

REPORT

OF THE

STUDY GROUP FOR PAPER AND PULP INDUSTRY



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NATIONAL COMMISSION ON LABOUR

Printed in India By M/s Samrat Press, Delhi in 1968. Published by Manager of Publications, Civil Lines, Delhi-6.

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FOREWORD

The National Commission on Labour appointed the Study Group for Paper and Pulp Industry in its attempt to understand the changes in conditions of Labour in that industry since Independence. This was one of the series of Study Groups set up for different industries. The Study Group was required to analyse available information and project its thinking on labour problems in the Paper and Pulp industry for the years to come taking into account the possible developments in the industry.

The views expressed in the report are the views of the Study Group. In examining them for framing its final recommendations, the Commission will attach due importance to these views coming as they do from knowledgeable persons in the Paper and Pulp industry. In the meanwhile, the report is being published by the Commission with a view to seeking comments on it from persons/institutions interested in the development of that industry.

The Commission is grateful to the Chairman and Members of the Study Group individually for completing their work within the time limit fixed for them. The Commission is also grateful to all persons/institutions who may have helped the Study Group in reaching conclusions.

> P. B. Gajendragadkar. Chairman.

National Commission¹ on Labour, D-27, South Extension, Part-II, New Delhi-3.

MEMBERS

- Shri H.P. Dhanuka, The Bengal Paper Mill Co. Ltd 14, Netaji Subhas Road, Calcutta-1.
- Shri P.S. Kothari, Managing Director, The National Newsprint & Paper Mills Ltd., Nepanagar (M.P.).
- Shri Hari Singh, Inspector-General of Forests, Ministry of Food & Agriculture, C.D. & Co-operation, Deptt. of Agriculture, New Delhi.
- Dr. R.L. Bhargava, General Manager, West Coast Paper Mills Ltd., Dandeli, Dist. North Kanara. Mysore State.
- Shri G.C. Josni, General Secretary, Indian National Trade Union Congress, Punjab, Himachal & J&K Region, H.O. Yamuna Nagar, (Ambala).
- Shri Nirmal Kumar Sen, Babuganj, P.O. Hooghly, Dist. Hooghly, West Bengal.
- Shri K. Banerjee, Personnel Officer, The Bengal Paper Mill Co. Ltd., Raniganj, Dist : BURDWAN.
- Shri N.C. Kundu, Deputy Labour Commissioner, West Bengal, New Sectt. Bldgs., Calcutta-1.

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Memorandum No. 3 (25)/67-NCL dated 22nd June, 1967, of the National Commission on Labour constituting this Study Group for Paper and Pulp Industry is reproduced below:

Subject : Constitution of a Study Group for Paper and Pulp :

Headquarters --- Calcutta.

Reference :-- Government of India, Ministry of Labour, Employment and Rehabilitation (Department of Labour & Employment) Resolution No. 36/14/66-I&E, dated the 24th December, 1966.

The National Commission on Labour appoints the following persons to constitute the Study Group for Paper and Pulp:

Headquarters : Calcutta :

1.	Shri H.P. Dhanul The Bengal Paper Mill Co. Ltd., 14, Netaji Subhas Road, Calcutta-1.	Chairman
2.	Shri P.S. Kothari, Managing Director, The National Newsprint & Paper Mills Ltd., Nepanagar (M.P.).	Member
3.	Shri Harl Singh, Inspector General of Forests, Ministry of Food & Agriculture, C.D. & Co-operation, Department of Agriculture, New Delhi.	Member
4.	Dr. R.L. Bhargava, General Manager, West Coast Paper Mills Ltd., Dandeli, Dist. : North Kanara, Mysore State.	Member

5	Shri G.C. Joshi, General Secretary, Indian National Trade Union Cor Punjab, Himachal, J. & K. Region,	igress,
	H.O. Yamuna Nagar (Ambala).	Member
6.	Shri Nirmal Kumar Sen, Babuganj, P.O. Hooghly, Dist. Hooghly, West Bengal.	Member
7.	Shri K. Banerjee, Personnel Officer, The Bengal Paper Mill Co. Ltd., Raniganj, Dist. Burdwan.	Member
8.	Shri N.C. Kundu, Deputy Labour Commissioner, West Bengai, New Secretariat Buildings, Calcutta-1.	Member-Secretary

The Study Group will, in regard to the subject allocated to it, ascertain facts from available literature on the subject, draw conclusions and suggest solutions to the problems posed by the Group for the consideration of the Commission. The Commission may also pose problems for consideration of the Group from time to time. The Study Group will submit its report as early as possible."

The Study Group on Paper and Pulp Industry took up the work in the month of December, 1966. The first meeting of the Study Group was held at the meeting Room of the Labour Directorate. Government of West Bengal, New Secretariat Buildings, Calcutta-1 on 7.9.67, when a general procedure was adopted for carrying out the work allotted to the Group. The first meeting was presided over by Shri H.P. Dhanuka, Chairman of the Group and it was attended by Shri P.S. Kothari, Managing Director, National Newsprint and Paper Mills Limited, Nepanagar, Shri N. K. Sen, Trade Unionist and Shri N. C. Kundu, Deputy Labour Commissioner. In order to obtain certain information relating to wages and other benefits, a questionnaire was issued with the approval of the members to 50 units of the industry and their unions. Only 18 mills submitted replies to questionnaire. Response from union side has been extremely poor. Only Rastriya Kagaj Mill Mazdoor Union, Nepanagar, and Shree Gopal Paper Mills Labour Union, Yamuna Nagar, submitted replics.

The second meeting of the Study Group was held at the Titaghur Paper Mill No. I, Titaghur, on 16.2.68. Shri H.P. Dhanuka, Chairman of the Study Group presided over the meeting which was attended by Dr. R.L. Bhargava, General Manager, West Coast Paper Mills Ltd., Dandeli, Mysore, Shri Hari Singh, Inspector General of Forests, Ex-officio Joint. Secretary, Agriculture and C & D, Ministry of Agriculture, Government of India and Shri N.C. Kundu, Deputy Labour Commissioner. In order to have an idea as to the actual working of the paper mills and its working conditions, the members visited Titaghur Paper Mill No. I the same day. On 17.2.68, three of the members visited Bengal Paper Mill Co. Ltd., Raniganj.

The third meeting of the Study Group was held in Delhi on 15.5.68 and 16.5.68 at the office of the Bengal Paper Mill Co. Ltd., at 81, Sundar Nagar, New Delhi-11. Shri H.P. Dhanuka, Chairman of the Study Group presided over the meetings. Shri Kothari, Shri Hari Singh, Shri G.C. Joshi and Shri N.C. Kundu were present. In course of prolonged deliberations during the two days, the Study Group finalised its report.

1. Paper plays a very important role in all spheres of life. It is the most vital vehicle for propagation of education and social and industrial advancement. It is impossible to visualise progress of civilisation without it. Paper is now rightly considered as one of the prime necessities of modern life and civilization. In one form or the other. everyone of us has to use it. In its importance to our existence, it ranks next to food, clothing and housing In fact, it is correctly said that the index of measuring a nation's development and progress of civilisation is the per capita consumption of paper. Our country undoubtedly is lagging far behind in this respect. The per capita consumption of paper in India is still as low as 3.0 lbs. per year, about the 80th in the world, as compared to 530 lbs in U.S.A., 310 lbs Canada and 150-250 lbs in other European countries. India is now on the path of rapid industrialisation and, in the wake of this, she has a cherished goal of real welfare state to make all possible efforts to achieve the progress.

2. Paper has a vivid utility and varied end-uses. A boy going to school, a scientist preparing plans, medical practitioner writing prescription, buyer to get pack and all others need paper. To-day, even sophisticated dress materials, furnitures and decorative articles are being made of or with the help of paper and boards.

3. For the manufacture of any type of paper, the essential requirement is cellulose fibre. Though cellulose is found abundantly in all vegetation, in actual practice, only a relatively small range of plants is used for paper manufacture.

4. Though paper was invented as far back as 105 A.D., it was only in late fourteenth century that the paper was produced on a large scale. The first book printed on paper was 'The Gutenberge Bible' in the year 1455, which marked the beginning of book printing and the consequent increase in demand of paper. Even then, until in the nineteenth century, paper was made by hand and the raw materials used were solely cotton rags. During this period, paper mills were continuously plagued with the shortage of faw materials which eventually necessitated, between the period of 1844 to 1884, discovery of processes for the manufacture of paper pulp from wood. Since then, there has been continuous advancement in paper technology and newer and newer raw materials are being added for use in this industry.

5. The beginning of paper industry in India dates back to 1832 when the first paper mill was established by Dr. Carey at Serampore in West Bengal. This venture, however, failed after few years. Meanwhile in 1867, another paper mill, the Royal Paper Mills was established closeby at Bally and the machine of Serampore Mills was also transferred to this mill in 1870. Waste paper, rags and jute cuttings were used as raw materials. After more than one decade, another mill, the Upper India Couper Mills, started operations at Lucknow in 1881. Closely following, in 1884, Titaghur Paper Mills, Calcutta, came into production. Both these mills extended the use of raw materials to "mooni" and "Sabai" grass. Soon, two more paper mills were set up-the Deccan Paper Mill at Poona in 1887 and the Bengal Paper Mill at Ranigani in 1889. These mills were, however, running under many severe handicaps, particularly regarding shortage of raw materials or imported pulp.

6. Then came the successful results of the research done by the Forest Research Institute at Dehradun, which established the use of bamboo as a raw material for paper manufacture, and in the year 1912 Titaghur Paper Mills were first to utilise this technology and modified theis equipments to use bamboo on a limited scale. During the first world war, the industry progressed due to heavy demands. But in the post-war years, due to severe foreign competition and general market recession, the industry suffered a heavy set-back and had to struggle for its very existence.

7. The Government came to the aid of the industry by levying protective duties on certain kinds of paper by enacting the Bamboo Paper Industry Act in 1925. These protections gave the industry much-needed fillip and since then the paper industry had never to look back. The production steadily rose from 33,000 tons in 1924 to 59,200 tons in 1938-39. The Second World War became the turning point for Indian Paper Industry and in a way supported further expansion. During the post-independence era the growth was in leaps and bounds. By 1950, the production had almost doubled and reached to 1,08,912 tons.

8. It was estimated in the First Plan that the demand for paper and paper boards was about 1,75,000 tons in 1951-52. It was considered that during the First Plan, the annual demand for paper and paper boards exclusive of newsprint and old newspapers would increase to 2,00,000 tons by 1955-56. The demand however grew more rapidly and reached 2,38,000 tons by the end of the First Plan period. Though the production rose from 1,14,000 tons in 1950-51 to 1,93,404 tons in 1956, country had to import in 1950-51, there were 17 units (6 large and 14 small) producing about 1,08,000 tons. In the year 1956, there were 19 units (11 large and 8 small) producing about 1,95,000 tons. Thus, during the First Plan, production had increased by about 87,000 tons.

9. The target for the Second Plan for paper and paper boards was fixed at an annual production of 3,30,000 tons to be achieved by the end of 1960-61. The licences granted. under the Industries (Development and Regulation) Act before the middle of 1958 for establishment of new paper mills or expansion of existing mills, if they had materialised, would have resulted in an installed capacity of 5,55,200 tons. by the end of the Second Plan. However, due to foreign. exchange difficulties, most of these schemes could not. materialise. The increase in annual production during the Second Plan was 1,56,660 tons against 87,000 tons in the: First Plan. There was an acute shortage of naper and newsnrint during the Second Plan period due to restrictions on imports. The imports of paper were reduced from 67.065 tons in 1955 to 17,810 tons in 1959. There were complaints. about the non-availability of paper and its prices, and the Government had to order a Tariff Enquiry into the costing of paper and had also set up a Committee to enquire into the complaints and to ensure as far as possible, in times of scarcity and recognised shortages, equitable distribution among various consuming interests. This Committee was able to regulate distribution through the Paper Mills themselves without bringing in controls.

10. The target envisaged during the Third Plan period was fixed at 7,00,000 tones of paper and paper boards (excluding newsprint) but the production had fallen short. The actual production was only 5,50,000 tonnes. However. the supply was adequate in relation to demand as the latter did not increase at the rate originally estimated.

11. During the Frouth Plan, the target of capacity envisaged for paper is 1.20 million tonnes, including 3,00,000 tonnes of cheap printing paper suitable for newsprint. Although schemes amounting to substantially more than the Fourth Plan target have been licensed for paper, the progress on the schemes has not been satisfactory. The establishment of new paper mills involves fairly heavey capital investment. Financial and raw material arrangements present difficulties in the accelerated growth of the paper industry.

12. The capacity for production of paper and paper boards has increased to 7,30,000 tonnes as against 7,11,220 tonnes per year in 1967 on account of expansion of some of the existing units and the establishment of one new small unit. The actual production of paper and paper boards during the year 1967 was 6,22,215 tonnes as against 5,85,082 tonnes in the year 1966. It may be mentioned that in the first half of the year 1967 there was appreciable loss of production due to prolonged strikes in a number of mills. However, during the second half of the year, production picked up, although the labour situation in some of the mills, particularly in West Bengal, continued to be unsatisfactory. Furthermore, few units were not in operation on account of financial and other difficulties. The nett loss of production on account of these factors is estimated at about 25,000 tonnes.

13. The four statements herein below details the names of the existing units manufacturing (i) Paper and Paper Boards, (ii) Newsprint, (iii) Pulp only, and (iv) Straw Board and Mill Board.

