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- (2.313) Study of crop cutting technique with special reference to size-bias.
 (2.314) Study of estimates of current fallow, new fallow, old fallow, and cultivable waste
 (2.315) Cost of sampling surveys.
 (2.320) Socio-economic surveys.
 (2.321) Wages and employment of agricultural labour in Bengal.
 (2.322) Rural indebtedness in Bengal.
 (2.323) Consumption weights in working class families.
 (2.324) Family budget surveys in middle-class and working class populations.
 (2.325) Study of mail enquiry method in socio-economic surveys.
 (2.330) Population and Vital Statistics:
 (2.331) Preparation of a design of a sample survey of population including the simultaneous use of census and sampling methods.
 (2.332) Study of age-bias in census returns.
 (2.333) Construction of fertility and mortality tables.
 (2.340) Anthropometry:
 (2.341) U.P. Anthropometric data 1941: further study of the problem of classification; study of dispersion matrices.
 (2.342) Bengal Anthropometric data 1946: statistical analysis.
 (2.350) Hollerith equipment: use of different units for numerical calculations.
 (2.360) Cost-accounting studies.
 (2.370) Statistical Quality Control:
 (2.371) Exploratory studies: use of the Quality Control methods within the Institute.
 (2.380) Planning and Achievement Audit: One working group is intended to be set up to study the use of statistical method in planning and achievement audit.
 (3.110) Variations in output and accuracy of work.
 (3.120) The effect of incentives on output and accuracy.

The following abstract budget for five lakhs of rupees showing the expenditure to be financed out of the Government of India grant was also submitted to the Government of India:—

Salary and allowance (27498 x 12 = Rs.329976 or say)	Rs. 3,30,000/-
Contribution to Provident Fund (6½% of pay excluding D.A.)	Rs. 17,000/-
Contribution to leave salary	Rs. 5,000/-
Scholarships	Rs. 7,000/-
Visiting Professors and Fellowships	Rs. 20,000/-
Books and Journals	Rs. 8,000/-
Equipment	Rs. 7,000/-
House-rent	Rs. 12,000/-
Contingent, stationery, postage, printing, etc.	Rs. 24,000/-
Travelling allowance (staff and Governing Body)	Rs. 20,000/-
Maintenance of Hollerith equipment (portion)	Rs. 25,000/-
Publications and Society type of activities	Rs. 10,000/-
Development (at Director's discretion)	Rs. 15,000/-
	Rs. 5,00,000/-

Scientific Activities

I. CROP SURVEY WORK IN WEST BENGAL

Some time in the middle of January 1948 the Hon'ble S. J. A. P. Chowdhury, then Finance Minister of the Government of West Bengal, enquired whether it would be possible for the Institute to carry out the Crop Survey for the year 1948-49 also. The Institute expressed their willingness to continue the survey provided it was sanctioned for a term of 3 or 4 years as it was considered very difficult to conduct the work on the basis of sanctions given for short periods. Negotiations continued for five months after which a sum of Rs. 5.88 lakhs was sanctioned to ascertain the acreage and yield of Jute, and Aus and Aman paddy for the year 1948-49 only.

The Government sanction referred to above was based on the rates of pay and allowances as existed early in 1947-48. As a result of Government's subsequent sanction of a second ad-interim increase

in pay and an increase in the rates of dearness allowance to all Government servants, an additional grant of Rs.1.23 lakhs was sanctioned to the Institute to enable the same benefits to be given to the Crop Survey staff.

Late in the year the Government of West Bengal enquired whether a pilot survey for achievement audit of "Grow More Food" Schemes, a survey for ascertaining the acreage and yield of principal Rabi crops and a survey of the requirement of potato could be undertaken by the Institute. The Institute agreed to take up the last two surveys at an estimated cost of Rs. 1,79,000 which was sanctioned by Government by their order No. 1335 dated 1 March 1949. As regards achievement audit the Institute pointed out that development of the proper technique would involve experiments spread over a period. Therefore, one year's sanction would not be of much use. But, if early sanction was received the Institute might undertake pilot experiments to get an indication of the problems involved and an estimate of the amount of time necessary. Uptil now no reply has been received from the Government.

Design of survey: As in previous years the whole province was divided into about 460 zones of approximately equal size (8 miles square) of which about 400 zones (in terms of full zones) leaving out certain hill tracts and forests were covered by the survey. For estimating crop acreages, 122 sample units or square shaped grids of 2.26 acres each were located at random within each zone. The grids were arranged in the form of two independent and interpenetrating networks of sub-samples, each sub-sample consisting of 64 grids out of which 4 grids were common to both sub-samples. The two sub-samples were surveyed by two independent parties of field investigators thus supplying two independent estimates of the crop acreage while a detailed comparison of the two sets of results gave a good check on the reliability of the field work. During the Aus and Rabi Crop Surveys adjustments were made in the distribution of grids in actual survey based on the intensity of cultivation of such crops in different thanas of the province. In a few thanas where Rabi crops were reported to be very sparsely cultivated, a complete enumeration of plots under Rabi crops was attempted.

A total of 49810 grids were used for surveying the whole province. The distribution of grids for purposes of actual survey and the tabulation of the material were made on the basis of administrative thanas (each comprising 120 sq. miles on an average) from which the sub-divisional estimates were readily available.

The Aus season work in the field was commenced in June and completed in October; Aman season work was started in some areas in September and completed by the end of January while the Rabi survey was commenced in January and is still continuing.

Field organisation: N. C. Chakravarti, Assistant Secretary, Department of Agriculture, Forests and Fisheries, whose part-time services had been lent by Government of Bengal for conducting the field operations under the Institute, remained in charge of the work during the year 1948-49. The structure of the field organisation was as follows. One field investigator was allotted to each cell comprising more or less of 2 zones. Each such investigator had to work in 2 different cells carrying out the survey of the grids of the 1st sub-samples in one cell and those of the 2nd sub-samples in the other cell, taking up the crop-cutting work in the cell where he might be working when the crop was ripe. According to size and extent of the area 3 to 6 (usually 4) investigators were placed under one inspector and 4 such inspectors under the Chief Inspector. Except for Midnapur where there were 2 Chief Inspectors, and Hooghly, Howrah, Darjiling and Jalpaiguri where there was one Chief Inspector for two districts, each district was in charge of a Chief Inspector. The districts were divided into 4 ranges each in charge of one Asst. Superintendent called Range Officer.

Crop-cutting work. For the cutting work 20 grids on an average were taken in each block distributed in four different parts of each thana at random. Actual crop-cutting work was to be done in 80 p.c. of the grids in each of the four parts of the cell, taking two plots from each grid. In case of Rabi crops two shapes of cuts were taken. Squares of 15' x 15' were adopted in case of sugarcane, potato and arhar, while three concentric circular cuts of radii 2', 4' and 6.7' were taken in case of all other Rabi crops and for Jute, Aus and Aman rice. Separate weights were recorded for each sub-cuts in the case of concentric cuts. The three sub-cuts of gradually increasing sizes not only indicated the extent of size bias persisting in the largest cut, but also provided incidentally with a powerful control over the performance of the samples and hence on the quality of the field work.

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The drirage ratio, i.e. the proportionate loss in weight of the harvested paddy due to subsequent drying, was as usual determined for each region by actual drying of a number of sample cuts and weighing a second time. Special studies for ascertaining the percentage of rice that can normally be extracted by the indigenous process of de-husking usually followed by the villagers were continued for this season also.

Analysis of data : Tabulation of the field material was so arranged that estimates could be submitted to Government within ten days from the receipt of the primary records from the field.

First estimate of the Jute and Aus was submitted on 10th September and the final estimate was sent on 3rd November, 1948. Preliminary estimates of the Aman paddy were submitted on 7th December, 1948 and 19th January 1949. The final estimate was forwarded on 12th February 1949.

Winter (Rabi) Crop Survey 1947-48 : The survey was started in the beginning of February, 1948, and it was continued up to the first week of May, 1948. The estimates of acreage and yield of wheat, sugarcane, pulses, oilseeds etc. were sent to the Government of Bengal on 26th July.

Seed potato Survey : A survey of the requirement of seed potato was undertaken along with the rabi crop survey. Due to scarcity of seed potato in 1947-48 the area shown under potato was believed to be low. So a separate survey to ascertain the normal requirement of seed and the expected normal area under potato was carried out in April, May and part of June.

An investigation into the area normally put under the potato crop was made over a number of potato growing families for a number of villages selected at random. An independent survey of the important potato markets in the major potato growing areas provided a good check.

Provincial requirement of different varieties of potato seeds was estimated and a report on it was submitted to Government at the end of July 1948.

Estimation of yield rates of potato by varieties from data collected during earlier surveys was undertaken. Estimation of acreage under different types of fallow land in different crop seasons of the year 1948-49 is a second problem. Work is in progress and final results have not yet been arrived at.

2. ALL-INDIA POPULATION STATISTICS (Y-sample)

The work connected with the transfer to Hollerith cards of the information contained in the Y-sample (every fiftieth slip or 2% sample) of the 1941 census slips was continued during the whole of the year under report. The age tabulations by marital status ("civil condition") and literacy status were also proceeded with.

Arrangements for work : For convenience of coding of slips, which were entered in different scripts, arrangements were made to conduct this primary work of the project in three different parts of India. The revival of the Institute's Giridih centre in September 1947 greatly facilitated the work in Hindi and Urdu scripts and the coding work in that centre came to an end in December 1948. An entirely new coding organisation was set up in September 1948 at Poona in order to complete the work on Gujrati and Marathi scripts and the work was completed by March 1949. The Institute's main coding centre at Baranagar also completed its coding work by the end of the year. Machine Tabulations were as usual carried out at Baranagar.

Progress of work : The progress during the year was satisfactory. The coding of the whole volume of about 53.3 lakhs of census slips was completed and a total of about 1,300 man-months was required for the purpose.

Transfer of information to Hollerith cards in respect of Bihar, which was started last year was completed this year. Punching of cards in respect of both Orissa and U.P. was also initiated and completed. Moreover, about two-thirds of the total number of Madras slips have been similarly treated. Thus including Madras, the transfer of the slips to cards has so far been practically completed for six out of the nine provinces. About 23 lakh cards were punched this year.

Machine Tabulation in respect of Assam, Orissa and Bihar slips in all the stages was finished and some of the primary stages of tabulation in connection with U.P., have also been done.

