

HINDUSTAN ANTIBIOTICS LIMITED
PIMPRI, POONA - 18

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Brief Note

on the working of

Hindustan Antibiotics Limited, Pimpri,

for information of the

COMMITTEE ON PUBLIC UNDERTAKINGS

on their visit on

28th November, 1971

HINDUSTAN ANTIBIOTICS LIMITED

PIMPRI, POONA-18

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(1) Brief history of the project.

I. INTRODUCTION

Hindustan Antibiotics Limited is a Government of India Enterprise registered as a Limited Company under the Indian Companies Act on the 30th March 1954. The Chairman, the Board of Directors and the Managing Director are appointed by the Government of India.

The authorised capital of the Company is Rs. 4 crores divided into 40,000 shares of 1000 rupees each. The subscribed and paid-up share capital as on date is Rs. 2,47,26,000.

II. SHORT HISTORY

The Penicillin Project of the Hindustan Antibiotics was set up as a departmental venture in collaboration with United Nations International Children's Emergency Fund (UNICEF) and World Health Organisation (WHO) by an agreement on 24th July 1951 known as Joint Plan of Operations. UNICEF provided foreign exchange for purchase of machinery and equipment to the extent of 850,000 US Dollars which had to be paid back "in kind" as Penicillin vials for treatment of children and pregnant mothers in the South-east Asian countries including India; WHO provided technical assistance at an estimated cost of 350,000 Dollars.

The Company was formed in the year 1954. The liability on account of the UNICEF namely, 850,000 Dollars has been fully liquidated. Further owing to the deletion of "no-profit" clause from the agreement entered into with the United Nations Organisation, a free supply to UNICEF of a total of 6 millions mega units of Penicillin in vials costing approximately Rs. 55 lakhs had to be made and this liability has been almost discharged. The capacity for production of Penicillin has been expanded from time to time and now is 75 MMU per annum including Penicillin 'V' bulk.

In 1958, the Company entered into an agreement with Messrs Merck & Co., U.S.A. for the manufacture of streptomycin Sulphate under licence. The plant was inaugurated in 1962 and its doubling to 80-90 tonnes per annum was completed in November 1965.

The sub-division capacity which was about 150 lakhs vials per annum in 1958 has been gradually increased to keep in line with the bulk production and the present capacity is at about 600 lakh vials per annum. However, this target could be achieved only after replacement of some of the older machinery for which action has already been initiated.

Hamycin plant: Based on its research discovery and own technology, the Company has established manufacturing facilities for a production of 250 Kgs. of Hamycin per annum. The plant has been made versatile to handle all other newer antibiotics like Dermostatin, Aureofungin, Antiamoebin etc. It is also being adopted for the manufacture of Neomycin sulphate and Tetracycline for which licensed

capacities are very limited. Hamycin is undergoing elaborate clinical trials both in India and abroad and on the successful conclusion of these trials and acceptance by the Drug authorities, the production capacity for Hamycin will gradually get utilised.

The growth of the Company's production capacities is indicated below:-

	Year of installation	Capacity per annum	Capital cost (Rs. in lakhs)
A) <u>PENICILLIN</u>			
i) Initial plant	1955	25 MMU	117.05
ii) 60% Expansion	1959	25 MMU to 40 MMU	42.50
iii) Further expansion	1962	40 MMU to 60 MMU as 'G' 53 MMU as G&V	61.50
iv) 40% Expansion	1965	60 MMU to 84 MMU as G or 75 MMU as G&V	28.69
B) <u>STREPTOMYCIN</u>			
i) Initial plant	1962	40 tonnes	208.16
ii) Doubling of capacity	1965	80 tonnes	55.24
C) <u>Hamycin Plant</u>			
	1969	250 Kgs.	64.58
D) <u>SUB-DIVIDED OPERATIONS</u>			
1) <u>Vialling</u>			
i) Initial filling line	1955	150 lakh vials	1.40
ii) Additional line	1959	300 ,,	1.68
iii) 3rd line	1964	450 ,,	6.29
iv) 4th line	1964	600 ,,	6.29
2) Capsuling machine	1962	60 lakh capsules	0.87
3) Tableting machine	1959	12 lakhs	0.48
,,	1968	120 lakhs	0.49

The progress of introduction of products of the Company is as below:

	Introduced during
I. <u>Existing Products:</u>	
A - <u>Bulk products</u>	
Penicillin G bulk	1955
Penicillin V bulk	1958

Introduced during

Streptomycin Sulphate	1963
Hamycin	1964
Streptocycline	1966
Aurofungin	1966

B - Sub-divided products:

Vialled products of Penicillin) and Streptomycin and their) combinations)	1957/1958
Penicillin V Tablets	1958
Tetracycline Capsules	1966
Hamycin Tablets	1963
Hamycin Suspension	1963
Benzathine Penicillin vials (6 lac units)	1971

II. Products under contemplation:A. Bulk Products:

(Anticipated)

Vitamin 'C'	1972-73
Neomycin Sulphate	1972-73
Semi-synthetic Penicillin	1973-74
Erythromycin	1973-74

B. Sub-divided products:

Ampicillin capsules	1971-72
Pen. V. Granules for syrup	1971-72
Hamycin ointment	1971-72
Neomycin Tablets	1972-73
Neomycin ointment	1972-73
Hamycin Capsules/Tablets	1972-73

(2) Organisational set-up

The Organisational set-up is enclosed at Annexure I.

