

REVIEW OF ACTIVITIES
OF
INDIAN SOCIETY OF AGRICULTURAL STATISTICS
FOR THE YEAR 1996

The Indian Society of Agricultural Statistics, a scientific body, was founded on 3 January, 1947 for promoting and undertaking research in Statistics and for its application to Agriculture, Animal Husbandry, Fishery, 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 sixteen 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, Dr. O.P. Gautam, Shri Buta Singh, Dr. N.S. Randhawa and Prof. V.L. Chopra. They took keen interest in the activities of the Society and were a source of great 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. The invitations for organising such conferences are 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 one or 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 (April, August, December) 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 Dr. Rajendra Prasad, a lecture is organised during the Conference. The Society has organised 32 lectures so far and the memorial lecture being organised during this Conference would be 33rd in the series. The Society had also been organising a lecture in memory of Dr. V.G. Panse, who was the guiding spirit behind the Society and its activities. The Society has so far organised 17 lectures in his honour.

Our experience is that it is impossible to totally eliminate non-sampling errors. But it is the duty of the institution incharge of the survey to provide some idea of the accuracy of the results. Also successively over time, the data should have less non-sampling errors.

Indian Statistical Institute and IASRI have suggested two methods for checking as well as improving the field work. Adoption of these methods may also give some idea about the non-sampling errors occurring in the field work. Indian Statistical Institute suggests that interpenetrating samples should be used, each sample to be conducted by a different set of enumerators so that one can have a number of estimates of the characters under study. If the various estimates so obtained are compatible one can consider that the field work was satisfactory and one can combine these estimates to get a better estimate. However, in case they widely differ, it will indicate that quality of work is not good and it will be difficult to produce a reliable estimate. IASRI suggests the method of rationalised supervision. This method involves splitting the sample entrusted into two random parts (1) to be canvassed by the enumerator and (2) the other to be done by enumerator-cum-supervisor. IASRI claims that the introduction of supervisory checks will yield better results. Supervisor spends more time with the enumerator and as he understands the instructions to do the work in a better way, enumerator is encouraged to do better work in his unsupervised work. Also he will become a better enumerator for future surveys. In case the estimates from the two samples—one from the “enumerator-cum-supervisor” subsample and the other from the “enumerator’s work” subsample agree, they will be combined to provide the estimates. In case the two sub-samples provide incompatible results, the sub-sample worked by “enumerator-cum-supervisor” team is expected to be more reliable and will provide the estimates of the characters under study. Also comparisons of the raw data of the two subsamples may provide an idea why and where the subsample canvassed by enumerators failed to provide reliable information. Thus the method suggested by IASRI is likely to yield better results. It also perhaps provides some suggestions for better conduct of field work in future.

In conclusion, I submit that randomness has worked well in practice and has produced valid samples to provide reliable estimates. Sampling statisticians are doing a good job of developing better and better estimates. There is always a scope of improvement. They should pay more attention to the suggestions made by theoretical Statisticians and Bayesians. Perhaps better use of a-priori information is recommended. In survey reports I will like more information on the quality of work and how the quality of work can be improved in future surveys.

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	23
Life Members	450
Institutional Members	06
Ordinary Members	94
Student Members	05

The above figures include 48 life and 44 ordinary members which were enrolled during the year.

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	195
Foreign	15

Thus, the total number of members and subscribers during the year was 788.

One of the important activities of the Society, as mentioned earlier, is the publication of its Journal. It has brought out 48 volumes till 1996 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 the 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. With a view to promoting research in Statistics and thereby improving the standard of its Journal, the Society has introduced a scheme to award prizes for the best articles published in its Journal once in two years.

The country is proud of eminent statisticians who contributed significantly to the cause of Agricultural Statistics in India and abroad. Due to their untiring efforts, Agricultural Statistics in the country stand on a fairly sound footing. The Society is honouring these eminent statisticians by conferring the Sankhyiki Bhushan Award. This year, the award is to be given to Dr. Govind Ram Seth, Former Director, Indian Agricultural Statistics Research Institute, New Delhi whose contributions in Agricultural Statistics specially in the theory and application of Sample Survey Techniques are well known. For encouraging the young scientists towards significant research in Agricultural Statistics, the

Society has instituted an award ISAS YOUNG SCIENTIST AWARD in the field of Agricultural Statistics which is given every year in the Annual Conference of the Society to the deserving candidate.