The re-constructed age-tables of West Bengal and Assam have been submitted to Government who have published the West Bengal Tables in printed form. The tables for Orissa are ready for submission to the authorities.

3. REFUGEE SURVEY

A survey of the refugee population in West Bengal was undertaken at the request of the Ministry of Relief and Rehabilitation of the Government of India at a cost of Rs. 97,000.

A pilot survey was first taken up at the end of April, 1948, to get an idea of the distribution of the refugees and also to finalise certain technical details. The actual survey was started in rural areas late in May 1948 and in urban areas from June. Work in Calcutta was done during June to September.

Design of the survey: The whole province was stratified into three types of areas. The first stratum consisted of the 'Greater Calcutta' area which included the city of Calcutta, the city of Howrah and the adjoining industrial towns. The second stratum consisted of urban and semi-urban areas while the third consisted of rural areas. About 1700 random grids (sampling units) of the size of 1/84th of a square mile were thrown in the first stratum. A complete enumeration of the refugee families contained in each sample unit was made. In the second stratum 83 townships or semi-urban units were included. In 46 of these units a complete count of refugee families was made. In the remaining towns a sampling fraction of 3% only with sampling units (i.e. grids) of the size of 1/10th of a sq. mile was used. In the third stratum a complete survey of about 1200 villages selected at random was made throughout the whole of the rural area. Special staff was appointed and was specially trained for work in hilly sub-division of the Darjeeling district.

Analysis of data: Statistical analysis of the data was started in July 1948 but progress has been slow owing to the late receipt of orders from the Government of India to tabulate materials collected from the 1200 rural villages. Primary tabulation by Hollerith was completed by the end of November and the advanced work was done in December and January. Some of the tables initially prepared had to be revised to give more explicit information in certain respects, causing some delay in the preparation of the final report.

The first report with principal tables was sent to the Government of India on 5th November 1948 and a copy was sent, with their consent to the Provincial Government on 27th December 1948.

The final report with the remaining tables will be sent to the Government of India shortly.

The Refugee Survey data are being analysed with a view to ascertain (i) how far the demand on the resources has increased and (ii) how far the potential supply of resources of West Bengal has increased, as a result of refugee influx.

4. ENQUIRY INTO THE ECONOMICS AND STATISTICS OF ROAD DEVELOPMENT

A report containing a comparative study of the information collected on behalf of the Transport Department of the Government of India at seven different centres, the traffic census and the economic survey previously reported has been drafted.

5. RANGOON SURVEY

On invitation from the Ministry of National Planning, Government of Burma, Professor Mahalanobis visited Rangoon in December 1948 and examined the question of a co-ordinated scheme that the Government of Burma might develop with the help and co-operation of the Indian Statistical Institute.

Plans for an experimental economic survey with special emphasis on occupational distribution were drawn up in October when at the Ministry's request one of the senior statisticians visited Rangoon and made a preliminary survey of the field and collected available material, relevant for the exploratory stages. The preliminary stages and the preparation of the sample list were completed by the middle of February, and a small party of trained field technicians was to proceed to conduct the survey operations.

The proposed survey, which was initially to be an exploratory one, for establishing the sampling technique and also an adequate field organisation, for subsequent country-wide operations, had however to be postponed in view of the disturbed situation in Burma.

6. AGRICULTURAL LABOUR SURVEY

A report on the employment and family budget of the agricultural labourers is being prepared from a fortnightly survey of agricultural labourers in 42 centres of rural Bengal over the whole year.

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7. CALCUTTA ECONOMIC ENQUIRIES

The object of the enquiry is to study the economic (including employment) condition of the population of Calcutta with particular reference to the middle class. This study is meant to be an extension of the Calcutta middle class diet surveys of 1939 and 1945.

Conditions created by the war and the partition of India have considerably changed housing and other characteristics of the Calcutta population. This change has made the collection and analysis of new data necessary for the design of the proposed survey. A pilot survey of municipal holdings, intended to bring out the distribution of resident families and related factors will be undertaken for the purpose. The actual survey will be based on its results and field work in this connection is scheduled to start in April 1949.

8. WORKING-CLASS FAMILY BUDGET SURVEY IN CALCUTTA

As an item of applied research, a sample study of the Family Budget and Social Conditions of working-class families living in the Jagaddal area was started in November 1948 and is expected to be completed in May 1949. The survey has been designed in replicated sub-samples, which would not only balance out the differential effect of the personal bias but would also provide us with an insight into the nature and extent of this bias. The genealogical method of social enquiry has been employed to collect the social data accurately.

It was thought that the nature of the distribution of the working families in this area had changed significantly from that found at the time of the first enquiry in 1941 because of the effects of the war. To devise a more satisfactory stratification, therefore, a preliminary census survey of the families under certain heads of information was carried out during the period November 1948 to January 1949.

The sample survey has been continuing since along with periodic collection of price information. It is proposed to survey about 1000 families.

9. STUDIES IN THE TECHNIQUE OF POPULATION SAMPLING WITH SPECIAL REFERENCE TO THE URBAN AREAS

A complete enumeration of all houses in each of the Municipal Numbers in Ward No. 6 of the Calcutta Corporation is going on and information on the number of units of various types, i.e. private families, shops etc., residing in each floor is being collected.

2587 Municipal holdings have been enumerated so far at a cost of 232 investigation-hours. A complete survey of the Calcutta Corporation comprising 81,378 Municipal holdings may thus be visualised, and the possibility of organising a small nuclear staff of highly dependable calibre is being explored. The nature of the existing material and the possibilities of utilising it for the setting up of a sampling frame, is being examined by direct correspondence and visits to the Corporation offices, the Rationing Department and the Electoral offices. Besides, the part time services of a batch of supervising and inspecting staff are being utilised for determining the cost of collection per schedule for a few types of questionnaire in a number of wards, representing typical quarters, like bustees, offices and private residences.

10. SAMPLING EFFICIENCY OF VILLAGUE UNITS

A study was undertaken on the material of the rural survey (1946) to determine the efficiency of villages as sample units in socio-economic surveys. There was some difficulty about fixing the procedure for calculating the variance. Some experiments were made and a procedure adopted. For two districts the efficiencies of the village and the square-mile cell as sampling units were studied for one character, viz., land, and tentative results have been obtained. But further studies are necessary before any conclusions can be arrived at.

11. RURAL SURVEYS

A consolidated report is being prepared from the material collected in 3 different rural surveys. The report will be on West Bengal and will cover most of the important aspects of rural economy, namely,

rural indebtedness, standards and costs of living, land, assets, wage rates, employment and seasonal occupations and some other problems. The consolidated report will be ready in a few months.

12. SPECIAL CROP-CUTTING AMAN 1948-49

A special crop-cutting experiment in the three centres (1) Daughara and (2) Boso in Hooghly and (3) Rampurhat in Birbhum was started in the first week of December and was continued till the middle of January. The main object of the experiment was to study the existence and extent of differential bias, depending on the size of cuts. In all, about 200 plots were taken up. For each of these 200 plots, circular cuts of various sizes ranging each 2' to 8' in radius and rectangular cuts of size 16½' x 33' were harvested. Besides, each of these plots was completely harvested and the crop was threshed and weighed. The areas of the individual plots were also very carefully measured with the help of Amina. Uniformity trial experiments were also conducted in a few plots in all the three centres.

The analysis is going on, and is expected to bring out important result.

13. FERTILITY AND MORTALITY

The 1941 census material has provided some information regarding fertility. Extensive machine tabulations obtained from the Hollerith cards pertaining to the Y-sample of West Bengal are ready for final analysis. Also very detailed informations which are likely to throw substantial light on this subject are available in the family schedules collected by the Indian Statistical Institute in course of two sample surveys, viz., Weaving Survey, Bengal (1936) and the Jaguddal Labour Enquiry (1940-41). The relevant information of the first survey is being transferred to Hollerith cards and that of the second is being coded.

Construction of Life Tables for the Province of Bengal is being pursued. The life tables for this province are expected to be ready within a few months.

Various problems in connection with the mis-statement of age in the census returns are under consideration. At present the returns of the district of Hooghly are being examined to study whether the segment of the population returning their ages in years and months are differentiated from those returning in years only as regards the extent in age returns.

14. ANTHROPOMETRY

Further analysis of the United Provinces Anthropometric measurements (1941) was carried out with a view to study the optimum number and nature of characters useful for classification purpose. The original records of the measurements of about 2000 persons in Bengal were scrutinised and some homogeneous groups were chosen for study. The calculation of mean values and second order statistics is nearing completion.

15. LINGUISTIC STUDIES

After the publication of the second series of work Easy Bengali Vocabulary (Series No. II) further work was continued on the same lines with the next series which consists of a comparative study of the Bengali Vocabulary of different ages and stages of Bengali literature. Some progress has been made with the works of Bankim Chandra Chattorjee. This work which is expected to be a very huge one, is progressing satisfactorily, considering the meagre resources available for it. The final aim is to find out a basic Bengali vocabulary and this will be collected from all those works. These works are expected to be published systematically.

16. PREPARATION OF TABLES

Tables of the maximum of the p-statistics for $p=2$ and a number of degrees of freedom have already been calculated. Work is now proceeding with the preparation of other tables of p-statistics and also the tables of classical D^2 for a wider range of parameters.

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SCIENTIFIC ENQUIRIES

During the year under review a number of statistical enquiries were attended to. The distribution of the most important of them is shown below : West Bengal 8, Delhi 7, U.P. 2, Udaipur 1, Bombay 1, Vindhya Pradesh 1, Eastern Pakistan 2.

EXAMINATIONS

The examination for the award of the Statistician's Diploma Part I was held in July 1948 simultaneously at two centres, Calcutta and Bombay. Twelve candidates applied out of which 8 appeared at the Calcutta centre, three at the Bombay centre and one was absent. Two candidates passed in all the papers and three others passed in paper I (theoretical) only. The names of the successful candidates are given in the appendix.

The Computers' Certificate Examination, Part I was held in May 1948. In paper IA(1) 85 candidates appeared out of which 18 passed; in paper IA(2) 89 appeared and 15 passed; in paper IB(1) 52 appeared and 5 passed; in paper IB(2) 47 appeared and 10 passed; in IC(1) 34 appeared and 2 passed; and in IC(2) 33 appeared and 7 passed. The list of successful candidates is given in the appendix.

