractors.
6. Late supply of some raw materials.
7. Difficulties regarding sterility conditions.

8. Difficulties in the air conditioning system.

9. Delay in receipt of drawings by the Indian side for non-standard equipment to be fabricated here.

10. Delay in other foreign supplies.

4.4. The Committee during evidence of the representatives of I.D.P.L. enquired whether the delay due to modifications suggested by the collaborators was taken up with them with a view to getting the loss reimbursed. The Chairman, I.D.P.L. stated "under the contract, as far as I can see, the collaborators have the right to make changes in drawings, in specifications, if they make changes in technology, and they have got the right to introduce the latest technology that they think proper....if they think that it is a change in technology for the betterment of the project". He added that since no production schedule had been drawn up at the time of the contract, the question of loss or claim of reimbursement thereof did not arise.

4.5. The delays were reported to Government and the Russians, practically every time, suggested introduction of new technology. He added that in 1967 they were definitely told that there could be no improvement in technology and something seemed to be wrong with the design. The Russians accepted that position and agreed to give Rs. 40 lakhs worth of machinery, free of charge.

4.6. The Committee were informed that when changes were indicated by the Collobarators for the first time, they were themselves not clear about the extent of the modifications, as they were still in the process of working out those modifications. In the case of some products like tetracycline, the entire production process had not been worked out and even at this stage they did not have full modifications. The reason was that the Russians had no patents of their own and they had to by-pass the existing patents and evolve a new procedure. He added that it was right to say that the collaborators were experimenting with the particular project of I.D.P.L. to get round the patents.

4.7. Regarding the delay in construction and commissioning of the plant because of the fact that the work of inspecting the machinery was entrusted to D.G.S. & D. and also that of examination of drawings had been entrusted to the Technical Consultancy Bureau, the Financial Adviser of I.D.P.L. stated that there was no organisation at that time in I.D.P.L. for conducting inspection work and hence it was decided to entrust that work to D.G.S. & D. He added that D.G.S. & D. had by and large done the work satisfactorily except that there was some delay in the inspection of fabricated vessels at Calcutta because D.G.S. & D. had no authority to deviate from the specifications given to them.

4.8. Asked whether it was not desirable for I.D.P.L. to have its own inspection machinery, the witness replied that so far there was no such arrangement in any of the projects in India and that it was usually got done by D. G. S. & D. As regards the delay in construction work, the Chairman I. D. P. L. stated that the delay in the inspection of the machinery did not affect the construction of buildings, but only affected the installation of machinery and equipment.

4.9. The Committee were informed that the inspection of the machinery entrusted to D. G. S. & D. was only in respect of indigenous machinery. As regards machinery imported from the U.S.S.R. no inspection was carried out, but it was accepted as given by the Russian collaborators. In terms of the guarantee clause, a claim could be made on the collaborators for replacement of the machinery if it was not upto the specification.

4.10. The Committee enquired whether there was no provision for liquidated damages in addition to the guarantee referred to above. The witness replied that there was no such provision not only in respect of the contracts with I.D.P.L., but in all cases where collaboration was with the Russians.

4.11. It was also stated that certain modifications suggested by the Russians were not with a view to improving the technology but with a view to cover up the deficiency in designing. As there was deficiency in the detailed project report and the detailed drawings, those modifications had become necessary.

4.12. The Committee while examining the representatives of the Ministry asked whether the frequent modifications had not affected the working of the project. The Secretary of the Ministry replied that the matter certainly was one for concern. But when the collaborators said that the technology had improved, I.D.P.L. or Government were not in a position to do anything about it. He added that the point relating to overall performance, guarantee, ceiling in cost etc., were specifically raised with the Russians but finally the conclusion was reached that there was no point in pursuing it further. There was, however, performance guarantee about the equipment. For example, if any defective equipment was found to have been supplied, the Russians had agreed to replace it free of charge. As regards losses due to delay, the Secretary stated that losses would not be made good by the Russians but would have to be borne by I.D.P.L.

4.13. The Committee enquired whether the contract which was drawn up between IDPL and M|S Technoexport was examined by the Ministry of Law. The Secretary of the Ministry stated that the contract was examined by IDPL's Attorney and ordinarily the Ministry of Law would not be consulted.

4.14. The Committee are unhappy with the manner in which the construction of the project was undertaken. The construction work was commenced in the year 1962 without fixing any schedules for completion. In fact such schedules are invariably provided in the detailed project reports. Their non inclusion is a deficiency which removed the guidelines for the project authorities for completion of work in prescribed time. When at a later date in 1964 the completion schedules were drawn up, these were revised twice and even the revised dates were not adhered to. So far as modifications in equipment and machinery are concerned these may become necessary sometimes to cope with the advances in technology. From facts placed before them it seems that there were no such rapid improvements in pharmaceutical industry which necessitated these frequent modifications.

4.15. It appears that the collaborators were themselves not sure of the technology to be offered by them and therefore kept on suggesting modifications from time to time. This resulted in considerable delay in construction and commissioning of the projects and affected the economies of the plants. No responsibility could, however, be fixed on the collaborators, because no time schedules were laid down for the completion of constructions and commissioning of the projects. There was also no penalty provision in the contracts for late delivery of equipment and machinery. Government have not given any convincing explanation for entering into such deficient agreements with the Russian collaborators.

The Committee hope that in future Government will avoid such lacunae in the agreements with foreign collaborators and ensure that the interests of the country are safeguarded in all respects.

V

CAPITAL COST

The detailed project reports did not indicate the estimates of costs of the three projects. However, at the request of IDPL, the Soviet experts furnished cost estimates of some parts of the projects, namely, construction of factory, its services and development, cost of plant and equipment. In 1961, IDPL worked out rough estimates and placed them before their Board of Directors on 9th November, 1962. The Board while examining those estimates observed that the estimates prepared were very rough and were likely to undergo a considerable increase due to rise in the prices of raw materials. They, therefore, desired that the estimates be revised and "an *ad hoc* additional provision in the way of a percentage of the total cost of construction should be made for the rise in the price of raw materials that was likely to take place during the next 3 years when all the four projects would be under construction." The estimates drawn up consequent to the above instructions of the Board were submitted to the Government of India for the first time in 1962.

5.2. In September, 1963, the estimates were again reviewed and revised. Government gave their comments on those estimates on 5th May, 1964. Government desired that a reduction in the township expenditure and other avenues of economies be explored with a view to keep the cost within the figures estimated in 1962. Again on 9th April, 1965, Government instructed that revised estimates should be prepared with reference to the actual expenditure incurred on various items by that time as the bulk of civil engineering work was nearing completion. The estimates drawn up, as desired by Government, were sent to them on 4th September, 1965, in respect of Surgical Instruments Plant and on 17th January, 1966 in respect of Antibiotics Project and Synthetic Drugs Project. These estimates were approved and sanctioned by Government in 1966 with slight modifications after discussions with IDPL. In 1968, the estimates were revised again and were sent to Government for approval, on 30th August, 1968. Till January, 1969, the approval of the Government had not been received.

5.3. Thus, the estimates were revised five times during a period of 8 years. The estimates drawn up initially, each revision, and the present estimates are indicated in the table given below :

Name of Project	Year	Estimates for factory	Estimates for township	Total
			(Rs. in crores)	
Antibiotics Plant .	1961	12·25	3·50	15·75
	1962	16·41	4·48	20·89
	1963	18·71	3·67	22·38
	1965	20·16	3·16	23·32
	1966	20·75	2·94	23·69
	1968	..	..	26·32
Synthetic Drugs Project .	1961	11·50	2·75	14·25
	1962	14·65	2·89	17·54
	1963	17·36	2·52	19·88
	1965	19·31	2·16	21·47
	1966	18·98	2·03	21·01
	1968	..	..	22·93
Surgical Instruments Plant .	1961	2·15	1·50	3·65
	1962	2·58	1·86	4·44
	1963	3·53	1·72	5·25
	1965	3·55	1·54	5·09
	1966	3·41	1·36	4·77
	1968	..	..	4·65

5.4. According to IDPL, the increase in the capital cost of Antibiotics Project and Synthetic Drugs Project were due to the following reasons:

(i) Additional import of equipments due to changes in the technological processes made by the collaborators from time to time;

(ii) Increase in the incidental charges such as customs duty etc.

(iii) Rise in administrative costs due to time taken in completion of the project;

(iv) Increase in cost of equipment;

(v) Inclusion of commissioning expenses and interest on Government loan;

(vi) Increase in freight following the Pakistan conflict.

5.5. The Committee during evidence enquired whether the Indian Drugs and Pharmaceuticals Ltd., had compared the capital cost of its Antibiotics Project with that of Hindustan Antibiotics Ltd., Pimpri and other

projects. The Chairman, IDPL replied that details of the capital cost of Hindustan Antibiotics Ltd., were not known but on a rough calculation it was found that for a production of 130 tonnes of antibiotics, their capital block was about Rs. 8 crores, which worked out to Rs. 6 lakhs per tonne. Compared to this, the capital cost of the Antibiotics Project of IDPL was Rs. 24 crores including the township. Taking into account the fact that the price index had moved from 1 to 1·6 between the years 1951 to 1962, it could be said that about 21 to 22 crores of rupees might be the correct cost. As far as private sector companies were concerned, the capital cost was not available. Asked whether the collaborators had indicated the capital cost of comparable enterprises in other countries, the witness replied that the collaborators had only said that the costs were comparable to the costs in Russia.

5.6. The representative of the Ministry, during evidence, stated that while negotiating the contract with the Russians the idea at first was to have the antibiotics plant in two stages. Later on in the course of discussions the Russians persuaded the Indian team that the capital cost would be cheaper if bigger capacities were provided.

5.7. In regard to Surgical Instruments Project, the Committee were informed that the capital cost of the project had been revised on account of the fact that certain items of plant and machinery had not been included in the original capital estimates. These items consisted of certain furnaces and other machinery which had been left out by mistake by the Russians. For the Surgical Instruments Project, dies and fixtures worth Rs. 51 lakhs had been purchased and the prices were definitely on the high side.

5.8. In reply to a question, it has been stated by the IDPL that if the increase in revised estimates is less than 20 per cent of the approved cost estimates, there is no need to seek Cabinet's approval under the standing instructions of the Government of India.

5.9. The Committee are unhappy to note that the estimates of the 3 plants of IDPL were revised 5 times in a period of 8 years and every revision raised the estimates. The latest estimates in the case of Antibiotics Project show an increase of Rs. 10·57 crores as compared to the initial estimates, and in the case of Synthetic Drugs Project there is an increase of Rs. 8·68 crores. Thus, the estimates had gone up for the Antibiotics Project and the Synthetic Drugs Project by 67 and 61 per cent respectively. In regard to Surgical Instruments Plant, the increase is of Rs. 1 crore. Thus the original total estimates of Rs. 33·65 crores have risen to Rs. 53·90 crores now.

5.10. It is evident that either no serious attempt was made to draw realistic estimates or the persons capable of doing so were not available with IDPL. No effort was also made either by the Company or Government to collect comparative figures of capital cost of similar projects in the

Western countries. The Committee feel that in the absence of such figures accurate or realistic assessment of the reasonableness of the cost estimates could not be made.

5.11. It is also regrettable that the estimates first drawn up in 1961 were approved by Government only in 1966. This would mean that IDPL went on incurring excess expenditure without Government's sanction. Even the final estimates submitted by IDPL in August, 1968 had not been approved by Government till January, 1969. The Committee would urge that the procedure relating to approval of estimates by the Ministries should be laid down so as to avoid such delays.

5.12. The Committee are not happy to find that the increases in the capital cost of IDPL projects was not brought to the notice of the Cabinet because the revised estimates did not exceed 20 per cent of the estimates approved by Government in 1966. This case brings out a serious lacuna in the existing standing instructions on the subject. Although the increase over the original estimates is over 60 per cent but since it is less than 20 per cent of the estimates approved by Government it was not necessary to bring it to the notice of the Cabinet. Thus postponement of sanctioning of estimates by a Ministry, which was 4 years in this case, could conceal from the Cabinet the delay in sanctioning the estimates as well as increase of estimates over 20 per cent.

5.13. The Committee feel that as the capital cost of the projects has increased by more than 60 per cent as compared to the original estimates of 1961 and has adversely affected the economics of the projects, the revised estimates should have been brought to the notice of the Cabinet. Such huge increases in the estimates of the projects are a matter of serious concern and should be dealt with at the highest level in Government. They would, therefore, recommend that the Ministry of Finance should review this question and evolve a procedure by which the Government and the Cabinet could be kept informed of such increases in the financial outlay of a project.

VI

PRODUCT-MIX AND PRODUCTION CAPACITY

(a) Antibiotics Plan, Rishikesh

The Antibiotics Plant is designed for the manufacture of about 290 tonnes of antibiotics annually as follows:

Products	Capacity (Tonnes)
1. Potassium Salt of Penicillin which will be completely converted into: ..	85
Sodium Salt	30
Procaine Salt	45
2. Streptomycin sulphate	70
3. Dihydrostreptomycin sulphate	15
4. Chlorotetracycline	70
5. Oxytetracycline base	25
6. Tetracycline base 7. Tetracycline hydrochloride	25
8. Nystatin	10

The plant is also designed for formulation of these drugs into dosage forms to the extent of approximately half of its total bulk production.

6.2. In reply to a question whether there were any production lines where capacities in excess of demand had been created, the Company have furnished the following information:

"Penicillin

We do not expect to utilise full capacity. We think that taking internal and external demand into account, it may be possible to utilise 60—70 per cent capacity. Since the break-even for this product is fairly reasonable level of capacity, no losses are expected once 60 per cent capacity is reached.

Dihydrostreptomycin

There is no demand. Instead, 15 tons more of streptomycin will be produced for which there is enough demand.

Chlorotetracycline

A demand survey is under way as the NCAER survey was not satisfactory and it did not take into account the needs of the veterinary sector. There are some indications for its use but a decision on the quantity to be produced will be taken after conducting the survey.

Nystatin

The capacity is 10 tons. The demand may be for 4-5 tons. Foreign demand is likely once shelf life is decided as break-even is low and as at present seen from the reglaments received, I.D.P.L. prices are likely to be internationally competitive.

6.3. The Committee were informed in a subsequent note that dihydrostreptomycin sulphate for which a capacity of 15 tonnes had been provided was dropped from the product-mix as it had become obsolete on account of its toxic action and as it was not likely to find any market. The expenditure incurred in creating the facilities for this antibiotic had been stated to be Rs. 2 lakhs. According to the Company, the process of manufacture of this antibiotic is common with streptomycin and its exclusion from the product-mix will increase the production of streptomycin by about 15 tonnes. It has been stated that the margin of loss on the latter is almost half as much as on dihydrostreptomycin and as such, the plant would gain in profitability by dropping it from the product-mix.

6.4. Regarding chlorotetracycline it has been stated that it was included in the product-mix with a capacity for 70 tonnes and according to indications available, there would not be so much demand for this antibiotic. Certain plans were afoot for manufacturing animal feed materials. The market research had shown encouraging signs and some firm enquiries had been received. These are based on the use of chlorotetracycline.

