

## **REVIEW OF ACTIVITIES OF THE INDIAN SOCIETY OF AGRICULTURAL STATISTICS FOR THE YEAR 1985**

The Indian Society of Agricultural Statistics, a scientific body, was founded on 3rd January, 1947 for promoting and undertaking research in Statistics and for its application to Agriculture, Animal Husbandry, Agricultural Economics and allied fields. The Society was fortunate to have Late Dr. Rajendra Prasad, the then Minister of Food and Agriculture, Government of India, as its Founder President. He continued to guide the Society for 16 years. The Society has attained its present status due to the untiring efforts and guidance of its Presidents in the past and present and particularly of the eminent statisticians Prof. P. V. Sukhatme and Late Dr. V. G. Panse. We are fortunate to have with us today Prof. Sukhatme, the Executive President of the Society to advise and guide us in the deliberations.

The Society organises annually a Conference in different parts of the country as per invitations received from State Governments and organisations. It provides a wider platform for exchange of ideas. During each Annual Conference, the Society organises two symposia keeping in view current national interest as well as problems of interest in the region where the Conference is organised. The Society brings out a Journal, one volume consisting of three issues per year, which serves as a media for disseminating research findings on Agricultural Statistics and allied fields. Ad-hoc publications and Bulletins are also brought out to help the research workers and students in the field of Agricultural Statistics. It has set up a Research unit to undertake research on specific problems of current interest in accordance with the guidance provided by a Research Direction Committee. In order to perpetuate the memory of the Founder President Late Dr. Rajendra Prasad, a lecture is organised during the Conference. The Society has organised 21 Lectures in the series so far and the Memorial Lecture being organised during this Conference would be 22nd in the series.

The activities of the Society, during the year under Report are as follows :

The membership of the Society, which is drawn from all parts of India as well as from abroad, during the year was :

Permanent Institutional Members	19
Life Members	258
Institutional Members	4
Ordinary Members	111
Student Members	13

In addition to regular members, the Society has a number of institutional subscribers to its Journal in India and abroad. The number of subscribers during the year was :

Indian	141
Foreign	49

Thus, the total number of members and subscribers during the year was 595.

One of the important activities of the Society, as mentioned earlier, is the publication of its Journal. It has brought out 37 volumes till 1985. With the publication of volume 37 (Nos 1, 2 and 3) the Society has maintained its time schedule. The Hindi supplement continues to be a special feature of the Journal. The high standard of the Journal has been maintained due to sincere efforts of the Editorial Board and of the referees. The Society is thankful to them for their keen interest in the activities of the Society particularly in the publication of its Journal.

The 3rd Revised edition of the book "Sampling Theory of Surveys with Applications" by P. V. Sukhatme, B. V. Sukhatme, Sashikala Sukhatme and C. Asok has been brought out. This book is in great demand by the students and research workers. Another important publication 'Statistical Methods in Animal Sciences' by V. N. Amble brought out by the Society is extremely useful for the research workers in animal sciences.

Two ad-hoc publications namely, "Contributions in Statistics and Agricultural Sciences" and "Impact of P. V. Sukhatme on Agricultural Statistics and Nutrition" were brought out by the Society which contain a number of invited articles from India and abroad.

The Research Unit of the Society is engaged in the work relating to Crop Insurance as per request from the General Insurance Corporation of India. It has also worked on a problem of projections of foodgrains production in the country.

The main aim of this study is to examine future production and productivity levels in the country in respect of foodgrains such as rice, wheat,

jowar, maize, bajra and pulses. For projecting supply of foodgrains, crop-wise production functions relating the productivity of a crop with the proportion of irrigated area devoted to that crop, proportion of area under High Yielding Variety to total cultivated area under the crop and total consumption of nutrients per unit gross area under the crop were fitted. Such production functions enable projection of the yield rates, crop by crop, at a future date by first projecting the corresponding inputs themselves on the basis of their growth rates and then substituting them in the production functions. With the help of the growth rates of area for different crops, one can also project the crop-wise areas expected at the future date. Using projected yield rates and areas, one can obtain the crop-wise projected production and hence, by summation over crops, the total food grains production. Using this technique, it was shown that the foodgrains production would reach a level of 225 million tonnes in 2000 A.D. if the selected inputs increase at the current level of growth. But for meeting the demand of 250 million tonnes by that time, one would have to increase the levels of inputs by about 20 per cent above their predicted use level in 2000 A.D. The inputs needed would then be 142 million hectares of gross cropped area, 9.7 million tonnes nutrients, 97.2 million hectares of area under high Yielding Varieties and 60.4 million hectares of irrigated land. By 1990, i.e. at the end of Seventh Five Year Plan, the output level of 189 million tonnes could be produced by bringing the gross cropped area to 134.5 million hectares, total nutrients consumption to 6.5 million tonnes, expansion of High Yielding Varieties to 85 million hectares and gross irrigated area upto 48.3 million hectares. The reliability of the model used was tested by verifying the closeness of the projected foodgrains output (150.8 million tonnes) with the actuals (151.5 million tonnes) for the year 1983-84.