TRAINING SECTION

As in previous years provision has been made for training in Statistics for students and officers deputed from Central, Provincial or State Government departments, Universities and other recognised institutions and organisations.

Twelve trainees who had joined in July 1947, appeared at the final examination held in July 1948 and all of them came out successful. Four of them were deputed officers, three being in the one year officer's course, initiated in 1947.

The period of the Standard course of training in Statistics has been extended to two years from the session beginning July 1948. A basic training in statistical theory and application will be given in the first year while in the second year facilities for professional training in different branches of statistical application will be provided. Ten students from all over India have joined this extended course. Besides these students, six officers deputed by different governments have joined the various courses arranged for them. The names of students and officers in the current session are given in the Appendix.

Two officers who had been deputed by the government of C.P. & Berar for training in the operation of Industrial Statistics Act 1942 were sent after some preliminary training in the Institute to the Provincial Statistical Bureau to gain practical experience in collecting factory returns. In December last, the students and officers took part in the special crop cutting experiments conducted by the Institute. They were at Dasghera camp for a week and conducted the experiment in the various stages.

A seminar is held every Saturday where workers of the Institute discuss modern developments in statistical theory and its application.

LIBRARY

The Institute is now maintaining a Central Library at Calcutta and two branch libraries at Baranagore and Giridih.

During the year under review 632 volumes were added to stock. Several volumes were received as presentations from learned societies and scientists of India and other countries of Asia, Europe and America.

The library also received regularly 481 periodical publications of which 297 were received on an exchange basis, 50 from scientific societies and Government Departments all over the world as free gifts and 134 were subscribed. Many exchange arrangements, suspended during the war, were revived during the year and some of the former enemy countries have again started to send their publications. Attempts are being made to procure books and journals from France, Germany, U.S.S.R. and other war ravaged countries through the UNFSCO agency and already favourable progress has been made in this direction.

From the 1st March 1949 a provisional scheme was adopted to extend the library service so that it may be kept open from 10 a.m. to 8 p.m. on all weekdays.

The number of readers increased from 188 to 206. The total number of books and journals borrowed through the reference and lending sections of the Central Library was 15895.

In addition to the microfilm and photoprint service the possibility of introducing film-strips is being explored and already about 40 film strips and a projector have been acquired from abroad by Professor Mahalanobis.

Worker's Circulating Library: 403 volumes were added to the library of which 104 were in English and 299 in Bengali. The books at the three centres were interchanged at regular intervals and the total number of books issued in Calcutta, Baranngore and Giridih were 1030, 5000, and 1894 respectively.

SANKHYĀ : THE INDIAN JOURNAL OF STATISTICS

During the year under review Part 4 of Vol. 8 and Part 1 of Vol. 9 were issued. Parts 2 and 3 of Vol. 9 are ready and will be issued very soon.

PHOTOGRAPHIC SECTION

The output of the photographic section during the year under review was as follows: —

Microfilming of books, journals, notes etc. 3610; bromide enlargements 1320; map making 86; slides and acetate plates 265; ferrotyping 283; photos for identification etc. 189.

ACTIVITIES IN THE LOCAL BRANCHES

Bombay Branch: During the year under review, Mr. A. D. Shroff was elected President and Prof. C. N. Yakkil, Dr. V. R. Khanolkar, Mr. L. S. Vaidyanathan and Mr. R. G. Saraiya were elected Vice-Presidents. Dr. N. S. R. Sastri was re-elected as Joint Secretary in the vacancy caused by the resignation of Prof. G. S. Priolkar. Mr. K. M. Muranjan, Dr. R. L. N. Aiyangar, Mr. V. G. Pendharkar, Mr. G. M. Sankhpal and Mr. M. V. Divatia were elected members of the Executive Council for the year.

Training in Economic Statistics: An examination for the students who attended the training course in Economic Statistics conducted during 1947-48 was held towards the end of April 1948. Altogether 14 candidates appeared, out of whom 7 passed. Three of the successful candidates passed with distinction. The usual training classes in Economic Statistics were conducted this year also and it was attended by members of the staff of the Reserve Bank of India, students of the School of Economics and by employees of commercial firms in the city. Lectures were delivered once a week by Mr. V. G. Pendharkar and Mr. V. N. Murti. An examination was conducted at the end of the course at which 19 appeared and 10 passed, of whom one was declared to have passed with distinction.

Institute Examinations: The branch arranged the holding of the Institute Diploma Part I Examination at Bombay Centre towards the end of July 1948 for benefit of candidates from Bombay. Three candidates appeared for the examination of whom one passed in Paper I (theoretical).

Training in Quality Control: Acting on a suggestion made by Dr. W. A. Shewhart during his visit to Bombay in 1947-48, the Branch organized a training course in Statistical Methods and Quality Control in co-operation with the Textile Association (India) for the benefit of technicians employed in various industrial concerns in the city. The course was inaugurated by Mr. G. L. Mehta, President of the Indian Tariff Board, on 6th August 1948. A first batch of 40 students representing various industries were selected for the course out of nearly 80 applicants. The course was started on 9th of August 1948 and ended on 15th November 1948 during which period 23 lectures were delivered. The lecturers for the course were Dr. N. S. R. Sastri, Mr. M. V. Divatia, Mr. V. V. Divatia, Mr. K. C. Cheriyan, Mr. M. D. Bhutta, Mr. N. N. Shilwant and Mr. V. S. Karamlikar.

All students who had put in more than 50 percent attendance at these lectures were awarded certificates at the Sixth All-India Textile Conference held on 14th March 1949 at the Victoria Jubilee Technological Institute, Bombay. At this conference all the lecturers were awarded mementos by the Honourable Shree B. G. Khor, the Premier of Bombay. It is proposed to conduct a second course of lectures on Quality Control during 1949.

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Sample Survey Work : The survey of diet and health conditions of middle-class families in Bombay City which was started in the previous year was completed during the year under review. A report on the results is being published in the form of a booklet, the expenses for publication being met by an additional grant of Rs. 1000 from the Reserve Bank of India.

A scheme for a family budget and assets survey among middle class families in Bombay was prepared and a grant of Rs.7500 has been sanctioned by the Indian Statistical Institute to meet the expenses of the survey. The work is scheduled to begin early in April 1949.

Poona Branch : The membership of the branch continued to be 6 life-members during the year under report. Rao Bahadur D. L. Salvarubha continued to be the President and Mr. N. V. Sovani the Local Secretary.

The balance in the current account of the Branch was Rs. 416-14-0 on 1st March 1948. No expenses were incurred during the year. The amount held as current deposit in the bank stood at Rs. 416-14-0 on the 1st March 1949.

The Indian Statistical Institute opened a branch office at Poona for carrying out the work of coding the 1941 Census slips for Bombay, C.P. and Baroda. The local Secretary and Mr. V. M. Dandekar gave all the help necessary in the setting up of this branch office. Members of the Local Branch visited it on 4 February 1949 and observed the work carried on there. Mr. P. Mukerjee, who was in charge of this office, read a paper before the Local Branch on 20 January 1949 on "The Method of checking mistakes in the coding of Census slips." Mr. Sovani's Report on Population and Fertility in Kolhapur City was published during the year.

MISCELLANEOUS

The Statistical Unit, Cabinet Secretariat : Prof. P. C. Mahalanobis was appointed Honorary Statistical Adviser to the Government of India in January 1949 and a Statistical Unit was established under him in the Cabinet Secretariat. One of the Superintending Statisticians has been working at the Statistical Unit since January 1949 along with other workers. Two assistants have been deputed to assist Dr. R. C. Desai of the Ministry of Finance in Statistical work connected with National Income calculation.

Prof. P. C. Mahalanobis's Tours and Conferences : (April-May): Prof. Mahalanobis attended the sessions of the UN Statistical Commission in New York. He also represented UN Statistical Commission at the sessions of UN Population Commission held in New York. (June-July): He undertook an extensive tour to study the application of statistical methods in the front rank factories and plants of New York, Yonkers, Rochester and Syracuse (N.Y.); Bridgeport (Conn.); Newark and Duway (N.J.); Pittsburgh (Penn.); Akron and Cincinnati (Ohio); Nashville (Tenn.); Waterloo (Iowa); Chicago and Urbana (Illinois).

He attended a conference and lectured at the Carnegie Institute of Technology (Pittsburg), Universities of Chicago and Illinois, and Rochester Institute of Technology.

(August-November): On his return to India Prof. Mahalanobis attended in August 1948 the inaugural meeting of the Advisory Committee for the Co-ordination of Scientific Work of which the Hon'ble Prime Minister, Pandit Jawaharlal Nehru is the Chairman.

Later he attended the session of UN Sub-Commission of Statistical Sampling as its Chairman in Geneva (Switzerland). He also attended a number of conferences and lectured at the Universities of Rome (Italy), Geneva and Berne (Switzerland), Uppsala, Lund and Stockholm (Sweden) and Oslo (Norway). He visited the more important scientific institutions at Copenhagen (Denmark), The Hague and Amsterdam (Holland), and London (England).

At the invitation of the Government of Turkey, he visited Istanbul and Ankara to advise the Turkish Government on statistical matters. He also lectured at the University of Istanbul.

(December-March): Prof. Mahalanobis returned to India in December 1948 and attended meetings of the Committee of Departmental Statisticians and Economists at Delhi. He was appointed Chairman of the Committee.

At the invitation of the Government of Burma he visited Rangoon to advise on statistical matters. In January 1949 he attended the annual session of the Indian Science Congress.

Up to March 1949 Prof. Mahalanobis divided his time between Calcutta and Delhi where he was mainly engaged in planning and organising the work of the Statistical Unit.

Prof. S. N. Roy's Tour: Prof. S. N. Roy left for the U.S.A. on a lecture tour at the end of January 1949. He has been invited to deliver a course of lectures in the Columbia University, New York, during 1 February to 31 May 1949, as an Associate Professor of Mathematical Statistics with a seat in the Faculty of Political Science. He has also been invited to deliver a course of lectures in the Princeton University, New Jersey, during the Fall Semester of 1949-50, that is September 1949 to January 1950, as a Visiting Professor. He was granted leave for this purpose for one year from the Institute.