6.5. During evidence, the Committee also enquired whether the Hindustan Antibiotics Ltd., Pimpri, had made a written proposal that they would be able to undertake the designing and the commissioning of the Antibiotics Plant at Rishikesh. The Chairman, IDPL, stated that "It is in the Kane Committee's Report. The Kane Committee's Report recommended that this (Production of Penicillin) can be done in India. There is no secret about it". The Secretary of the Ministry, however, stated during evidence that "there has been no written proposal from Hindustan Antibiotics. But I do admit that in the course of discussion, Hindustan Antibiotics made this proposal."

(b) Synthetic Drugs Plant, Hyderabad

6.6. The Synthetic Drugs Plant has eight principal blocks for the manufacture of different drugs and intermediates both for sale and for use

in its final products. The quantities of various saleable products of this plant were stated to be as follows:

Saleable products	Quantity projected for manufacture (in tonnes)
1. Sodium Sulphacetamide	50
2. Sulphanilamide	50
3. Sulphaguandine	130
4. Sulphadmidine	280
5. Vitamin B1	30
6. Vitamin B2	5
7. Nicotinamide	20
8. Folic Acid	1
9. Phenacetin	100
10. Amidopyrine	40
11. Metamizole	10
12. Diethylcarbamazine Citrate	30
13. Piperazine Adipate	50
14. INH	20
15. Phenobarbitone	10
TOTAL	826

6.7. The Committee were informed that acetazolamide with a capacity of 25 tonnes had been dropped from the product-mix as it had become obsolete and difficulties regarding its marketability were anticipated. The cost of the equipment imported for acetazolamide worked out from the total value/tonnages of imported equipments for the project, was about Rs. 60 lakhs. Asked as to what use was going to be made of that equipment the Committee were informed that chemical equipment never became useless and that it could be utilised for alternative purposes. It has been stated that the equipment was likely to be used for the production of 'PAS'. Demand surveys were in progress.

6.8. IDPL, however, informed the Committee that for certain items production capacities created were in excess of demand. Details of those items were as under:—

Sodium Sulphacetamide

The demand may be for 15 tons as against a production capacity for 50 tons. The drug is used for the control of trachoma but experiments

by WHO and UNICEF, along with an Indian Committee, show that oxytetracycline is a better product for this purpose. Efforts were being made to find out whether the Indian Medical profession will accept sulphacetamide in the form of Pthalbylsulphacetamide for renal and other purposes.

INH & Nicotinamide

IDPL technology is based on Picolines. Small scale sector was allowed import of cyanopyridine from which it was easier and cheaper to make the two drugs. It was understood that, after local production of picolines was begun, cynaopyridine will not be allowed to be imported. IDPL technology will also have to be changed to ensure economies and if this was possible, there was enough market for INH and nicotinamide, the former could also be sold outside India. IDPL had some enquiries in hand. However, as at present, IDPL costs will be very high for competitive sale with INH produced in the small scale sector and outside at international prevailing prices.

Diethyl Carbamazine Citrate & Piperazine Salts

The market research revealed that only partial capacity may be utilised unless campaigns were launched by Government for the eradication of round and threadworms and filaria. Such large capacity was provided, it appears, only on this basis despite somewhat poor imports in the years preceding the one in which decisions were taken by Government for the product-mix of Synthetic Drugs Plant.

Analgin

The competition with Hoechst who sell a proprietory article, having the same generic product, but is called Novalgin will be very stiff. Analgin for Novalgin was imported at much cheaper price and the product has had a long lead in propaganda and promotion.

6.9. Asked what steps had been taken to bring about flexibility in production in Antibiotics Plant and Synthetic Drugs Plant, responsive to changes in demand and towards diversification of production, IDPL has furnished the following information :

> "The plants at Hyderabad and Rishikesh have been mostly erected and are passing through the phase of commissioning, solving teething troubles and attaining installed capacities. It would be some time before any diversification of product-mix would be introduced.
>
> "The equipments available at the Synthetic Drugs Plant, Hyderabad are mostly based on batch processing and consisted of reaction kettles, storage vessels, measuring vessels, pumps, centrifuges

and filters, etc. These are quite flexible and could be used for the manufacture of other products as well at the time of change in product-mix or diversification. Depending upon the necessity of the process, the lay out could be altered and balancing equipments added.

"The Fermentation Block of the Antibiotics Plant is very flexible. Almost all products based on aerobic fermentations could be processed here. The recovery and Purification Block of the plant has been designed to meet the specific requirements of the present product-mix taking the installed capacity into consideration. The IDPL is giving some thought to make this section also flexible to the extent possible."

6.10. It has been further stated that drugs going out of use or losing their market was a common phenomenon in this industry. To keep abreast with this aspect, IDPL had appointed a Medical and a Pharmaceutical Adviser. Based on their advices, consultations with medical profession and its own market research IDPL would consider its future programmes of diversification and/or change in product-mix.

6.11. It has been stated that the Research Laboratory had devoted very little attention to the development of newer drugs in the past. It is a very costly exercise and could be thought of only in future when the plant earns some money. Yet, liaison was maintained with other research institutions in the country with a view to cash on anyone of their discoveries.

6.12. Regarding the Antibiotics Plant it has been stated that diversification of product-mix was more complex due to almost complete patent coverage of any useful antibiotic by other competitors. Discovery of newer antibiotics was a lengthy process. IDPL has some plans but since it was not earning its own funds, it had asked for a grant from Government. On an indication of the views of Government, the question of formulating a programme will be taken up.

6.13. In reply to the Committee's question whether the determination of the product-mix for the Antibiotics Project and Synthetic Drugs Project was preceded by a survey of the demand for the various antibiotics and drugs and the extent of their production in the country, I.D.P.L. stated that the product-mix for the two plants was investigated by the two Russian teams in 1956 and 1958 respectively. It was thoroughly discussed with the Indian counterpart teams consisting of representatives of Ministry of Health, Directorate General of Technical Development, Planning Commission, Finance Ministry and prominent Scientific and research

workers and private pharmaceutical interests. The past imports and production figures were available to the teams as also the future projections based on the plans formulated by the Government of India and the Planning Commission. The Russian team had also visited prominent Indian pharmaceutical centres and had discussions with trade and health authorities in each state.

6.14. Further explaining this point during evidence, the Chairman, I.D.P.L. stated that a statement had been prepared by the D.G.T.D. for the Russians in 1958 and these figures were discussed by the Russians with the Directors of Health Services in different states, the Indian counterpart team representing the Ministry of Health, Directorate General of Technical Development and the administrative Ministry in charge of I.D.P.L. On the basis of those figures and the figures of the Planning Commission, an assessment was made of the imports and the quantity which was being manufactured in the country. Based on that, Government wrote a letter in 1958 to the collaborators asking for a capacity of 30 tonnes of penicillin, 45 tonnes of streptomycin, 50 tonnes of tetracycline and 25 tonnes of new antibiotics. The Russians made a counter suggestion for 60 tonnes of penicillin, 50 tonnes of streptomycin, 50 tonnes of tetracycline and 25 tonnes of new antibiotics. Actually in the final discussions with the Russians, the capacity agreed to was 140 million mega units or 84 tonnes of penicillin, 85 tonnes of streptomycin, 100 tonnes of chlorotetracycline and 25 tonnes of new antibiotics.

6.15. The Chairman, I.D.P.L., informed the Committee that chlorotetracycline for which IDPL had the largest capacity (70 tonnes) was not being used by doctors in this country. He, however, added that the capacity provided for the tetracycline group of drugs, namely 120 tonnes, was out of all proportion to the demand or the likely demand in the next 10 years. The Government of India had wanted only 50 tonnes capacity as at that time tetracycline was used to the extent of 10 tonnes only in the country. The Russians too in their first suggestion had indicated 50 to 60 tonnes capacity, but the final agreement was for 120 tonnes of tetracycline.

6.16. Referring to the estimates of demand the Chairman, I.D.P.L., said that the indications given by the DGTD were only of the order of 40 to 45 tonnes by 1971-72. He added that for production of oxy-tetracycline and tetracycline the processes were such that the equipments were inter-changeable. When it was found that the Indian doctors were not prescribing chlorotetracycline the question was taken up with the Russians, but they did not agree to reduce the capacity. He stated that this position was accepted by Government and the equipment had been imported and put in position. Asked what was the total capital cost for the manufacture of chlorotetracycline, the witness stated that Rs. 1.65 crores was the direct cost in addition to the cost of services. In reply

to a further query it was stated that the plant was erected upto 1967, when further erection was stopped. The Committee enquired as to what use IDPL proposed to put this machinery. The Chairman, IDPL replied that efforts were being made to encourage the use of tetracycline group of antibiotics as animal feed. Discussions had been initiated with the Directors of the Veterinary Services and Animal Husbandry Commissioners of various States and it was found that they were enthusiastic about it. He disclosed that 70 tons of chlorotetracycline could look after 400,000 cattle head and he was optimistic of a fair amount of demand being generated in the country.

6.17. Asked about the basis on which the Russians had estimated the demand for various antibiotics and drugs, the Secretary, Ministry of Petroleum and Chemicals stated during evidence : —

> "These estimates are based on the rule-of-thumb method in regard to an assessment of the basic consumption of penicillin or streptomycin per head of population on the experience in other countries and what is fair and reasonable to assume in India, granted a certain rate of growth of public health services in our country."

The witness added that there had, however, been a certain slowing down of public health services in the country which accounted partly for the demand not being upto expectations.

6.18. The Secretary of the Ministry also informed the Committee that at the time when the experts discussed the capacity for tetracycline, it was expected that it would be a very good supplement as animal feed. The witness agreed that demand for tetracycline as animal feed had to be created and a lot of promotional work was needed. When asked whether it was a good policy to set up a factory and then work for its demand, the Secretary of the Ministry replied that building up of the demand was necessarily a gradual process and most of the chemical plants built up their capacity slowly for operational reasons and for reasons of demand.

6.19. The Committee are unable to understand how the capacity of the tetracycline group of antibiotics was fixed at 120 tonnes when the actual consumption in India at that time was only 10 tonnes. It is surprising that although Government had demanded a capacity of 50 tonnes for tetracycline, the capacity was raised to 120 tonnes in the final discussions.

6.20. The Committee are distressed to learn that although chlorotetracycline had become obsolete and the doctors in India were not prescribing this antibiotic, equipment for manufacturing 70 tonnes of chlorotetracycline was obtained and the erection of the plant was continued till 1967. Efforts

to utilise this antibiotic as an animal feed now appear to be an afterthought and not in consonance with the conditions prevailing in the country. The Committee are not convinced that there will be enough demand in the near future for chlorotetracycline as animal feed. They, therefore, feel that the huge cost in installing the plant for the manufacture of chlorotetracycline could have been saved if Government had been able to persuade the Russian collaborators that there was no demand for this antibiotic in India.

6.21. Since the plant has been erected already, the Committee would suggest that efforts should be made to persuade the medical profession for increased use of chlorotetracycline for human treatment. At the same time a drive should also be undertaken for popularising it as animal feed so as to improve the quality of cattle in the country. The possibility of using the equipment for the manufacture of other drugs should also be explored.

The Committee would also suggest that IDPL should at the same time make every effort to export the surplus quantity of chlorotetracycline to other countries.

(c) Surgical Instruments Plant, Madras.

6.22. The Surgical Instruments Plant is capable of manufacturing different types of instruments required by the surgeons. According to the project report, the plant has a rated capacity of 2.5 million pieces covering a wide range of instruments in the field of General, Gynaecological, Opthalmic, ENT, Dental and Neuro-surgery. It has been stated that new lines were being added to its existing range of instruments. The recent additions were IUCD and Vasectomy instruments for the Family Planning campaign in India.

6.23. According to IDPL, as there was no demand for all the instruments to the extent of quantities for which the plant was designed, 24 lines of instruments were abandoned subsequently, which reduced the capacity to 2.3 million instruments of 142 types.

6.24. With regard to the Surgical Instruments Plant, the Committee noted that no demand survey was made even up to the time the plant went into production in September, 1965. The product mix was determined by the Russians team in consultation with prominent Indian surgeons stationed in Delhi. This was later revised in consultation with an Indian counterpart team on which surgeons were represented. According to present indications, demand did not exist for full capacity for any instrument or group of instruments.

6.25. In reply to a question, IDPL stated that demand arose mostly in the Government sector. It consisted of instruments required for new hospitals, for meeting deficiencies in already established hospitals and/or enlargement of facilities therein and finally for replacement of old instruments. The demand for replacement was very small and enlargement

facilities in the existing hospitals and establishment of new hospitals were not likely to be of the order as to absorb even a fraction of the capacity of the plant.

6.26. Giving the reasons for the surgical instruments not finding market in India and the steps taken to cope with that problem, IDPL had stated that the reasons for poor off-take of instruments of the plant were (i) lack of demand survey before starting production; (ii) acceptance of the Russian patterns and designs by Eminent Surgeons, after dies, etc., had been purchased, which did not carry conviction with the doctors generally and this resistance was found in actual sales when the instruments were stated to be heavy and some had different specifications from what the Indian doctors were used to (iii) much higher prices fixed, based on partial fulfilment of capacity than of corresponding instruments manufactured in the private sector; though the doctors admitted that SIP instruments were of better quality but they were restrained due to tender procedures and limited budgets to go in for cheaper instruments. Since there were no ISI standards for most of the instruments, there were no standards for comparison except the judgement of those purchasing them; (iv) the marketing arrangements of the Company provided for sale through dealers to private doctors and direct to hospitals. The Company had not made adequate arrangements for the latter and dealers did not encounter sufficient demand from the private doctors. Later, when the franchise was enlarged, even then the dealers had not been able to fulfil their guarantees. Indian Drugs & Pharmaceuticals Limited had sold more instruments through its own sales staff than through dealers. The latter always quoted higher prices of the instruments despite reduction in the original prices. Compared to private sector the prices of IDPL were still higher but they were consistent with superiority in quality; (v) the range was comparatively small. The demand was largely for replacements and covered a very much larger range with small off-take of each type. It had been stated that 60—75 per cent of the total instruments at present constituting the product-mix of the plant were not acceptable to surgeons, showing that there was definitely a lack of correspondence between what was decided by the Committee of Surgeons earlier and what was required by the wider circle of the profession now.

6.27. In response to a question it had been stated that IDPL was not aware of the precise reasons for which the Committee of Surgeons accepted the instruments. One of the possible reasons was, perhaps, that the drawings, tools and tackles for manufacturing certain instruments of the Russian specifications had been purchased as a part of the project and the surgeons made such modifications in them as were possible having regard to technological limitations. To a question whether the specifications of the instruments were now being revised, IDPL replied that it was being done and working groups of surgeon specialists in various branches of surgery were working on that project.

6.28. It was further stated that consequent on the actual demand being different from the original expectations, IDPL had stopped the production of those instruments which the various Surgeons Committees had not found acceptable. These instruments were being modified in the light of the recommendations of the Surgeons Committees after determining the demand afresh.