14. The following table summarises the total available capacity and the annual production in 1966 and 1967 in respect of different sectors of the Industry.

		Capacity tonnes/year	Production in 1966	in tonnes in 1967
(i) (ii)	Paper & Paper Boards Newsprint Rayon Grade Pulp	7,11,220 30,000 54,000	5,85,082 29,313 51,398	6,08,879 31,200 56,864
(iii) (iv)	Strawboards and Millboards	1,12,280	71,520	65,000

As per the data available in early 1967, the following schemes for establishment and substantial expansion in

s. 1	No. Name of the unit	Additional capacity tonnes/year	Likely date of commis- sioning	Remarks
1.	Titaghur Paper Mills, Kankinada	10,600	April' 68	Expansion by provision of balancing equipment.
2.	India Paper[Pulp Co.,			4
	Hazinagar	8,000	June '68	-do-
3.	Bengal Paper Mili. Raniganj	21,000	April '68	-do-
4.	Star Paper Mills, Saharanpur	17,800	April '68 ·	-do-
5,	Bhagwan Devi Paper Mills	1.800	June '68	New Unit
6.	Andhra Pradesh Pulp & Paper Mills, Rajahmundry			Expansion.
7.	Seshasayee Paper &	19,500	April '69	Expansion.
	Boards Ltd., Cauvery	15,000	June '68	Expansion by provision of balancing equipment.
8,				
~	Sirpur -Kaghaznagar	15,000	Nov, '69	-do-
9.	Brajrajnagar/Amlai	30,000	Dec. '69	-do-
10.	West Coast Paper Mills,			
	Dandeli	15,000	Dec. '69	-do-
	A			

capacity in regard to paper and paper board mills are likely to materialise in course of two years :---

15. The newsprint production in the country is still very meagre. Only one unit, the National Newsprint and Paper Mills Ltd., at Nepanagar under public sector with an installed capacity of 30,000 tonnes per year is manufacturing newsprint. The actual production of this unit in the year 1966 was 29,300 tonnes and 31,200 tonnes in the year 1967. The prodution of newsprint is far behind the actual demand and substantial quantity had to be imported in the past, but due to stringent. foreign exchange position, imports have been scaled down. To fill up the gap, the Government has granted authorisation permits to registered newspapers to have supplies of white printing paper without payment of excise duty. But, on account of increasing demands, such temporary palliatives. would not be an adequate relief and more vigorous and rational methods for increasing the capacity will have to be This mill is already undergoing expansion toadopted. increase the capacity from 30,000 tonnes to 75,000 tonnes. per year and the scheme is under implementation. The new paper machine which has already been received is under installation and would be ready for operation by the later half of 1968. But the entire composite unit would be ready for production only by the end of 1969. The estimated demand for newsprint by the end of Forth Plan is much higher and is envisaged to an extent of 3,00,000 tonnes per year. Another newsprint mill is being proposed under public sector. Considerable work had already been done in formulating proposal for the establishment of newsprint mills in the country. An appraisal Committee of the Experts has been constituted by the Ministry of Industrial Development to examine and recommend to the Government about the viability and feasibility of the project reports being prepared.

16. Further, one scheme under private sector is under consideration with a capacity of 60,000 tonnes per year in Himachal Pradesh.

17. Even if these schemes are implemented, the target of Fourth Plan will not be achieved and, therefore, the shortage of newsprint will have to be met by the mills other than newsprint mills.

PULP

18. Rayon Grade Pulp: At present, there is only one unit in the country producing rayon grade pulp. Production of this unit increased from 51,400 tonnes in 1966 to about 55,000 tonnes in the year 1967. More or less, the entire output of this mill is utilised for the manufacture of viscose staple fibre as well as blending with imported pulp for the manufacture of regenerated cellulose fibre and continuous viscose filament yarn. The operation of this unit has assisted the country in saving a foreign exchange to the tune of about Rs. 10 crores annually. The second unit for rayon grade pulp production based on the eucalyptus resources of Nilgiries is under erection in Coimbatore area. This unit, which has been planned for an initial capacity of about 22,000 tonnes per year, is likely to start production in 1969.

19. Paper Grade Pulp: Many paper mills in the country are integrated units manufacturing their own pulp. The only unit for production of paper grade pulp is under installation in Surat District, Gujarat. This pulp mill which has an in-built capacity of about 36,000 tonnes per year is likely to commence production in 1968-69. Production of paper grade pulp in this mill will go a long way and will

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assist to a considerable extent the working of a number of small units, which at present exclusively depend upon outside sources for supply of pulp.

20. Straw Boards and Mill Boards: The total capacity of the units registered with the Director General of Technology and Development is 1,19,780 tonnes per year. The capacity utilisation of this sector of the industry is, however, about 60%, as its production is seasonal on account of semiautomatic machines installed in a number of units. The production during the year 1967 was around 65,000 tonnes as against a little over 71,000 tonnes in the preceding year. The fall in production, particularly in respect of straw boards, during the year 1967, was due to the lack of adequate supplies of bagasse from the Sugar Industry.

21. Paper based Industries: Besides pulp, paper and board mills, there are a large number of manufacturing units producing paper-based industrial packaging materials and conversion paper. These units, though they form a separate category, for the purpose of studying labour conditions of these units, have been circumscribed under the purview of this Study Group. Data concerning capacity and output of the existing units do not follow any particular pattern.

22. Except one newsprint mill at Nepanagar in publicsector, which also was originally registered as a privatecompany, all the paper mills in India to-day are run by privateenterpreneurs. The mills are managed either by a Board of Directors or through Managing Agency System. Paper Industry, unlike other industries, has a very low return of the capital invested and there is no surplus available to plough back. either for expansion and/or for development. The conditions. prevailing to-day indicate that small units are not economical and the bigger units involving heavy capital obligations. cannot be planned and established on account of general economic recession and stringent financial market and over and above, as a whole, due to very low profitability. The ratio of profits to nett worth in the Paper Industry as a whole, after tax, according to Reserve Bank's Study for 1964/65, is only 3.34% as compared with the average ratio of 9.4% for all industries. This ratio of profits of 3.34% has since further declined due to the rising costs of raw materials, chemicals. and imported essential items. This continuous alarming. decline in profitability is the main reason for shortfall in the terrets during the Third Plan and even to-day. Unless effective steps are taken from now on to stimulate substantial and rapid increase in production, it is feared that in spite of the apparent glut in paper production, the country may have toface a serious shortage of paper in the coming years. Aunexure III, "Study of the Finances of Paper Manufacturing: Companies : 1965-66 and 1966-67" compiled by the Economic Times and published in their issue of 1st January, 1968, and given in this report would give a correct picture of present state of affairs of the industry.

23. It is very much doubtful, in the present circumstances, whether the Fourth Plan period target could be achieved. The cost of installing a new unit after Devaluation is estimated to be of the order of Rs. 6,100/- per annual tonne of paper, while the expansion of existing unit would require a little less. Assuming that 50% of additional capacity envisage ed for the Fourth Plan is achieved by substantial expansion of existing mills and the balance 50% by the establishment of new units, the average investment per annual tonne would be around Rs. 5,500/-. This would mean that the fulfilment of the Fourth Plan target suggested above would involve an outlay of the order of Rs. 400 crores, which indeed is a-formidable task-

Important factors contributing to this decline in 24. profitability and shirking further investments in the industry by prospective and existing enterpreneurs are : (i) the spiralling rise in the cost of production due to increase in cost materials, chemicals and essential imported of raw items and (ii) selling price of paper fixed by the Government. This selling price, which was fixed in the year 1960, virtually remains the same, except for a little increase given in 1962, in spite of the fact that actual and operating costs have gone up year after year. If we consider the index of the price of paper, taking an index of 100 in 1958 as the base, it will be seen that the price index for paper has fallen to 88, whereas price indices of the other commodities have risen considerably to anywhere between 180 and 300. It is a matter of interest that other manufacturing industries had their prices revisedsome more than once-during this period of 8 years. For instance, Cement Industry obtained by 1966 an increase of nearly 48% over the prices in 1960. The Tyre Industry also had a like increase betweep 1960 and 1966. There are numerous other examples of similar nature like Textiles, Sugar, Steel, etc., etc. It is, however, heartening to note that the Development Council had made recommendation to the Government for revision of paper prices. As a result, the Government had been seriously thinking about this matter and consequently instead of increasing the price, they have very recently withdrawn the control on prices of all varieties of paper except newsprint with effect from 3rd May, 1968, as notified vide Extra-Ordinary Gazette Notification of that date. It was officially stated that the Committee of Economic Secretaries had come to the conclusion that the paper prices were unremunerative and did not therefore, attract fresh investment that was badly needed for the expansion of the Industry. The low prices offered little incentive to enterpreneurs to enter the field of paper industry. We consider that this is a step in the right direction.

A-TECHNOLOGY

25. The Forest Research Institute Dehradun is the only Institute of its kind in India which carries out research related to the paper industry. Some work in this direction is also being done by Regional Research Laboratory at Jorhat, Assam. The School of Paper Technology established at Saharanpur for training junior technicians for the Paper Industry is yet another landmark in the country. However, the facilities available at all these three Institutes are still not sufficient to carry the Indian Paper Industry to a level of their counterparts in other advanced countries of the world.

26. There is a dearth of qualified and experienced personnel in the country to man the senior positions and the necessity of creating an institute for advanced learning on paper technology to take care of the future requirements of the industry is very much felt. Such an institute can cater to the requirements of the neighbouring countries as well.

27. Establishment of an institute like the one suggested in paragraph 26 above will require a good deal of finance, and organisation and the Government and the industry can possibly do it with their joint efforts.

28. In addition to the research and training facilities for pulp and paper, a good deal of work has yet to be done to develop and implement the technical 'know-how' for manufacture of plant and machinery of standard quality in the country. The development in the field of machinery manufacture depends, to a large extent, on continuous expansion of the Paper Industry itself, which will allow more opportunity to the indigenous machinery manufacturers to meet their requirements from within, but the declining trend in the Paper Industry unless reversed, will retard the progress in the other sphere.

29. A very large percentage of imported spares and components is required by the industry for its normal functioning. A central organization to undertake research on substitution of such imported spares and components should prove very useful with resultant effect in reducing the dependence on other countries and in saving valuable foreign pachange and at the same time providing proper impetus to the indigenous machinery manufacturers.

B--RAW MATERIALS

30. The production of any type of paper is based on cellulose fibre. All natural vegetation contains cellulose, but only a few species have it in large quantity and suitable quality. A major portion of such fibrous raw materials is obtained from the forests, which are controlled by the State Governments, though here and there some small forests may still be owned by private parties. Bamboo, Timber, Grass, Bagasse and Jute Sticks are presently the most important of the raw materials used by the Industry.

(i) Bamboo :

31. The Forest Research Institute, Dehradun, in the

year 1912, established that bamboo was a suitable raw material for making paper. It continues to be the most sought for, but with the steady growth of paper industry in India, its availability has shrunk. Besides, its high cost of exploitation, the rate of royalty levied by the various State Governments are making it an uneconomical item to use.

(ii) Wood :

32. The use of hard woods as a raw material for paper making in India has been established only recently, but due to its short fibre contents, it is being used in a restricted proportion and that too in an admixture with long-fibred material like bamboo. The technical 'know-how' for using this material will require further development and improvement. So far, the use of it has not proved to be economical.

33. As regards the use of soft wood, it has remained restricted due to its availability being restricted to Himalayan Region, from where the extraction of this raw material is invariably uneconomical.

(iii) Sabai Grass :

34. This is a long fibred raw material which grows in some parts of the country. It is also cultivated, but the total quantity available is already earmarked for paper industry, leaving no surplus.

(iv) Bagasse :

35. It is a sugarcane residue available with the sugar industries after extracting the juice and is available in very large quantities. The sugar industry in our country, however, uses it as boiler fuel. It is a potential source of raw material supply to the paper industry, though not cheap, but the sugar industry cannot spare it unless an alternative fuel arrangement is made for them and such arrangement will require conversion of their boilers involving heavy capital expenditure.

(v) Jute Sticks :

36. It is a raw material available in plenty in the jute producing areas of the country, but its collection, transport and storage pose difficult and practical problems. Pulp obtainable from this raw material is also short-fibred and can only be used in admixture with better quality pulp. So, use of this material in paper making has also been very limited.

(vi) Other raw materials :

37. Various straws, Rags and waste papers are being used for good and low quality papers. Rags and waste papers could prove a useful source of supply of raw material, provided collection, of these materials is scientifically organised.

38. The progress of the paper industry depends on adequate and cheap raw material supply and serious efforts on the part of the Government, and the industry are, therefore, called for to keep pace with the planned production.

39. In many States, plantation of fibrous raw materials has been undertaken with the assistance of the Central Government and the information given by Shri Hari Singh, a member of the Study Group, who is also Inspector General of Forests and Ex-Officio Joint Secretary, Ministry of Food, Agriculture, C.D. & Co-operation, is reproduced below :

> "In view of the rapidly rising demand for paper and paper products, it is unlikely that the raw material available from the natural forests even after they are duly tapped will be able to meet the entire requirements of the pulp and paper industry.