Indian Science Congress: Professor P. C. Mahalanobis has been elected General President of the Indian Science Congress for the year 1949. The following attended as delegates at the Allahabad session of the Congress, 1949:—N. T. Mathew, D. M. Ganguly, Mrs. C. Bose, C. R. Rao, P. K. Chatterjee, Abraham Matthai and Anukul Das.

Indian Economic Conference: The following attended the economic conference held at Hyderabad (Deccan) as delegates from the Institute. Sitangshu Bhattacharyya, Ambika Ghosh and H. K. Chaturvedi.

GENERAL ARRANGEMENTS

I. STATISTICAL LABORATORIES OF THE INSTITUTE

General: The statistical work was done at four different places: Calcutta, Baranagore, Giridih and Poona. Of them, the Poona branch was opened temporarily for about 6 months to handle some population data slips written in Western India Languages and has now been closed. The following table shows the number of workers at the three centres as compared with last year.

	Calcutta		Baranagore		Giridih		Total	
	31st March 1948	31st March 1949	31st March 1948	31st March 1949	31st March 1948	31st March 1949	31st March 1948	31st March 1949
Price-rate	5	4	54	41	37	15	96	60
Monthly	68	91	108	98	17	7	193	197
Total	73	96	162	139	54	22	289	257

It should be noted that a large number of workers were employed temporarily for the population coding work, who were discharged before the end of the session.

Staff: In the technical staff there were some important changes. Professor R. C. Bose who was one of the seniormost workers of the Institute working continuously since 1932, accepted the offer of a post of Professor of Mathematical Statistics at the Institute of Statistics, North Carolina, U.S.A. He left for the United States on the 18th March 1949 and thus a very old connection was cut off. Professor S. N. Roy is on a tour in the U.S.A. as Visiting Professor. A. Bhattacharyya joined the Presidency College as a Professor of Statistics. M. Ganguly, a young worker, joined the Meteorological Department of the Government of India. D. M. Ganguly, Deputy Superintendent of the Field Section, joined the Statistical Bureau of the West Bengal Government as Supervisor. Dr. C. R. Rao joined the Institute after two years at Cambridge where he obtained his Ph.D. Degree.

Calcutta Office: The main office, Library, Photographic section, Training and Research sections and the section for advanced Computation continued to function in Calcutta, mostly in the Presidency College.

Baranagore office: As in previous years the main bulk of the computation work in the big projects was done by the computation section located in the two houses at Baranagore. The Hollerith section continued to function there.

Giridih office: The coding work in respect of Bihar, U.P., C.P. and East Punjab population slips written in Hindi and Urdu script was done in the Giridih office. The work continued up to December 1948. At present some sampling work on Bihar slips is being done there with a view to determining the efficiency of different methods of sampling in census operations.

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Poona office: A temporary camp office was opened at Poona by the middle of September 1948 to deal with the coding of the population slips written in Gujrati, Marathi and Kanarese scripts and on an average, 40 workers were employed there. The contro was finally closed on 28 February 1949.

Hollerith section: The section was further expanded, particularly in October by the addition of the Tabulators and Sorters ordered in connection with the population project. The total number of power machines consists of 3 Tabulators, 3 Sorters, 1 Reproducer and 1 Multiplier. Total machine hours spent on the different jobs were as follows: Population project 2746, Rural Indebtedness 272, Refugee Survey 332, miscellaneous 262. During the year under review 422.0 lakhs of cards were passed in 4136 hours through the Sorters, 61.6 lakhs of cards in 3012 hours through the Tabulators, 4.1 lakhs of cards in 601 hours through the Multiplier and 25.0 lakhs of cards in 2337 hours through the Summary Reproducer thus utilising 86.9%, 86.8%, 55.0% and 98.6% respectively of the available time. Wastage on account of breakdowns seems to be high in the case of Sorters and Tabulators, but more so in the case of the Multiplier and the attention of the B.T.M. & Co. has been drawn to the necessity of improvement in the upkeep system.

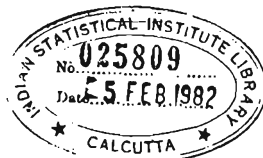
During the year under review the punching department served as a general pool to meet all requirements of projects and researches. During the year 24.28 lakhs of cards of various column capacities were punched out of which 22.77 lakhs were of the population project alone. The deliberate insertion of dummy wrong cards prior to verification was continued which gave a very satisfactory control over the quality of production.

Research into the possible uses of the Hollerith machines: A brief bibliography on the subject has been drawn up. Two technicians have according to programme undergone a course of training of about two months on the Hollerith Machines at the British Tabulating Machine Co., Bombay. The research group is at present rendering useful service by tackling problems that arise in connection with large scale or complex tabulations.

Cost Account Section: As in the previous year the cost account section was responsible for the valuation of work of various staff representing a total of 84370 worker-item-days or 1846 man-months. The total volume of work actually valued from output in the section comes to Rs. 93,000/- in the year and total disbursement in the section exceeds well above Rs. 2,00,000/-.

Visitors

During the year under review a large number of distinguished visitors came to the Institute, among whom may be mentioned Miss P. Ady, Statistical Adviser to the Government of Burma, Planning Dept; Dr. Richmond K. Anderson, Field Director in India, Rockefeller Foundation, International Health Division; Dr. Marshal C. Balfour, M.D., Regional Director in the Far East, International Health Division Rockefeller Foundation; Mr. Beecroft of World Banking Commission; Professor Ta Chen, Professor of National Tsing Hua University, Peiping, China; Mr. H. Fairfield Smith of Rubber Research Institute of Malaya, Kuala-Lumpur; Dr. Alexander Wolsky, Principal Scientific Officer, UNESCO Science Co-operation office for South Asia; Mr. C. Woo, Member of the Supply Commission of the Chinese Government; Mr. M. W. M. Yentia, Census Commissioner for India; and the members of University Commission.



Indian Statistical Institute : Receipts and Payments Account for the Year ending 31 March, 1949

RECEIPTS		PAYMENTS	
	Rs. A. P.		Rs. A. P.
To Opening Balance:		By Salary & allowance (including research staff) ..	4,88,328 13 0
Cash in hand and Bank	1,18,988 12 2	Dearness allowance ..	1,40,782 13 0
Do (suspense balance of Institute supervision fee)	40,300 0 0	Contribution to leave salary & Provident Fund ..	65,800 14 0
Membership fees ..	1,64,488 12 2	Salary & allowance (Field Branch) ..	3,80,502 5 0
Training fee and other receipts:		Dearness allowance (Field Branch) ..	1,57,111 15 0
Scholarship receipts ..	1,174 12 1	Travelling allowance and conveyance ..	12,50,586 12 9
Training ..	2,063 0 0	Books and journals ..	36,691 12 3
Examination fees ..	2,083 0 0	Do: Purchase of books and journals of Professor P. C. Mahalanobis ..	11,550 13 0
Block grants: Government of India:	5,328 12 1	Laboratory Equipments ..	20,000 0 0
Ministry of Education ..	2,13,000 0 0	Stationery and printing ..	20,376 0 0
Mineral grants ..	2,000 0 0	Postage, postage and telephony ..	22,403 5 0
For Sankhya ..	2,000 0 0	Other charges (telephone, electric charges, hire charges ¹ etc.) ..	37,834 7 9
Ministry of Home Affairs: Population Census ..	2,15,000 0 0	House rent ..	17,588 13 0
Scheme Ministry of Home Affairs: West Bengal Refugee Survey ..	4,10,848 0 0	Auditor's fee (Laboratory, Rs. 1200/), Field Branching, Rs. 2500) ..	21,253 0 0
Ministry of Home Affairs: Institute's Supervision Fee ..	8,200 0 0	Workmen's welfare scheme at Girdih & Baranagore ..	2,400 0 0
Block Grants: Government of West Bengal:	97,100 0 0	Bank charges ..	5,025 12 6
Department of Agriculture ..	6,84,300 0 0	Office bus (net maintenance charges) ..	10,851 10 0
Department of Agriculture: Institute's Supervision Fee ..	28,000 0 0	Office bus (net travelling of delegates) ..	11,003 3 3
Department of Agriculture: Institute's Supervision Fee ..	1,70,000 0 0	Indian Science instrumentation ..	1,150 1 9
Department of Agriculture: Institute's Supervision Fee ..	9,000 0 0	Deposit refunded ..	2,947 11 0
Department of Agriculture: Institute's Supervision Fee ..	1,79,000 0 0	Bengal Crop Survey and other enquiries ..	250 0 0
Contribution from Indian Science Congress Association ..	6,657 4 0	Inquiry into Enquiry & tabulation of family forms: the year ..	1,26,312 2 6
Contribution from National Institute of Science ..	500 0 0	Expenses incurred during the year ..	8,056 11 9
Received in settlement of liabilities on account of housing arrangement at Anampali and Mahan ..	7,792 0 0	Suspense carried over for expenses in 1948-50 ..	3,493 4 3
Contribution to leave salary and Provident Fund ..	20,551 0 0	Other small enquiries ..	11,550 0 0
Do: from Field Branch ..	95,800 14 0	Hire & maintenance of Holerith Machines and other equipment, cards and cabinets ..	303 6 0
Do: from Field Branch ..	3,200 15 0	Contributions: Publishing Society ..	1,00,202 12 3
Library deposit ..	60,162 13 0	Contribution to Sankhya ..	3,900 0 0
Do: Budget account ..	40 0 0	Contribution to Bombay Branch of the Institute ..	7,500 0 0
Do: Field Branch ..	22,767 0 4	Memberships to Indian Standards Institution ..	250 0 0
Income-tax (from staff) ..	15,000 0 0	Leave salary & Provident Fund contribution (payments) ..	33,317 18 0
Contribution from Field Branch to Library ..	104 2 0	Suspense account: Calcutta, Baranagore, Girdih & Delhi Office ..	7,145 1 3
Bank overdrawn ..	2,000 0 0	Purchase of land at Baranagore ..	50,462 10 10
	2,300 0 7	Loan Supervision Fee Fund ..	91,400 0 0
	19,35,078 1 2	Do: General Fund ..	1,581 15 10
		Cheque balance: ..	1,258 12 0
		Cash in hand ..	10,35,078 1 2

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Indian Statistical Institute : Receipts and Payments Account for the Year ending 31 March, 1949