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 during 1984. 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 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. These publications contain a number of invited articles from India and abroad.

The Research Unit of the Society was engaged in carrying out research relating to evaluation of socio-economic development of different states of the country. Development is a process which improves the quality of life. It requires a balanced human resource development along with technology absorption in both agriculture and industry which are the principal sectors of the economy. Developmental programmes were taken up in the country in a planned way through various Five Year Plans with the main objective of alleviation of poverty and unemployment. This year, a study was carried out to estimate the level of development at district level in the State of Maharashtra. This is very much required since there has been a growing consensus about the need of district level planning in the country. The study utilises district level data for the year 1991-92 on forty three socio-economic indicators out of which sixteen indicators are directly concerned with agricultural development, five indicators depict the progress of industrial development and the rest twenty two indicators present the level of development for human resources and infrastructural service sector. The statistical methodologies applied and the conclusions emerging from the study are being presented separately. The study revealed that with respect to over all socio-economic development, the districts of Thane, Raigad, Nasik, Pune, Satara, Nagpur and Chandrapur were better developed as compared to the remaining districts of the State. Wide disparities in the level of over all socio-economic development had been observed among different districts of the State. The better developed districts cover about 24 per cent area and about 34 per cent population of the State. On the other hand, 35 per cent area and 27 per cent population come from the districts which are less developed. Positive significant association was found between the levels of development in agriculture and industrial sectors indicating that the growth and progress of agriculture and industry had been going hand in hand in the State. It was found

that the less developed districts require improvement of various dimensions in different fields for enhancing the present level of development.

Computer plays an important role in data storage, processing, analysing and preparation of reports. The application of sophisticated statistical methodologies can be made through the computer intensive techniques for solving the complex problems on crops, livestock, poultry, fisheries etc. Keeping this in view and with the approval of Executive Council and General Body, the Society has procured this year a personal computer with printer for its day to day work. A photocopier has also been purchased and installed in the Society's Office for improving the quality of documents for distribution and other general letters etc.

The problem of finance for scientific activities, printing of the Journal and other ad-hoc publications could be solved to a certain extent through grant-in-aid received from the Ministry of Agriculture, Government of India and Indian Council of Agricultural Research. 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 of Social Science Institutions.

The 49th Annual Conference of the Society was held at Lucknow from 22 to 23 February, 1996 on being invited by the Department of Agriculture, Government of Uttar Pradesh. The period of the Conference was earlier fixed from 20 to 22 December, 1995 but due to some unavoidable circumstances, it was postponed to 22 to 23 February, 1996. The Conference was inaugurated by Shri Moti Lal Vora, the then Governor of Uttar Pradesh. Dr. R.K.S. Chauhan, Director, Agriculture, Agricultural Statistics and Crop Insurance, Government of Uttar Pradesh welcomed the delegates and other invited guests., Shri B.N. Tiwari, Agricultural Production Commissioner and Principal Secretary, Government of Uttar Pradesh and Shri Anish Ansari, Secretary, Agriculture, Government of U.P. addressed the participants. Dr. R.S. Paroda, Director General, ICAR, Secretary, DARE and President of the Society gave the Presidential Remarks. Dr. P.R. Sreenath, Secretary of the Society presented the report of the activities of the Society for the year 1995. The Technical Address on "The Applied Statistician" was given by Prof. T.V. Hanurav, Sessional President. Shri V.K. Singhal, Additional Director of Agriculture (Extension), Government of Uttar Pradesh gave the Vote of Thanks. The "Dr. Rajendra Prasad Memorial Lecture" was delivered by Dr. R.S. Paroda, Director General, ICAR, New Delhi. The topic of the lecture was "Agricultural Research and Education in the Changing World Order". It was presided over by

Dr. A.K. Singh. The "Dr. V.G. Panse Memorial Lecture" was delivered by Shri J.S. Sarma, Vice President of the Society. The topic of the lecture was "How much of our Foodgrain is Fed to Livestock and Poultry". Dr. K. Kishen, Vice President of the Society presided over the memorial lecture. The symposium on "Research Priorities in Agricultural Statistics to meet future challenges" was presided over by Shri J.S. Sarma, and the Convenor of the symposium was Dr. R.K. Pandey, Principal Scientist & Head, Division of Statistical Economics, IASRI, New Delhi. The second symposium on "The Role of Statistics in Land Use Planning" was presided over by Shri T.N. Dhar and the convenors were Dr. B.N. Tyagi, Former Director of Agriculture, Agricultural Statistics and Crop Insurance, Government of Uttar Pradesh and Dr. A.K. Srivastava, Principal Scientist & Head, Division of Sample Survey Methodology, IASRI, New Delhi. The research work carried out by the Research Unit of the Society during the year 1995 on "Regional Disparities in the Levels of Development in Uttar Pradesh" was presented by Shri S.C. Rai, Ex-Joint Secretary of the Society. It was presided over by Prof. Bal BPS Goel, Director, IASRI, New Delhi.