6.29. The Committee were also informed that the National Council of Applied Economic Research carried out a survey of the demand for surgical instruments in April, 1966 and they submitted a report in 1968. But the survey by NCAER did not bring the sales staff of IDPL in touch with surgeons and hospitals. Besides, it left some points uncovered e.g. what was the view of the surgeons consulted on individual instruments which were demonstrated to them by IDPL staff and left with some of them for trial. The procedure for purchases and the calendar of purchases of hospitals were also not clear. As such, another survey of demand for the surgical instruments was made by the Marketing Division of IDPL.

6.30. IDPL stated that the NCAER survey was valuable in that it brought out, for the first time, a fact otherwise clear, that the market for surgical instruments was much less and more diversified than anticipated at the time of discussions leading to the preparation of the detailed project report.

6.31. On the question, as to why there was no demand for the instruments, the Chairman, IDPL informed the Committee during evidence that the instruments which IDPL was being asked to produce were the same which the small scale industries were also making. The quality of the small scale producers was not good but, it could be improved upon. He stated that one of the points made in the Record Note of the discussions between the Indian counterpart team and the U.S.S.R. team held on 16th August, 1958 was that IDPL should not duplicate the production effort of small-scale sector, but it was "observed only in its breach".

6.32. During evidence, the Committee enquired from the representatives of the Ministry whether the Surgical Instruments Plant had been set up with the idea that it would not compete with the private sector and whether that objective had been realised. In reply the Secretary of the Ministry stated that the plant had been able to produce much better quality of instruments, but the major problem was not of competing with the small scale industry or the private sector but that the volume of its products was estimated on a basis which was "quite unrealistic".

6.33. When the Committee pointed out the huge losses suffered by the Surgical Instruments Project and the prospects of demand not arising in the near future, the Chairman, IDPL, said that "the investigation (made prior to the setting up of the plant) and the advice given to Government were

wrong." He added that it was Government's decision that the plant should be purchased. There were six or seven items like syringes, needles, diagnostic instruments in the list of instruments handed over by certain Indian surgeons to the Russians, which were not being manufactured at all. Though these were recommended for manufacture by the Indian side, the Russians did not include them in their detailed project report.

6.34. Asked during evidence as to why Government did not arrange to get a demand survey made before approving the product-mix of the Surgical Instruments Plant, the Secretary of the Ministry replied :—

> "The need for a separate market survey was not at that time recognised. The Russians made certain recommendations. They were discussed by the Indian Counter-part team and there was a consensus that the Russians estimate is a fair and reasonable basis to work on. We now find of course that it is not so."

6.35. The Committee are constrained to note that 60 per cent in 75 per cent of the instruments based on Russian specifications, included in the product-mix of the plant, have not been accepted by the Indian surgeons. They feel that this situation has arisen on account of the fact that the Indian Surgeons' Team which had approved the product-mix of the Surgical Instruments Plant did not properly assess the country's demand and acceptability of the instruments to be produced in the plant. It is also difficult to understand why items like syringes, needles, diagnostic instruments, which were suggested by certain Indian surgeons for manufacture were not included in the product-mix of the plant.

6.37. The statement in Appendix IV gives the details regarding **proper survey was carried out to assess the demand of various antibiotics, drugs and instruments before deciding the product-mix and production capacities of the 3 plants of I.D.P.L. It is needless to emphasise that the economics of any project depend upon a careful and correct estimate of the demand of its products. It is, therefore, regrettable that the product-mix for the three plants was determined in a most unrealistic manner and without taking into account the existing production in the country and the realistic forecast of the demand arising in future. The sad result of this is that, apart from including a number of obsolete items, surplus capacities have been created for most of the antibiotics, synthetic drugs and surgical instruments.**

Formulation Capacity

6.73. The statement in Appendix IV gives the details regarding utilisation of finishing capacity on projected production in both the Antibiotics and Synthetic Drugs Plants.

It is seen from the statement that in the Antibiotics Plant, the operating capacity for vialling during the years 1969-70, 1970-71 and 1971-72 will be 120 million vials while the actual utilisation of capacity during these years will be for 75,90 and 105 million vials respectively. It was further stated that the actual production during these 3 years was anticipated to be 71,95 and 133 tonnes of antibiotics and the quantities to be utilised for vialling will be 51,68 and 80 tonnes respectively. According to these expectations, there will be surplus capacity available for vialling during the first two years *i.e.* 1969-70 and 1970-71. It was on account of the fact that the rate of vialling will be increased steadily over two years from 50 per cent to 100 per cent capacity of the machine. Similarly for capsulation and tabletting also full capacity available will not be utilised in the Antibiotics Plant.

It was further stated that in the Synthetic Drugs Plant, the tabletting capacity was for 5,000 million tablets which after conversion to tonnage came to 1,500 tonnes. Even after converting the full plant production of 800 tonnes of raw materials into formulations, there will be about 50 per cent excess capacity available for tabletting in this plant.

6.38. The Committee feel that the formulation capacity in both the Antibiotics and Synthetic Drugs Plants has not been properly determined. In the Antibiotics Plant according to the information supplied, 105 million vials will be produced during 1971-72, which will consume only 80 tonnes of antibiotics. In addition 35 tonnes will be utilised for capsulation and 3 tonnes for tabletting. The total quantity utilised will thus be 118 tonnes. As against this, the total capacity of the plant is 290 tonnes. That will mean that a large portion of the antibiotics will have to be sold in bulk to other pharmaceuticals concerns for vialling, capsulation and tabletting. In the Synthetic Drugs Plant, the position will be just the reverse and even after tabletting all the drugs into dosage form, there will be 50 per cent excess capacity which will remain unutilised. This imbalance in the production capacity and the formulation capacity in the two plants is a matter of serious concern and this ought to be looked into by Government as to how these capacities were accepted.

6.39. The Committee however suggest that in order to increase the profitability of the plants, the formulation capacity in the Antibiotics Plant should be increased and in the Synthetic Drugs Plant the excess formulation capacity should be utilised by importing some intermediates from abroad for processing and tabletting.

VII

PRODUCTION

(a) Antibiotics Plant, Rishikesh

In the Antibiotics Plant at Rishikesh, there was no production during the years 1965-66 and 1966-67 as the plant was under erection. Production targets were, however, planned for the year 1967-68 in regard to 3 antibiotics and the achievements of the targets was as under:

Production targets and Actuals for 1967-68

Product	Plan for production	Actual production	Reasons for variations	Remarks
	Kgs.	Kgs.		
Potassium benzyl penicillin'G' (Non-sterile)	4134	4044·59	1. Process stabilisation 2. Water and power failures	Plant (Recovery and Purification) commissioned in June 1967. Production planning started from November, 1967.
Streptomycin	3650	*20]	1. Driers commissioned in March, 1968 only. 2. Process stabilisation. 3. Power failures. 4. Difficulties in maintaining sterility. 5. Difficulties in attaining pharmacopoeial quality.	*Under quality control tests
Sodium benzyl penicillin'G'	1200	..	Sodium penicillin facility commissioned only in May, 1968	
Total	8984	4064·59		

7.2. Thus the actual total production in the Antibiotics Plant was less than 50 per cent of the target fixed for 1967-68. For 1968-69 the Company drew up the following production programme:

	Name of Product	Tonnes
1.	Streptomycin Sulphate	44·5
2.	Sodium Salt of Penicillin	17·5
3.	Procaine Salt of Penicillin	22·00
4.	Tetracycline Base	6·5
5.	Tetracycline Hydrochloride	4·3
6.	Nystatin	3·75
7.	Oxytetracycline Hydrochloride	4·30
8.	Chlorotetracycline Hydrochloride	4·3
	Total	107·15

7.3. In reply to a question, as to why the targets of production for 1967-68 could not be achieved in the Antibiotics Plant and whether the production programme fixed for 1968-69 was likely to be achieved, IDPL stated that according to the Russians, it took at least six months to overcome initial teething troubles of equipment and processes in sterile products such as penicillin and streptomycin. It was further stated that it was necessary not only to obtain the chemical product but also clean product free from particles and bacterial and fungal contamination.

7.4. The plant was commissioned for streptomycin and penicillin during the period April to June, 1968. During this period there were frequent power failures on the U.P. Electricity Board system. Therefore, the plant could be said to have started production in the actual sense from the end of June, 1968.

7.5. As regards 1967-68, it had been stated that fermentation facilities were commissioned for penicillin in May 1967 and for streptomycin in October, 1967. This was followed by Recovery and Purification facilities which was 2-3 months after fermentation facilities. However, the production had to be restricted as it was not possible to get saleable products of the correct specification. The sterile Finishing block was not ready until about March, 1967.

7.6. The reglaments (technical instructions) received from the Russian side indicated a period of two years, according to conditions obtaining in Russia, for reaching rated capacity for each antibiotic and a period of 3 years for reaching the full rated capacity for the plant as a whole.

I.D.P.L. further stated that it would not be possible to reach the programme of production for the year 1968-69.

(b) Synthetic Drugs Plant, Hyderabad

7.7. As the plant was under erection, only production of phenacetin was commissioned in December, 1966. In 1966-67, 1960 kgs of phenacetin was produced on trial basis.

During 1967-68, production for 13 drugs/intermediates was planned out of which 10 products were actually produced. The production figures (planned and actual) in respect of the 13 products are shown in Appendix II. It will be seen therefrom that in most of the items, the targets were not achieved.

7.8. The targets of production for 1968-69 for the drugs/intermediates in the Synthetic Drugs Plant were as shown below:—

		Targets for 1968-69
	I. INTERMEDIATES	(Tonnes)
1.	Absolute Ethyl Acetate	1000
2.	Acetyl Acetone	140·8
3.	Aceto Acetic Ester	80·00
4.	Aceto Propyl Alcohol	56·0
5	Diethyl Carbamyl Chloride	14·4
6.	Sodium Bisulphite	480·0
7.	Benzoyl Chloride	21·6
8.	Trichloro Acetone	4·16
9.	P.A. Sulphamide	880·0
10.	Hydrazine Hydrate	51·2
11.	Diethylamine	176·0
	II. COMMERCIAL PRODUCTS	
1.	Phenacetin	80

		Targets for 1968-69
		(Tonnes)
2.	Sulphanilamide	40
3.	Sulphaguanidine	104
4.	Sodium Sulphacyl	40
5.	Sulphadimidine	224
6.	Vitamin B1	24
7.	Vitamin B2	4
8.	Folic Acid	0·8
9.	Pyramidon	32
10.	Novalgin	8
11.	INH	21·6
12.	Nicotinamide	16·0
13.	Piperazine Adipate	40·0
14.	Ditrazine Citrate	24·0
15.	Luminal	8
	Total	666·4

7.9. In reply to a question, I.D.P.L. stated that most of the products in Synthetic Drugs Plant were commissioned in 1968-69 and the targets fixed for that year would not be achieved particularly as inert gas and nitrogen were in short supply due to shortcomings in their designed capacities.

During evidence, the Committee enquired the reasons for actual production being less in 1967-68 and 1968-69 than the targets in the Antibiotics and Synthetic Drugs Plants.

7.10. The Deputy General Manager, Antibiotics Plant stated that there were two factors. One was proving of the technology and the other was proving of the equipment before the plant could go into continuous production. About proving of technology, he drew the attention of the Committee to the fact that a number of modifications were introduced

even before the commissioning of the Antibiotics Plant. As regards equipment, the plant faced the problem of corrosion in the stainless steel equipment. Since the pharmacopeial product had to be free of metallic particles, changes had to be made in the vessels, valves, shafts etc. In the functioning of the equipment also, some difficulties were encountered and buffers and grandpackings had to be changed.

7.11. He added that another reason for shortfall in the anticipated production was that the collaborators had not taken into account the local conditions such as local atmospheric condition of dust, moisture etc. Provision had to be made for extra valves to remove the dust and measures had to be taken for removing the humidity in the air-conditioning equipment.

7.12. The witness further stated that, in addition to the above, the plant experienced considerable difficulty on account of power failures. If power failure took place continuously for 2 months, nothing could be done because each power failure meant another cycle of 11 to 12 days before starting production afresh. The fermentation process was a continuous process and could not tolerate even one minute's power failure. Asked whether IDPL could put up its own plant for ensuring regular supply of power, the Chairman IDPL replied that the requirement of power of the plant was 22 megawatts but the reserve required for emergencies would be 6-8 MW station and it would be costly to put it up. Asked what would be the cost of such a power station, the witness said that it would be Rs. 1½-2 crores. He added that the standing power plant could not solve the problem because, according to the Russians, such an arrangement would need radial changes in the electrical system whose cost would be very high. He informed the Committee that the management intended to pass on that problem to the Engineers India and the CWPC, if they could give a scheme to disassociate the load and thus overcome the problem of power breakdowns. It was further explained that the matter had been taken up with the UP State Electricity Board and as a result there had been no power failure between May and July, 1968. There was also a proposal to have automatic change over in the sub-station when the entire Grid system was set up so that there would be uninterrupted supply from the second Grid in case the first one failed. Despite all these, it could not be stated that there would be no power failure at all, because the power failures were not always due to shortcomings in the system but due to human shortcomings.

7.13. About the delay in commencement of production, it was stated that the trouble was that the Russians had not indicated the commissioning period in the detailed project reports. Had they done it, nobody would have objected to what was being done today. He stated that such plants usually produced below rated capacity during the first 18 months of production. In the Antibiotic Plant, the recovery was 56 per cent as against

the norm of 85 to 90. Asked whether rated capacity would be achieved, the Chairman IDPL said that as against a capacity of 185 tonnes for sodium penicillin, procaine penicillin and streptomycin, the Russians' estimates was that 108 tonnes could be achieved by 1970-71. But the estimate of the IDPL technologists was that it would be possible to produce only 80 tonnes. He added that the Russians were giving certain further equipment for strengthening the capacity of certain antibiotics. The Committee were also informed that for reaching break even point, a production of 125 tonnes of mixed antibiotics would be necessary which was expected to be achieved in 1971-72 only.

7.14. The Committee enquired about the guarantee for production and were informed that the collaborators had agreed to replace machinery but that there was no guarantee for loss of production. Asked as to what percentage of machinery was under doubt or was being tested with regard to quality, the Chairman, IDPL stated that it would be a maximum of five per cent. But, he added, the percentage was not important. A large number of pipelines may be alright, but if one reactor vessel was bad, then the product was defective. According to the Chairman IDPL, the Russians were cooperating in getting over the difficulties but since the time they were made aware of the possible responsibility for the loss of production, they were becoming reticent. He was, therefore, of the view that a working arrangement, would have to be made so that both parties cooperated in improving the plant. In the opinion of the Russion Chief Technologist in the Antibiotics Plant, the plant would be a success by 1971 but the Chairman, IDPL felt that it would have to be confirmed by the higher authorities in the U.S.S.R.