RECEIPTS

PAYMENTS

Director's Contribution Fund

	Rs.	A.	P.	Rs.	A.	P.	
To Opening Balance:							
Government Paper at cost	1,17,053	11	0	..	1,17,053	11	0
Interest on Government paper	..	..	..	..	..	..	..
	3,799	8	0	..	..	..	..
	1,20,853	3	0		1,20,853	3	0
By Closing Balance:							
Government Paper at cost	1,17,053	11	0	..	1,17,053	11	0
Cash at Imperial Bank	..	..	..	..	..	..	..
	3,799	8	0	..	..	..	..
	1,20,853	3	0		1,20,853	3	0

Workers' Provident Fund

	Rs.	A.	P.	Rs.	A.	P.	
To Opening Balance:							
Government paper at cost	..	..	..	..	..	..
Cash at Imperial Bank	..	..	..	..	..	..
Workers' own contribution during the year	84,472	13	4	..	84,472	13	4
Institute's contribution during the year	..	..	..	..	..	..	..
(Laboratory)	17,028	1	0	..	17,028	1	0
(Field Branch)	3,291	15	0	..	3,291	15	0
Do.	..	..	..	..	..	..	..
Interest against loan	..	..	..	..	..	..	..
Interest on Government paper	..	..	..	..	..	..	..
	20,320	0	0	..	20,320	0	0
	350	8	0	..	350	8	0
	2,741	14	0	..	2,741	14	0
	1,31,047	1	0		1,31,047	1	0
By Workers' own contribution paid during the year	..	..	..	..	..	..	..
Institute's contribution paid during the year	..	..	..	..	..	..	..
Advance to workers	..	..	..	..	..	..	..
Closing Balance:							
Government paper at cost	..	..	..	..	..	..	..
Cash in Khith. Bank	..	..	..	..	..	..	..
Cash in Imperial Bank	..	..	..	..	..	..	..
	5,662	10	8	..	5,662	10	8
	30,173	11	2	..	30,173	11	2
	41,836	5	8		41,836	5	8
	1,31,047	1	0		1,31,047	1	0

Supervision Fee

	Rs.	A.	P.	Rs.	A.	P.	
To Opening Balance: Cash at Bank	..	..	..	..	..	..
Government of West Bengal (Crop Survey)	46,200	0	0	..	46,200	0	0
Government of India (Refugee Survey)	37,000	0	0	..	37,000	0	0

	83,200	0	0	..	83,200	0	0
	91,400	0	0		91,400	0	0
By Land purchased	..	..	..	..	..	..	..
	91,400	0	0	..	91,400	0	0

	RECEIPTS			PAYMENTS		
	Rs.	A.	P.	Rs.	A.	P.
<i>Indian Government Grant (Ministry of Education)</i>						
To Block grant (including Rs. 2000/- for Sankhya)	2,15,000	0	0	By salary and allowance	1,48,822	1 9
" Membership fees	3,155	0	0	" Other expenses	1,13,551	1 0
" Training fees and other receipts	5,325	12	1	" Sankhya (from the Government of India)	2,000	0 0
" Advance from General Account	40,891	0	8			
	2,64,373	2	9		2,64,373	2 9
<i>West Bengal Crop Surveys (three seasons)</i>						
To Unspent balance of last year	1,64,616	7	3			
" Suspense account (Field Branch)	16,706	0	0	By Salary and allowance	2,20,334	9 0
" Block grant - Crop Survey (less Institute's fee)	6,84,700	0	0	" Other expenses	11,758	4 0
" Date, Area & Acreage Survey	1,70,000	0	0			
" Rabi & Potato Survey	1,70,000	0	0	Field Branch:		
				By Salary and allowance	4,91,052	13 0
				" Other expenses	1,12,450	3 6
				" Suspense (including cash in hand)	2,500	12 0
				" Closing Balance		
	10,34,582	9	3		10,34,582	9 9
<i>Population Census (Home Ministry, Government of India)</i>						
To Block grant	4,10,838	0	0	By Payment of advance	3,11,133	6 0
" Advance from General Account	52,397	0	6	" Salary and allowance	1,45,804	7 0
				" Other expenses		
	4,63,235	0	6		4,57,937	13 0
<i>Survey of East Bengal Refugees in West Bengal (Home Ministry, Government of India)</i>						
To Block grant (less Institute's fee)	88,900	0	0	Statistical Branch:		
" Advance from General Account	13,688	4	0	By Salary and allowance	32,382	8 0
				" Other expenses	12,349	3 0
				Field Branch:		
				By Salary and allowance	54,061	7 0
				" Other expenses	12,495	2 0
	1,02,588	4	0		35,031	11 0
<i>B. HASTINGS STREET, CALCUTTA.</i>						
<i>The 12th July, 1949.</i>						
						Estimated and Found Correct.
						P. C. NADAI & co., Auditors.
						Chartered Accountants.

APPENDIX 1

List of Papers Published in 1948-49

1. BHATTACHARYYA, A. (1948): On some analogues of the amount of information and their use in statistical estimation (concluded). *Sankhyā*. Vol. 8, pt. IV.
2. BHATTACHARYYA, S. (1949): A note on designing family budget surveys. *Proc. Ind. Sc. Congress*.
3. Bose, C. (1949): A note on the study of the variations of the number of tablets per pound of Quinine Sulphate. *Proc. Ind. Sc. Congress*.
4. CHATURVEDI, H. K. & BHATTACHARYYA, S. (1948). On the change in standard of living of the jute mill workers of Jaguldal between the years 1941 and 1946. *Sankhyā*. Vol. 8, pt. IV.
5. CHATURVEDI, H. K. (1949): On sample checking of coded census slips. *Proc. Ind. Sc. Congress*.
6. DAS, A. C. (1948): A note on the D^2 -statistic when the variances and co-variances are known. *Sankhyā*, Vol. 8, pt. IV.
7. DAS, A. C. (1949): Determination of the best shape of a sample cut. *Proc. Ind. Sc. Congress*.
8. DAS, A. C. (1949): Non-null distribution of canonical correlations. *Proc. Ind. Sc. Congress*.
9. DAS, A. C. (1949): Two-Dimensional systematic, stratified and random sampling. *Proc. Ind. Sc. Congress*.
10. GANGULY, D. M. (1949): Route sampling for estimation of cropped area. *Proc. Ind. Sc. Congress*.
11. GHOSH, A. (1949): A Note on the size of marginal and economic holdings in Bengal. *Proc. Ind. Sc. Congress*.
12. JAMBUNATHAN, M. V. (1949): Methods of deducing the Normal and the Poisson Distribution as Approximation to the Binomial. *Proc. Ind. Sc. Congress*.
13. ROY, JIBAN MOY & ROY, S. N.: Vocabulary Tests No. 2. Easy Bengali Vocabulary (*Series II*).
14. MAHALANOBIS, P. C. (1949): Walter A. Shewhart and Statistical Quality Control in India. *Sankhyā*, Vol. 9, pt. I.
15. MATTHAI, A. (1949): Estimation of parameters from Incomplete Data with application to Design of Sample Surveys. *Proc. Ind. Sc. Congress*.
16. MATHEW, N. T. & GANGULY, D. M. (1949): A Sample Survey for Estimating Requirements of Potato seeds in West Bengal. *Proc. Ind. Sc. Congress*.
17. ROY, S. N. (1949): Notes on testing of composite hypotheses-II. *Sankhyā*, Vol. 9, pt. I.
18. RAO, C. R. (1949): The General Theory of Fractional Factorial Experiments. *Proc. Ind. Sc. Congress*.
19. RAO, C. R. (1948): The Utilization of multiple measurements in problems of classification. *J.R.S.S. supplement*.
20. RAO, C. R. & SHAW, D. C. (1948): On a formula for the prediction of cranial capacity. *Biometrics Bulletin*, December 1948.
21. SENGUPTA, J. M. (1949): Crop-cutting experiment on sugarcane in a farm cultivation. *Sankhyā*, Vol. 9, pt. I.

APPENDIX 2. List of Reports Submitted

1. *Crop Survey, West Bengal—1947-48*:
 - (a) Final estimate of rabi crops, 26th July 1948.
 - (b) Report on the requirement of seed potato, 28th July 1948.
2. *Crop Survey, West Bengal—1948-49*:
 - (a) First estimate of jute & Aus, 10th Sept. 1948.
 - (b) Final estimate of Jute & Aus, 3rd Nov. 1948.
 - (c) First estimate of Aman, 7th Dec. 1948.
 - (d) Second estimate of Aman, 10th Jan. 1949.
 - (e) Final estimate of Aman, 12th Feb. 1949.

3. *Refugee Survey, Bengal—1948-49* :
First Report, 6th Nov. 1948.
4. *Population project, Y-slips* :
(a) Report on Bengal, 1st May 1948
(b) Report on Assam, 11th Nov. 1948.
5. *Report on the study of the variation in the number of tablets per pound of Quinine Ammon. Sulph.* 14th Dec. 1948.
6. MAHALANOBIS, P. C. (1948) : Report on tour of Canada, U.S.A. and U.K. : October 15 to December 16 1946. *Sankhyā*, Vol. 8, pt. IV.

APPENDIX 3. List of Officers on Deputation 1948-49

1. SRI D. L. DESHPANDE, M.A., B. Com., (*Office of the Director of Industries, C.P. & Berar*).
2. SRI JAYA KRISHNA MIRRA, M.A. (*Office of the Director of Public Instruction, Cuttack, Orissa*).
3. SRI SUDHINDRANATH GANGULY, M.Sc. (*Office of the Executive Officer, Northern India Employees Association, Kanpur, C.P.*).
4. SRI R. D. MUKHERJEE, B.Ag. (*Office of the Director, Agriculture Dept., C.P. & Berar*).
5. SRI S. N. KAUL, M.A. (*Education Dept., Govt. of Jammu & Kashmir, Kashmir*).
6. SRI K. R. K. MURTHY, B.Sc. (*Office of the Director of Industries, C.P. & Berar*).

APPENDIX 4. List of Trainees 1948-49

- (1) SRI SATYENDRANATH BHADURI, M.Sc., (*App. Math.*) (C.P.); (2) SRI M. B. KANAN, M.A. (*Math.*) (*Madras*); (3) SRI V. R. KRISHNAMACHARI, B. Sc. (*Hons. Math.*) (*Madras*); (4) SRI R. RAJAGOPALAN, B. Sc. (*Hons. Math.*) (*Madras*); (5) MD. JAFAR HUSSAIN SYFI, M.A. (*Econ.*) (*W. Bengal*); (6) SRI M. V. JAMBUNATHAN, M.A. (*Stat. & Econ.*) (*Mysore*); (7) SRI BIMALENDU SENGUPTA, M.A. (*Math. Pure*) (*W. Bengal*); (8) SRI M. B. LALL MATHUR, M. Com. (*Jodhpur*); (9) SRI R. VENKATARAMAN, B. A. (*Hons. Math.*) (*Madras*); (10) SRI GIRISHIPROSAD MATHUR, M.A. (*Math.*) (*H.P.*).