Therefore, during the Third Plan, special consideration was paid to the question of raw material supply to pulp and paper industry and it was considered necessary to raise plantations of quick growing species, both indigenous and exotic, such as Eucalyptus. Bamboos, Poplars, Paper Mulberry, Albizzia Procera and Pines which can yield pulpwood within 10-15 years. As it was a new programme, adequate incentive was provided to the State Forest Departments. It was implemented as a centrally sponsored scheme eligible for 100% sudsidy, subject to a maximum of Rs. 500 per hectare of plantation actually raised. A total area of 85,000 hectares was planted under this programme during the Third Plan period in the various States at a cost of Rs. 370 lakhs. During 1966-67 and 1967-68 another 1.1 lakh hectares of plantations of quick growing species too have been added. Species which have been mainly raised by the State Forest Departments are bamboos and eucalyptus. Trial plantations of pines and poplar too have been raised. The scheme has been taken up enthusiastically, and is likely to be continued on a largescale during the subsequent Plans also. Efforts are also being made to popularise more indigenous and exotic species. For this purpose, plantation trials are being conducted on various species to determine their suitability in various soil and climatic conditions.

It would thus be seen that all possible steps are being taken to provide necessary raw material requirements of the pulp and paper industry."

40. It is hoped that the supply from these plantations will be available to the Industry on a sustained and economic basis.

41. The paper industry can undertake its own plantation to augment the supply of raw materials. In fact, one paper mill has already done good work in this direction. The State Government should encourage plantations by paper mills on suitable waste lands.

C-CHEMICALS

42. With the growth of the chemical industry in the country, the paper industry's requirements of chemicals, except for Sodium Sulphate, is being met indigenously, although the prices have increased very substantially. In respect of Sodium Sulphate, the quality, price and availability are still not satisfactory.

INVESTMENT REQUIREMENTS AND FINANCIAL WORKING

43. According to Annual Survey of Industries, 1963, the total fixed capital investment in all types of factories, producing pulp, paper and newsprint as also paperboards, strawboards and millboards, which numbered 56 at that time, was Rs. 71.97 crores. In addition, these factoriesemployed a total working capital of about Rs. 22.10 crores. For the capacity targets to be achieved during the Fourth Plan period, an additional aggregate investment of Rs. 400 crores is required. As already stated, it is almost an impossible task to find such a large investment particularly in view of the exceedingly low profitability of paper industry as it exists to-day, and the present stringent market conditions.

44. The Annual Survey of Industries, 1963 provides an over-all view of the financial working of the paper industry also. For the composite paper industry, as aforesaid, the Survey shows that the total productive capital employed by the 56 factories in existence in 1963 was Rs. 94.07 crores. The gross value of the output of these factories was Rs. 80.69 crores and after allowing for the total value of inputs, materials and services used and depreciation, the net value added by manufacture worked out at Rs. 23.29 crores. The total amount expended by way of wages and salaries including money value of benefits and privileges being Rs. 9.35 crores and Rs. 1.83 crores for pulp, paper and news-

print industry and for paperboard, strawboard and millboard industry respectively, the proportion of wage costs to the net value added worked at 49.0% and 42.4% respectively.

45. Though authentic data for any similar comprehensive analysis for paper industry are not available, it is common knowledge in industry that the gross profits as well as net profits have appreciably declined since them. Nevertheless, the proportion of wage costs to the net value added has been consistently increasing. More so, because the wages had upward trend and the net value downward.

EMPLOYMENT STRUCTURE AND POTENTIAL

46. According to the Annual Survey of Industries, 1963, Paper Industry as a whole employed 40,023 persons out of which 32,596 are workers. In further analysis of it, it had been mentioned that 28,595 were directly employed (28,028 men and 567 women) and 4,001 were employed through contractors and as such 7,427 persons were employed other than the workers. It is interesting to learn from. this Survey that unpaid family workers were not included in the foregoing figures. Since the Paper Industry is a continuous process industry and working round the clock, the total of net hours of work was as high as 87,788,892. Total payment of wages, salaries and benefits and/or privileges amounted to Rs. 9,35,53,551 out of which wages and salaries totalled to Rs. 8,58,47,080 and the money value of benefits or privilege was Rs. 77,06,471.

47. As on March 1966, the industry employed 64,250 persons in its mills. The employment potential of the paper mills does not seem to be high, irrespective of the size of the plant. In a small-scale plant of 5 tons per day capacity costing about 36.27 lakhs, the employment potential may not be more than 100 persons. Besides these permanent workers, there is a good number of contract workers employed on certain jobs which are essentially of intermittent nature in view of the peculiar nature of operations in the paper industry. For this purpose, the contract system should be retained in the industry. In addition to those who are employed in the paper mills, about a hundred thousand persons are estimated to be employed in forest operations. or extracting bamboo, grass etc., to provide raw material for the paper industry. Forest labourers engaged OD. hese operations are seasonal. They are mostly employed on piece rate, generally through contractors. In certainStates, minimum wages are fixed under the Minimum Wages Act. No data could, however, be collected in respect of wages and working conditions of the forest labour, as there is no uniform policy and procedure in this regard in the industry.

48. There had been no further survey by the Government State Statistical Organization and, therefore, the latest data were not available. But it can be presumed that on the basis of the expansion and rapid growth of production, these figures must have mounted up according to the growth. In view of the recent decontrol on prices of paper, the industry will get impetus for further expansion and development which will result in further employment potential.

49. The Survey of the paper mill industry as set out above furnished an idea of the general structure of the industry, its labour condition, welfare measures and industrial relations. It will also reveal that from the stand-point of an over-all comprehensive study on labour conditions in the industry, there are certain handicaps in collecting information. The Study Group had to work under certain limitations—response from the managements has not been encouraging, response from the trade unions has been very disheartening—so that sufficient information and data could not be available.

WAGES

50. Fixation of wages in the paper mill industry is initially made by the empletions. In a number of mills, wages have been fixed as a result of Tribunal awards appointed by State Governments on the basis of industrial disputes raised over there. But in most of the mills, wages have been fixed and occasionally these have been revised and improved considerably as a result of collective bargaining with the unions operating in the mills.

51. In course of enquiry it transpired that in Titaghur Paper Mills, Titaghur, grades and scales of the wages of the different categories have been made after a scientific study conducted by a Committee consisting of representatives from employers and employees under the guidance of National Productivity Council, New Delhi. In the case of the Bengal Paper Mills, Raniganj, this has been done by the Industrial Consultants, Messrs. IBCONS Ltd., Calcutta.

52. Wages and allowance of the workers in the industry have improved considerably since 1944-45 when the Rege Committee conducted an enquiry and concluded that the

wage level then obtaining in the paper industry was none too high and was slightly lower than that in other organised industries in the country. An Occupational Wage Survey conducted by the Labour Bureau in 1958-59 revealed that in paper industry, wage rates differed considerably. It varied from Rs. 1.35 per day in respect of a lowest paid worker to Rs. 10.24 per day for the highest paid.

53. In 1958-59 the average wage of Rs. 3.50 comprised of the following components :---

(a)()()()()()()()()()()()()()()()()()()	Basic earnings at the rate of Production Incentive bonus Attendance bonus Shift allowance Overtime payment Others	Rs. 2.96 Rs. 0.15 Rs. 0.05 Rs. 0.01 Rs. 0.19 Rs. 0.14	
(I)	Total		. A .)

54. It now transpires that average daily earning of the workmen in the paper mills has considerably improved. In Bengal Paper Mill Co. Ltd., Raniganj, the average daily basic earning of an unskilled labour is Rs. 3.39 per day with a monthly D.A. @ Rs. 50/- for the first Rs. 100/- and thereafter 15% on subsequent Rs.100/-. In Titaghur Paper Mills, monthly wage of an unskilled labour amounts to Rs.35/- with a D.A. at a flat rate of Rs.92.20. The marked improvement in the wage structure of the workmen in the industry will be apparent from the Annexure 2. As indicated from the information collected by the Study Group, there is no parity in regard to wages.

55 The most important wage component in the industry outside basic and dearness allowance is overtime payment. Overtime working is found to be extensively prevalent in almost all the paper mills. Overtime work is so very prevalent in paper industry that the workers are prone to do overtime in excess of limitations prescribed in the Factories Act. Concrete efforts should be made by the Industry to systematically reduce this sort of overtime working. However, when it is absolutely essential to engage workers on overtime for certain immediate and urgent operations in the mills and beyond the limitations prescribed in the Factories Act, Government may be moved to exempt certain operations of the Paper Mill Industry from the limitations imposed under the Act.

56. Next in importance to overtime earnings comesincentive bonus. Production/Incentive Bonus Schemes were not much in vogue in the industry prior to 1960. In the past, such schemes were prevalent only in bigger units. But. of late, it has been a regular feature in the industry as a whole. Over and above, incentive bonus and annual bonusunder the Payment of Bonus Act, 1965 is equally applicable to this industry. In Orient Paper Mills Ltd., Production. Bonus is fixed at the rate of 1/3rd of the basic wages. The company paid annual bonus at the rate of 4% under the Payment of Bonus Act, 1965.' Shree' Gopal Mills, Yamunanagar, paid bonus at the rate of 19% since the enforcement of Payment of Bonus Act. In National Newsprint and Paper Mills Limited, Nepanagar, the workmen are not covered under the Payment of Bonus Act, 1965, being a non-competitive unit, but the employees are being paid ex-gratia payment for the last eight years.

OTHER BENEFITS

57. Common benefits in the industry are: Provident Fund, Medical Facilities (covering their dependents in some mills) where E.S.I. is not applicable, Housing facilitiesvarying from 10% to 95% of the workers in the bigger units. Most of the bigger units are also providing uniforms and footwears to certain categories of workers. In many mills, free education facilities are also provided to the children and dependents of the employees—in some industries it extends up to Higher Secondary standard. However, it is desirable that the fringe benefits should be extended to such mills where they do not already exist.

PRODUCTIVITY AND INCENTIVES

58. In keeping pace with the industrialisation of the country, paper industry has expanded considerably since Independence, thus creating ample employment potential. However, the production in the industry is rather low and much is still required to be done to achieve the desired level of productivity. In this connection it is to be emphasised that, wherever possible, latest techniques should be introduced, modern equipments installed and workers imparted suitable training in addition to providing reasonable incentive bonus to them to step up productivity. Unfortunately, the existing Incentive Schemes, which are now prevalent in some of the major units, have not yielded desired results.

TRAINING SCHEMES IN PAPER MILL INDUSTRY

59. The first paper mill in India was established during the last quarter of the 19th century. During the inter-war years, a number of units came into existence. The progress of the industry since the inauguration of economic planning has been impressive. The number of paper mills increased from 17 in 1951 to 55 in 1965, the capacity going up from 1,37,000 tonnes to 6,68,000 tonnes in the period.

60. The rapid expansion of the paper industry during the Plan periods lead to the demand for suitable manpower. With a view to train up technicians, operators and maintenance craftsmen, a School of Paper Technology has been set up at Saharanpur. It is understood that the school is able to meet only a fraction of the industry's demand for trained personnel. To meet the total need, a chain of schools on the Saharanpur pattern will have to be established in the different parts of India.

61. There is an institute for the training of technical personnel at higher level, i.e. the Cellulose and Paper Branch of the Forest Research Institute and College at Dehradun. Practical training is imparted to young graduates nominated by the Indian paper mills. ⁴The Institute is well-organised for research work in Cellulose, Pulp, Paper and Board.

62. The paper mills have their own in-plant training schemes. This has been making a substantial contribution to the industry's development. In Titaghur Paper Mills, there are arrangements for practical training of the operatives and for assistant trainees. The company has full time training programme for manpower requirement on a profected basis also at supervisory level. In Orient Paper Mills Limited, Sambalpur, arrangements for vocational training to engineers, sandwich training of Polytechnic, supervisory training and in-plant training to meet requirement of skilled workmen exist. In Bengal Paper Mill, Ranigani, extensive arrangements have been made for in-plant training to production and engineering supervisors. Similarly, in the National Newsprint and Paper Mills Limited, Nepanagar, considerable attention is being paid to provide training facilities. Vocational training to university under-graduates in mechanical. civil and chemical branches is imparted. The trainees come from different universities for their in-plant training and they are provided with all facilities for practical training which. ranges from three weeks to six weeks. The I.T.I.-trained

artisans under the various trades are also offered practical training under the Apprenticeship Act. Almost in all the paper mills, training facilities as per Apprentices Act have since been introduced. In Rohtas Industries, Dalmianagar, a comprehensive training scheme over a period of three years has been in existence for some time past. Substantial humber of Government-sponsored in-plant apprentices are regularly trained there.

SOCIAL SECURITY

63. Employees' Provident Fund Scheme and Employees' State Insurance Scheme :

Social Security measures in respect of Provident Fund and Employees' State Insurance have been implemented almost in all the paper mills. In view of the existence of liberal and better medical facilities for the employees and their dependents, Employees' State Insurance Scheme has not yet been made applicable in the National Newsprint and Paper Mills, Nepanagar.

GRATUITY

64. Retirement benefits in the form of gratuity is made available in many of the mills.

LABOUR WELFARE

65. Broadly speaking, labour welfare measures have been adopted in paper industry. Some of these welfare activities are given below :

- (i) Medical Facilities : Many of the mills, such as Bengal Paper Mill, Nepa Mills, Titaghur Paper Mills, Orient Paper Mills have well-equipped hospitals extending the free medical benefits to the employees and their dependents.
- (ii) Educational Facilities : Educational facilities, which include free primary schools and upper primary schools for the children of the workmen are being given in almost all the paper mills. The management of Orient Paper Mills runs a high school, one upper primary school and separate schools for boys and girls. Shree Gopal Paper Mills, Yamunanagar, arranges free education upto Matric standard in outside schools for the children of their employees. In National Newsprint and Paper Mills, Tribeni Tissues, Mysore Paper Mills, West Coast Paper Mills, high schools have been established by the mill owners for the education of the children of the employees. Only a few paper

mills have availed of the Workers' Education Schemeas sponsored by the Government of India.