The problem of finance for Scientific activities and printing of its Journal and other adhoc publications could be solved to a certain extent through grants-in-aid received from the Ministry of Agriculture, Government of India, Indian Council of Agricultural Research and Government of Maharashtra. The Society wishes to acknowledge gratefully the financial assistance received from them during the year under report.

The Society continues to be a Member of the International Statistical Institute and also of the Indian Association for Social Science Institutions. It has been affiliated to the Federation of Indian Societies of Agricultural Sciences Technology (FISAST).

The last (38th) Annual Conference of the Society was held at Calcutta from 24th to 26th November, 1984 as per invitation received from the Indian Statistical Institute. Shri J. C. Sen Gupta, Vice Chancellor, Bidhan Chandra Krishi Vishwavidyalaya, West Bengal, inaugurated the Conference, after Prof. A. Mitra, Director, Indian Statistical Institute,

Calcutta welcomed the delegates. The Inaugural Session was presided over by Prof. P. K. Bose, Vice-President of the Society. Prof. Prem Narain, Secretary of the Society presented the Report on the activities of the Society for the year 1984. The Technical Address on "The Roles of maximum-entropy and minimum discrimination information principles in Statistics" by Dr. J. N. Kapur, Sessional President was delivered at the Inaugural Session. Prof. S. K. Roy gave the Vote of thanks at the end of the inaugural Session. "The Dr. Rajendra Prasad Memorial Lecture" was delivered by Dr. S. K. Mukherjee, former Member of National Commission on Agriculture. The topic of his Lecture was, "Some Reflections on Agricultural Productivity in Eastern India." The Lecture was presided over by Prof. B. P. Adhikari. There were two symposia organised at the Conference. The Symposium on "Application of Robust non-parametric inference techniques in Agriculture" was presided over by Prof. J. K. Ghosh of ISI, Calcutta and the Convenor of the symposium was Shri S. C. Rai, Senior Scientist, Indian Agricultural Statistics Research Institute, New Delhi. The second Symposium on "Increase in Agricultural Productivity from non-monetary inputs" was presided over by Dr. D. N. Borthakur, Director (Research), ICAR Research Complex, Shillong and the Convenor was Shri P. N. Bhargava, Senior Scientist, Indian Agricultural Statistics Research Institute, New Delhi. The detailed summaries of the papers presented at the symposia as well as the recommendations made have been printed in the journal. There were as many as 99 technical papers received for presentation at the Conference. The Paper Reading Sessions were organised by conducting two concurrent Sessions on two consecutive days. These Sessions were presided over by Prof. Arijit Chaudhari, Dr. T. K. Gupta, Dr. Prabhu Ajgaonkar and Dr. G. M. Saha. The Society has conveyed its grateful thanks to the Indian Statistical Institute for organising the last Conference and to the Chairman of various Sessions as well as to those who spared their valuable time in making the Conference a great success at Calcutta.

"Dr. V. G. Panse Memorial Lecture" was organised by the Society on 19th November, 1985 at Indian Agricultural Statistics Research Institute, New Delhi. This lecture is organised in the memory of Late Dr. V. G. Panse, who made significant contribution in establishing the Society and for its continued progress. This Memorial Lecture, 10th in the series, was delivered by Prof. D. J. Finney, FRS and the topic of his Lecture was "Statistical Tables and Diagrams : Help or Hindrance" ? Prof. P. V. Sukhatme presided over this Memorial Lecture.

The Society provided financial assistance to deserving research workers and students to enable them to attend the Society's Conference at Calcutta for presenting their papers.

The railway authorities, as in the past, gave travel concessions to the

members of the Society and delegates to the 38th Annual Conference to enable them to attend the Conference at Calcutta. The Society records its grateful thanks to the railway authorities.

The accounts of the Society for the year ending 31st March, 1985 were audited by a professional auditor appointed by the Society.

The work of the Society during the year was made possible through the active help of the members of the Executive Council of the Society, the Editorial Board, and the Research Direction Committee. The burden of the entire Secretariat of the the Society has been willingly borne by my colleagues, Dr. K. C. Raut, Dr. Shivtar Singh, Hony. Joint Secretaries and Dr. Padam Singh, Hony. Treasurer of the Society. In the end I wish to thank the staff of the Society for their devoted work.

PREM NARAIN  
*Secretary ISAS*