APPENDIX 5. Statistician's Diploma, Examination, July 1948.

Name of the candidate	Papers in which the candidate has passed
1. Nariman K. Dhalla	Paper I (theoretical)
2. Prasanta Chowdhury	Paper I ..
3. B. S. Ngaraja Rao	All the four papers
4. Om Prakash Sharma	Paper I (theoretical)
6. Krishnoswar Sarup	All the four papers

APPENDIX 6.

Computer's Certificate Examination, May 1948 : List of Passed Candidates

IA : SECTION 1

- | | |
|---------------------------------|-----------------------------|
| 1. Prithwis Chandra Chakravarty | 10. Promodo Ranjan Ghosh |
| 2. Surendra Nath Das | 11. Suilungau Ranjan Das |
| 3. Pranbanjhu Das | 12. Ram Renu Mukhopadhyay |
| 4. Ramaprosad Ghoel | 13. Chittaranjan Majumdar |
| 5. Anananda Das | 14. Sunil Kumar Mitra |
| 6. Ajit Kumar Sen | 15. Nripanath Bhattacharyya |
| 7. Kalipula Banerjee | 16. Nirmal Chandra Kar |
| 8. Bimalendu Das | 17. Harendranath Dutta |
| 9. Prabir Chandra Sengupta | *18. Bibhuti Bhushan Roy |

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IA : SECTION 2

- | | |
|----------------------------|----------------------------------|
| 1. Promotee Ranjan Ghosh | 9. Surondranath Das |
| 2. Aahutoah Banerjee | 10. Asoko Kumar Gupta |
| 3. Sukumar Roy Chowdhury | 11. Samindra Krishna Gupta |
| 4. Sudhir Kumar Mullik | 12. Ramaprosad Ghosh |
| 5. Prabir Chandra Sengupta | 13. Prithwis Chandra Chakravarti |
| 6. Chitta Ranjan Dey | 14. Dinesh Bose |
| 7. Pabitra Kumar Das | 15. Raakhal Nandi |
| *8. Murari Mohan Rakshit | |

IB : SECTION 1

- | | |
|---------------------------------|--------------------|
| 1. Prithwis Chandra Chakravarti | 4. Sukamal Das |
| 2. Kalipada Banerjee | 5. Gobindadhan Pal |
| 3. Asoko Kumar Gupta | |

IB : SECTION 2

- | | |
|---------------------------------|----------------------------|
| 1. Promotee Ranjan Ghosh | 6. Durgapada Mukherjee |
| 2. Tarapada Mukherjee | 7. Pabitra Kumar Das |
| 3. Prithwis Chandra Chakravarti | 8. Geeta Saha |
| 4. Nirmal Kumar Ghosh | 9. Sashi Kanta Chakravarti |
| 5. Ram Renu Mukherjee | 10. Pranbandhu Das |

IC : SECTION 1

- | | |
|-----------------------|--------------------------|
| *1. Amarendranath Das | 2. Ashit Kumar Chowdhury |
|-----------------------|--------------------------|

IC : SECTION 2

- | | |
|----------------------------|---------------------------|
| 1. Ashim Kumar Chowdhury | 5. Samindra Krishna Gupta |
| 2. Sukamal Das | 6. Ashit Kumar Chowdhury |
| 3. Haripada Mazumdar | 7. Gangaram Venwal |
| 4. Sashi Kanta Chakravarti | |

*Asterisk indicates passed with distinction.

INDIAN STATISTICAL INSTITUTE
ANNUAL GENERAL MEETING

**Proceedings of the Annual General Meeting of the Indian Statistical
Institute held on 31 May 1949.**

The Annual General Meeting of the Indian Statistical Institute was held at 5-30 p.m. on 31 May 1949 at Presidency College, Calcutta.

Present : Dr. J. C. Sinha in the chair.

Messrs N. C. Banerjee, P. Banerjee, S. K. Banerjee, A. Barmanray, C. Barori, H. D. Barori, K. C. Basack, Mrs. C. Boso, Messrs. P. K. Boso, S. S. Boso, Nistaran Chakravarti, N. C. Chakravarti, P. K. Chatterjee, H. B. Choudhury, J. B. Choudhury, S. C. Dhar, M. M. Dutta, A. K. Ganguli, D. Ganguli, H. Ghose, B. N. Ghosal, M. N. Ghosh, R. Ghosh, B. Gope, J. P. Gupta, J. K. Halder, S. N. Halder, D. B. Lahiri, A. Matthai, A. Majumdar, P. K. Majumdar, H. K. Nandi, K. Purakayastha, S. Raju Rao, S. C. Roy, S. C. Dasgupta, S. C. Sarkhel, J. M. Sengupta, S. C. Sengupta, S. C. Son, P. Sinha, J. N. Talukdar, and K. N. Chakravarti (Joint Secretary).

1. On the proposal of Mr. N. C. Chakravarti and seconded by Mr. S. C. Sen, Dr. J. C. Sinha was unanimously voted to the chair in the absence of the President and of any Vice-President of the Institute.

2. *Annual Report and Audited Accounts:* The Joint Secretary stated that owing to a section of the workers of the Institute having gone on strike from the 6th May 1949, it had not been possible for the Secretariat of the Institute and for the Auditors to complete the preparation and printing of the Annual Report and to get the audit work completed and the statement of accounts incorporated in the Annual Report for printing and circulation. He stated further that as the constitution of the Institute made it compulsory to call Annual General Meeting before the end of May, it had not been possible to delay the calling of the Annual General Meeting. In the circumstances, he requested that the meeting should be adjourned, after going through such other items of the business as could be conducted on the day, to enable the Secretariat to present the Annual Report together with Audited Statement of Accounts.

Mr. H. K. Nandi, while agreeing to the proposal of adjournment, stated that if this item of agenda was postponed till the adjourned meeting, the item relating to the election of office-bearers and members of the Council should also be similarly postponed. He argued that the Annual Report and Statement of Accounts was a special feature of the Annual General Meeting and if a new Council elected on that day, the old office-bearers might not be on the Council to present the Annual Report and Statement of Accounts at the adjourned meeting. Mr. K. C. Basack also supported Mr. Nandi.

Mr. N. C. Chakravarti pointed out that this argument was fallacious. The work and expenditure for the year 1948-49 had already been completed and incurred, and it was immaterial whether the report was presented by the new Council or the old Council. He referred to the case that even the Provincial Ministry which had prepared budgets for a year had to go out of office during the budget session and an entirely new set of Ministers who had no hand in the preparation of such budget, formally presented such budget to the legislature. It was ruled by the chair that the postponement of a particular item on the agenda was not a matter automatically dependent on the postponement of another. Subsequently, the question would have to be independently decided as to whether, in the present case, the item on the agenda relating to the presentation and consideration of the Annual Report and Audited Statement of Accounts should be postponed.

The meeting decided that in the circumstances reported, this item on agenda should be postponed till the adjourned meeting.

3. *Election of Office Bearers and Members of the Council for 1949-50:* The second item on the agenda regarding election of Office-Bearers and Members of the Council for the session 1949-50 was then taken up. Mr. H. K. Nandi raised a point of order enquiring whether the results of election could be accepted by this

ANNUAL GENERAL MEETING

meeting on the basis of the ballot already taken in view of the fact that (a) the office of the Institute at the Presidency College could not be kept open by the authorities concerned as a result of which some of the members who went to that office to submit their voting papers had to come back disappointed with the result that these voting papers either did not reach the authorities at all or did not reach them in time for being included in the scrutiny and counting; (b) he himself had not received his own voting paper and although he had written to the Secretary enquiring about it and asking for a fresh ballot, paper, he had got no reply.

The President desired the representatives of the Council to express their views on the points raised before giving his ruling.

Mr. N. C. Chakravarti stated that the objection raised by Mr. Nandi could not be accepted because all members outside Calcutta who had posted their ballot papers had no grievances in the matter and as those ballot papers, provided they had posted in time, had duly reached the authorities and had been included in the scrutiny and counting of votes. As regards members residing in Calcutta, it must have become known to them from various newspaper notices and in other ways that a strike had been going on in the Institute from the first part of May last. It was the interest of the voters themselves to see that their voting papers reached the appropriate authorities in time for scrutiny. The duties of the Secretariat of the Institute in this connexion consisted of sending the notice of the meeting together with necessary voting papers in time to the members concerned. In the present case, such papers were all issued to the different members under certificate of posting. If thereafter any such papers were mislaid in transit or the voter, for one reason or another, could not hand over his voting paper to appropriate authority, the Secretary could not be made responsible for this. He submitted that it would be a dangerous precedent if election could be considered invalid simply because some individual members did not receive their voting papers in time after such papers having been duly despatched to them or if some voting papers sent by voters did not reach the appropriate authorities in time. He submitted therefore that there was no point in postponing the election especially because such postponement would not improve matters in the least and a second ballot cannot under the constitution take place.

After some further discussion, the President stated that his own feeling was that the difficulty referred to was confined only to members residing in Calcutta, all of whom were practically aware of the address of the Secretariat Authorities. In any case, the voting paper could be sent by post to the Institute. There was therefore no real difficulty for any voter to send his voting paper, either in person or by post, if he so desired. In the circumstances, he did not think that there was any substantial hardship caused to the voters which would necessitate the cancellation of the scrutiny and counting of votes which had already taken place. A mere postponement, he added, would be of no avail as voters who had not already sent their votes, would not, under the constitution be permitted now to submit ballot papers. In spite of this, he stated that in an important matter of this nature he would not like to impose his personal decision on this meeting. He accordingly invited the opinion of the meeting as to whether in the circumstances described by Mr. Nandi and his supporters on the one side and the representatives of the Council on the other, they considered it necessary or desirable to postpone the election of the council on the basis of the scrutiny and counting of votes which had already taken place. The meeting decided, Mr. H. K. Nandi dissenting that the election should take place today on the basis of the ballot papers which had already been scrutinized and counted. The President thereupon called upon the Scrutineers Mr. Salsusiv Sen Gupta and Dr. A. N. Bose to submit their report on the results of the scrutiny of ballot papers and counting of votes in connection of office-bearers and members of the Council. The Scrutineers submitted their report to the Chairman who then declared the following Office-Bearers and Members as having been duly elected as such to the Council for the year 1949-50.