(3) Functions and performance during the last three years and its comparison with targets:I. PRODUCTION:

The targets and actual production for the preceding three years are given below:-

		<u>1968-69</u>	<u>1969-70</u>	<u>1970-71</u>
<u>A. Penicillin Plant</u>				
<u>Bulk Penicillin</u>	MMU	75	75	75
(Installed capacity -				
Pen.G 63 mmu				
Pen.V <u>12 mmu</u>				
Total 75 mmu)				
Target for the year	MMU	57.53	64.67	58.83
Actual production	MMU	55.78	60.34	58.23
<u>B. Streptomycin Plant</u>				
Streptomycin Sulphate	Kgs.	80,000	80,000	80,000
Target for the year	Kgs.	67,005	80,007	62,578
Actual production	Kgs.	70,253	83,138	60,971
<u>C. Sub-division activity</u>				
<u>Vialling</u>				
Installed capacity	Vials	600	600	600
Target for the year	in	453	553	539
Actual production	Lakhs	449	545	523
<u>D. Other products:</u>				
<u>Actual production:</u>				
Penicillin V Tablets	Lakh tablets	116.53	130.51	136.08
Tetracycline Capsules	Lakh Capsules	28.01	37.52	42.49
Hamycin Vaginal Tabs.	Lakh Tablets	3.25	6.98	4.61
Hamycin Glycerine Susp.	Bottles	32,838	15,261	22,822

The demand for Penicillin which had been slack during 1966-67, 1967-68 and 1968-69 showed a tendency to pick up during 1969-70 and 1970-71. Operations during 1971-72 have been budgeted on the basis of utilisation of plant capacity.

The Streptomycin production has been planned at about 90% capacity in 1971-72 taking into account the problems of raw materials, power failures etc.

The sub-division capacity is kept at 597 lakhs vials per annum assuming the successful replacement of older vialling machinery which is expected to be completed during the year.

II. SALES

Both Penicillin and Streptomycin are sold in bulk and vialled form and all the sales to Government, Semi-Government and Charitable Institutions including those required by the Defence are handled directly by the Company. The gross sales - both vialled and bulk antibiotics - during the last three years are given below:-

	(Rs. in lakhs)		
	<u>1968-69</u>	<u>1969-70</u>	<u>1970-71</u>
A. Sale of Bulk Penicillin	241.67	243.33	208.83
B. Sale of Bulk Streptomycin	123.97	155.58	98.38
C. Sale of sub-divided products	320.18	385.14	371.93
D. Agricultural antibiotics	2.79	3.19	3.61
E. Gross sales	688.61	787.24	682.75
F. Net Sales	632.55	723.50	619.93

III. EXPORT EFFORTS

H.A.L. is making efforts to export some of its finished packings to countries like East Africa, Mauritius etc. During 1969-70, the export earnings on this account were Rs. 1.72 lakhs and during 1970-71, it was Rs. 1.04 lakhs.

Besides the above, H.A.L. is exporting Hamycin - its own discovery for being formulated by a licensee (M/s Cooper Laboratories of U.S.A.) and sold in countries like Mexico, Venezuela, etc. The foreign exchange income both on account of royalties and sale of Hamycin during 1969-70 and 1970-71 has been Rs. 0.85 lakhs and Rs. 0.59 lakhs respectively.

IV. FINANCE

The finances of the Company continued to be sound. The liquidity of the Company is good and not only the entire working capital required for its operations is met from the internal resources itself but also all the capital required for the expansion and diversification programmes. The Company has ploughed back a total of Rs. 608.06 lakhs till 31.3.1971 from internal resources for meeting the capital expenditure programme and new projects. All future programmes that have been contemplated during the IV Five Year Plan are also expected to be financed from internal resources.