7.15. The Committee enquired about the steps taken to overcome the difficulties experienced in the production processes of synethetic drugs. The Chairman, IDPL stated that in the manufacture of vitamin B1, production process had to be changed because, in the final stage, the quality or quantity could not be achieved. As a result of the change effected by IDPL in the production process, a saving of Rs. 60 per kg. in the cost of raw material had been made possible. In the case of vitamin B2, the final product did not conform to Indian pharmacopoeia regarding PH (acidity). It took IDPL 2 months to develop the process to meet the pharmacopoeial requirements. In the case of folic acid, development of process was similarly required and it took about six months' time to complete the development work.

7.16. The Chairman IDPL also informed the Committee that as far as sulphanomides production was concerned the processes were alright, but with regard to vitamins, judging from the cost that IDPL was incurring and the yields that it was getting, the processes were not good. The same was the case with the folic acid also. The process for analgin was under

test and it was not possible to give a final opinion as yet. He added that even in the case of those drugs in respect of which the processes were good, they were capable of being improved further as organic chemistry was constantly being improved.

7.17. In reply to a question during evidence, the Secretary of the Ministry stated that Hindustan Antibiotics Ltd., had been able to improve its technology and get better working results over a period of time and he hoped that the Rishikesh plant would also be able to do the same. He further stated that there was a tremendous development in the antibiotics industry. He recalled that the Hindustan Antibiotics Ltd. started with a capacity of 9·5 million megaunits per annum initially and was producing over 70 to 75 million megaunits at present. This had been possible not only by expanding the equipment and facilities, but had been achieved to a great extent by improvement in technology and continuous research. The Committee enquired why the research effort should be duplicated at Rishikesh and why the Pimpri process and the research conducted there could not be utilised in the Rishikesh plant also. The Secretary of the Ministry stated that the Rishikesh Plant was still in the process of being proved and it had necessarily to go ahead with the Russian technology on which it was based. Secondly it was just not possible to transplant what had been done at the Pimpri plant in Rishikesh. It required adaptation, research and devlopmental work which would have to be done in each plant.

7.18. The Committee regret to note that the targets of production for the Antibiotic and Synthetic Drugs Plants could not be achieved in 1967-68, due to various reasons explained by the Management. One of the reasons for shortfall in production in the Rishikesh Plant was that the collaborators had not taken into account the local atmospheric conditions while designing the plant. The Committee are surprised at the omission of this important factor and hope that the remedial measures now taken by IDPL will ensure achievements of targets in future.

7.19. Another reason for shortfall in production was occurrence of corrosion in some stainless steel equipment besides a small percentage of machinery being "under doubt". The Committee hope that early replacements of machinery which are not of standard would be obtained free of cost.

Now that the projects have been put up at huge cost and the basic technology cannot be changed, every effort needs to be made to make the best use of the present equipment.

7.20. The Committee were constrained to note that there had been considerable loss of production on account of power failures. The entire

question of power supply to the Antibiotics Plant needs thorough examination. If it is not considered worthwhile to have separate power station to cater to its needs, other alternative measures ought to be adopted so as to ensure constant power supply to it.

7.21. The Committee appreciate the efforts that are being made to improve the technology and reach better production rates in these two plants. They hope efforts would be kept up to achieve improved results.

(c) Surgical Instruments Plant, Madras

7.22. The plant was commissioned in September, 1965. The figures relating to planned and actual production during the years 1965-66, 1966-67 and 1967-68 are given in Appendix III.

7.23. In reply to a question as to why the production targets and the actual production of surgical instruments during the years 1965-66, 1966-67 and 1967-68 were below the capacity of the plant, I.D.P.L. stated that the main reason was lack of demand for the instruments. The production in 1965-66 and 1966-67 was on the basis of the targets given in the detailed project report while the targets for 1967-68 and 1968-69 were on the basis of the orders in hand.

7.24. Asked as to why production of instruments was allowed to proceed during 1966-67 according to the targets based on the DPR when the Company knew in 1965-66 that there was no demand for the instruments, IDPL stated that the main reasons for proceeding with the production in 1966-67 as originally envisaged was training of the workers in the Grinding and Assembly shops in the technology and manufacture of instruments included in the product-mix. According to the Russians, a period of about 18 months was required to train the workers for mastering skill and attaining the productivity required to reach the rated capacity.

7.25. It was further stated that the instruments in part stages of manufacture could be left half-finished on the shop floor only at the risk of further spoilation due to corrosion and bad handling. It was advantageous to finish them and store them properly in the finished stores section. No definite idea regarding the pattern of demand emerged until the NCAER survey was completed.

7.26. In reply to another question, whether any instruments which had been produced and not sold in 1965-66, were also produced in 1966-67,

IDPL furnished the following information:—

Drawing No.	Production 1965-66	Stock 31-3-66	Production 1966-67	Stock 31-3-67
01-02	919	890	4661	5344
01-06	690	666	3076	3638
02-06	3674	3658	18207	21723
04-04	49	43	6095	5589
04-05	1010	1003	1629	2094
05-01	543	542	3484	3645
06-04	66	65	19666	17466
10-01	3060	3047	364	3340
10-04	2332	2320	6	2261
11-05	568	545	3270	3749
11-06	624	612	546	1085
12-01	1525	1494	4	1423
12-02	1068	1037	66	1023
12-03	716	701	1178	1782
16-07	3210	3196	6962	9983

7.27. It was stated that although the shops were commissioned in September, 1965 the recruitment of workers for the operations in the Grinding and Assembly shops continued till the end of 1966. These workers had to be trained on the shop floor in the technology of different types of instruments. Even though the market off-take was not satisfactory till the end of 1966, the training of workers could not be stopped as proficiency in the manufacture of various types of instruments had to be attained.

As such, though the quantities were restricted in view of poor off-take, production had to be continued for the training of workers. Instruments shown against Drg. No. 04-04 and 04-05 were required for the Family Planning campaigns for which orders were obtained in 1968.

7.28. In regard to production target for 1968-69, IDPL had stated that the orders in hand and likely to be obtained indicated that about 180-200 thousand instruments might be manufactured, the approximate value of which would be Rs. 20-25 lakhs. The plant would be largely producing family planning instruments except when definite orders were available or were likely to be available on a continuing assessment of demand. It was not the intention to produce to stock except against projected orders of Family Planning instruments.

7.29. The Company had further stated that it was not possible for demand to be generated until heavy expenditure was earmarked for health facilities by the Central and State Governments.

7.30. The total loss estimated by IDPL for the year 1968-69 in Surgical Instruments Plant was likely to be Rs. 93 lakhs including interest (Rs. 37 lakhs) and depreciation (Rs. 11 lakhs). At the present level of production and expenditure, the loss was likely to be in the region of Rs. 80-90 lakhs per annum.

7.31. In reply to a question, it had been further stated that there were no special machines which would remain unutilised on account of the 24 types of instruments having been dropped from the production programme. Different designs of instruments could be made with the available plant facilities. But to the extent that the market for surgical instruments was restricted through lack of demand, overall utilisation of the equipment would be low and consequently some of the duplicate machinery meant for bulk production would be surplus. The cost of such surplus machinery was estimated at Rs. 30 lakhs.

7.32. The Committee are distressed to note that the production of even those instruments was allowed to continue during the year 1966-67 for which there was no demand and which were already lying in stock. In the case of one instrument (Drawing No. 06-04) 19,666 pieces of it were produced during 1966-67 although out of 66 pieces manufactured in 1965-66 only one was sold. Such an instance only indicates that the Management decided production programme without taking into account the existing stocks and the likely future demand.

The Committee can only express surprise at the unbusiness like action of I.D.P.L.

7.33. It is a matter of concern that the plant will be incurring a loss of Rs. 80-90 lakhs per annum at the present level of production. The Committee would like Government to give a serious thought to this question and see whether the surplus machinery can be put to any other use

and thereby mitigate the losses. From the information placed before the Committee, they do not see any future for the Surgical Instruments Plant, unless the product mix was changed after ascertaining the market demand and overheads were drastically reduced.

VIII

COST OF PRODUCTION

(a) Antibiotics Plant, Rishikesh

IDPL have estimated that the cost of production of 290 tonnes of antibiotics (in bulk and formulations) will be Rs. 18.36 crores on the basis of 100 per cent utilisation of capacity.

8.2. In reply to a question whether the production processes suggested by the collaborators would ensure minimum cost of production, IDPL stated that the estimated cost of production of antibiotics proposed to be manufactured at the plant would be less than the maximum prevailing prices for those products in the country.

8.3. In reply to another question, whether at the present selling price, it would be possible to cover the cost of production and earn reasonable return on investment, it was stated that in case norms of usages and yields of the project report (and of reglaments) were realised substantially, it would be possible to break even at 45 per cent of the production capacity.

(b) Synthetic Drugs Plant, Hyderabad

8.4. Against the production capacity of 826 tonnes of various saleable products in the Synthetic Drugs Plant, the rated capacity was estimated to increase up to 942 tonnes. This upward revision was stated to be based on the working of the plant for 330 days instead of 300 days as estimated in the DPR and the interchange of the capacities of analgin and amidopyrine.

8.5. According to IDPL the estimated cost of production of 940 tonnes of drugs (including the cost of formulations to be made from 402.95 tonnes of bulk drugs) was Rs. 11.53 crores.

8.6. In reply to a question, whether the I.D.P.L. was satisfied with the production processes suggested by the collaborators and whether those processes would ensure minimum cost of production, it was stated that it would not be possible to realise costs of production within the landed prices of similar imported drugs. The former would be sufficiently higher, particularly of vitamins, analgin, INH, nicotinamide and some of the intermediates which would ultimately raise the cost of final products.

(c) Surgical Instruments Plant, Madras

8.7. The estimated cost of production for 2.5 million pieces at full utilisation of capacity was estimated by IDPL at Rs. 2.02 crores.

8.8. In reply to a question as to how the unit cost of production of the instruments with 100 per cent utilisation of capacity compared with the unit cost of production of other manufacturers in India and abroad, the Company stated as under:

> "The comparison depends on the specifications. Our costs are lower than West European and North American countries but are higher than Pakistan as our quality is better. As regards other producers in India, there is no comparative basis due to the fact that there are definite differences in quality. However, in some cases, the costs of indigenous producers are higher than ours but generally they are lower because of lack of standardisation and, therefore, absence of a reference point for comparison."

8.9. Giving the reasons for high cost of production of the instruments, IDPL stated that it was on account of the fact that the fixed charges were disproportionately high because of the utilisation only of a fraction of the capacity. Moreover the auxiliary facilities were more than needed. Some increase in costs was due to rework and rejections which were an index of lack of experience of workmanship of operators. Those were high in the beginning and had progressively gone down due to intensive training and experience arising from flux of time. There was considerable room still for improvement.

8.10. It was also admitted that the instruments could not fetch prices so as to cover the cost of production and during 1967-68 the plant incurred a loss of Rs. 40.61 lakhs exclusive of depreciation and interest (Rs. 44.98).

8.11. In reply to a question, the Ministry had stated that the cost of production of the surgical instruments was not estimated at any time before the setting up of the project with a view to see whether it would be possible to sell them without incurring losses. It was further stated that the programme of production was drawn up and decided on the basis of the advice tendered by eminent Indian surgeons and a rough and ready assessment of the likely demand. The economic viability was calculated on a rough basis on the assumption that all the products of the unit at full production level could be sold not below the estimated cost of production.

8.12. At the instance of the Committee IDPL furnished information in regard to the unit cost of production when hundred per cent capacity would be utilised and the unit cost of production at the present rate of utilisation of production capacity in regard to the three plants. It is observed therefrom that the cost of production of some of the items in the Antibiotics Plant was more than double the cost estimated at hundred per cent utilisation of capacity. Whereas, in the Synthetic Drugs Plant, the cost of production at the present capacity, of some of the items, was 20 to 25 per cent more than the production at the full rated capacity. In the Surgical Instruments Plant also, cost of some of the items had gone very high. In the case of two items even the cost had gone up from Rs. 32.56 to Rs. 181.68 and from Rs. 65.15 to Rs. 299.03.

8.13. During evidence, the Chairman, I.D.P.L. informed the Committee that when the 1958 feasibility report was submitted by the Russians, they stated very clearly the objective of the plant that was being set up. They did not say that the plant would make profit. They merely stated that in working out these recommendations for the development of the Indian medical industry, they had borne in mind the objective of freeing the country from the import of these drugs, utilisation of indigenous resources and the most rational way of utilising the Soviet credit. In their conception the gain was not for the plant, but to the economy of the country in the shape of saving in foreign exchange. He added that the Synthetic Drugs Plant, Hyderabad, alone would be able to save Rs. 1.2 crores of foreign exchange. The Russians had also made a forecast of the prices which the antibiotics would be able to fetch and according to that calculation chlorotetracycline was likely to fetch the maximum profit. This was the reason for their suggestion for a high capacity of chlorotetracycline.

8.14. Explaining the reasons for increase in the cost of production, the witness stated that the prices of raw material had definitely gone up though the usages which the collaborators had in view were the same. Regarding wages, the plant had actually put lesser personnel than had been estimated by the collaborators. The expenditure on fuel and electricity had gone up from Rs. 33 lakhs to Rs. 81 lakhs. In the case of depreciation, the collaborators had taken a very low figure and in the opinion of the Chairman, IDPL, that was due to the fact that the collaborators thought that the cost of plant would be very small. Actually the capital cost had gone up many times over.

8.15. The Chairman, IDPL, referred to the under-estimate of cost of production in respect of streptomycin. The Kane Committee which went to the USSR had estimated that the cost of production according to the Russian methods would be Rs. 450 per kg., but the Russians in their report of 1958 showed that the price would be Rs. 157 per kg. Later

on in 1961 they submitted another estimate in which they showed it as Rs. 67 per kg. The actual cost of streptomycin was, however, going to be Rs. 367 per kg.

8.16. The Chairman, IDPL, informed the Committee that till 1967 there were no cost sheets for individual products, but only bulk costs had been worked out for the whole plant. In this connection, he further informed the Committee that the cost of production as estimated by the Russians was never accepted by the IDPL and the then management had written to Government to this effect. Government had recorded in a letter that there were divergence between the estimates of cost of construction as given by the Soviet experts and as drawn up by IDPL and directed that though steps might be taken towards implementation of the projects, the estimates prepared by IDPL required further detailed scrutiny.

8.17. During evidence, when the Committee enquired about the cost of production of antibiotics in the Rishikesh plant and how they compared in cost with other plants, particularly, Hindustan Antibiotics Ltd. Pimpri, the Chairman, IDPL replied that the difference was not great, but the selling prices were very much higher. He further stated that they had not written to Government about it but they had definitely approached the Hindustan Antibiotics Ltd., and tried to get the cost from private undertakings also. In the case of private undertakings there was a flat refusal. Hindustan Antibiotics Ltd. was not parting with that information although their Managing Director was on the board of Directors of IDPL. The witness added that IDPL did not have information about the cost of production of the competitors but the prices charged by them were known from their catalogues.