President

Sir C. D. Dashmukh, C.I.E.

Governor, Reserve Bank of India.

Hon. Vice-President (having filled the Office of President

The Hon'ble Sri N. R. Sarkar

Finance Minister, Government of West Bengal.

Vice-Presidents

Prof. S. N. Bose, M.Sc.	<i>University of Calcutta.</i>
The Hon'ble Dr. S. P. Mookerjee, M.A., B.L., D.Litt.	<i>Minister for Industry & Supply, Government of India.</i>
Dr. S. K. Banerjee, D.Sc.	<i>Director General of Observatories, New Delhi.</i>
Mr. M. W. M. Yeatts, C.I.E., I.C.S.	<i>Census Commissioner for India, New Delhi.</i>
Dr. K. C. K. E. Raja, L.R.C.F. & S., D.P.H., D.T.M. & H.	<i>Director General of Health Services, New Delhi.</i>
Sir Shri Ram	<i>Delhi Cloth & General Mills, New Delhi.</i>
Dr. P. N. Banerjee, M.A., D.Sc.	<i>Calcutta.</i>
Dr. R. C. Bose, M.A., D.Litt.	<i>Statistical Laboratory, Calcutta.</i>
The Hon'ble B. C. Sinha, M.A.	<i>Minister, Government of West Bengal.</i>

Treasurer

Dr. Satya Churn Law, M.A., B.L., Ph.D., F.Z.S., M.B.O.U.	<i>Calcutta.</i>
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Secretary

Prof. P. C. Mahalanobis, F.R.S.	<i>Statistical Laboratory, Calcutta.</i>
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Joint Secretaries

Prof. K. N. Chakravarti, M.Sc.	<i>Presidency College, Calcutta.</i>
Dr. R. C. Bose, M.A., D. Litt.	<i>Statistical Laboratory, Calcutta.</i>

Members of the Council

Sri Sadaasiv Sen Gupta, B.Sc. (Lond.).	<i>Statistical Officer, E.I.Ry., Calcutta</i>
Dr. K. R. Nair, M.A., M. Sc., Ph.D (Lond.).	<i>Statistician, Forest Research Institute, Dehra Dun.</i>
Sri A. R. Sinha, M.A.	<i>Dy. Director General of Commercial Intelligence & Statistics, Government of India, Calcutta.</i>
Sri Mohanlal Ganguli, B.Sc. (Lond.).	<i>Statistician, Indian Jute Mills Association, Calcutta.</i>
Dr. P. V. Sukhatme, Ph.D., D.Sc. (Lond.).	<i>Statistical Adviser, Indian Council of Agricultural Research, New Delhi.</i>
Sri Sudhir Kumar Banerjee	<i>Statistical Laboratory, Calcutta.</i>
Mrs. C. Bose, B.Sc. (Lond.).	<i>Statistical Laboratory, Calcutta.</i>
Sri Samarandranath Roy, M.Sc.	<i>University of Calcutta.</i>
Sri Nihar Ch. Chakravarti, M.A.	<i>Asst. Secretary to the Govt. of West Bengal, Department of Agriculture, Calcutta.</i>
Sri B. Das Gupta, M.A.	<i>Secretary to the Govt. of West Bengal, Department of Finance, Calcutta.</i>
Dr. U. S. Nair, M.A., Ph.D. (Lond.).	<i>University of Travancore, Trivandrum.</i>
Prof. K. B. Madhava, M.A., A.I.A.	<i>Mysore.</i>
Sri S. N. Ray, I.C.S.	<i>Administrators, Calcutta Corporation, Calcutta.</i>
Dr. N. Sundararaina Sastry, M.A., M.Sc., Ph.D (Lond.).	<i>Director of Statistics, Dept. of Research & Statistics, Reserve Bank of India, Bombay.</i>
Prof. H. C. Ghosh, M.A.	<i>Director of Industrial Statistics, Govt. of India, Simla.</i>
Prof. J. C. Sinha, M.A., Ph.D.	<i>Presidency College, Calcutta.</i>
Sri K. Kishen, M.A.	<i>Statistician, Department of Agriculture, Govt. of U.P. Lucknow.</i>
Sri Nistaran Chakravarti, M.A. (Cantab.).	<i>Director, Provincial Statistical Bureau, Govt. of West Bengal, Calcutta.</i>
Sri Pitambar Pant, M.Sc.	<i>Senior Research Officer, Ministry of Relief & Rehabilitation, Govt. of India, New Delhi.</i>
Prof. C. D. Thompson	<i>University of Allahabad.</i>

ANNUAL GENERAL MEETING

4. *Reorganization of the Institute:* The consideration of the item was postponed till the adjourned meeting of the Institute.

5. *Recommendations of the Council:* The Joint Secretary reported that on account of the situation arising from the strike, the Council could not discuss any recommendations which it would like to place before the General Meeting. He therefore suggested that the consideration of this item be postponed till the adjourned meeting of the Institute. The meeting agreed to this.

6. *Appointment of Auditors:* Resolved that Messrs. P. C. Nandi & Co., Chartered Accountant, who are at present Auditors of the Institute, be reappointed Auditors for the year 1949-50.

Proposed by Mr. S. C. Sen, seconded by Nistaran Chakravarti.

7. *Miscellaneous: (a) Notifical resolution:* The Chairman called upon Mr. H. K. Nandi to move his resolution on the Director's Contribution Fund which he had forwarded for discussion in the Annual General Meeting on the 28th March 1949. Mr. H. K. Nandi stated that he would request that this matter be postponed till the adjourned meeting. This was unanimously agreed to.

(b) *The Strike Situation:* Mr. S. C. Sen, Joint Secretary, made a statement inviting the attention of members to the memorandum which had already been circulated explaining the situation relating to the strike. He added that as intimated in that memorandum, the Council had taken action to resume work of the Institute from the 27th May 1949. In addition to about 450 employees of the Institute who had remained aloof from the strike from the very beginning, about 150 others already resumed work. He expressed the hope that in view of the clear anti-strike attitude displayed by a preponderating majority of the workers, the remaining workers would also realise their mistake and act accordingly.

Mr. H. K. Nandi stated that certain incidents had taken place during the strike which required discussion. It was suggested by some members that such a discussion might be postponed till the adjourned meeting. Mr. N. C. Chakravarti however suggested that such a discussion might clear up the misunderstanding which existed in the subject and he for one would welcome such a discussion taking place immediately.

The President at this stage wanted to leave the meeting for some urgent work. He nominated Mr. Nistaran Chakravarti to take the chair during his absence. The meeting thereafter continued under the chairmanship of Mr. Nistaran Chakravarti.

The Chairman then requested the members to express their views in respect of the strike situation.

Mr. H. K. Nandi made a statement in course of which he referred to (a) certain discrepancies in the statements issued from time to time by the Council in respect of the number of workers who had been working and who were on strike; (b) the alleged action of some top-ranking workers for putting undue pressure on strikers; (c) the alleged police interference with the activities of the strikers; (d) the alleged tramping under foot of some strikers on the 27th May 1949. He moved the following resolution.

This General Meeting of the members of the Indian Statistical Institute having noted with regret that the Council failed to arrive at a settlement with the workers with regard to their demands which are quite legitimate, it having further noted that the Council failed to take actions against some of its members who indulged in unauthorised activities and thus worsened the whole situation; so this General Meeting calls upon the Council to create peaceful conditions in the Institute by immediate withdrawals of discharge notices etc., and to set up in consultation with the Employees' Union of the Institute an independent Board of Enquiry to investigate the whole question of the workers' demands, the strike situation and all other matters connected with them.

This was seconded by Sri Biswanath Adhikari. He said that the strikers were roughly handled at the gate of the premises 87, B. T. Road on the 27th May. Sri Manimadanth Ghosh also supported the resolution.

Mr. N. C. Chakravarti replying to the point raised by Mr. Nandi, explained the figures in respect of which Mr. Nandi had expressed doubt showing that the figures in all the statements were all right except that in one case there was probably a typing error where the figure 300 in respect of field workers had been mistyped as 200. As regards the putting of undue pressure by senior workers, Mr. Chakravarti said that no such case had been placed before the meeting by any person aggrieved. On the other hand he was surprised as to how the Council could intervene if some workers, who did not see eye to eye with the strikers, thought fit to try to persuade members of the Union to follow a different route. Just as the supporters of the strike had a right to follow a particular line of action, the opposite group, if any, amongst the workers had an equal right to follow the same procedure. He, however, stated that the allegation itself

was entirely false, and no pressure had in fact been put on any workers. He had known workers who expressed themselves definitely against the strike and approached some senior workers as to what they should do and it was possible that such workers suggested that they should declare their intentions and try to win a majority to their opinion by democratic means. Speaking about police terror, he stated that Mr. Nandi's criticism was entirely uninformed and the Institute had on no occasion asked for the police interference. The police in their normal duty had to watch a situation in which grave breaches of peace might take place and naturally the Council not merely could not oppose such performance of their duties by the Police but welcomed their watching the situation so that the Council might not be charged for any illegal activities in future nor any section of the workers who did not see eye to eye with the strikers should be misled. Mr. Chakravarti expressed surprise that while Mr. Nandi and two other members of the Institute had been so vehement in their criticism of the Council's alleged action, they had not a single word of condemnation to utter in respect of the activities of some of the strikers who had committed cowardly assault on a number of workers and in at least one case in presence of the speakers. The incidents which had taken place from day to day, he stated, was fully well known to the speakers and yet they had kept entirely silent about this.

Speaking of the incidents of the 27th May, Mr. Chakravarti said that the allegations were entirely false and the fact that they were false, were fully well-known to several hundred workers of the Institute who were present at the place of occurrence. He invited the attention of the members to the fact that the authorities of the Institute had nothing to do with the incidents of the 27th May; the Council only had asked the workers who had expressed their willingness to work to join office on the 27th and had provided conveyance facilities for them. It was the workers who went to attend the office and a small section of the workers who had been supporting the strikers tried to oppose them. His information obtained from a score of workers who were present was that far from the workers attending work trampling any one under the foot, it was the strikers who pushed, hustled and tore the ideas and snatched away some garments etc., from a number of workers. He was glad that the attending workers who numbered about 200 showed such tolerance without which it would have been a bad day for the score of people who had tried to force their will on such a large majority of the workers of the Institute.