The following statement gives the salient aspects of finances for the last three years:-

	<u>Rs. in lakhs</u>		
	<u>1968-69</u>	<u>1969-70</u>	<u>1970-71</u>
Authorised capital	400.00	400.00	400.00
Subscribed capital	247.26	247.26	247.26
Net worth	788.15	818.00	861.23
Profit before tax and after Development Rebate Reserve	110.53	98.94	17.96
Tax provision	68.04	54.82	5.50
Dividend	24.73	24.72	
Percentage of profit before tax to net sales %	17.47	13.68	2.90
Value of production	647.33	710.84	629.87
Inventory	303.95	291.24	309.13

The quantum of profit before tax has come down sharply due to various causes such as increase in wages, power cost, furnace oil costs and of raw materials, and fall in sales/production due to problem of obtaining quality raw materials specially Soyabean meal for the Streptomycin operations. There has been a steady increase in the price of raw materials during the past few years which would be of the order of 70 to 75% over 1961-62 prices. In addition, the incidence of increase in power and fuel has been very much marked. Power tariff has been revised twice upwards during the last few years resulting in a total increase of over 50% on 1961-62 rates and the increase in fuel oil charges (taking into account the increase of excise duty in the budget of 1970-71) would be of the order of about 80%. These increases together with the increase in wages and salaries have outstripped the effects of improvements in efficiencies and technologies that have been achieved over years. The following table illustrates this:

	<u>Approximate cost indices with 61-62 as base year</u>			
	<u>1961-62</u>	<u>1968-69</u>	<u>1969-70</u>	<u>1970-71</u> <u>approx</u>
Power	100	127	143	150
Furnace oil	100	156	160	132
Wages	100	206	219	224
Raw materials	100	157	172	175

The effect of these ^{reflected} is shown in the cost indices given below:

	<u>1961-62</u>	<u>1968-69</u>	<u>1969-70</u>	<u>1970-71</u>
Pen. G Bulk	100	145	163	181
Pen. V. Pot. Bulk	100	114	140	170
Streptomycin Sulphate (1965-66)	100	124	117	149
Vialling	100	139	135	160

As a result of this steep increase in the prices of raw materials services and wages and the consequent cost of production, while the sale price remains constant at 1961-62 levels for Penicillin and 1967 levels for Streptomycin, the operations have resulted in reduced levels of build-up of internal resources. Though it is our present estimation that the

flow of internal resources will be adequate to meet the new projects contemplated in IV plan, if the present disturbing trends in increase in costs continue, the position may become difficult.

V. RESEARCH *o*

Research which has been an important integral part of H.A.Ltd. has been rendering valuable service. Besides being engaged on improving techniques to achieve better efficiencies, development of strains, import substitution etc., work on newer antibiotics continued to be a major activity of the Research Centre. To assist in these activities a full fledged versatile Pilot plant has been established. The total capital expenditure on research and development activities to date is Rs. 56 lakhs. The recurring revenue expenditure for the last three years is given below:-

1968-69	...	Rs. 20.94 lakhs
1969-70	...	Rs. 22.75 lakhs
1970-71	...	Rs. 22.72 lakhs

As a result of intensive research effort, the Company has not only invented newer antibiotics like Hamycin, Aureofungin, Dermostatin and Antiamocbin, but has also improved strains of Penicillin and a number of expensive imported raw materials like Lactose has been substituted. The Research activities is now mostly directed towards finding newer processes of production of Semi-synthetic Penicillins in addition to other developmental activities. The Research activities are supplemented by a well equipped Library and a General Purpose Pilot plant established at a cost of Rs. 16 lakhs.

The Research Laboratory is recognised as a postgraduate and doctorate training centre for various Universities in the country. A number of Officers are recognised as guides for these courses.

(4) Special features including future plans:

(a) Special features:

There has been a fall in the use of Penicillin in the recent past. Arising out of this, a proposal for diversification of the plant capacity or for utilisation of the production for other uses is actively engaging our attention and for this, the following are contemplated/taken up:

- (i) Manufacture of long acting Benzathine Penicillin - in operation
- (ii) Development of Semi-synthetic Penicillin like Ampicillin, Cloxacillin etc. - letter of intent received.
- (iii) Introduction of Hamycin ointment,
- (iv) Introduction of Penicillin V Granules for pediatric syrup.

(b) Future plans:

Please see Annexure II

(5) Staff strength (category-wise) sanctioned and actually working during each of the last three years:

Category-wise staff strength sanctioned and actually working during the last 3 years is given below:-

	<u>1968-69</u>	<u>1969-70</u>	<u>1970-71</u>	
	Working strength	Working strength	working strength	Sanctioned
1. Supervising Officers	155	152	154	173
2. Supervisory Tech.	71	70	74	74
3. Non-technical & Minist.	306	313	331	357
4. Skilled	355	372	467	493
5. Semi-skilled	251	254	237	272
6. Un-skilled	962	963	994	989
TOTAL	2100	2124	2257	2358

(6) Copy of the latest Annual Report of the Undertaking:

Placed at Annexure III.