- (iii) Canteens and Co-operatives: Canteens have been established in all the mills. In some mills, co-operatives are also being run.
- (iv) Housing: The managements of many paper mills have provided free accommodation to their workers to certain extent, while some others are charging nominal rents for such accommodations. Paper Industry on the whole provides better housing facilities as compared to other industries.
- (v) Supply of uniform and footwear: Certain categories of workmen like drivers, peons, watch and ward staff etc. are provided with uniforms. Uniforms and foot-wears are also supplied to the workers engaged in Soda Recovery, K.B. Plant etc. Some mills supply protective clothing to the employees engaged in the maintenance work.

LABOUR LEGISLATION

66. Paper industry is covered by the legislations which, are applicable to the industries in general. There are nospecial enactments specifically applicable to the paper industry. The position in respect of the observance of the important labour laws by the paper industry is reviewed below:

(i) Factories Act, 1948 :

Various provisions of the Factories Act including those relating to safety and welfare are reported. as being satisfactorily observed in the industry.

(ii) Workmen's Compensation Act :

The provisions of the Act are reported to be satisfactorily complied with by the different units of the industry.

(iii) Employees' State Insurance Act :

The Act has been made applicable to a number of major units, such as the Shree Gopal Paper Mills, Yamunanagar; Mysore Paper Mills Ltd., Bhadravati; The West Coast Paper Mills, Dandeli; Punalur Paper Mills Ltd., Punalur; Titaghur Paper Mills Ltd., Titaghur and Orient Paper Mills Ltd., Brajrajnagar.

(iv) Payment of Wages Act, 1938 :

The provisions of the Act are being complied with by the different units of the industry.

(v) Employees' Provident Fund Act, 1952 :

The provisions of the Act are being observed by the paper industry.

- (vi) Employment Exchange Compulsory Notification of Vacancies Act 1959—Apprentices Act 1961— Industrial Employment Standing Orders Act, 1946: Various provisions of these acts are being observed by the units of the paper industry.
- (vii) Industrial Disputes Act, 1947 :

The provisions of the I.D. Act, 1947 are equally applicable to the paper industry. The Act provides ample opportunities for the settlement of the industrial disputes.

(viii) The Payment of Bonus Act, 1955 :

The provisions of the Act are being observed by the different units of the industry. Most of the mills paid bonus @ 4% of the annual wages. During the last year, West Coast Paper Mills paid @ 20% and Shree Gopal Paper Mills at 19%, The only exception in the paper industry is the National Newsprint and Paper Mills Limited which being a noncompetitive unit under public sector is not covered by the Payment of Bonus Act, but instead paid ex-gratia in the light of Payment of Bonus Act.

INDUSTRIAL RELATIONS

67. Overall picture in respect of the prevailing industrial relations appears to be satisfactory. Generally speaking, negotiations with the recognised unions are being carried on in most of the units in a cordial atmosphere. There are cases where strained relationship between the management and the unions exist. This has been mostly due to the existence of union rivalry. In most of the units, arrangements exist for joint consultation and adherence to grievance procedure.

68. In so far as industrial relations and industrial disputes in the paper industry are concerned, information relating to the number of disputes, the man-days lost and the number of workers involved etc., are not available.

69. There are, however, indications that the paper industry is not exception to the general industrial unrest prevailing in the country. Labour unrest in the paper industry has now and then taken the shape of legal and illegal strikes, sit-down strikes, go-slow, indiscipline and other forms of agitation. 70. Industrial relations in most of the mills has been affected as a result of the existence of the multiplicity of trade unions. Since all the unions are affiliated to different political parties, the situation has been all the more difficult for the companies to negotiate. Although in some of the mills there is recognised trade union, the unrecognised trade unions continue to create troubles by raising constant industrial disputes and sometimes by taking resort to strike with a view to prove their existence.

71. Almost all the mills from whom replies to the questionnaires have been received have reported that the workmen and also the trade unions operating there have shown very little regard for the observance of the Code of biscipline.

72. In view of the voluntary nature of underlying principles of the Code of Discipline, it has not been in a position to help improve the industrial relations. In respect of the criticism against the Code of Discipline, it may be generally said that observance of the Code by the unions in a proper spirit would definitely go a long way towards removing the differences between the management and the workmen.

73. In the paper industry, Works Committees have been functioning only in some of the mills. But it is heard that in most of the mills, the Works Committees have not been effective in delivering the goods. In a number of mills it has been said that the trade unionists have objected to the formation of Works Committee.

Major industrial disputes in the industry are being 74. resolved through the mediation of the State Conciliation Excessive dependence on conciliation and Machinerv. Tribunals have become a remarkable feature during the recent years. In U.K., the tendency of the employers and the trade unions is to get differences thrashed out at the plant level by a mutual discussion. There it has been recognised that it has the responsibility of the two parties (i.e. the managements and the employees as represented by the unions) to settle disputes at the earliest opportunities and as such Government intervention is rarely sought for. This State of affair has been possible due to the existence of strong and well-organised trade unions having enlightened leaders from the rank and file of the working class. Our aim should be to encourage bi-partite negotiation, joint consultation and collective bargaining for settlement of industrial disputes.

Since conciliation proceedings are sometimes prolonged due to the absence of the parties in the joint conferences, and as Tribunal proceedings are invariably long-drawn, all efforts should be made by the parties to avoid such interruption.

75. In case of minor disputes, these are usually settled amicably with the help of the departmental head and the Personnel Officers of the mill. Although there is no prescribed Grievance Procedure, minor disputes are generally disposed off on the broad lines indicated therein.

76. There is no tradition in this country for arriving at a national agreement covering the major issues like fixation of wages, work loads, working conditions, holidays etc. Much importance is attached to National Agreements arrived at between the association of the industry owners and the industry-wise trade unions. This has considerably contributed to the maintenance of industrial peace in the Western Countries. Similar attempts may be made in India to cope with the gradually increasing: industrial unrest.

77. Workers' participation in management has not at all been given a trial in the paper mills in the private sector. In none of these mills Joint Management Council has been set up.

CONCLUSIONS AND SUGGESTIONS

- (i) The welfare measures prevailing in paper industry are better than those envisaged in the Factories Act. The scope for further improvement in the working conditions and in the welfare measures now available to the workmen in the industry will improve with increase in productivity and improvement of economic condition of the industry due to decontrol of prices of paper.
- (ii) The existing facilities of training available at Institutes at Dehradun and Saharanpur should be fully utilised by the industry. With the increased demand for trained technical personnel, more such institutesshould be set up by Government and Industry.
- (iii) At present, the research facility exists only in respect of testing and utilisation of cellulosic materials at Forest Research Institute at Dehradun. In addition, it is necessary that a Central Organisation be set up to undertake research on substitution of imported spares and components required by the paper mills.

- (iv) To overcome the increased demand of raw materials, the present programme of raising the plantations of fast-growing species should be followed up vigorously and Government should make available adequate funds.
- (v) The practice of leasing out forests by the various State Departments, the selection of lessees, and the fixation of royalty have since been subjects of criticism from the paper industry. For the convenience of the paper mill industry, the mill-owners have pleaded for the leasing out of the forests to paper mills at reasonable royalties. When both the Planning Commission and the Tariff Commission have recommended that leases of forest areas should be granted to paper mills on a long-term basis, this matter may further be recommended to the Government by the National Commission on Labour for due consideration.
- (vi) The industry should make every effort to utilise more and more of unconventional raw materials like straws, bagasse, hardwoods etc.
- (vii) With a view to ensure healthy industrial relations in the industry and further to combat the sinister effects of trade union rivalry and also to implement Code of Conduct and Discipline, it is suggested that trade unions be recognised on the basis of Bombay Industrial Relations Act.
- (viii) The Code of Discipline as evolved by the 15th Indian Labour Conference does not appear to be effective in helping to restore healthy industrial relations. It is suggested that provisions of the Code be incorporated in some labour enactment to give it legal sanction.
 - (ix) Voluntary arbitration has not been found successful and the number of litigations are on the increase. It is suggested that for a set of subjects of dispute of minor nature arbitration should be made compulsory, following failure of conciliation.
 - (x) Beside permanent workers' there is a good number of contract workers employed on certain jobs, which are essentially of intermittent nature in view of the peculiar nature of operations in the paper industry. For this purpose, the contract system should be retained in the industry.

- (xi) The industry should try to introduce parity in the wages of permanent and contract workers.
- (xii) The existing grade structure introduced in some of the mills either as per agreement or as per award of the industrial tribunal does not create any incentive for increased productivity. A tripartite body should be formed to determine the wages on the following basis :---
 - (a) Proper utilisation of man-power and the material.
 - (b) Proper assessment of minimum and maximum work-load per capita or group.
 - (c) Regional socio-economic conditions.

"Sd/- H.P. DHANUKA

Chairman

- Sd/- HARI SINGH
- Sd/- P.S. KOTHARI
- Sd/- Dr. R.L. BHARGAVA
- Sd/- G.C. JOSHI
- Sd/- NIRMAL SEN
- Sd/- K.K. BANERJEE
- Sd/- N.C. KUNDU

Secretary

APPENDIX-1

S4	ate	1	lame & Address of the Mills	Location (Capacity Tonnes par year)
1			2	3	4
WES	ST BE	ENG/	<u>.</u>		
	1	1, N	l/s. Titaghur Paper Mills Ltd., Chartered Bank Bldg., Calcutta,	Titaghur I Kanki nara I	54,000 I
	2	2. ,	, India Paper Pulp Co. Ltd., 9 Clive Row, Calcutta.	Naihati	17,500
	3	ŀ.,	Tribani Tissuer But I td	Chandrahati, Hooghly.	6,000
	4,	• ,,	Bengal Paper Mill Co. Ltd., 14, Netaji Subhas Road, Calcutta,	Ranig anj	36,0 00 +
	5.	· •,	Western India Match Co. Ltd., Indian Mercantile Chambers Nicol Road, Ballard Estate, Bombay.	Alambaz ar Calcutta.	6,000-
	6.	"	Shree Gopinath Paper Mills, 7, Bhawani Dutta Lane, Calcutta-7.	Baranagore	1,080-
	7.	**	Eastend Paper Industries Ltd., 32A, Brabourne Road, Calcutta.	Barabaria	3,000-
	8.	Þ	Priti Paper Board Mills (P) Ltd., 22, Burro Shibtola, Main Road, Calcutta-32,	Sheoraphuli	1,080~
	9.	**	P. Ghosh & Co., 20, Seven Tanks Lane, Calcutta-30.	Calcutta	1,500-
	10.	••	Indian Card Board Industrics, 18, Netaji Subhas Road, Calcutta-1.	Calcutta	3,200-
U.P.					
	11.		Star Paper Mills Ltd., Bajoria Palace, Saharanpur. (27, Brabourne Road, Calcutta.)	Sharanpur	30,000
	1 2.		Upper India Couper Paper Mills Co. Ltd., Lucknow.	Luckhow	4,200
BIHAR					
	13.		Dalmianagar (Bihar)	Dalmia nagar	60,000 >
	14.	••		litwarpur	3,000

STATEMENT I - PAPER & PAPER BOARDS.

