

REVIEW OF ACTIVITIES OF THE INDIAN SOCIETY OF AGRICULTURAL STATISTICS FOR THE YEAR 1986

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, Forestry, Fishery, Agricultural Economics and other 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 had also the privilege of having as its Presidents Shri S. K. Patil, Shri C. Subramaniam, Shri Jagjivan Ram, Dr. M. S. Swaminathan and Dr O. P. Gautam. They took keen interest in the activities of the Society and were a great source of inspiration. 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.

The Society organises annually a Conference in different parts of the country as per invitations received from State Governments, Universities and other Research 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 22 lectures in the series so far and the Memorial Lecture being organised during this Conference would be 23rd in the series.

epidemic by the model. It was concluded that first peak of the attack rate was higher than the second one. The attack rate varied from 0.007 to 0.0191 in Red-Dane and 0.0075 to 0.0003 in all the breeds combined (Holstein Friesian, Brown Swiss, Jersey and Haryana) at four days incubation period.

110. AN IMPROVED ESTIMATOR FOR THE MEAN OF
A SYMMETRICAL POPULATION

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In this paper, a class of estimators for the population mean is suggested. The estimator is found to be more efficient than the estimators of Sahai and Ray (1979) and Srivastava and Banarsi (1982).

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	20
Life Members	262
Institutional Members	4
Ordinary Members	107
Student Members	2

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	144
Foreign	33

Thus, the total number of members and subscribers during the year was 572.

One of the important activities of the Society, as mentioned earlier, is the publication of its Journal. It has brought out 38 Volumes till 1986, and 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, Shashikala Sukhatme and C. Asok was brought out last year. 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 Society has decided to publish 'Sample Surveys on Agriculture' and a Symposium Volume on 'Crop Insurance'.

The Research Unit of the Society continues to be engaged in the work relating to Crop Insurance as per request from the General Insurance

Corporation of India. In addition, it has initiated another important study mentioned in brief, as follows:

There is no consensus regarding the situation in respect of food stability even though it is generally accepted that the overall food situation in the country has improved. Several workers like Sen (1967), Rao (1975), Mehra (1981) and Hazell (1984) point out that food stability has declined in the sense that there is greater variability in the production and yield of some of the major food crops with the introduction of the new high-yield technology. On the other hand, a recent study by Jain, Dagg and Taylor (1985) suggests that the introduction of the new agricultural technology in India is now reaching a stage where increased production is combined with greater stability of production with the exception of pearl millet and wheat. In the case of wheat, they argue that it will begin to have greater stability as the limits of yield increase are reached as they are already reaching in many developed countries. These diverse claims appear to stem from the assumption that level of development is uniform within the State. In other words, these studies have a limited scope due to the use of aggregated data at the state and national levels. Absence of certain statistical features such as autocorrelation of the variables over the years is another limitation in this context. What is needed is therefore to disaggregate these results and concentrate on the aspects of instability according to the level of development related to poverty ratio. According to Rao (1985), Eastern and Central regions having a higher rural poverty ratio, need higher rates of growth in foodgrains output as against the rate for the country as a whole as envisaged in the Seventh Plan, if the poverty reduction is to be at the same rate in these regions as the average for the country as a whole.

In order to examine the problem of instability from this angle, the districts in each State need to be classified according to their degree of development in regard to the adoption of new technology and within each region district-wise time-series data are to be built up. Such data would help examining the intra-crop variability over the periods as well as co-variability between crops within the same region or between regions for the same crop. The Society has therefore initiated an investigation entitled 'Statistical basis for studying instability in food-grain production during pre- and post-Green Revolution periods'. It is envisaged to undertake indepth studies in different regions with a view to identify the sources and extent of instability in foodgrain production in relation to the level of development.

The problem of finance for Scientific activities and printing of its Journal and other ad-hoc 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 (39th) Annual Conference of the Society was held at Akola from 28th to 30th December, 1985 as per invitation received from Punjabrao Krishi Vidyapeeth. The inauguration of the Conference scheduled to be held on the 28th December, 1985 had to be postponed to 29th due to the sad demise of Dr. K.R. Thakare, Vice-Chancellor, of the host University (P.K.V. Akola) on the 27th December, 1985. Dr. Thakare was quite interested in the activities of the Society and invited us to hold the Annual Conference at his University. The Society felt extremely sorry at this loss. The Conference was inaugurated by Dr. A.B. Joshi, former Vice-Chancellor, Mahatma Phule Krishi Vidyapeeth, Rahuri and former Director of IARI, New Delhi. The Society is thankful to him for inaugurating the 39th Annual Conference and also for accepting our request for becoming the Sessional President of this (40th) Conference. I am extremely happy that we would be receiving his guidance in the deliberations of the Conference.

The Inaugural Session of the 39th Annual Conference was presided over by Prof. P.V. Sukhatme, Executive President of the Society. Dr. V.T. Rahate, Acting Vice-Chancellor of P.K.V. Akola welcomed the delegates. Prof. Prem Narain, Secretary of the Society presented the report of the Activities of the Society for the year 1985. The Technical Address on 'Statistics in relation to Rural Development Planning' by Dr. Daroga Singh, Sessional President was delivered at the inaugural session. The 'Dr. Rajendra Prasad Memorial Lecture' was delivered by Dr. CH. Hanumantha Rao, former member of the Planning Commission. The topic of his lecture was "Changes in Rural Poverty in India". The lecture was presided over by Prof. P.V. Sukhatme. There were two symposia organised at the Conference. The symposium on "Breeding and other strategies for minimising crop losses due to pests and diseases" was presided over by Dr. A.B. Joshi and the convenors of the symposium were Prof. Prem Narain, Director, IASRI, New Delhi and Prof. S.K. Roy of the Indian Statistical Institute, Calcutta. The second symposium on "Crop Insurance" was presided over by Shri K.N. Ardhnareswaran, Additional Secretary, Ministry of Agriculture and Rural Development, Government of India and the convenor was Dr. Shivtar Singh, Scientist S-2 of IASRI, New Delhi. The detailed summaries of the papers presented at the symposia as well as the recommendation

made have been printed in the Journal (Vol. 38, No. 1, 1986). There were as many as 109 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. P.K. Bose and Prof. O.P. Bagai. A special lecture was delivered by Prof. Jaya Srivastava, Colorado State University, U.S.A. Dr. Daroga Singh presided over the lecture. The Society has conveyed its grateful thanks to the P.K.V. Akola and particularly to Dr. V.D. Galgalikar for organising the last Conference and also to the Chairpersons of various sessions as well as to those who spared their valuable time in making the Conference a great success at Akola.

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

The railway authorities, as in the past, gave travel concessions to the members of the Society and delegates to the 39th Annual Conference to enable them to attend the Conference at Akola. The Society records its grateful thanks to the railway authorities.

The accounts of the Society for the year ending 31st March, 1986 were audited by a professional auditor appointed by the Society and these are presented at the General Body Meeting.

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 Secretariate of the Society has been willingly borne by my colleagues, Dr. K.C. Raut, Dr. Shivtar Singh, Shri S.C. Rai and Dr. Padam Singh. In the end I wish to thank the staff of the Society for their devoted work.

PREM NARAIN
Secretary
ISAS