8.18 While examining the Ministry of Petroleum and Chemicals, when the Committee enquired whether it was true that IDPL was not getting information regarding the cost of production in Hindustan Antibiotics Ltd., Pimpri the Secretary of the Ministry stated that there ought not be any difficulty, because the Managing Director of H.A.L. was a member of the Board of IDPL. He added that there was also a Coordination Committee but admitted that it had not so far functioned efficiently.

8.19. Regarding the cost of production of comparable items in the Hindustan Antibiotics Ltd., Pimpri, and in IDPL, the Secretary of the Ministry stated that the cost of streptomycin at HAL was Rs. 352 per kg. and the estimated cost of production in IDPL project would be Rs. 376 at full utilisation of capacity. As regards actual cost of production at present, he stated that it would not be comparable because the plant was still in the stage of initial production. The cost of penicillin 'G' was 34 paise per megaunit in the Pimpri unit and the cost in the Rishikesh Plant came to 50 paise.

8.20. In reply to a query it was stated that there existed a system in the Ministry under which monthly and quarterly returns from all the projects were received and studied by the Ministry as well as the Ministry of Finance and the Bureau of Public Enterprises.

During the evidence, the Committee pointed out that all the synthetic drugs proposed to be manufactured at the Hyderabad plant were likely to be produced at a loss and asked whether their production was undertaken with full knowledge of this fact. The Chairman, IDPL, replied that from the report which was given by the Russians it was not known to IDPL or the Cabinet that the synthetic drugs plant would produce at a loss. He stated that two difficulties had arisen. Firstly, the Russians had tremendously under-estimated the cost of production. Secondly, the question of prices was involved. The import prices were also very high at that time though they had been steadily going down since then. At the present moment, he said that it was not possible to produce the drugs at the CIF price. He referred to the fact that many of the private sector companies in India were junior partners of drug companies in other countries. They imported drugs at a low price, formulated them here and sold the formulated product at 5-6 times the original price. Half of the profit they got was remitted to the parent country.

8.21. In the case of Synthetic Drugs Plant, it was stated that sulphanamide formed 500 tonnes out of the total production of 890 tonnes. The landed cost of sulphanamide had gone very low and this affected the profitability of the plant greatly. Regarding vitamins, earlier expectation was that vitamin B1 would be produced at Rs. 105 per Kg. whereas the actual cost was likely to be Rs. 600 after improvements made by the plant laboratories were incorporated. The Chairman, IDPL, informed the Committee that even the Russian technologists very clearly stated that they could not get it even in Russia for Rs. 100 and in their own plant in Russia it was costing 100 Roubles, which came to Rs. 750.

8.22. The Chairman, IDPL, stated that the Kane Committee "definitely stated that we should not go to the Russians for Vitamins". He added that IDPL had found that the processes of the Russians for vitamins B1 and B2 were very much outmoded. At the time the Russians agreed to do the project report, they had an experimental plant for manufacture of vitamin B1 according to the report of the Kane Committee and they later manufactured plants for larger capacities. In view of this fact the cost of production of vitamins in the Synthetic Drugs project would not be comparable to the international prices. He added that this was a challenging job and technical staff of IDPL was doing everything possible, but it would take some time. The witness further stated that the raw material cost of vitamin B1, according to the Russians, was about Rs. 360 which was three times the cost of manufacture in any other country. The depreciation cost of this plant was about Rs. 150 and on these two, IDPL had

no control. The Committee were also informed that no other firm in India was manufacturing these vitamins. The only comparison available was, therefore, the CIF price, but the CIF price was unrealistic. In the case of folic acid also, the fixed cost *i.e.*, depreciation and interest was Rs. 1,250 per kg., whereas the world price was Rs. 200 per kg.

8.23. The Committee were also informed that IDPL wanted to formulate the entire sulpha group of drugs, but so long as the imports of these drugs continued IDPL's formulations would not attract the market unless their costs were averaged with the CIF prices. He added that IDPL had approached Government to ban the import of sulphanamides and sulphaguanidine and they had been told that they had been placed on the restricted or ban list, but imports continued on old licences. On the question of formulations, the witness stated that IDPL would not suffer a loss in the case of formulations which were not mere tabletting, but were of a sophisticated nature. It was added that the IDPL had a plan to have a formulation section as a separate division of the Company. It should buy bulk drugs, formulate and sell them and its profit and loss should be assessed separately. But the implementation of the scheme needed a little bit more money.

8.24. The Chairman, IDPL, further stated that the higher price of the bulk products could be partly compensated by lowering the price of formulations. This was possible because the drug component of a formulation constituted only about 15 to 20 per cent of the price of the formulation. Illustrating this the representative of IDPL said that Rs. 500 was the bulk price of billion units of penicillin, but when it was converted into vials, it fetched a price of Rs. 1,200.

8.25. On the question of high cost of production of medicines, the Secretary of the Ministry stated that the objective of reducing cost of medicines to consumers was not likely to be realised. The Committee pointed out that IDPL had suggested that duty should be raised on imported products so that landed cost came equal to their cost of production within the country and secondly, that IDPL should also be permitted to trade in certain items so that it could import and make a margin of profit in formulation. The Secretary of the Ministry stated that this would require a detailed examination. He felt that perhaps IDPL had not presented the situation to Government in that manner. IDPL had only informed Government that its costs were high. In this connection he added that landed cost would not give a correct picture. Commercial price and cost to the consumer were better guides than the cost at which it was possible to import. As regards banning the import of drugs which were being produced by IDPL, he informed the Committee that IDPL should reach a stage of established production.

Government had to judge it and there were cases where import of certain products had actually been banned and some more had been placed in the partially restricted list.

8.26. As regards the Surgical Instruments Plant, the Committee were informed that the direct cost of production of surgical instruments in IDPL plant was not high, but if the depreciation and interest and overheads on small production were added, then it would be high. To allocate the depreciation and interest for 2½ million instruments on a small number of instruments actually produced would not present a good picture.

8.27. The Committee are sorry to observe that the cost of production of the various items to be manufactured in the three plants at full rated capacity was not estimated accurately. Even when Government came to know about the divergence between the views of the Russian experts and IDPL about the estimates of cost of production, no concrete action was taken to ascertain the truth. Government merely observed that the estimates prepared by IDPL required further detailed scrutiny. The Committee, to take one case only, are unable to understand as to how the cost of production for streptomycin estimated by the collaborators at Rs. 157 per kg. in 1958 and Rs. 67 per kg. in 1961 was accepted when the Kane Committee in its Report in 1956 had estimated the cost of production of this item, according to the Russian methods, at Rs. 450 per kg.

8.28. An accurate estimate of the cost of production is the very basis of the economics of any project and the Committee cannot help express their regret that no serious thought was given to this important aspect by Government.

At this stage the Committee can only stress upon the Management of IDPL and Government to review the cost of production of the various items presently being produced by the three plants, and take immediate steps to bring down their cost of production to a competitive level.

8.29. The Committee are also unhappy to learn that it had not been possible for IDPL to get the cost of production of comparable items from the Hindustan Antibiotics Ltd., Pimpri even when they have one common Director. They can only assume from this, that no serious efforts were made to compare the cost of production of similar items produced by the other public sector company under the same Ministry. It is obvious that the coordination Committee also has not been functioning effectively. But the Committee have not been given to understand its causes particularly when the Chairman, IDPL, is at the same time Chairman of the Co-ordination Committee and there could be no hurdle in its effective functioning. They feel that it should be the responsibility of the

Ministry to ensure that there is no difficulty in exchanging useful information between various public undertakings in the same field of production for their mutual benefit.

8.30. **The Committee would also like government to consider the suggestion of IDPL to import certain items, against part of its exports, for formulation and sale at profit so as to reduce some of its loss.**

IX

SALES AND MARKETING

The sales performance of the three plants of I.D.P.L. from their inception to 31st December, 1968 was as indicated below:—

Sales Performance

(In lakhs of Rupees)

Plant	Total upto 31-3-68	1968-69 (April Dec., 1968)	Orders in hand as on 31-12-68	Total (1968-69) upto 31-12-68
Synthetic Drugs Plant	..	44·22	38·03	82·25
Antibiotics Plant	..	5·03	44·82	49·85
Surgical Instruments Plant . . .	10·97	11·77	15·19	26·96
TOTAL	10·97	61·02	98·04	159·06

N.B.—Orders worth Rs. 17·19 lakhs are forward orders for bulk products, out of which orders worth Rs. 5·68 lakhs are to be executed in March, 1969.

9.2. I.D.P.L. has informed the Committee that the sale price of all the products of the Antibiotics Plant which is fixed by them, was likely to be more than the cost of production except in the case of streptomycin where the cost of production would be marginally higher than its sale price. This was stated to be on the assumption that reglament yields would be obtained at break even capacities which would vary from 30—50% of the rated capacities provided costs of materials remained constant.

9.3. IDPL allowed to Government institutions 15% discount on narrow spectrum antibiotics namely penicillin, streptomycin, combination of penicillin and streptomycin and 28% on tetracyclines. This practice was being followed on the lines of Hindustan Antibiotics Ltd. which allowed such discounts to Government parties. The dealers were proposed to be given a discount of 7½%.

9.4. It was further stated that the Russians had estimated an annual profit of Rs. 13.5 crores on chlorotetracycline, Rs. 1.88 crores on Pencillia

and streptomycin on the basis of then prevailing import prices of these items. But according to the present estimated cost of the products at full rated capacity, the profits were likely to be reduced, by 50%, if the entire quantity was produced and sold at the present list price.

9.5. During evidence, when the Committee enquired if IDPL had made any efforts to sell antibiotics at reduced prices, the Chairman, IDPL stated that they were selling a few things at reduced prices, such as sodium penicillin. He, however, admitted that this pricing was based not on present cost, but on ultimate cost.

(b) Synthetic Drugs Plant, Hyderabad

9.6. It was stated that the prices of drugs and pharmaceuticals were controlled under the Drug Prices (Display and Control) Order, 1966. They were fixed by the Government of India on an application made by I.D.P.L. The prices of drugs sold in bulk, were also likewise fixed by the Government of India.

9.7. The prices of many products of the plant had been fixed by Government, but IDPL was finding resistance in the market to the sale of the products even at the prices sanctioned by Government. It was further stated that there was considerable import of the products manufactured by IDPL and the market was fairly well stocked, as was evident from the following estimated figures of imports in the year 1967-68 and the few months of 1968-69 :

(Figures in tonnes)

	1967-68	1968-69 (April & May)
Phenacetin	350	31
Sulphanilamide	155	15
Sulphaguanidine	201	29
Sulphadimidine	152	12

IDPL had therefore, to reduce even the sanctioned prices to lower levels to avoid build up of inventory of finished goods. It had also purposely to withhhold sale of sulpha products for three-four months to enable the market to receive IDPL products at a reasonable price.

9.8. In regard to the C.I.F. prices it was pointed out by IDPL that these prices were very low and they did not bear any relation to the cost of production in the country of origin. In same cases, the C.I.F. prices of

furnished finished products were lower than even the prices of intermediates. According to IDPL it showed "that a certain pattern prevails regarding international trade in drugs to prevent the development of indigenous industry and to ridicule it before the consuming public for high costs by insisting on comparison of their costs with C.I.F. prices."

9.9. The C.I.F. prices and the whole-sale prices as approved by Government in respect of certain bulk drugs were as under :—

Item	Unit	CIF prices per kg.	Wholesale price approved by Govt.
		Rs.	Rs.
1. Phenacetin .	Kg.	10-16	27·00
2. Sulphanilamide	,,	9-11	27·00
3. Sodium Sulphacetamide .	,,	25-32	58·00
4. Amidopyrine . . .	,,	30-36	134·00

IDPL had brought this fact to the notice of the Tariff Commission and had also suggested to Government "that a part of the quota of import should be compulsorily lifted from IDPL, and CIF and internal prices averaged out. Internal prices should bear adequate relationship to costs of production based on a reasonable exploitation of installed capacity and a challenge of efficiency in respect of other inputs, their usages and yields of processes."

9.10. Asked at what stage of utilization of production capacity in respect of each drug would it be possible to break even, IDPL stated that by selling 3 drugs in formulations, namely, ditrazine citrate, piperazine adipate and analgin, the Synthetic Drugs Plant would recover costs of production estimated for rated capacity but not the present costs at much lower volume of production. They further stated that the demand in the country for ditrazine citrate and piperazine adipate was below their rated capacity. For analgin it was stated that it could be sold at profit on a continuing basis but would require a very large effort at sales promotion against long entrenched rivals like navalgin. Excepting these, all other products would sell at a loss. It was added that as the demand for these 3 drugs upto their rated capacity was a doubtful proposition, in effect, all the drugs produced at the Synthetic Drugs Plant were likely to be sold at a loss.

9.11. In reply to a question regarding sale in bulk and formulations, IDPL have stated as follows:

"In a market in which imports continue, formulations offer greater promise of brighter economics in cases in which the difference between C.I.F. price and formulations costs is high. IDPL's policy is to exploit this market fully. As regards others, it is not possible to indicate the exact proportion for sale of different drugs in bulk and in formulation. The actual ratio would be determined by pattern of demand, the extent of imports, the nature of market and the economics of sale in bulk or formulations."

(c) Surgical Instruments Plant, Madras

9.12. The prices of the surgical instruments were based on estimates of full utilisation of capacity and market competition. As these were much lower than the cost of production, they resulted in loss to the company to the extent of Rs. 60 lakhs. This loss, therefore, would have to be distributed proportionately on all the instruments manufactured and prices would have to be raised. On the average, the loss worked out at Rs. 40/- per piece (before depreciation and interest) and Rs. 72/- per piece after depreciation and interest.

9.13. The original prices of surgical instruments were fixed in 1965. They were based on the U.K. prices of Down Bros. a well known surgical instruments manufacturer and Ash for dental instruments. For surgical instruments the prices were fixed at 50% of Down Bros. prices while full prices of Ash were adopted for dental instruments.

The selling prices of instruments not so far produced indigenously were fixed in relation to landed cost, where available, and for those available indigenously in relation to prices prevailing in the market with a suitable margin for difference in the quality of the products.

9.14. The prices thus worked out were increased by suitable percentages to cover freight, insurance and commission on sales. The expectation was that, on the above basis, IDPL would be able to recover all production expenses including depreciation at the production rate of 9·5 lakhs instruments a year.

However, at these prices, the instruments met with very great market resistance as cheaper substitutes, though not so good in quality, had found their way in the market in good numbers. The pricing was therefore reviewed in 1967 and the following principles were accepted by the Board of Directors:

"(i) the quality extra should be appropriately charged in cases in which the products of Surgical Instruments Plant were markedly superior to the products available in the market.

(ii) The prices for the products, in which the quality available in the market was good should be at or near the market prices having regard to the cost at rated capacity.

(iii) As regards the products which were peculiarly manufactured in the Surgical Instruments Plant and were not available in the market, the charges should be according to what the market would bear; but as far as practicable, the accounting cost should be recovered."

9.15. The prices of instruments were refixed on the basis of differential prices for quantities less than 5, between 5-25 and over 25 to attract customers for larger off-take.