1		2	3	4
ORISSA				
15.	M/s	Orient Paper Mills Ltd., Brajrajnagar (Dt. Sambalpur) (15, India Exchange Place, Calcutta-1.)	Brajrajnagar	70 ,000
16.	"	Titaghur Paper Mills Ltd., Chartered Bank Bldg., Calcutta.	Chowdwar	12,000
17.	÷1	Straw Products Ltd., 11, Rabindra Sarani, Calcutta.	Singhpur Road, Rayagada	20,000
HARYANA				
18,		Shree Gopal Paper Mills Ltd., Yamunanagar. (Thapar House, 25, Brabourne Road, Calcutta.)	Yamudanagar	40,000
19.	**	Murari Paper Mills (Bharat Carbon & Ribon Mfg. Co. .td.) 6, Ring Road, Lajpat Jagar IV, New Delhi-14.	New Industria Township, Faridabad,	1 1,200
20.	"	Delhi Pulp Industries, 16/25, Katra Baryan, Fatchpuri, Delhi.	do	3,000
21.	**	Rajendra Paper Mills, 51, New Industrial Township, Faridabad.	—do—	1,600
MADHYA PRADESH				
22.	1	Alok Paper Industries, 11, Prince Yashwant Road, Indore City.	industrial State, Indore	1,200
23.	, ,,	Straw Products Ltd., Chola Road, Bhopal.	Bhopal	8,000
24	• 93 1.	Mandidip Paper Mills Pvt. Ltd., Schore.	Sehore (Mandidip)	3,000
25	• •	Orient Paper Mills Ltd., 15, India Exchange Place, Calcutta-1.	Amlai (Sahdol)	65,000
GUJARAT				
26		Gujarat Paper Mills Ltd., 653, Shakar Bazar, Ahmedabad.	Barejandi	6,000
27	- ·	Rohit Pulp & Paper Mills Ltd., Hassan Chambers, Parsee Bazar Street, Bombay.	Pardi (Surat)	6,600
28	. ,	, Jayant Paper Mill Ltd., Peoples' Bldg., Sir P.M. Road, Bombay.	Utran	5,00
		30		

1		2	3	4
29.	M/s	Stadfast Paper Mills, Medows House, Medows St., Bombay.	Dungra P.O. Vapi	450
30. `	щ	Parekh Paper Mills, Gondal (Saurashtra)	Gondal	1,000
31.	••	Speciality Paper Ltd. P.O. Udvada (Distt, Surat)	Udvada	1,440-
32.	**	Associated Pulp & Paper Mills Ltd., Lokhand Mahajan Bldg., Nawa Darwaza Road, Ahmedabad.	Ahmedabad	4,800
MAHARASI	ITRA	L		
33	*	Deccan Paper Mills Co. Ltd., Commonwealth Buildings, Laxmi Road, Poona.	Hadapsar	3,600
34.	"	F. Pudumjee & Co. (P) Ltd., 60, Forbes Street, Bombay-1.	Bombay	1,800
35.	"	Pudumjee Pulp & Paper Mills, Ltd., 60, Forbes Street, Bombay-1.	Khopoli	5,000
36.	**	Paper & Pulp Conversions Ltd., 376, Shukrawar Peth, Poona-2.	Khopoli	7,500
37.	**	Ballarpur Paper & Straw Board Mills, Ltd., Thapar House, 25, Brabourne Road, Calcutta-1.	Ballarpur, (Ballarshah)	45,000-
3 8 ,	3 2	Providence Paper Mills, New Standard Engg. Compound, Ghodbunder Road, Santa Cruz, Bombay.	Sant a Cruz, Bombay.	510.
39.	} >	Premier Paper Mills Ltd., Jogeswari Estate, Ghodbunder Road, Jogeshwari, Bombay-60.	Jogeshwari	2,100-
40.	,,	Oriental Timber Trading Corpn. (P) Ltd., 59, Apollo Street, Bombay.	Kalyan Thana Distt.	1,500
41.	**	Ajanata Paper & General Products (P) Ltd., Dadavali P.O. Taluka, Kalyan, Bombay.	Dadavali, Distt. Thana	: 1,800 \

1		2	3	4
42.	M/s	Paper Products Ltd., Dinshaw Vaccha Road, Vaswani Mansion, Bombay-1,	Roha (Kolaba Dt.)	4,800
43,	••	Vidharbha Paper Mills Ltd., Degade Mansion, Sitabuldi, Nagpur.	Kamptee	1,500
44.	••	Bombay Paper Mfg. Co., 109, Shaikh Memon Street, Bombay.	Kalyan	900
45,	61	Afsons Industrial Corpn. (P) Ltd., 18, Pincess Street, Bombay.	Wasranggap	2,400
ANDHRA				
46.	8 8	Sirpur Paper Mills Ltd., Sirpur-Kaghaznagar (15, India Exchange Place, Calcutta.)	Sirpur- Kaghaznagar	40,000
47.	**	Andhra Pradesh Paper Mills Ltd., Rajahmundry.	Rajahmundry	24,000
MYSORE			·	
48.	••	Mysore Paper Mills . Ltd., Bhadravati.	Bhedravati	19,000
49.	"	West Coast Paper Mills Ltd., Shreeniwas!House, Waudby Road, Fort, Bombay.	Dandeli	36,000
50.	.,	South India Paper Mills (P) Ltd., Chickayna Chaltra, P.O. Nanjangud, Mysore.	Nanjangud	3,000
51	3 9-	Mandya National Paper Mills Ltd., 14, Palace Road, P.B.No. 66, Bangalore-1.	Balagela	10,800
52.	10	Senapathy Whitely (P) Ltd., 14, Tannery Road, Bangalore.	Ramanagram	900
EERALA				
53.	**	Punalur Paper Mills Ltd., Punalur (Travancore).	Punalur	11,640
54.	**	Gwalior Rayon Silk Mfg. (Wvg) & Co. Ltd., P.O. Box No. 37, Kozhikode.	Kozhikode	2,700
MADRAS			-	
\$5.	'n	Seshasavee Paper & Board Ltd., P.O. Cauvery (Salem Dist.), Madras State.	Cau very	20,000

1		2	3	
56.	M/s	Sun Paper Mills Co. Ltd., P. Bag No. 2, Cheranmahadevi Tirunelyeli Distt. Madras.	Ariyanayaki- puram	3,000
57.		Amravathi Srivenkatesa Paper Mills (Pvt.) Ltd., P.O. Udamalpet, Madras.	Amravathi- Nagar	3,000
		91 × 11	Total 73	0,000
M.P. 1.	M/s.	in the second se	SPRINT Nepanagar	30,000
KERALA		STATEMENT III - P	ULP	
1.	M/s.	Gwalior Rayon Silk Mfg. (Wvg) Co. Ltd., P.B. No. 37, Kozhikode.	Mavoor	54,000

State	N	ame a	nd Address of the Mills	Location (Ton	Capacity (Tonnes per year)		
1			2	3	4		
U. P.	١.	M/s.	Meerut Straw Board Mills, P.B. No. 2, Meerut.	Meerut	9,000		
	2.	17	The Straw Board Mig. Co. Ltd., Saharanpur.	Saharanpur	5,400		
	3,	11	Swatantra Bharat Paper Mills Ltd., 28, Chawri Bazar, Delhi		1,500		
	4,	"	Bharat Straw Board & Paper Mills (P) Ltd., 13, Sheocharan Lal Road, Allahabad.	Naini (Allahabad)	1,000		
	5.	"	Beopar Sahayak (P) Ltd., 58/2, Birhana Road, Kanpur.	Kanpur	601		
"			G.T. Industries, 202, Lotus House, 33-A, New Marine Lines, Bombay.	Budaun	3,00		
	7.	" .	Mahabir Straw Board (P) Ltd., Mainpuri.	Mainpuri	3,00		
	8.	"	Vishnu Industrial Enterprises (P) Ltd., 11, Moti Bhawan, Collectorganj, Kanpur.	Motinagar, Distt. Faizabad.	3,60		
WEST BENGAI	C.						
	9.	v	Pioneer Paper & Pulp Ltd., 24, Netaji Subhas Road, Calcutta.	19, Dum Dum Road.	1,20		
1	0.	**	Himalaya Paper & Board Mills Ltd., 20, Seven Tanks Lane, Ghughudanga.	Ghughudanga	2,000		
1	1.		Union Paper & Board Mills Ltd., 4, Fairlie Place, Calcutta-1.	59, Kalicharan Ghosh Road, Sinthi,	5,00		
1	2.	**	Swastik Board & Paper Mills Ltd., 51, Stephen House 4, Dalhousic Square East, Calcutta.	Belur ,	2,50		
1	3.		Bharat Board Mills Ltd., 32, Ezra Street, Calcutta.	Dum Dum Calcutta	1,20		
1	4.		Eastern Paper Mills Ltd., 2, Dekshindari Road, South Dum Dum, Calcutta.	-do-	1,000		
1:	5.	"	Asiatic Board Mills Ltd., 29B, Beer Para Lane, Calcutta.	Calcutta	600		
1	6.		Priti Paper Board Mills (P) Ltd., 22, Burro Shibtola Main Road, Caicutta.	Alipore	600		

STATEMENT IV-STRAW BOARD & MILL BOARD

1		2	3	4
BIHAR				
		, Saraogi Paper Mills, Dinajpur Road, P. O. Kishanganj, Dist. Purnea, Bihar.	Kishanganj	1,20
HARYANA 18		, Delhi Board Mills. Chawri Bazar, Delhi,	Faridabad	600
19.	,	, Chandigarh Paper Board Mills (P) Ltd., 26, Industrial Area, Chandigarh.	Chandigarh	2,500
MAHA-				
RASHTRA 20.		Western India Paper and Board Mills (P) Ltd., Vikhroli, P.O. Bhandup, Bombay-40.	Vikhroli	4,000
21.	**	Nirmal Rubber & Boards (P) Ltd., Ishwarbhai Patel Estate, Goregaon (East), Fort, Bombay-62.	Goregaon	1,800
22.	*	Bombay Board & Paper Mills Ltd., Hamam House, Hamam Street, Fort, Bombay.	Bombay	2,000
23,	v	Jaydip Paper Industries; Sambava Chambers, Sir P. Mehta Road, Fort, Bombay.	'Ghodbunder Rd. Dt. Thana	, 1,600
24.	**	Solid Containers 361, Dr. D. Naurogi Road, Bombay.	Кајуап	7,500
UJARAT 25,	**	Arvind Board & Paper Products Ltd., Bilimora.	Bilimora	12,000
26.	**	N.S.P. Straw Works Pvt. Ltd., P.O. Digendranagar,	Digendera- nagar	3,600
27.	IJ	Dhanu Straw Board Works (P) Ltd., Plot No. 215, Off. Gandel Road, Bombay-16.	Dhanu Road	600
28,	••	Saurashtra Paper & Board Mills, Pattani Building, Off. Jubilee Gardens, Rajkot.	Navgaon	1,800
29.	"	Baroda Board & Paper Mills Ltd., Kathwada Post, Maize Products, Distt. Ahmedabad.	Kathwada Via Naroda Dist,	900
30.	**	Bharat Board Factory, Juni Mills, Nadiad.	Nadiad	900
31.	\$ 3	Jai Bharat Paper & Board Mills, Para Bazar, Rajkot.	Rajkot	200
		35		

1		2	3	7
32.	M/s	Indian Ginning & Pressing Co. Pvt. Ltd., Naroda Road, Ahmedabad-2.	Ramol	1,500
33	• •	Shri Ambica Paper & Board Mills, Matar, Distt, Kaira.	Matar	600
34	. ,,	Metro Wood & Engg. Works P. Ltd., Opp. Ice Factory, Ashram Road, Naurangpura, Ahmedabad.	Kalol	2,400
3:	5. "	Cellulose Products of India Ltd., P O. Kathwada, Distt. Ahmedabad.	Ramol	3,600
34	5. "	Desh Bandhu Paper & Board Mills, Dungri, Tehsil Bulsar, Distt. Surat.	Dungri	1,800
3	7. "	Patel Paper Mills (P) Ltd., Post Gangadhra, Taluka—Palsana, Distt. Surat.	Gangadhra	3,000
M.P.				
	8. "	Straw Products Ltd., Chola Road, Bhopal.	Bhopal	6,600
3	9. "	Ratlam Straw Board Mills Ltd., Ratlam.	Ratlam	7,500
4	0. "	Madhya Pradesh Board & Paper Mills, Vidisha (M.P.)	Vidisha	2,880
RAJAST	HAN			
	1. "	Kotah Straw Board Ltd., Kotah.	Kotah	4,500
MYSOR	E		22121212	
4	12. ,,	Tungabhadra Pulp & Board Mills Ltd., 111, Mahatma Gandhi Raod, Fort, Bombay.	Munirabad	3,00
			-	
			Total	119,78

APPENDIX II

LABOUR POSITION-FACILITIES ETC.

Sheet No. 1

SI. No.	Item	The Bengal Paper Mill Co. Ltd. Raniganj W.B.	Tribeni Tis- sues P. Ltd., Hooghly, W.B.	Eastend Paper Industries, Bansberia, Hooghly, W.B.	The Mysore Paper Mills Ltd., Bhadravati Mysore.
1	2	3	4	5.	6
1.	No. of Workers, Permanent Casual	2057 + 42 850	517 49	216	1171 + 48
2.	Minimum Consolidated Wages : Pormanent Casual	121.20 80.30	257.00 168.00	102.96	156.50
3.	D.A	CLI	CLI	Fixed	CLI
4,	Incentive Prodution	Yes	Yes	No	Scheme under preparation.
5.	Angual Bonus	Agreement	Agreement	None exempted	Boous Act
б.	E. P. F.	Yez	Yes	Yes	Yes
7.	B. S. L	No	Yes	Yes	No
8.	Medical Benefits	Full family Company's free hospital	Other exempted employees	E.<u>'</u>\$, I .	Free
9.	Housing	17%	95%	35%	60% (Repted)
10,	Educational Facilities	Free Primary	Free Primary +Donations to H. S. School	No	Schools upto H. S.