The detailed summaries of the papers presented at the symposia as well as recommendations made have been printed in the Journal, Volume 48, No. 1, April, 1996. As many as 48 technical papers were presented at the Conference. The paper reading sessions were organised by conducting two concurrent sessions. These sessions were presided over by Prof. Aloke Dey, ISI, New Delhi and Prof. Bal BPS Goel, IASRI, New Delhi. A session for presentation of papers considered for Young Scientist Award was organised under the Chairmanship of Prof. T.V. Hanurav, Sessional President. The paper presented by Dr. (Miss) Seema Jaggi, Scientist, IASRI, New Delhi was judged as the best. The scientists who assisted the Chairman to judge the best paper were Prof. Bal BPS Goel, Prof. Aloke Dey, Dr. A.K. Nigam and Dr. P.R. Sreenath. The Society is thankful to the panel of judges who helped in grading papers and subsequently at the time of presentation for young scientist award paper.

The Society has conveyed its grateful thanks to the Director of Agriculture, U.P., Lucknow 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 Lucknow.

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

The railway authorities as in the past, gave travel concessions to the members of the Society and delegates to the 49th Annual Conference to enable

them to attend the Conference at Lucknow. The Society records its grateful thanks to the railway authorities.

The accounts of the Society for the year ending 31 March, 1996 were audited by a professional auditor appointed by the Society and these are being presented at the General Body Meeting.

The work of the Society during the year was made possible through the advice and 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 Society has been willingly borne by my colleagues Dr. P.R. Sreenath, Dr. V. K. Bhatia, Dr. A.K. Srivastava, Dr. Padam Singh and Shri S. C. Rai. In the end I wish to thank the staff of the Society for their devoted work.

BAL BPS GOEL
Secretary, ISAS

INDIAN SOCIETY OF AGRICULTURAL STATISTICS, Library Avenue, Pusa, New Delhi
Balance Sheet as on 31st March, 1996

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Previous Year	LIABILITIES	Current Year	Previous Year	ASSETS	Current Year
4,00,000.00	CORPUS MONEY	400,000.00		CASH & BANK BALANCES	
	GENERAL RESERVE		1,312.57	Cash in Hand	611.41
572,648.06	Balance as per last B/sheet	572,648.06	635.66	State Bank of India, Parliament Street C/A No. 50/65113	635.66
	Add: Excess of Income over Expenditure	80,257.00	1,123.78	State Bank of India, Parliament Street, SB A/c No. 60/14808	1,171.78
50,000.00	PUBLICATION RESERVE	50,000.00	1,513.37	Syndicate Bank, Pusa, C/A No. 216	1,260.37
	CAPITAL RESERVE (Life Membership Fees)		138,432.84	Syndicate Bank, Pusa, SB A/c 7793	22,585.84
144,260.00	Balance as per last balance sheet	144,260.00	4,487.00	Cheques in Hand	60,600.00
	Add: Addition during the year	10,500.00		FIXED DEPOSITS	
	LOANS & ADVANCES		176,774.50	State Bank of India, Parliament Street	176,774.50
13,181.00	Advance Subscription of Journal	18,226.00	519,628.00	Syndicate Bank, Pusa, New Delhi	596,004.00
—	Advance Membership Fee (Vol. 48)	1,160.00	34,000.00	With Other Companies (As per list)	26,000.00
—	Advance Advertisement in Souvenir	4,000.00	49,724.65	Accrued Interest on Fixed Deposits	7,65,652.00
	EXPENSES PAYABLE		—	Grant receivable from ICAR for Annual Conf.	925,006.95
700.00	Audit Fees	1,000.00			10,000.00
150.00	Royalty on Books	210.00			
2,200.00	Establishment Charges	2,400.00			
		3,610.00			