It was not considered desirable to change the basic prices already fixed as it was felt that this might be taken to mean as a reduction in the quality also; instead of this the same effect was to be achieved through the bulk discounts. The prices were also quoted as "gross" exclusive of discounts.

These prices were reviewed again after a period of six months and it was decided to adopt only one price namely that for the prices fixed for offtake of 25 and over items.

9.16. As regards discounts, it was stated that the Board of Directors had agreed to the following scheme of trade discounts:—

Government Institutions/Hospitals	10%
Teachhing Institutions	15%
Medical Store depots	17½%
To dealers (on sales made to private parties)	10%
To dealers (on sales effected, to Government parties with their efforts)	5%
	Over-riding commission

9.17. The Ministry of Petroleum and Chemicals have informed the Committee that they had requested the Ministry of Health, Ministry of Defence and State Governments to purchase their requirements of surgical instruments from IDPL factory. IDPL also was approaching State Governments and hospitals direct in this regard.

9.18. The Chairman, IDPL, informed the Committee, during evidence that the surgical instruments had better acceptance outside than within the country. Though only small orders had been received so far, they were indicative that more orders might be available. However, the plant could not be economic unless it sold all the 2½ million instruments for which it was designed. He said there was a mistake in surveying the market and

that the maximum that could be sold was not more than Rs. 50 to 60 lakhs worth of instruments. He added that the product mix of a certain kind which would fetch a higher price but whose work-content would be low would have to be determined.

9.19. Asked whether IDPL had produced any instruments which were lying unsold in the godowns, the Chairman, IDPL, stated that only in 1967 when there were no orders, it was decided to produce 1,500 instruments to keep the workmen busy until orders for Family Planning instruments were received. Asked as to how this was justified, the witness stated that it was not known at that time that they would be totally unsaleable. Referring to the stock of unsold instruments, he stated that half the stock was saleable, but the other half was not acceptable to doctors because they were based on the Russian specifications. He added that IDPL was negotiating with the Russians for the sale of these instruments and that was the only way to dispose of those instruments.

9.20. The Committee are happy that IDPL has placed all the facts frankly before them. As is apparent from what has been stated in the foregoing paragraphs there are no immediate prospects of IDPL's going into full production owing to high cost of production and low offtake. The Committee feel that when the three plants of IDPL had been set up with the Russian collaboration for reasons other than technical it is the duty of Government to see that the products of these plants find a market in the country.

For a permanent solution of the problem Government should examine all the suggestions made by the Company to the Committee (some of which had not been put to Government so far) in regard to the sale of its products and take suitable steps to help the Company in marketing its goods at favourable prices.

9.21. As an immediate step Government should issue orders to all the Central Government hospitals and dispensaries that they should purchase IDPL products and go to the market for such items only which were not being manufactured by IDPL. The Committee were informed that the surgical instruments manufactured at the Surgical Instruments Plant of IDPL had better acceptance outside than within the country. They, therefore, hope that vigorous efforts will also be made for the export of these instruments to the U.S.S.R. and other countries.

Marketing Research

9.22. It was stated that I.D.P.L. had a Marketing Research Unit in the Marketing Division. It collected information through the Field Investigation Unit at the Head Office and through the Sales representatives attached to the Regional Offices, Bombay, Calcutta, Delhi and Bangalore.

9.23. Some of the important functions of the Marketing Research Division were to—

(i) Collect information about competitors' products, their prices, the share of market enjoyed by them;

(ii) assess the nature of demand for products in the production programme as well as new products as judged from data with regard to present consumption, new licences issued by Government and other similar information;

(iii) keep uptodate information about import policies of Government, nature of imports and the c.i.f. prices;

(Iv) keep abreast with new developments or introduction of products in the market, by competitors.

9.24. In the field of drugs and antibiotics, the Marketing Research Unit collected information on the follcwing:

(i) the wholesale and retail prices of competitive products;

(ii) the quantum of imports during the last few years of different bulk drugs of interest to us;

(iii) the c.i.f. import prices as well as prices in the country of origin, wherever possible, of different drugs.

(iv) total indigenous production of different drugs of interest to the Company;

(v) total present consumption and anticipated demand for 1970-71 for different items;

(vi) new undertakings licenced for the manufacture or for additional capacity for products of interest to IDPL.

9.25. A market survey of as wide a range of surgical instruments as possible was also conducted by the Marketing Division. The survey disclosed that the demand in the country was for much larger number of different types of instruments in limited quantities. Very useful information for successful planning of the marketing of surgical instruments was also gathered during the survey.

The above studies had helped development of marketing strategy for various products.

In regard to the steps taken to promote sales of various products IDPL stated that it had appointed distributors, who were recognised dealers of surgical instruments.

9.26. IDPL had also appointed technical representatives to call on private surgeons, medical institutions, members of purchase committtees in different States and explain and demonstrate the surgical instruments. IDPL had also participated in a number of international fairs and national exihibitions with view to publicise its products.

9.27. For drugs and antibiotics IDPL had adopted one of the recognised channels of distribution for its formulated products, *e.g.*, distribution through preferred dealers, who would purchase its products in bulk quantities and would, in turn, supply to the retail chemists in their respective territories. It was further stated that a net work of medical representatives had been planned who would be stationed in different places and attached to one or the other regional office. They would be visiting the doctors, civil surgeons, hospitals and purchase authorities of State Governments, etc., with a view to propagate IDPL products.

9.28. To assess the consumers preferences the Marketing Research Unit obtained detailed information about the import of different antibiotics, indigenous production, wherever applicable, and constantly reviewed the trend of consumption of similar and thereapeutically competitive production through information collected from all sources including its own field representatives.

9.29. The country had been divided into four regions, *viz.*, Northern, Southern, Eastern and Western. Each region had a number of representatives, who called every day on doctors in private practice as well as in the hospitals, chemists, and other potential buyers of antibiotics within IDPLs' production range. They gathered information about competitors' activities, the trend of consumption pattern and such other information as was available for effective marketing activity. This was supplied to the head office where the Deputy Chief Sales Manager (Marketing Research) coordinated and briefed higher management on trends.

9.30. The Marketing Research unit in the Head Office also undertook pilot studies, extensive market surveys, wherever required to find out the potential consumers preferences, prescribing habits of medical profession in respect of different antibiotics.

Distribution Channels :

9.31. The question of distribution channels of IDPL was discussed by the Board of Directors at their meeting held on 15th December, 1967. The Board decided that there should be flexible approach towards distribution of pharmaceutical products.

For surgical instruments, at first, a distributor each for large enough territory was appointed. The distributor was to sell only to private

doctors and hospitals but not to Government hospitals. Since 90 per cent of the instruments were required in Government hospitals, the distributors did not take interest in promotion. IDPL contacted hospitals through its staff and came to the conclusion that initial and follow up work was so much that it would be necessary to employ distributors or to enlarge the permanent staff manifold. The territory has been reduced and distributors have been given interest in sales to Government hospitals also. IDPL has however reserved the right to solicit orders direct from hospitals, which it does insofar as large units are concerned.

The advantage in this method, IDPL stated was "that in the beginning, when cash resources are small, it is possible to get larger converage for promotion and display by interesting traditional market channels and to concentrate our own attention on larger hospitals."

9.32. Agents in various countries were also appointed. After the visit of teams it was found that dental instruments, family planning sets, dissecting sets for students and instruments for general surgery particularly artery forceps, other forceps and scissors of various kinds were likely to find acceptance. The few orders received confirmed that view but IDPL felt that more knowledge of the markets was needed to give an idea of the requirements for five years. The first task of IDPL was to introduce its instruments against stiff Pakistani, Russian and Chinese competition.

9.33. The Committee note that IDPL has undertaken a scientific market research for its products and has also set up a separate marketing research unit. The Committee hope that all the statistical tools and techniques devised for collecting pertinent data and determining the intangible variables for forecasting the future trends are being adopted by this unit in order to assist the management in arriving at correct decisions.

9.34. Regarding distribution channels the Committee would like to draw attention to the recommendations made by them in their 22nd Report on IDPL:

> "While welcoming the decision to sell (the products of Rishikesh and Hyderabad projects) in bulk to buyers directly, the Committee would recommend that the IDPL should appoint its own agents instead of selling through the existing wholesellers only."

> "All Government Hospitals should obtain their purchases of drugs and medicines directly from Government owned factories instead of through private selling agents. This would keep the prices down at which the hospitals, would receive their

supplies and also prevent adulteration of medicines at an intermediate level."

In reply IDPL, however, stated that the above suggestions of the Committee were found to be unworkable for the following reasons :

(a) The prominent dealers, who have been approached formally, are not prepared to take partial franchise.

(b) The policy has yielded miserable results, in actual practice, for surgical instruments.

(c) The alternative is that the company sells its own products through its own departmental stores. The working capital requirements will be very large and the results will not, on the appreciation of management, be encouraging.

9.35. **In view of the difficulties encountered by IDPL in appointing their own exclusive agents, the Committee would not like to press this suggestion. They feel that the proposal to sell the products through IDPL's own departmental stores would only add to the overall expenses without producing corresponding results. The only solution appears to be to offer better terms to the existing agents to encourage them to sell the products of IDPL on a priority basis.**

X

MISCELLANEOUS

A. Personnel

In the projects of I.D.P.L., the staff requirements as estimated in the DPRs and as estimated by the projects themselves were as follows :—

Plant	DPR's figures	Plants' figures
Antibiotics	2180	4050
Synthetic Drugs	2200	5522
Surgical Instruments	986	1700

10.2. It was stated that the present level of manpower for technical posts, as on 31-10-1968, at Synthetic Drugs Plant and Antibiotics Plant based on the manpower requirements recommended by the Industrial Engineering studies was as follows :—

	SDP	ABP
Production Blocks	68·2 per cent	71·6 per cent.
Other Technical Departments	107·5 per cent	97·6 per cent.

10.3. The level of manpower for technical departments of Surgical Instruments Plant, as on 31-10-1968, based on the manpower sanctioned by the Board was as follows :—

Production Blocks	68 per cent.
Other Technical Departments	92 per cent.

10.4. It was further stated that Industrial Engineering Studies had not been conducted for non-technical manpower and the following figures

indicated the staff in position as on 31-10-1968 :—

	Staff in position
Synthetic Drugs Plant . .	631
Antibiotics Plant	655
Surgical Instruments Plant . . .	279 (Posts sanctioned by the Board 331)

10.5. On the question of surplus staff in the 3 plants, IDPL indicated the position as under :—

	SIP Madras	SDP Hyderabad	ABP Rishikesh	Total
Clerical . . .	20	30	35	85
Skilled . .	94	116 (Work - charged)	266 (Work-charged)	476
Unskilled . . .	36	30 (Work-charged)	298 (Work-charged)	364
TOTAL . . .	150	176	599	925

10.6. During evidence, the Chairman, IDPL, stated that it was not possible to strictly regulate the staff according to percentage of production. He added: "It is never done anywhere. Even when the plant starts, it starts with the full complement of staff and the production is regulated according to the staff employed and not the other way round".

10.7. On the question of surplus staff, the Chairman, IDPL, informed the Committee that the Bureau of Public Enterprises had been asked to help in fixing them up some where else. That was the decision arrived at by Government.

10.8. The Committee also noted that about 20 officers, both technical and non-technical, had joined IDPL from 1-1-1967 who were previously working in other public undertakings. Out of these 20 persons, 6 were drawing a salary in the range of Rs. 550—980 and the remaining 14 officers were drawing a salary in the range of Rs. 1,020—2,100.

10.9. The Chairman, IDPL, informed the Committee that with the salary offered in IDPL, it was difficult to get really good and capable men. He was also of the opinion that bonus for managers would be a very healthy practice for the responsibility they carried. Though the personnel of IDPL were good and in some cases more experienced than the Russians, the Russian experts had to be retained to fulfil contractual obligations.

10.10. **The Committee suggest that the surplus staff in the 3 plants should be provided alternative jobs in other undertakings so that the burden of expenditure on account of their salaries and allowances etc. does not add to the heavy deficit of IDPL. It may be true that the staff requirements cannot be strictly regulated according to percentage of production in the plants, but it is to be ensured that the strength of the staff in the plants is justified by their working results. No commercial organisation can afford to employ people for any length of time without a proper return on the amount spent on them in the shape of salaries etc. The staff requirements should therefore be carefully assessed and reduction brought about wherever feasible.**

B. Research and Development

10.11. It was stated that in order to keep abreast of technological developments in the Antibiotics and Synthetic Drugs Projects, I.D.P.L. had constituted a Scientific Advisory Committee. Directors of Central Drugs Research Institute, National Chemical Laboratory and Regional Research Laboratory, Hyderabad; the Drugs Controller and Dr. P. C. Dhanda were members of that Committee. The Scientific Advisory Committee had appointed two Liaison Committees with the Central Drugs Research Institute and Regional Research Laboratory to consider matters of common interest for cooperation and to exchange information.

10.12. IDPL further stated that the Controllers of Research held meetings and discussions with centres of research in India and were in correspondence with such outside authorities as were known to them or to others in the Company. A senior officer of the Company also carried on detailed study of patents in order to see if any leads could be picked up for research and also to protect its interests on old drugs and in respect of projected introductions.

10.13. According to IDPL, in the Surgical Instruments Plant, technological development embraced (a) Material specifications and as a corollary processing techniques and (b) process technology. As for the former, development generally was towards substitution of stainless steel for carbon steel wherever possible. IDPL was closely associated with the Indian Standards Institution to keep abreast of such changes. The

major field in which it was currently engaged was in the production of instruments of disposable nature which would require working in close collaboration with the plastics industry. Also, the possibility of substituting high strength aluminium alloys, was being explored to substitute very thin foils of stainless steels normally required, as rolling facilities for such strips of stainless steels were not readily available. All these studies were being conducted by the development department in close liaisor with some of the technical institutes.

10.14. The second field of development related to electrical, electronic and optical devices and for that purpose it was proposed to get in touch with the Electronic Corporation of India in due course as schemes matured.

IDPL was also exploring the possibility of making electro-medical diagnostic equipment through the utilisation of indigenous know-how in the country.

10.15. In reply to a question whether the existing plant and machinery at Antibiotics Plant Rishikesh was capable of accommodating production of new antibiotics, IDPL informed the Committee that the fermentation facilities would be common for production of all antibiotics. Change or addition of machinery for the recovery and purification facilities would depend on the type of antibiotic to be produced.

10.16. Regarding the Synthetic Drugs Plant it was stated that the major equipments were meant to carry out unit processes and operations. Subject to capacity limitations, these could be used for any new drug. However, it was stated that all this was subject to balancing equipment changes in layout and purchase of new technology or its evaluation by the research organisations of IDPL.