1	2	3	4	5	6
u.	Other Benchts	Uniforms Footwear Soap & Oil	Uniforms/ Footwear	No	Uniforms/ Footwear
1 2,	Training	App. Act & In-plant Training	App, Act.	No	App. Act.
13.	Union	Onc-Recogni- sed—CPI (M)- ALITUC	One-recogni- sed INTUC	One-INTUC Recognised	One-INTUC recognised On unrecognised also,
14,	Negotiation	Bipartite	Bipertit	Bipartitee	Bipertite
15,	Attendance Bonus	No	No	No	Yes
16,	Code of Disci- pline.	Not by Unions	Yes	Not by Unions	Yes
17.	Strikes/Lock- outs in last 3 years,	Strike-11 Lockout-15	l day	Go-slow Lockout	No
18,	Canteen	Yes Subsidised	Yes. Subsidized	Yes. Not Subsidised	Yes, Subsidiand
19,	Labour Legislation	Difficulty in over- time working	<u>-</u>	-	-
20,	Certified Standing Ordets	Yes	Yes	Awaiting certifica- tion	Yes

SI. No	. Item	The West Coast Paper Mills, Dandeli, Mysore,	National News- print & Paper Mills Ltd., Nepanagar (M. P.)	Punalur Paper Mills Ltd., Punalur, Kerala	Titaghur Paper Mills Ltd., Titaghur, W.B.
1	2	3	4	5	6
1,	No. of Workers : Permanent Casual	-4270	1500 250	836	2900 430
2.	Minimum Conso- lidated Wages : Permanent Casual	85.00	114.00 2.00/2.75	120.00	150.20
3.	D, A.	Fixed	per day Fixed	CLI	CLI
4.	Incentive Pro- duction	Yes	No	Yes	Yes
5,	Annual Bonus	Bonus Act	Ex-gartia payment	Bonus Act	Bonus Act
6. 7.	B. P. F. E. S. I.	Yes Yes	Yes	Yes Yes	Yes Yes
8.	Medical benefits	⁻	Full family. Company's free hoapital	ESI	ESI & Hospital
9.	Housing	6 5%	80% on Nomi- nal rent	276+ Janu on licence	10%
10,	Educational Facilities	High School Free Books	Upto Higher Secondary	Upper Pri- mary Scho- larship	None

<u>.</u>	2	3	4	5	6
11.	Other benefits	Uniforms/ Footwear/ Transport/ Milk	Uniforms to all school-going children, conces- sional sports, boots, etc.	Uniforms and Footwear. Subsidized Co-operative	Uniform/ Footwear
12,	Training	App. Act	Matriculate trainces for different processes.	Apprentice Act.	Training Officer
13,	Union	One-INTUC: recognised	Three Unions (One recognised INTUC)	Two-recogni- sed. AlTUC, INTUC, One other	One recog- nised (No affiliation) One un- recognised
14. 15.	Negotiation Attendance Bonus	Bipartite Yes	Bipartite No	Bipartite No	Bipartite Yes
16.	Code of Discip- line	Yes	Yes	Not by Union	
17.	Strikes/Lockouts (last 3 years)	-	3 Strikes 2 daya—1965 7 daya—1966 1 day —1967	About 5 months strike	
18.	Canteen	Yes, Subsi- dised	Yes/Unsubsidi- sed	Yes. Subsidi- sed	Yes. Subsidised
19,	Labour Legislation	— `	_	-	Difficulty in Overtime
20,	Certified Standing Orders	Yes.	Yes	Yes	Yes

Sheet No. 3

SI No	. Item	Orient Paper Mills Ltd., Brajrajnagar Orissa.	Star Paper Mills Ltd., Sabaranpur,	Western India Match Co. Ltd Alambazar (Calcutta).
1	2	3	4	5
I	No. of Workers Permanent Casual	2657 + 16 852	1309+3 247	16 42
2.	Minimum Consoli- dated Wages : Permanent Casual	95,00 2,25 per day	18,50+15.00 3,50 per day	90.00 3,50 per day
3.	D. A.	Fixed	CLI	CLI
4.	Incentive Production	Yes (Fixed)	Yes	No
5.	Annual Bonus	Bonus Act	Bonus Act	Bonus Act
6.	E. P. F.	Yes	Yes	Yes
7.	E. S. I.	Yes	Yes	Yes
8.	Medical benefits	ESI & Hospital	ESI & Dispensary	ESI & First Aid
9.	Housing	43% (Nominal Licence fee)	Some	35% (Rented)
10,	Educational Facilities	Upto H.S.	Junior High School	Primary School
11.	Other benefits	Footwear	Uniforms	No
12.	Training	App. Act	Apprentice	App. Act

1	2	3	4	5
13.	Union	Two recognised Unions (no affi- liation).	Three—not recognised	Two-Recogni- sed, No. affilia- tions for monthly-rated & piece-rated.
14.	Negotiation	Bipartite	Difficult due to multipli- city of Unions	Bipertite
15.	Attendance Bonus	No	No	No
16.	Code of Discipline	Not by unions	Not by unions	Not by union
17.	Strikes/Lockouts in last 3 years	Strike in May, 1967	Strike-24 days Feb, 67. Conse- quent lock- out-7 days	Strikes 1 day—1965 6 days—1966 8 days—1967 Go-Slow 2 months-1967
18.	Canteen	Yes. Unsubsidised	Yes. Unsubsidised	Yes. Subsidised
19.	Labour Legislation		-	-
20.	Certified Standing Orders	Yes	_	Yes

APPENDIX III STUDY OF THE FINANCES OF PAPER MANUFACTURING COMPANIES : 1965-66 & 1966-67

(From the Economic Times dt. 1st January, 1968) (Amount in Rupees Lakhs)