	AMOUNT RECOVERABLE		
	2,355.00	Tax Deducted at Source	2,355.00
	STOCK IN HAND		
	1.00	Journal (Token Value)	1.00
	1.00	Symposium (Token Value)	1.00
	27,383.61	Published Books	24,939.87
			24,941.87
	DEFICIENCY ACCOUNT (Journal)		
	12,918.59	Balance as per last B/sheet	12,918.59
		Add : Deficit for the year	24,327.60
			37,246.19
		Less : Grant from ICAR	30,000.00
			7,246.19
	ADVANCE TO RESEARCH UNIT		
212,847.49	Balance as per last B/sheet	212,847.49	
	Add: Advance during the year	15,399.25	
		228,246.74	
1,183,139.06		1,284,661.81	
		1,284,661.06	
		1,183,139.06	

INDIAN SOCIETY OF AGRICULTURAL STATISTICS, Library Avenue, Pusa, New Delhi

Income & Expenditure Account for the year ending 31st March, 1996

Previous Year	EXPENDITURE	Current Year	Previous Year	INCOME	Current Year
68,431.00	To Annual Conference	40,601.08	4,703.00	By Ordinary Membership Fee	5,255.00
1,435.00	To Salaries	1,160.00	—	By Sessional Membership Fee	4,350.00
9,825.36	To Postage & Telephone	7,698.48	1,857.18	By Interest on Savings Bank	1,505.00
1,734.32	To Printing & Stationery	2,338.70	221,270.00	By Interest on Fixed Deposits	93,979.80
632.00	To Bank Charges	657.00	—	By Grant in aid from ICAR for Annual Conference	40,000.00
700.00	To Audit Fee	1,000.00	3,720.50	By Profit on Published Books	3,386.26
500.00	To Subscription	—	25.00	By Sale of Symposium Books	10.00
1,969.90	To Young Scientist Award	668.10	1,730.00	By Sale of Waste Paper	—
4,000.00	To Best Paper Award	—	—	By Miscellaneous Income	182.00
16,127.30	To Executive Meeting Expenses	5,518.10			
1,411.00	To Miscellaneous Expenses	473.85			
3,844.00	To Financial Assistance	—			
7,189.00	To Subscription to ISI	8,295.00			
115,566.80	To Excess of Income over Expenditure C/o to General Reserve	80,257.75			
233,365.68		148,668.06	233,305.68		148,668.06

INDIAN SOCIETY OF AGRICULTURAL STATISTICS, Library Avenue, Pusa, New Delhi

Income & Expenditure Account (Journal) for the year ending 31st March 1996

Previous Year	EXPENDITURE	Current Year	Previous Year	INCOME	Current Year
1.00	To Opening Stock (Token Value)	1.00	50,441.00	By Sale & Subscription of Vol. 47	46,283.00
70,274.40	To Printing Charges (Journal)	63,190.00	10,790.50	By Sale of Back Volumes	6,586.00
2,865.00	To Staff Salaries	2,315.00	1.00	By Closing Stock	1.00
3,667.17	To Printing & Stationery	2,172.10	22,986.57	By Excess of Expenditure over Income	24,327.60
7,411.50	To Postage Expenses	9,519.50			
84,219.07		77,197.60	84,219.07		77,197.60

**INDIAN SOCIETY OF AGRICULTURAL STATISTICS, Library Avenue, Pusa, New Delhi
(Research Unit)**

Income & Expenditure Account for the year ending 31st March 1996

Previous Year	EXPENDITURE	Current Year	Previous Year	INCOME	Current Year
46,755.00	To Establishment Expenses	48,457.00	40,000.00	By Grant in Aid from Govt. of India, Ministry of Agriculture, Deptt. of Agril. & Coop.	40,000.00
3,468.63	To Printing & Stationery	4,677.50			
700.00	To Audit Fee	1,000.00			
2,657.00	To Travelling & Conveyance	3,552.50	17,904.63	By Deficit for the year C/o to Balance Sheet	19,119.25
103.00	To Cycle Repair	467.25			
—	To Typewriter Repair	260.00			
3,300.00	To Legal Expenses	—			
921.00	To Depreciation of Assets	705.00			
57,904.63		59,119.25	57904.63		59,119.25

Place : 64, Regal Building,
Connaught Circus,
New Delhi 110001
Dated: 23rd Sept., 1994

Subject to our Report of even date

for C.S. Bhatnagar & Co.
Chartered Accountants
Sd/-
(G.S. Bhatnagar)
Partner

AUDITED ACCOUNTS 1995-96