10.17. **The Committee are of the view that technological research should be properly organised for improving the processes so as to reduce the cost of production of various antibiotics/drugs. The main problem, it appears, is the high cost of production of the products of IDPL and unless some effective measures are taken to reduce the costs, it will be difficult to compete with other manufacturers in the field. Special attention should, therefore, be paid to develop processes and introduce changes which will enable the plants to utilise indigenous raw materials to the maximum level and bring down expenditure on importing raw materials and thus reduce the production costs.**

10.18. On the question of technology in the Antibiotics Plant, the Committee enquired during evidence whether it was possible to introduce the Pimpri strain in the Rishikesh Plant. The Chairman, IDPL replied that it was possible but along with that there would have to be a change

in the technology. Moreover, the question of patent was also involved because it was permissible to produce penicillin under that process in the Pimpri factory only. When it was suggested that the merger of Rishikesh Plant with the Hindustan Antibiotics Ltd., Pimpri, would enable to improve production, as well as meet the requirements of patent, the witness agreed and said that the antibiotics and synthetic drugs units of IDPL and the Hindustan Antibiotics Ltd., Pimpri should be under only one organisation because they were much interconnected.

10.19. The Secretary of the Ministry of Petroleum and Chemicals, however, stated during evidence that Government had considered the question of merging the Antibiotics Plant of IDPL with Hindustan Antibiotics Ltd. on a recommendation of the Committee on Public Undertakings but felt that it would not be a wise step. The Hindustan Antibiotics Ltd. had developed with a certain history and technology which might be harmed by a merger with projects which were of a 'doubtful character' from the point of view of their viability. He added that Government felt that from the point of view of morale and other considerations, it would be desirable to retain its separate identity.

10.20. To a suggestion that the technology of HAL, Pimpri, might be advantageously applied to the Rishikesh Plant, the Secretary of the Ministry agreed that Pimpri Plant had developed a high level of excellence and technology in its operations and observed that the use of that in the Rishikesh Plant was not ruled out. He added that with a view to facilitating an exchange of views and technology, a Coordination Committee had also been set up with IDPL Chairman as its Chairman. He further stated that if the Pimpri process was utilised in the Rishikesh Plant, it would entail payment of royalty. It would, therefore, be preferable to improve the Rishikesh Plant on the basis of its own technology.

10.21. In a subsequent note submitted by IDPL, it was stated that "on the balance, it would appear that present is not the proper time for the two being combined". However, coordination for improvement was necessary particularly for exchange of experience and the techniques already in existence.

10.22. **Considering all aspects of the question, the Committee do not wish to pursue at this stage the question of merger of the Antibiotics Plant of IDPL with the Hindustan Antibiotics Limited, Pimpri. They are, however, not happy to learn that the Coordination Committee, set up by Government has not been funtioning properly so far. They would, therefore, recommend that the Coordination Committee should be activised and meet regularly in order to achieve effective coordination between the two undertakings particularly in the fields of research and development.**

C. Financial Position

10.23. The following table summarises the financial position of IDPL under broad headings as on the 31st March, 1968:—

(Rs. in lakhs)

Liabilities	
(a) Paid up capital	21,75·00
(b) Borrowings from Government of India	35,94·60
(c) Trade dues and other liabilities (including provisions)	4,11·10
TOTAL	61,80·70
Assets	
(a) Gross block	48,23·68
Less depreciation	1,40·40
(b) Net fixed assets	46,83·28
(c) Expenditure during construction period pending allocation	205·10
(d) Current assets, loans and advances (including Investments)	906·58
(e) Miscelleneous expenditure	62·34
(f) Loss	323·40
TOTAL	61,80·70

10.24. The Committee are distressed to note that the projects of IDPL have so far suffered a huge loss exceeding Rs. 323 lakhs. Various factors that have contributed to these losses have been discussed by the Committee in the earlier chapters of this Report. The Committee do not see any hopeful trends in the near future unless Government takes immediate steps to solve the various problems of the undertakings.

G. S. DHILLON,
Chairman,
Committee on Public Undertakings.

NEW DELHI;
April 22, 1969.
Vaisakha 2, 1891 (*S*).

APPENDIX I

(Vide para 4.2. of the Report)

Antibiotics Plant

Product	Commissioning dates	
	Scheduled	Actual
(a) Potassium benzyl penicillin G	April-May, 1967	May, 1967(Fer.) June, 67(R&P)
(b) Sodium benzyl penicillin G	January, 1968	May, 1968
(c) Procaine benzyl penicillin G	February, 1968	May, 1968
(d) Streptomycin sulphate	July-Aug. 1967	Oct., 1967(Fer.) Dec., 1967(R&P) March, 68(Driers)
(e) Tetracycline Hydrochloride	March, 1968	May, 1968(Fer.)
(f) Sterile Finishing Block	Sept. 1967 (Erection).	Dec.,1967 (Erection).

Synthetic Drug Plant

Product	Commissioning dates	
	Scheduled	Actual
(a) Phenacetin	Dec., 1966	Dec., 1966
(b) Sulphanilamide	May., 1967	May, 1967
(c) Sulphaguanidine	May, 1967	August, 1967
(d) Sulphadimidine	Nov., 1967	Feb., 1968
(e) Sodium sulphacetamide	Oct., 1967	Nov., 1967
Block No. 2		
(a) Vitamin B1	Sept., 1967	May, 1968
(b) Acetonitrile (1st intermediate)		July, 1967
Block No. 3		
1. Vitamin B2	Oct., 1967	May, 1968
2. Bromoxylene		Sept., 1967
Block No. 4		
(a) Diethyl carbamazine Citrate	Nov., 1967	June, 1968
(b) Diethyl Carbamyl chloride (1st intermediate)	Oct., 1967	May, 1968
(c) Amidopyrine	Sept., 1967	Dec., 1967
(d) Piperazine hexahydrate and adipate	Dec., 1967	March, 1968
(e) Analgin	Sept., 1967	Dec., 1967
(f) Nicotinamide	Nov., 1967	April, 1968

Product	Commissioning dates	
	Scheduled	Actual
Block No. 5		
(a) Phenobarbitone	Sept., 1967	March 1968
(b) Absolute ethyl acetate	Do.	Nov., 1967
(c) Acetoacetic ester	Do.	Dec., 1967
(d) Acetyl acetone	Do.	Jan, 1968
(e) Acetopropyl alcohol	Do.	
Block No. 6		
(a) Sodium disulphite	Sept., 1967	Dec., 1967
Block No. 7 (A & B)		
(a) Benzoyl Chloride	Oct., 1967	May, 1968
(b) Trichloro acetone	Dec., 1967	April, 1968
Block No. 8		
(a) P.A. Sulphamide	March, 1967	April, 1967
(b) Hydrazine Hydrate	April, 1967	Sept., 1967
(c) Diethylamine	Oct. 1967	May, 1968

APPENDIX II

(*vide* para 7·7 of the Report)

Production in Synthetic Drugs Plant

Sl. No.	Product/Intermediate	1967-68 A. Plan (Budgetted)	1967-68 B. Actual	C. Reasons for variations	Remarks
1	2	3	4	5	6
1	Phenacetin(Pharm)	53,000	15,584·2	1. Trial of new technology developed by the Indian Scientists to bring the product to I. P., 66 standards which is more strict than the USSR Pharmacopeia and introducing necessary changes in the plant. 2. Process difficulties at reduction and crystallisation stages. 3. Equipment difficulties with regard to pressure filters, centrifuges and crystallisers.	
2	Sulphanilamide (Pharm)	15,000	28,976·65		
3	Sulphaguanidine (Pharm)	50,000	43,729·50	Plant commissioned 3 months later than budget provision.	
4	Sulphadimidine (Pharm)	21,000	671·70	1. Plant commissioned 3 months later than budget provision. 2. Only trial production carried out.	
5	Sulphacetamide Sodium (Pharm)	5,000	268·00	1. Delay in commissioning by one month. 2. Process troubles to get the pharmacopeial grade product. Production kept low deliberately. Qnty. produced for Tech. grade is 1,281 Kgs.	
6	Vitamin B1 (Pharm).	3,000	..	It is a multi-stage process. The intermediate Acetonitrile was produced in July '67. Due to shortage of Bromine in country caused by the shutdown of manufacturer's plant, an emergency import had to be arranged.	

1	2	3	4	5	6
7	Vitamin B2 (Pharm.)	500	..	It is a multi-stage process. Delay in commissioning due to late receipt of equipment from USSR and failure of supply and installation of airconditioning and ventilation equipment by Indian suppliers. Due to lack of Bromine in the country which was imported in May '68. First intermediate Bromo-oxylene was commissioned in September '67.	
8	Analgin (Pharm.)	9,000	231·80	(1) The commissioning of the plant was delayed by 3 months. (2) There are considerable difficulties in process and some equipment. One by one they are being investigated and solved.	
INTERMEDIATES					
9	Absolute ethyl-acetate	2,00,000	38768·00	Commissioning delayed by 2 months due to delay in erection and number of modifications suggested by Soviet Experts. Production curtailed to meet the needs for other products.	
10	Aceto acetic ester	10,000	2184·00	Production deliberately kept low to train the production staff because the operations are extremely hazardous.	
11	Acetyl acetone	45,000	1734·00	Commissioning delayed by 4 months. Vital equipment received late due to labour trouble & disturbances at the suppliers end. Number of modifications carried out as suggested by Soviet Experts.	
12	Diethylamine	25,500	..	Delay in commissioning Plant was commissioned in May '68	
13	Hydrazine Hydrate (expressed as 100%)	20,500	6967·70	1. Delay in commissioning of Plant by 5 months. 2. Initial process and equipment difficulties.	

APPENDIX III

(*Vide* para 7·22 of the Report)

SURGICAL INSTRUMENTS PLANT, MADRAS

Production

Description	Unit	Production during 1965-66			Production during 1966-67			Production during 1967-68			Remarks
		Plan	Actual	Reasons for variation	Plan	Actual	Reasons for variation	Plan	Actual	Reasons for variation	
Scalpels	Nos.	47,000	4,548	Plant was commissioned in September 1965	40,000	20,466	Production increased progressively. New & more complicated instruments were started thus increasing the work content.	..	195	Plan modified to include new Family Planning Instruments.	
Knives	,,	3,000	690		17,000	5,749		469	822		
Pincers	,,	78,000	9,454		116,000	75,885		11,761	8,105		
Forceps holding and cutting	,,	37,000	609		86,900	40,325		32,262	20,632		
Scissors and Shears	,,	64,500	2,649		54,000	23,415		7,478	7,679		
Retractors and Speculas	,,	300	..		34,150	8,822		7,512	4,499		
Hooks, Probes and Directors	,,	8,000	6,434		21,000	15,146		190	5		
Raspatories	,,	..	..		10,000	2,183		3,182	1,283		
Needles	,,										
Ligature	,,	19,000	1,192		20,000	8,357		784	450		
Gauges and Chisels	,,	4,800	3,309		8,000	2,914		229	..		
Surgical Saws	,,		..		20,000	283		1,299	887		
Surgical Braces	,,	..	..		1,800	..		50	4		

Currettes and Scrapers .	„	..	..	15,000	1,899	3,209	1,651
Dental hand Instruments	„	9,000	..	32,000	29,204	376	50
Tooth extracting forceps	„	1,000	..	3,000	958	4,526	2,676
Dental elevators .	„	..	..	18,000	3,662	1,347	608
Miscellaneous .	„	5,000	3,210	21,950	6,989	816	327
Family Planning Instruments . .	„	..	..	..		59,194	29,273
Pelvimeters .	„	..	..	2,500	..	493	49
TOTAL . .		2,76,600	32,095	5,21,300	2,46,257	1,35,177	79,195

APPENDIX IV

(*Vide* para 6·37 of the Report)

Utilisation of finishing capacity on projected production

I. ANTIBIOTICS PLANT

(A) *Vialling*

Year	Operating capacity (vials)	Anticipated production (Tonnes)	Tonnage likely to be vialled	Utilisation (vials)	Balance capacity available (vials)
1969-70	120 Million	71	51	75 million.	45 million
1970-71 . .	120 ,,	95	68	90 ,,	30 ,,
1971-72 . .	120 ,,	133	80	105 ,,	.. ,,

NOTE: The rate of vialling will be increased steadily over two years from 50/% to 100 % capacity of the machine. Balance capacity available could be utilised for imported material, if available.

(B) *Capsulation*

1969-70 . .	120 Million	19·2	19.2	65·28 Million	84·72 Million
1970-71 .	120 ,,	25·0	25.0	85·00 ,,	35·00 ,,
1971-72 . .	120 ,,	35·0	35.0	119·00 ,,	,,

C. *Tabletting*

1969-70	76 Million		..	..	..
1970-71 . .	76 ,,		..	..	..
1971-72 . . .	76 ,,	3·00	3·00	20·40 Million	55·60 Million

II. SYNTHETIC DRUGS PLANT

(Based on the assumption that the average weight of a tablet is 300 mg.)

Tabletting capacity . . . . 5,000 Million tablets.

Conversion to tonnage . . . . 1,500 Tonnes/year.

The following table gives the utilisation of the tabletting capacity on the assumption of different tonnages to be tabletted:—

Tonnage to be processed	Tabletting capacity utilised(%)	Spare capacity (percentage)
400	26	74
500	33	67
600	40	60
700	47	53
800	54	46

Even after converting the full plant production of 800 tonnes of raw materials into formulations, there will be about fifty per cent excess capacity for tabletting. The capacity for other operations such as mixing, granulation and drying is still higher than the tabletting capacity.

APPENDIX V

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

Serial No.	Reference to para No. in Report	Summary of Conclusions/Recommendations
1	2	3
1	2.11	The Committee regret to note that in spite of the Kane Committee's observation that "in the antibiotics field, the techniques employed in Western Europe and in the USA are more advanced and the yields are higher" and their specific recommendation that it was desirable "to explore other sources of collaboration in these fields before taking final decisions", Government did not make any enquiries or collect information from any other source to locate the availability of technology and collaborators. They went into an agreement with M/s. Technoexport, Moscow, on the basis of assumption that onerous royalty would have to be paid to the Western countries if they went into collaboration with them. From the facts placed before them and the so far achievements of I.D.P.L., the Committee cannot help stating that the decision to enter into collaboration arrangements with the U.S.S.R. was taken on considerations other than technical and without conducting demand survey or economic feasibility studies.