											Lakh	is)										
	Orient Paper	Tita- ghur Paper	Shree Gopal Paper	Ballar- pur	Bengal Paper		Sirpur	Straw Produ- cts	Star Paper	Sesha- sayee Paper (K)	Mysore Paper	India Paper Pulp	Paper &Pulp Conver- sions	Punalur Paper (K)	Rohit Pulp and Paper	Jaya n t Paper	Eastend Paper	Pudum- jee Pulp & Paper	Deccan Paper	Vidarbha Paper	Total for 20 Co.	Natio- nal News- print & Paper
 Year of establishment Paid-up capital Net worth (a) Total Capital employed (b) Net worth as % of total capital employed Gross sales Inventory as % of gross sales Sales (net of Excise duty) Gross Profits (c) Gross Profits as % of gross sales Gross profits as % of total capital employed Gross Profits as % of gross sales Gross Profits as % of gross sales Gross profits as % of total capital employed Interest charges Managing agents' remuneration Profits after tax as % of net worth Tax provision Dividends Retained profits Tax provision as % of profits after tax Dividends as % of profits after tax Dividends as % of profit after tax Equity Dividend (%) Current Market quotation Yield Earning rate 	1966-67 29.5 1965-66 15.48 1966-67 19.89 1966-67 22.8 1965-66 12.89 1965-66 1.64 1965-66 1.64 1965-66 1.16 1965-66 7.5 1965-66 1.16 1965-66 1.16 1965-66 1.16 1965-66 1.12 1965-66 1.16 1965-66 1.29 1965-66 1.29 1965-66 1.29 1965-66 1.29 1965-66 1.29 1965-66 1.16 1965-66 1.16 1965-66 -14 1965-66 -14 1965-66 -14 1965-66 -16 1965-66 -17 1965-66 -16 1965-66 -16 1965-66 -16 1965-66 -16 1965-66 -17 1965-66 -16 1965-66 -17 <td>$\begin{array}{c} 1882\\ 3,11\\ 6,25\\ 6,15\\ 12,82\\ 14,84\\ 48,8\\ 41,4\\ 48,8\\ 41,4\\ 11,72\\ 12,68\\ 27,4\\ 9,80\\ 10,60\\ 41\\ -9\\ 3.5\\ -0.7\\ 3.2\\ -0.6\\ 22\\ 6\\ 1\\ 19\\ -15\\ 3.0\\ -2.4\\ -1\\ 19\\ -15\\ 3.0\\ -2.4\\ -1\\ 1\\ 3\\ 8\\ -17\\ 0.7\\ 59.1\\ 40.9\\ 3.6\\ 0.9\\ 1.8\\ 0.4\\ 3.00\\ -4.53\\ -1\\ 3.6\\ 0.9\\ 1.8\\ 0.4\\ 3.00\\ -2.4\\ -1\\ 11\\ 3\\ 8\\ -17\\ 0.7\\ -59.1\\ 40.9\\ -3.6\\ 0.9\\ 1.8\\ 0.4\\ 3.00\\ -4.53\\ -1\\ -1\\ 10\\ -2.4\\ -1\\ 10\\ -2.4\\ -1\\ -1\\ -2.4\\ -2.4\\ -$</td> <td>$\begin{array}{c} 1936\\ 2,08\\ 7,16\\ 8,17\\ 9,15\\ 9,11\\ 78,3\\ 89,7\\ 8,83\\ 9,60\\ 22.9\\ 7,85\\ 8,61\\ 1,64\\ 1.62\\ 18,5\\ 16.9\\ 17.9\\ 17.8\\ 17\\ 18\\ 15\\ 14\\ 1,32\\ 1,30\\ 65\\ 1,30\\ 9.1\\ 15.9\\ -\\ 30\\ 30\\ 35\\ 1,00\\ 50.4\\ 46.1\\ 23.2\\ 53.9\\ 76.8\\ 14.5\\ 4.5\\ 14.5\\ 4.2\\ 3.7\\ 18.00\\ 11.50\\ 7.83\\ 42.44\\ \end{array}$</td> <td>$\begin{array}{c} 1945\\ 1,80\\ 3,92\\ 4,48\\ 12,36\\ 12,44\\ 31,7\\ 36,0\\ 7,17\\ 8,33\\ 30,7\\ 6,39\\ 7,37\\ 1,34\\ 1,54\\ 18,7\\ 18,5\\ 10,9\\ 12,4\\ 47\\ 54\\ 1\\ 18,5\\ 10,9\\ 12,4\\ 47\\ 54\\ 1\\ 1\\ 86\\ 99\\ 86\\ 99\\ 22,1\\ 22,1\\ -\\ 12\\ 21\\ 72\\ 78\\ -\\ 13,0\\ 21,1\\ 85,9\\ 7,1\\ 11,6\\ 3,1\\ 4,7\\ 7,50\\ 12,50\\ 14,25\\ 8,06\\ 43,31\\ \end{array}$</td> <td>$\begin{array}{c} 1889\\ 1,10\\ 2,56\\ 2,69\\ 7,11\\ 8,54\\ 36,0\\ 31,5\\ 5,20\\ 6,43\\ 31,7\\ 4,53\\ 5,72\\ 40\\ 65\\ 7,7\\ 10,1\\ 5,6\\ 7,6\\ 24\\ 34\\ -\\ 16\\ 31\\ 16\\ 5.4\\ 15,00\\ 15,00\\ 14,69\\ 6.81\\ 5.97\\ 10,00\\ 14,69\\ 6.81\\ 5.97\\ 10,00\\ 14,69\\ 15,00\\ 14,69\\ 15,00\\ 14,69\\ 15,00\\ 14,69\\ 15,00\\ 14,69\\ 15,00\\ 15,00\\ 14,69\\ 15,00\\ 14,69\\ 15,00\\ 14,69\\ 15,00\\ 14,69\\ 15,00\\ 14,69\\ 15,00\\ 14,69\\ 15,00\\ 14,69\\ 15,00\\ 15,00\\ 14,69\\ 15,00\\ 15,00\\ 14,69\\ 15,00\\ 15,$</td> <td>8.3 11.7 9.7 6.3 6.4 14.00 10.50</td> <td>8.00 ed 9.08c 9.46</td> <td>$\begin{array}{c} 1938\\ 2.15\\ 4.56\\ 4.91\\ 7.98\\ 7.73\\ 57.1\\ 63.5\\ 5.23\\ 5.09\\ 25.6\\ 4.39\\ 4.30\\ 78\\ 75\\ 14.9\\ 14.8\\ 9.8\\ 9.7\\ 12\\ 12\\ 12\\ 12\\ 12\\ 12\\ 3\\ 4\\ 63\\ 60\\ 63\\ 60\\ 13.7\\ 12.2\\ -\\ -\\ 17\\ 63\\ 43\\ -\\ -\\ 29.0\\ 100.0\\ 71.0\\ -\\ 8.1\\ -\\ 3.5\\ 7.50\\ 10.00\\ 50.53\\ \end{array}$</td> <td>1936 2,20 2,47 2,57 5,43 5,25 45.5 49.0 4,61 5,00 29.1 3,66 3,97 52 54 11.3 10.9 9.6 10.4 19 19 1 32 35 32 35 13.1 13.5 - - 16 32 18 - 46.7 100.0 53.0 - 7.4 6.3 - 6.0 7.50 8.00 30.27 - - - - - - - - - - - - -</td> <td>$\begin{array}{c} 1960\\ 3,50\\ 3,27\\ 3,06\\ 7,26\\ 7,36\\ 45.0\\ 41.6\\ 2,95\\ 2,99\\ 36.4\\ 2,95\\ 2,99\\ 36.4\\ 2,95\\ 2,99\\ 36.4\\ 2,95\\ 2,99\\ 35\\ 7\\ 11.9\\ 2.4\\ 4.8\\ 1.0\\ 25\\ 26\\ 1\\ 9\\ -19\\ 9\\ -19\\ 9\\ -19\\ 9\\ -19\\ -\\ 9\\ -19\\ -\\ -\\ -\\ -\\ -\\ -\\ -\\ 3.85\\ -\\ -\\ -\\ -\\ -\\ -\\ -\\ -\\ -\\ -\\ -\\ -\\ -\\$</td> <td>$\begin{array}{c} 1936\\ 1,24\\ 1,76\\ 1,55\\ 5,82\\ 6,53\\ 30.2\\ 23.7\\ 1,85\\ 2,76\\ 31.1\\ 1,85\\ 2,76\\ 31.1\\ 1,85\\ 2,76\\ 31.1\\ 1,85\\ 2,76\\ 5\\ 16\\ 2.9\\ 6.0\\ 0,8\\ 2.5\\ 10\\ 34\\ -17\\ -5\\ -17\\ -2.8\\ -11.1\\ -7\\ -2.8\\ -17\\ -2.8\\ -17\\ -5\\ -17\\ -2.8\\ -17\\ -5\\ -17\\ -2.8\\ -11.1\\ -7\\ -2.8\\ -17\\ -5\\ -17\\ -2.8\\ -17\\ -5\\ -17\\ -2.8\\ -17\\ -5\\ -17\\ -2.8\\ -17\\ -5\\ -17\\ -2.8\\ -17\\ -2.8\\ -17\\ -5\\ -17\\ -2.8\\ -2.8\\ -17\\ -2.8\\ -2.$</td> <td>$\begin{array}{c} 1918\\ 1,24\\ 1,82\\ 1,55\\ 3,29\\ 3,51\\ 55,3\\ 44,2\\ 2,70\\ 2,66\\ 30.8\\ 2,38\\ 2,38\\ 2,35\\ -3\\ -17\\ -12\\ -6.5\\ -0.9\\ -5.0\\ 7\\ -12\\ -6.5\\ -0.9\\ -5.0\\ 7\\ -12\\ -6.5\\ -0.9\\ -17\\ -12\\ -6.5\\ -0.9\\ -17\\ -12\\ -6.5\\ -0.9\\ -17\\ -12\\ -6.5\\ -0.9\\ -17\\ -12\\ -6.5\\ -0.9\\ -17\\ -12\\ -6.5\\ -0.9\\ -17\\ -12\\ -6.5\\ -0.9\\ -17\\ -12\\ -6.5\\ -0.9\\ -17\\ -12\\ -6.5\\ -0.9\\ -17\\ -12\\ -6.5\\ -0.9\\ -17\\ -12\\ -6.5\\ -0.9\\ -17\\ -12\\ -6.5\\ -0.9\\ -17\\ -12\\ -6.5\\ -0.9\\ -17\\ -12\\ -6.5\\ -0.9\\ -17\\ -12\\ -6.5\\ -0.9\\ -17\\ -12\\ -6.5\\ -0.9\\ -17\\ -12\\ -0.9\\ -10\\ -27\\ -5.6\\ -17\\ -10\\ -27\\ -5.6\\ -10\\ -27\\ -10\\ -27\\ -5.6\\ -10\\ -27\\ -27\\ -5.6\\ -10\\ -27\\ -27\\ -27\\ -27\\ -27\\ -27\\ -27\\ -27$</td> <td>1942 20 38 38 1,40 1,63 27.1 23.3 1.20 1,21 35.7 95 92 14 15 11.6 12.3 10.0 9.1 7 8 1 1 7 6 3 4 6.7 11.7 4 2 2 1 2 61.0 29.4 78.1 45.1 21.9 54.9 10.0 1</td> <td>$\begin{array}{c} 1931 \\ 25 \\ 79 \\ 65 \\ 1,17 \\ 1.16 \\ 67.5 \\ 56.0 \\ 1,40 \\ 95 \\ 35.8 \\ 1,40 \\ 95 \\ 35.8 \\ 1,40 \\ 95 \\ 35.8 \\ 1,40 \\ 95 \\ 3 \\ -11 \\ 2.2 \\ -11.6 \\ 2.6 \\ -9.5 \\ 3 \\ 1 \\ -15 \\ -0.6 \\ -22.4 \\ -15 \\ -15 \\ -0.6 \\ -22.4 \\ -1 \\ N.2 \\ N.2 \end{array}$</td> <td>$\begin{array}{c} 1960\\ 25\\ 41\\ 42\\ 84\\ 1,19\\ 48.8\\ 35.3\\ 1.02\\ 91\\ 25.8\\ 90\\ 79\\ 13\\ 6\\ 13.0\\ 6.4\\ 15.7\\ 4.9\\ 3\\ 5\\ -\\ 10\\ 1\\ 10\\ 1\\ 25.2\\ 2.4\\ -\\ 2\\ -\\ 8\\ 1\\ -\\ 24.2\\ -\\ 75.8\\ 100.0\\ 10.0\\ 6.1\\ -\\ 10.00\\ 68.50\\ 5.96\\ \end{array}$</td> <td>$\begin{array}{c} 1960 \\ 25 \\ 37 \\ 36 \\ 65 \\ 66 \\ 56.9 \\ 54.6 \\ 62 \\ 74 \\ 31.6 \\ 50 \\ 58 \\ 6 \\ 7 \\ 10.4 \\ 9.5 \\ 10.0 \\ 10.7 \\ 1 \\ 1 \\ \hline 5 \\ 6 \\ 4 \\ 5 \\ 10.9 \\ 12.6 \\ 1 \\ 2 \\ 3 \\ 3 \\ 4 \\ 5 \\$</td> <td>$\begin{array}{c} 1958 \\ 34 \\ 24 \\ 24 \\ 77 \\ 81 \\ 31.2 \\ 29.6 \\ 12 \\ 35 \\ 39.4 \\ 11 \\ 33 \\ -1 \\ 3 \\ -2 \\ -1 \\ -1.1 \\ 3.1 \\ -2 \\ -1.1 \\ 3.1 \\ -2 \\ -1.1 \\ 3.1 \\ -2 \\ -1.1 \\ -2.3 \\ -2 \\ -1 \\ -2 \\ -2 \\ -1 \\ -2 \\ -2 \\ -1 \\ -2 \\ -2 \\ -2 \\ -1 \\ -2 \\ -2 \\ -1 \\ -2 \\ -2 \\ -1 \\ -2 \\ -2 \\ -1 \\ -2 \\ -2 \\ -1 \\ -2 \\ -2 \\ -1 \\ -2 \\ -2 \\ -1 \\ -2 \\ -2 \\ -2 \\ -1 \\ -2 \\ -2 \\ -2 \\ -1 \\ -2 \\ -2 \\ -1 \\ -2 \\$</td> <td>$\begin{array}{c} 1964 \\ 50 \\ 30 \\ 57 \\ 1.44 \\ 2.14 \\ 20.8 \\ 26.6 \\ 25 \\ 29 \\ 41.4 \\ 23 \\ 26 \\ 3 \\ 13.2 \\ 12.0 \\ 2.3 \\ 1.6 \\ 1 \\ -1 \\ 3 \\ 3 \\ 1 \\ 1 \\ 4.7 \\ 2.6 \\ 1 \\ 1 \\ 50.7 \\ 42.6 \\ -1 \\ 1 \\ 50.7 \\ 42.6 \\ -1 \\ 1 \\ 50.7 \\ 42.6 \\ -1 \\ 1 \\ 50.7 \\ 42.6 \\ -1 \\ 1 \\ 50.7 \\ 42.6 \\ -1 \\ 1 \\ 50.7 \\ 42.6 \\ -1 \\ 1 \\ 50.7 \\ 42.6 \\ -1 \\ 1 \\ 50.7 \\ 42.6 \\ -1 \\ 1 \\ 50.7 \\ 42.6 \\ -1 \\ 1 \\ 50.7 \\ 42.6 \\ -1 \\ 1 \\ 50.7 \\ 42.6 \\ -1 \\ 1 \\ 50.7 \\ 42.6 \\ -1 \\ -1 \\ 1 \\ 50.7 \\ 42.6 \\ -1 \\ -1 \\ 1 \\ 50.7 \\ 42.6 \\ -1 \\ -1 \\ -1 \\ 1 \\ 50.7 \\ 42.6 \\ -1 \\ -1 \\ -1 \\ 1 \\ 50.7 \\ 42.6 \\ -1 \\ -1 \\ -1 \\ -1 \\ -1 \\ -1 \\ -1 \\ -1$</td> <td>$\begin{array}{c} 1885 \\ 12 \\ 17 \\ 16 \\ 33 \\ 39 \\ 51.5 \\ 41.0 \\ 29 \\ 29 \\ 10.4 \\ 25 \\ 25 \\ 3 \\ 2 \\ 10.5 \\ 8.6 \\ 9.1 \\ 6.4 \\ 1 \\ 1 \\ 1 \\ 1 \\ 56.0 \\ 51.4 \\ 184.6 \\ 100.0 \\ -84.6 \\ 8.0 \\ 0 \\ N.Q. \\ \end{array}$</td> <td>$\begin{array}{c} 1961 \\ 10 \\ 2 \\ -1 \\ 27 \\ 23 \\ 7.4 \\ -4.4 \\ 16 \\ 18 \\ 22.5 \\ 15 \\ 16 \\ -3 \\ -1 \\ -19.5 \\ -5.6 \\ -11.4 \\ -4.4 \\ 1 \\ 2 \\ -4 \\ -3 \\ -4 \\ -3 \\ -4 \\ -3 \\ -4 \\ -3 \\ -4 \\ -3 \\ -4 \\ -3 \\ -1 \\ -1 \\ -1 \\ -1 \\ -1 \\ -1 \\ -1 \\ -1$</td> <td>32,39 54,38 56,23 121,00 132,53 44.9 42,4 82,62 92,19 27.7 71,17 79,70 8,51 9,40 10,3 10,2 7,0 7,1 3,50 4,21 25 24 4,76 4,95 3,14 4,43 5,8 7,9 1,62 52 1,99 2,13 1,15 2,30 34,0 10,6 63,4 48,1 36,6 51,9 4,0 6,6 2,2 3,8</td> <td>$\begin{array}{c} 1947 \\ 4,95 \\ 5.93 \\ 6,17 \\ 7,32 \\ 9,53 \\ 81.0 \\ 64.7 \\ 3,35 \\ 3,27 \\ 35.5 \\ 3,17 \\ 3.10 \\ 60 \\ 38 \\ 17.9 \\ 11.5 \\ 8.2 \\ 4.0 \\ - \\ - \\ 60 \\ 38 \\ 39 \\ 21 \\ 6.6 \\ 3.4 \\ 21 \\ 17 \\ 29 \\ 29 \\ 10 \\ - \\ 8 \\ 35.0 \\ 4.3 \\ 75.5 \\ 138.5 \\ 24.5 \\ - \\ 38.5 \\ 5.9 \\ 5.9 \\ 5.0 \\ 4.8 \\ 6.00 \\ 6.00 \\ 5.00cd \\ 13.19 \\ 9.53 \\ \end{array}$</td>	$\begin{array}{c} 1882\\ 3,11\\ 6,25\\ 6,15\\ 12,82\\ 14,84\\ 48,8\\ 41,4\\ 48,8\\ 41,4\\ 11,72\\ 12,68\\ 27,4\\ 9,80\\ 10,60\\ 41\\ -9\\ 3.5\\ -0.7\\ 3.2\\ -0.6\\ 22\\ 6\\ 1\\ 19\\ -15\\ 3.0\\ -2.4\\ -1\\ 19\\ -15\\ 3.0\\ -2.4\\ -1\\ 1\\ 3\\ 8\\ -17\\ 0.7\\ 59.1\\ 40.9\\ 3.6\\ 0.9\\ 1.8\\ 0.4\\ 3.00\\ -4.53\\ -1\\ 3.6\\ 0.9\\ 1.8\\ 0.4\\ 3.00\\ -2.4\\ -1\\ 11\\ 3\\ 8\\ -17\\ 0.7\\ -59.1\\ 40.9\\ -3.6\\ 0.9\\ 1.8\\ 0.4\\ 3.00\\ -4.53\\ -1\\ -1\\ 10\\ -2.4\\ -1\\ 10\\ -2.4\\ -1\\ -1\\ -2.4\\ -2.4\\ -$	$\begin{array}{c} 1936\\ 2,08\\ 7,16\\ 8,17\\ 9,15\\ 9,11\\ 78,3\\ 89,7\\ 8,83\\ 9,60\\ 22.9\\ 7,85\\ 8,61\\ 1,64\\ 1.62\\ 18,5\\ 16.9\\ 17.9\\ 17.8\\ 17\\ 18\\ 15\\ 14\\ 1,32\\ 1,30\\ 65\\ 1,30\\ 9.1\\ 15.9\\ -\\ 30\\ 30\\ 35\\ 1,00\\ 50.4\\ 46.1\\ 23.2\\ 53.9\\ 76.8\\ 14.5\\ 4.5\\ 14.5\\ 4.2\\ 3.7\\ 18.00\\ 11.50\\ 7.83\\ 42.44\\ \end{array}$	$\begin{array}{c} 1945\\ 1,80\\ 3,92\\ 4,48\\ 12,36\\ 12,44\\ 31,7\\ 36,0\\ 7,17\\ 8,33\\ 30,7\\ 6,39\\ 7,37\\ 1,34\\ 1,54\\ 18,7\\ 18,5\\ 10,9\\ 12,4\\ 47\\ 54\\ 1\\ 18,5\\ 10,9\\ 12,4\\ 47\\ 54\\ 1\\ 1\\ 86\\ 99\\ 86\\ 99\\ 22,1\\ 22,1\\ -\\ 12\\ 21\\ 72\\ 78\\ -\\ 13,0\\ 21,1\\ 85,9\\ 7,1\\ 11,6\\ 3,1\\ 4,7\\ 7,50\\ 12,50\\ 14,25\\ 8,06\\ 43,31\\ \end{array}$	$\begin{array}{c} 1889\\ 1,10\\ 2,56\\ 2,69\\ 7,11\\ 8,54\\ 36,0\\ 31,5\\ 5,20\\ 6,43\\ 31,7\\ 4,53\\ 5,72\\ 40\\ 65\\ 7,7\\ 10,1\\ 5,6\\ 7,6\\ 24\\ 34\\ -\\ 16\\ 31\\ 16\\ 5.4\\ 15,00\\ 15,00\\ 14,69\\ 6.81\\ 5.97\\ 10,00\\ 14,69\\ 6.81\\ 5.97\\ 10,00\\ 14,69\\ 15,00\\ 14,69\\ 15,00\\ 14,69\\ 15,00\\ 14,69\\ 15,00\\ 14,69\\ 15,00\\ 15,00\\ 14,69\\ 15,00\\ 14,69\\ 15,00\\ 14,69\\ 15,00\\ 14,69\\ 15,00\\ 14,69\\ 15,00\\ 14,69\\ 15,00\\ 14,69\\ 15,00\\ 15,00\\ 14,69\\ 15,00\\ 15,00\\ 14,69\\ 15,00\\ 15,$	8.3 11.7 9.7 6.3 6.4 14.00 10.50	8.00 ed 9.08c 9.46	$\begin{array}{c} 1938\\ 2.15\\ 4.56\\ 4.91\\ 7.98\\ 7.73\\ 57.1\\ 63.5\\ 5.23\\ 5.09\\ 25.6\\ 4.39\\ 4.30\\ 78\\ 75\\ 14.9\\ 14.8\\ 9.8\\ 9.7\\ 12\\ 12\\ 12\\ 12\\ 12\\ 12\\ 3\\ 4\\ 63\\ 60\\ 63\\ 60\\ 13.7\\ 12.2\\ -\\ -\\ 17\\ 63\\ 43\\ -\\ -\\ 29.0\\ 100.0\\ 71.0\\ -\\ 8.1\\ -\\ 3.5\\ 7.50\\ 10.00\\ 50.53\\ \end{array}$	1936 2,20 2,47 2,57 5,43 5,25 45.5 49.0 4,61 5,00 29.1 3,66 3,97 52 54 11.3 10.9 9.6 10.4 19 19 1 32 35 32 35 13.1 13.5 - - 16 32 18 - 46.7 100.0 53.0 - 7.4 6.3 - 6.0 7.50 8.00 30.27 - - - - - - - - - - - - -	$ \begin{array}{c} 1960\\ 3,50\\ 3,27\\ 3,06\\ 7,26\\ 7,36\\ 45.0\\ 41.6\\ 2,95\\ 2,99\\ 36.4\\ 2,95\\ 2,99\\ 36.4\\ 2,95\\ 2,99\\ 36.4\\ 2,95\\ 2,99\\ 35\\ 7\\ 11.9\\ 2.4\\ 4.8\\ 1.0\\ 25\\ 26\\ 1\\ 9\\ -19\\ 9\\ -19\\ 9\\ -19\\ 9\\ -19\\ -\\ 9\\ -19\\ -\\ -\\ -\\ -\\ -\\ -\\ -\\ 3.85\\ -\\ -\\ -\\ -\\ -\\ -\\ -\\ -\\ -\\ -\\ -\\ -\\ -\\$	$\begin{array}{c} 1936\\ 1,24\\ 1,76\\ 1,55\\ 5,82\\ 6,53\\ 30.2\\ 23.7\\ 1,85\\ 2,76\\ 31.1\\ 1,85\\ 2,76\\ 31.1\\ 1,85\\ 2,76\\ 31.1\\ 1,85\\ 2,76\\ 5\\ 16\\ 2.9\\ 6.0\\ 0,8\\ 2.5\\ 10\\ 34\\ -17\\ -5\\ -17\\ -2.8\\ -11.1\\ -7\\ -2.8\\ -17\\ -2.8\\ -17\\ -5\\ -17\\ -2.8\\ -17\\ -5\\ -17\\ -2.8\\ -11.1\\ -7\\ -2.8\\ -17\\ -5\\ -17\\ -2.8\\ -17\\ -5\\ -17\\ -2.8\\ -17\\ -5\\ -17\\ -2.8\\ -17\\ -5\\ -17\\ -2.8\\ -17\\ -2.8\\ -17\\ -5\\ -17\\ -2.8\\ -2.8\\ -17\\ -2.8\\ -2.$	$ \begin{array}{c} 1918\\ 1,24\\ 1,82\\ 1,55\\ 3,29\\ 3,51\\ 55,3\\ 44,2\\ 2,70\\ 2,66\\ 30.8\\ 2,38\\ 2,38\\ 2,35\\ -3\\ -17\\ -12\\ -6.5\\ -0.9\\ -5.0\\ 7\\ -12\\ -6.5\\ -0.9\\ -5.0\\ 7\\ -12\\ -6.5\\ -0.9\\ -17\\ -12\\ -6.5\\ -0.9\\ -17\\ -12\\ -6.5\\ -0.9\\ -17\\ -12\\ -6.5\\ -0.9\\ -17\\ -12\\ -6.5\\ -0.9\\ -17\\ -12\\ -6.5\\ -0.9\\ -17\\ -12\\ -6.5\\ -0.9\\ -17\\ -12\\ -6.5\\ -0.9\\ -17\\ -12\\ -6.5\\ -0.9\\ -17\\ -12\\ -6.5\\ -0.9\\ -17\\ -12\\ -6.5\\ -0.9\\ -17\\ -12\\ -6.5\\ -0.9\\ -17\\ -12\\ -6.5\\ -0.9\\ -17\\ -12\\ -6.5\\ -0.9\\ -17\\ -12\\ -6.5\\ -0.9\\ -17\\ -12\\ -6.5\\ -0.9\\ -17\\ -12\\ -0.9\\ -10\\ -27\\ -5.6\\ -17\\ -10\\ -27\\ -5.6\\ -10\\ -27\\ -10\\ -27\\ -5.6\\ -10\\ -27\\ -27\\ -5.6\\ -10\\ -27\\ -27\\ -27\\ -27\\ -27\\ -27\\ -27\\ -27$	1942 20 38 38 1,40 1,63 27.1 23.3 1.20 1,21 35.7 95 92 14 15 11.6 12.3 10.0 9.1 7 8 1 1 7 6 3 4 6.7 11.7 4 2 2 1 2 61.0 29.4 78.1 45.1 21.9 54.9 10.0 1	$ \begin{array}{c} 1931 \\ 25 \\ 79 \\ 65 \\ 1,17 \\ 1.16 \\ 67.5 \\ 56.0 \\ 1,40 \\ 95 \\ 35.8 \\ 1,40 \\ 95 \\ 35.8 \\ 1,40 \\ 95 \\ 35.8 \\ 1,40 \\ 95 \\ 3 \\ -11 \\ 2.2 \\ -11.6 \\ 2.6 \\ -9.5 \\ 3 \\ 1 \\ -15 \\ -0.6 \\ -22.4 \\ -15 \\ -15 \\ -0.6 \\ -22.4 \\ -1 \\ N.2 \\ N.2 \end{array} $	$ \begin{array}{c} 1960\\ 25\\ 41\\ 42\\ 84\\ 1,19\\ 48.8\\ 35.3\\ 1.02\\ 91\\ 25.8\\ 90\\ 79\\ 13\\ 6\\ 13.0\\ 6.4\\ 15.7\\ 4.9\\ 3\\ 5\\ -\\ 10\\ 1\\ 10\\ 1\\ 25.2\\ 2.4\\ -\\ 2\\ -\\ 8\\ 1\\ -\\ 24.2\\ -\\ 75.8\\ 100.0\\ 10.0\\ 6.1\\ -\\ 10.00\\ 68.50\\ 5.96\\ \end{array} $	$ \begin{array}{c} 1960 \\ 25 \\ 37 \\ 36 \\ 65 \\ 66 \\ 56.9 \\ 54.6 \\ 62 \\ 74 \\ 31.6 \\ 50 \\ 58 \\ 6 \\ 7 \\ 10.4 \\ 9.5 \\ 10.0 \\ 10.7 \\ 1 \\ 1 \\ \hline 5 \\ 6 \\ 4 \\ 5 \\ 10.9 \\ 12.6 \\ 1 \\ 2 \\ 3 \\ 3 \\ 4 \\ 5 \\ $	$ \begin{array}{c} 1958 \\ 34 \\ 24 \\ 24 \\ 77 \\ 81 \\ 31.2 \\ 29.6 \\ 12 \\ 35 \\ 39.4 \\ 11 \\ 33 \\ -1 \\ 3 \\ -2 \\ -1 \\ -1.1 \\ 3.1 \\ -2 \\ -1.1 \\ 3.1 \\ -2 \\ -1.1 \\ 3.1 \\ -2 \\ -1.1 \\ -2.3 \\ -2 \\ -1 \\ -2 \\ -2 \\ -1 \\ -2 \\ -2 \\ -1 \\ -2 \\ -2 \\ -2 \\ -1 \\ -2 \\ -2 \\ -1 \\ -2 \\ -2 \\ -1 \\ -2 \\ -2 \\ -1 \\ -2 \\ -2 \\ -1 \\ -2 \\ -2 \\ -1 \\ -2 \\ -2 \\ -1 \\ -2 \\ -2 \\ -2 \\ -1 \\ -2 \\ -2 \\ -2 \\ -1 \\ -2 \\ -2 \\ -1 \\ -2 \\ $	$ \begin{array}{c} 1964 \\ 50 \\ 30 \\ 57 \\ 1.44 \\ 2.14 \\ 20.8 \\ 26.6 \\ 25 \\ 29 \\ 41.4 \\ 23 \\ 26 \\ 3 \\ 13.2 \\ 12.0 \\ 2.3 \\ 1.6 \\ 1 \\ -1 \\ 3 \\ 3 \\ 1 \\ 1 \\ 4.7 \\ 2.6 \\ 1 \\ 1 \\ 50.7 \\ 42.6 \\ -1 \\ 1 \\ 50.7 \\ 42.6 \\ -1 \\ 1 \\ 50.7 \\ 42.6 \\ -1 \\ 1 \\ 50.7 \\ 42.6 \\ -1 \\ 1 \\ 50.7 \\ 42.6 \\ -1 \\ 1 \\ 50.7 \\ 42.6 \\ -1 \\ 1 \\ 50.7 \\ 42.6 \\ -1 \\ 1 \\ 50.7 \\ 42.6 \\ -1 \\ 1 \\ 50.7 \\ 42.6 \\ -1 \\ 1 \\ 50.7 \\ 42.6 \\ -1 \\ 1 \\ 50.7 \\ 42.6 \\ -1 \\ 1 \\ 50.7 \\ 42.6 \\ -1 \\ -1 \\ 1 \\ 50.7 \\ 42.6 \\ -1 \\ -1 \\ 1 \\ 50.7 \\ 42.6 \\ -1 \\ -1 \\ -1 \\ 1 \\ 50.7 \\ 42.6 \\ -1 \\ -1 \\ -1 \\ 1 \\ 50.7 \\ 42.6 \\ -1 \\ -1 \\ -1 \\ -1 \\ -1 \\ -1 \\ -1 \\ -1$	$ \begin{array}{c} 1885 \\ 12 \\ 17 \\ 16 \\ 33 \\ 39 \\ 51.5 \\ 41.0 \\ 29 \\ 29 \\ 10.4 \\ 25 \\ 25 \\ 3 \\ 2 \\ 10.5 \\ 8.6 \\ 9.1 \\ 6.4 \\ 1 \\ 1 \\ 1 \\ 1 \\ 56.0 \\ 51.4 \\ 184.6 \\ 100.0 \\ -84.6 \\ 8.0 \\ 0 \\ N.Q. \\ \end{array} $	$ \begin{array}{c} 1961 \\ 10 \\ 2 \\ -1 \\ 27 \\ 23 \\ 7.4 \\ -4.4 \\ 16 \\ 18 \\ 22.5 \\ 15 \\ 16 \\ -3 \\ -1 \\ -19.5 \\ -5.6 \\ -11.4 \\ -4.4 \\ 1 \\ 2 \\ -4 \\ -3 \\ -4 \\ -3 \\ -4 \\ -3 \\ -4 \\ -3 \\ -4 \\ -3 \\ -4 \\ -3 \\ -1 \\ -1 \\ -1 \\ -1 \\ -1 \\ -1 \\ -1 \\ -1$	32,39 54,38 56,23 121,00 132,53 44.9 42,4 82,62 92,19 27.7 71,17 79,70 8,51 9,40 10,3 10,2 7,0 7,1 3,50 4,21 25 24 4,76 4,95 3,14 4,43 5,8 7,9 1,62 52 1,99 2,13 1,15 2,30 34,0 10,6 63,4 48,1 36,6 51,9 4,0 6,6 2,2 3,8	$ \begin{array}{c} 1947 \\ 4,95 \\ 5.93 \\ 6,17 \\ 7,32 \\ 9,53 \\ 81.0 \\ 64.7 \\ 3,35 \\ 3,27 \\ 35.5 \\ 3,17 \\ 3.10 \\ 60 \\ 38 \\ 17.9 \\ 11.5 \\ 8.2 \\ 4.0 \\ - \\ - \\ 60 \\ 38 \\ 39 \\ 21 \\ 6.6 \\ 3.4 \\ 21 \\ 17 \\ 29 \\ 29 \\ 10 \\ - \\ 8 \\ 35.0 \\ 4.3 \\ 75.5 \\ 138.5 \\ 24.5 \\ - \\ 38.5 \\ 5.9 \\ 5.9 \\ 5.0 \\ 4.8 \\ 6.00 \\ 6.00 \\ 5.00cd \\ 13.19 \\ 9.53 \\ \end{array} $

(a) Comprises paid-up Capital, all free reserve and surplus; (b) Total asset; (c) Profits before tax plus interest charges and managing agents' remuneration. NOTE : All transfers from the accounts of earlier years are adjusted back so that profits figures shown here relate exclusively to the operation of the year concerned; Percentages are worked out before the figures were rounded off.