As regards the resignation of Prof. K. P. Chattopadhyay, Mr. Nandi was not perhaps aware that in several meetings of the Council starting with the one in which the first reply to the Union's demands had been drafted, it was Prof. K. P. Chattopadhyay who had presided and it was actually on his advice that actions had been taken by the Council up to the stage of his resignation. He also invited attention of the members of the Institute to the fact that Prof. Chattopadhyay was the President of the Union but he himself had to resign from his Presidency shortly before the strike, which showed conclusively that the action of the strikers did not have his support. If, therefore, Prof. Chattopadhyay at a late stage when the Council had come to grips with the situation which was tending towards extinction of the Institute or at least its bankruptcy, thought fit to suggest a policy which the other members of the Council who had followed his advice upto that stage, could not accept, it was hardly fair to expect the other members of the Council to sacrifice their own opinion and conviction to Professor Chattopadhyay's offer of resignation. He stated that as Prof. Chattopadhyay was not present, he would not go any further into the details of his matter. On the basis of the above, Mr. Chakravarti opposed the resolution, proposing the setting up of a Board of Enquiry and suggested that the Council had in fact dealt with the strikers with remarkable leniency and had succeeded in handling the situation without any serious disaster. Besides, as the Council had succeeded in carrying with them a very large majority of the workers in their action, the Council had in reality deserved the thanks of the General Meeting and he accordingly proposed that such a resolution approving the action of the Council, be adopted. The following resolution was thereupon moved by Mr. Chakravarti and was seconded by Mr. N. C. Banerjee.

"The General Meeting of the Indian Statistical Institute places on record its appreciation of the tactful and considerate manner in which the Council has handled the situation arising out of the recent strike of a section of its workers and endorses and approves of the action and line of action taken by it".

Mr. Nandi's resolution was then put to vote and declared lost only six having voted for it. The resolution moved by Mr. Chakravarti was carried by a very large majority.

The meeting adjourned till 8.0 p.m. on Saturday, the 16th July 1946.

Sd/- J. C. Sinha
Chairman.

Sd/- K. N. Chakravarti
Joint Secretary.

INDIAN STATISTICAL INSTITUTE

Proceedings of the adjourned Annual General Meeting held on 16 July, 1949

The adjourned session of the Annual General Meeting of the Indian Statistical Institute was held at 5 p.m. on Saturday, the 16th July, 1949 in the Physics Lecture Theatre, Presidency College, Calcutta.

Mr. Ramendra Dey proposed Mr. Salsav Sengupta to the Chair, and Prof. K. N. Chakravarti seconded the proposal.

Present: Salsav Sengupta in the Chair.

S. Raja Rao, J. M. Sengupta, J. N. Taluqlar, R. N. Dey, C. R. Rao, P. K. Bose, Amalendu Ganguly, T. Choudhury, D. B. Lahiri, (Mrs.) Chineli Bose, A. C. Ray, Mohanlal Ganguli, Probat Sinha, H. K. Nandi, B. N. Ghose, Prasad Kumar Banerjee, Pranoy Kumar Chatterjee, H. Ghosh, J. K. Halder, S. C. Dasgupta, C. Baroi, S. C. Dhar, S. C. Chakravarti, H. D. Baroi, B. Gope, I. B. Choudhury, Pradyot Majumdar, A. Majumdar, Harabibash Banerji, Moni Mohan Mukherjee, B. K. Choudhuri, S. C. Roy, S. Halder, Arun Ganguly, Nalini Ghosh, Haribhajan Choudhury, Suresh Chandra Sarkhel, K. Purakayastha, S. K. Banerjee, N. C. Chakravarti, Nistarau Chakravarti, N. C. Banerjee, S. K. Dutta, S. C. Sen and K. N. Chakravarti (Joint Secretaries).

1. *Annual Report and Audited Accounts:* Prof. K. N. Chakravarti, Joint Secretary, moved for the adoption of the Annual Report together with the Audited Accounts for the year 1948-49, approved by the Council of the Institute. He stated that the Report and the Accounts had already been circulated to the members of the Institute. Mr. P. K. Chatterjee seconded the motion.

Mr. H. K. Nandi raised a point of order and asked for a clear declaration, which should be recorded, as to which of the Councils, the past or the present one, was responsible for the report and for illegal actions, if any, during the period covered by it. He stated that the old Council was not in existence at the present moment and the present Council was not in a position to vouch for the past.

Mr. S. C. Sen, Joint Secretary, stated that the report was not produced by any individual member of the Council but by the Council as a body, and as such, the present Council being the successor of the old Council was responsible for the Report itself. If there was any question of legality or illegality of action, that matter might be taken up separately in due course. Mr. N. C. Chakravarti in explaining the position stated that the Accounts were audited by competent auditors and the present Council was simply placing the Audited Accounts before the meeting for adoption. As regards the Annual Report, he stated that the report was actually prepared at the time when the previous Council was in office, but in any case the present Council could be held responsible for factual and correct presentation of all the activities during the life of the past Council but the present Council could not, in all fairness, be held responsible for any act of illegality committed before it came into existence. In this connexion, he cited the practice followed by Government and other Institutions and said that the practice followed in the Indian Statistical Institute was quite in conformity with that practice. If there was any mismanagement by the previous Council, he stated, the members present at the meeting had every right to bring a vote of censure on the previous Council for any act of illegality that might have been committed by them. The present Council did neither approve nor disapprove of the actions of the previous Council.

The Chairman explained that a duly-constituted successor council had certain rights, duties and obligations - well recognised in law. No ruling from the chair could either enhance or seal them down. The present council would therefore be no more or no less responsible for the present report than what would be prescribed by law.

Mr. H. N. Ghosh wanted to know what was the 'Supervision Fee' mentioned in the Audited Accounts, and what were the particulars of the land purchased by the Institute. Mr. K. N. Chakravarti stated that since 1947-48, the Institute have charged a certain percentage of the total amount sanctioned for projects as supervision fee, with, of course, the consent of the authorities giving such project grants. In earlier years, when a project was taken up by the Institute, a certain contribution used to be made in lieu of the technical service of Prof. Malulanobis.

Mr. N. C. Chakravarti stated that for the purchase of about 9 bighas (2.89 acres) of land for the Institute with a pond measuring about 3 bighas at Baranagore (Banhooghly manua) a sum of Rs. 91,400 had been deposited at the instance of the Land Acquisition Collector, 24-Parganas, but possession of land had not yet been obtained nor has any deed been yet registered.

Mr. H. K. Nandi stated that in previous years, the Institute had spent large sums of money in the construction of buildings, structures etc., none of which, are unfortunately now found in the possession of the Institute. He would desire assurance from the Council that the land proposed to be purchased would actually remain a property in the possession of the Institute.

Mr. P. K. Bose pointed out an inaccuracy in the annual Report relating to the date of departure of Dr R. C. Bose from the Institute and asked for its correction. He stated that Prof R. C. Bose only rejoined the Institute on the 10th February 1949, and expressed surprise as to what led him to resign from the Institute so soon after, i.e., on the 18th March 1949. He urged that the Council ought to have enquired into the strange nature of Dr. Bose's action. Mr. Nandi supported Mr. Bose.

Mr. N. C. Chakravarti regretted the inaccuracy regarding the date of Prof. Bose's departure as given in the Report which was due to printing mistake. He assured Mr. Bose that necessary corrections would be made when the Report was finally printed. He stated that Dr. R. C. Bose's departure from India came to be known to the Institute only when a cable from him from the United States was received by the Institute authorities. Nothing was known to the Council why he resigned from the Institute and nothing expressing any grievances with regard to his work or emoluments, had been reported to the Council.

Mr. P. K. Bose drew the attention of members to the item "office car purchase" involving an expenditure of Rs. 11,903/13; and deplored this transaction in the face of a professed financial stringency leading to the discharge of a large number of workers. He was of opinion that the car was purchased only for the comfort of some senior workers of the Institute, and on many occasions it was used for private purposes. Mr. Nandi supported Mr. Bose and stated that in view of the Institute already having a bus for transport of workers between Baranagore and Calcutta, it was absolutely unnecessary to purchase a station wagon.

Mr. N. C. Chakravarti stated that the Council had felt the necessity for purchasing a station wagon as early as May 1947. The actual purchase took place in March 1949 when it was obvious from experience that it was false economy not to purchase the station wagon. As regards the use of the car, members might rest assured that it was used by senior workers not because they were senior, but facilities were given to workers irrespective of their status whenever it was considered that the transport facility would help directly or indirectly the work of the Institute.

In view of frequent dislocation of public transport services in the city, it was felt desirable that the Institute should have their own transport arrangements to mitigate the difficult situation often arising out of such circumstances. Moreover, it was well known to members that both the Field Branch and the Statistical Branch of the Institute have to send large sums of money to Post Offices, from one office to another, and the workers entrusted with the task of carrying funds of the Institute are naturally unwilling to take the responsibility of moving with such large sums of money without having adequate protection. For these reasons and for the movement of small parties of workers between Calcutta and Baranagore, the necessity for which often arises, the office bus was not quite suitable and was very expensive. He stated further that the purchase of a station wagon involving a capital expenditure of about eleven thousand rupees could hardly bear comparison with the discharge of a number of workers whose monthly salary amounted to nearly a lakh of rupees.

Mr. H. K. Nandi enquired how the "Report on tour of Canada, U.S.A. & U.K." of Professor Mahalanobis could come to be included under the list of "papers" published during the period under review and not under the list of "reports". After some discussion it was agreed that it should be transferred to the second group, namely, Appendix 2: List of reports submitted.

The Annual Report with suggested changes and the Audited Accounts were then adopted unanimously.

2. *Reorganization of the Institute*: Mr. H. K. Nandi enquired if the Institute had received any part of the Central Government grant. In reply Prof. K. N. Chakravarti, Joint Secretary, said that sanction had recently been obtained for payment of Rs. 1,25,000; as first instalment of the grant for the current year but no money had actually been received so far.