2	3.5	The Committee are unable to understand how the Government accepted detailed project reports which did not include basic and vital information about the plants and their working results. They are surprised at the Secretary's statement that these were accepted merely "on the basis of faith". This was not the first project undertaken in the public sector and Government had sufficient experience about the setting up of big and important projects by then. The Committee feel that before committing the country to such a huge expenditure Government should have carried out feasibility studies and insisted upon inclusion of all essential information in D.P.R. in order to thoroughly satisfy itself about the technical and economic soundness of such huge projects.
3	3.6	At this stage when the projects are *fait accompli* the Committee can only hope that proper scrutiny would be carried out in future to see that the project reports are complete in all respects before accepting them.
4	4.14	The Committee are unhappy with the manner in which the construction of the project was undertaken. The construction work was commenced in the year 1962 without fixing any schedules for completion. In fact such schedules are invariably provided in the detailed project reports. Their non inclusion is a deficiency which removed the guidelines for the project authorities for completion of work in prescribed time. When at a later date in 1964 the completion schedules were drawn up, these were revised twice and even the revised dates were not adhered to. So far as modifications in equipment and machinery are concerned these may become necessary sometimes to cope with the advances in technology. From facts

1	2	3
		placed before them it seems that there were no such rapid improvements in pharmaceutical industry which necessitated these frequent modifications.
5	4.15	[It appears that the collaborators were themselves not sure of the technology to be offered by them and therefore kept on suggesting modifications from time to time. This resulted in considerable delay in construction and commissioning of the projects and affected the economics of the plants. No responsibility could, however, be fixed on the collaborators, because no time schedules were laid down for the completion of construction and commissioning of the projects. There was also no penalty provision in the contracts for late delivery of equipment and machinery. Government have not given any convincing explanation for entering into such deficient agreements with the Russian collaborators. The Committee hope that in future Government will avoid such lacunae in the agreements with foreign collaborators and ensure that the interests of the country are safeguarded in all respects.]
6	5.9	[The Committee are unhappy to note that the estimates of the 3 plants of IDPL were revised 5 times in a period of 8 years and every revision raised the estimates. The latest estimates in the case of Antibiotics Project show an increase of Rs. 10.57 crores as compared to the initial estimates. and in the case of synthetic Drugs Project there is an increase of Rs. 8.68 crores. Thus, the estimates had gone up for the Antibiotics Project and the Synthetic Drugs Project by 67 and 61 per cent respectively. In

regard to Surgical Instruments Plant, the increase is of Rs. 1 crore. Thus the original total estimates of Rs. 33.65 crores have risen to Rs. 53.90 crores now.

7 5·10 It is evident that either no serious attempt was made to draw realistic estimates or the persons capable of doing so were not available with IDPL. No effort was also made either by the Company or Government to collect comparative figures of capital cost on similar projects in the Western countries. The Committee feel that in the absence of such figures accurate or realistic assessment of the reasonableness of the cost estimates could not be made.

8 5·11 It is also regrettable that the estimates first drawn up it 1961 were approved by Government only in 1966. This would mean that IDPL went on incurring excess expenditure without Government's sanction. Even the final estimates submitted by IDPL in August, 1968 had not been approved by Government till January, 1969. The Committee would urge that the procedure relating to approval of estimates by the Ministries should be laid down so as to avoid such delays.

9 5·12 The Committee are not happy to find that the increases in the capital cost of IDPL projects was not brought to the notice of the Cabinet because the revised estimates did not exceed 20 per cent of the estimates approved by Government in 1966. This case brings out a serious lacuna in the existing standing instructions on the subject. Although the increase over the original estimates is over 60 per cent but since it is less than 20 per cent of the estimates approved by Government it was not necessary

1	2	3
		to bring it to the notice of the Cabinet. Thus postponement of sanctioning of estimates by a Ministry—which was 4 years in this case—could conceal from the Cabinet the delay in sanctioning the estimates as well increase of estimates over 20 per cent.
10	5.13	The Committee feel that as the capital cost of the projects has increased by more than 60 per cent as compared to the original estimates of 1961 and has adversely affected the economics of the projects, the revised estimates should have been brought to the notice of the Cabinet. Such huge increases in the estimates of the projects are a matter of serious concern and should be dealt with at the highest level in Government. They would, therefore, recommend that the Ministry of Finance should review this question and evolve a procedure by which Government and the Cabinet could be kept informed of such increases in the financial outlay of a project.
11	6.19	The Committee are unable to understand how the capacity of the tetracycline group of antibiotics was fixed at 120 tonnes when the actual consumption in India at that time was only 10 tonnes. It is surprising that although Government had demanded a capacity of 50 tonnes for tetracycline, the capacity was raised to 120 tonnes in the final discussions.
12	6.20	The Committee are distressed to learn that although chlorotetracycline had become obsolete and the doctors in India were not prescribing this

antibiotic, equipment for manufacturing 70 tonnes of chlorotetracycline was obtained and the erection of the plant was continued till 1967. Efforts to utilise this antibiotic as an animal feed now appear to be an after-thought and not in consonance with the conditions prevailing in the country. The Committee are not convinced that there will be enough demand in the near future for chlorotetracycline as animal feed. They, therefore, feel that the huge cost in installing the plant for the manufacture of chlorotetracycline could have been saved if Government had been able to persuade the Russian collaborators that there was no demand for this antibiotic in India.

13 6·21 Since the plant has been erected already, the Committee would suggest that efforts should be made to persuade the medical profession for increased use of chlorotetracycline for human treatment. At the same time a drive should also be undertaken for popularising it as animal feed so as to improve the quality of cattle in the country. The possibility of using the equipment for the manufacture of other drugs should also be explored.

The Committee would also suggest that IDPL should at the same time make every effort to export the surplus quantity of chlorotetracycline to other countries.

14 6·35 The Committee are constrained to note that 60 per cent. to 75 per cent. of the instruments based on Russian specifications, included in the product-mix of the plant, have not been accepted by the Indian surgeons. They feel that this situation has arisen on account of the fact that the Indian Surgeon's Team which had approved the product-mix of the Surgical Instruments Plant did not properly assess the country's demand and acceptability of the instruments to be produced in the plant. It is also

1	2	3
		difficult to understand why items like syringes, needles, diagnostic instruments, which were suggested by certain Indian surgeons for manufacture were not included in the product-mix of the plant.
15	6.36	From the information available to the Committee, it is clear that no proper survey was carried out to assess the demand of various antibiotics, drugs and instruments before deciding the product-mix and production capacities of the 3 plants of I.D.P.L. It is needless to emphasise that the economics of any project depend upon a careful and correct estimate of the demand of its products. It is, therefore, regrettable that the product-mix for the three plants was determined in a most unrealistic manner and without taking into account the existing production in the country and the realistic forecast of the demand arising in future. The sad result of this is that, apart from including a number of obsolete items, surplus capacities have been created for most of the antibiotics, synthetic drugs and surgical instruments.
16	6·38	The Committee feel that the formulation capacity in both the Antibiotics and Synthetic Drugs Plants has not been properly determined. In the Antibiotics Plant according to the information supplied, 105 million vials will be produced during 1971-72, which will consume only 80 tonnes of antibiotics. In addition 35 tonnes will be utilised for capsulation and 3 tonnes for tabletting. The total quantity utilised will thus be 118 tonnes. As against this, the total capacity of the plant is 290 tonnes. That will mean that a large portion of the antibiotics will have to be sold in bulk

to other pharmaceutical concerns for vialling, capsulation and tabletting. In the Synthetic Drugs Plant, the position will be just the reverse and even after tabletting all the drugs into dosage form, there will be 50 per cent excess capacity which will remain unutilised. This imbalance in the production capacity and the formulation capacity in the two plants is a matter of serious concern and this ought to be looked into by Government as to how these capacities were accepted.

17 6.39 The Committee however suggest that in order to increase the profitability of the plants, the formulation capacity in the Antibiotics Plant should be increased and in the Synthetic Drugs Plant the excess formulation capacity should be utilised by importing some intermediates from abroad for processing and tabletting.

18 ✓ 7·18 [The Committee regret to note that the targets of production for the Antibiotic and Synthetic Drugs Plants could not be achieved in 1967-68, due to various reasons explained by the Management. One of the reasons for shortfall in production in the Rishikesh Plant was that the collaborators had not taken into account the local atmospheric conditions while designing the plant. The Committee are surprised at the omission of this important factor and hope that the remedial measures now taken by IDPL will ensure achievements of targets in future.] 19

19 ✓ 7·19 [Another reason for shortfall in production was occurrence of corrosion in some stainless steel equipment besides a small percentage of machinery being "under doubt". The Committee hope that early replacements of machinery which are not of standard would be obtained free of cost.]

1	2	3
		Now that the projects have been put up at huge cost and the basic technology cannot be changed, every effort needs to be made to make the best use of the present equipment.
20	7·20	The Committee were constrained to note that there had been considerable loss of production on account of power failures. The entire question of power supply to the Antibiotics Plant needs thorough examination. If it is not considered worthwhile to have separate power station to cater to its needs, other alternative measures ought to be adopted so as to ensure constant power supply to it.
21	7·21	The Committee appreciate the efforts that are being made to improve the technology and reach better production rates in these two plants. They hope efforts would be kept up to achieve improved results.
22	7·32	The Committee are distressed to note that the production of even those instruments was allowed to continue during the year 1966-67 for which there was no demand and which were already lying in stock. In the case of one instrument (Drawing No. 06-04) 19,666 pieces of it were produced during 1966-67 although out of 66 pieces manufactured in 1965-66 only one was sold. Such an instance only indicates that the Management decided production programme without taking into account the existing stocks and the likely future demand. The Committee can only express surprise at the unbusiness like action of I.D.P.L.

23	7 33	It is a matter of concern that the plant will be incurring a loss of Rs. 80-90 lakhs per annum at the present level of production. The Committee would like Government to give a serious thought to this question and see whether the surplus machinery can be put to any other use and thereby mitigate the losses. From the information placed before the Committee, they do not see any future for the Surgical Instruments Plant, unless the product mix was changed after ascertaining the market demand and overheads were drastically reduced.
24	8·27	The Committee are sorry to observe that the cost of production of the various items to be manufactured in the three plants at full rated capacity was not estimated accurately. Even when Government came to know about the divergence between the views of the Russian experts and IDPL about the estimates of cost of production, no concrete action was taken to ascertain the truth. Government merely observed that the estimates prepared by IDPL required further detailed scrutiny. The Committee, to take one case only, are unable to understand as to how the cost of production for streptomycin estimated by the collaborators at Rs. 157 per kg. in 1958 and Rs. 67 per kg. in 1961 was accepted when the Kane Committee in its Report in 1956 had estimated the cost of production of this item, according to the Russian methods, at Rs. 450 per Kg.
25	8·28	An accurate estimate of the cost of production is the very basis of the economics of any project and the Committee cannot help express their regret that no serious thought was given to this important aspect by Government. At this stage the Committee can only stress upon the Management of IDPL and Government to review the cost of production of the various

1	2	3
		items presently being produced by the three plants and take immediate steps to bring down their cost of production to a competitive level.
26	8·29	The Committee are also unhappy to learn that it had not been possible for IDPL to get the cost of production of comparable items from the Hindustan Antibiotics Ltd., Pimpri even when they have one common Director. They can only assume from this, that no serious efforts were made to compare the cost of production of similar items produced by the other public sector company under the same Ministry. It is obvious that the Coordination Committee also has not been functioning effectively. But the Committee have not been given to understand its causes particularly when the Chairman, IDPL, is at the same time Chairman of the Co-ordination Committee and there could be no hurdle in its effective functioning. They feel that it should be the responsibility of the Ministry to ensure that there is no difficulty in exchanging useful information between the various public undertakings in the same field of production for their mutual benefit.
27	8·30	The Committee would also like government to consider the suggestion of IDPL to import certain items, against part of its exports, for formulation and sale at profit so as to reduce some of its loss.
28	9·20	The Committee are happy that IDPL has placed all the facts frankly before them. As is apparent from what has been stated in the foregoing paragraphs there are no immediate prospects of IDPL's going into full

production owing to high cost of production and low off take. The Committee feel that when the three plants of IDPL had been set up with the Russian collaboration for reasons other than technical it is the duty of Government to see that the products of these plants find a market in the country.

For a permanent solution of the problem Government should examine all the suggestions made by the Company to the Committee (some of which had not been put to Government so far) in regard to the sale of its products and take suitable steps to help the Company in marketing its goods at favourable prices.

29 9·21 As an immediate step Government should issue orders to all the Central Government hospitals and dispensaries that they should purchase IDPL products and go to the market for such items only which were not being manufactured by IDPL. The Committee were informed that the surgical instruments manufactured at the Surgical Instruments Plant of IDPL had better acceptance outside than within the country. They, therefore, hope that vigorous efforts will also be made for the export of these instruments to the U.S.S.R. and other countries.

30 9·33 The Committee note that IDPL has undertaken a scientific market research for its products and has also set up a separate marketing research unit. The Committee hope that all the statistical tools and techniques devised for collecting pertinent data and determining the intangible variables for forecasting the future trends are being adopted by this unit in order to assist the management in arriving at correct decisions.

1	2	3
31	9·35	In view of the difficulties encountered by IDPL in appointing their own exclusive agents, the Committee would not like to press the suggestion that 'the IDPL should appoint its own agents instead of selling through the existing wholesellers only'. They feel that the proposal to sell the products through IDPL's own departmental stores would only add to the overall expenses without producing corresponding results. The only solution appears to be to offer better terms to the existing agents to encourage them to sell the products of I.D.P.L. on a priority basis.
32	10·10	The Committee suggest that the surplus staff in the 3 plants should be provided alternative jobs in other undertakings so that the burden of expenditure on account of their salaries and allowances etc. does not add to the heavy deficit of IDPL. It may be true that the staff requirements cannot be strictly regulated according to percentage of production in the plants, but it is to be ensured that the strength of the staff in the plants is justified by their working results. No commercial organisation can afford to employ people for any length of time without a proper return on the amount spent on them in the shape of salaries etc. The staff requirements should therefore be carefully assessed and reduction brought about wherever feasible.
33	10·17	The Committee are of the view that technological research should be properly organised for improving the processes so as to reduce the cost of production of various antibiotics/drugs. The main problem, it appears, is the high cost of production of the products of IDPL and unless some

		effective measures are taken to reduce the costs, it will be difficult to compete with other manufacturers in the field. Special attention should, therefore, be paid to develop processes and introduce changes which will enable the plants to utilise indigenous raw materials to the maximum level and bring down expenditure on importing raw materials and thus reduce the production costs.
34	10.22	Considering all aspects of the question, the Committee do not wish to pursue at this stage the question of merger of the Antibiotics Plant of IDPL with the Hindustan Antibiotics Limited, Pimpri. They are, however, not happy to learn that the Coordination Committee, set up by Government has not been functioning properly so far. They would, therefore, recommend that the Coordination Committee should be activised and meet regularly in order to achieve effective coordination between the two undertakings particularly in the fields of research and development.
35	10.24	The Committee are distressed to note that the projects of IDPL have so far suffered a huge loss exceeding Rs. 323 lakhs. Various factors that have contributed to these losses have been discussed by the Committee in the earlier chapters of this Report. The Committee do not see any hopeful trends in the near future unless Government takes immediate steps to solve the various problems of the undertaking.

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27.	J. M. Jaina & Brothers, Mori Gate, Delhi.	11
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32.	Jayana Book Depot, Chapparwala Kuan, Karol Bagh, New Delhi.	66
33.	Oxford Book & Stationery Company, Scindia House, Connaught Place, New Delhi—1.	68
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38.	Shri N. Chaoba Singh, News Agent, Ramlal Paul High School Annexe, Imphal.	77
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39.	The Secretary, Establishment Department, The High Commission of India, India House, Aldwych, LONDON W.C.—2.	59

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