

## INAUGURAL ADDRESS\*

FRIENDS,

I AM glad to have been invited to inaugurate the Sixteenth Conference of the Indian Society of Agricultural Statistics. You will recall my having addressed this body of experts two years ago at its fourteenth annual session. But the setting in which we meet today is very different from what it was then. Today, there is a threat to our freedom and we have to meet this threat resolutely. In this changed setting, the importance of the work done by research workers like you has increased even more than before. To meet the mighty challenge which a designing and unscrupulous aggressor has posed to our country, we have all to do our task, each in his own field, better and quicker. The field, which is the agricultural statistician's preserve, has an important bearing on the country's defence efforts. I have no doubt that this realization will pervade your deliberations, and you will go back fully awakened to your new responsibilities.

The Chinese invasion of India has affected our entire approach to and priorities for agricultural development. Adequate supply of food, cloth and other necessities to the armed forces and to the civil population is an indispensable aid to our military effort. Our production programmes have accordingly been re-formulated and they have to be executed at a much faster rate than what we have ever aimed and achieved. How far this re-formulation has had its basis in sound statistics and the tools that the science provides, I cannot say. But you owe it to the country to provide the guide lines of what I might call an Emergency Crop Plan. The country has to have more of several agricultural commodities—foodgrains, pulses, vegetables, oilseeds, fibres and so on. The soil and climatic conditions suited best to a commodity, and to a particular variety of that commodity, have got to be exploited to produce more of it. And this change-over brooks no delay. It has got to be done, as it were, overnight. The agricultural statistician has before him the assessment of resources in different regions; he is conversant with the manner of their optimum utilisation and the results

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S. K. Patil

which we can expect from reallocation of limited resources. He knows what physical inputs are more important than others for the different crops, and what technological measures require greater stress to achieve the immediate goal of production in this emergency. With this knowledge and the techniques in his armoury, let him help in the re-orientation of crop production plans to suit the changed circumstances. I have no doubt that your Society will prove equal to this new task.

All through the pages of history, agriculture has been the mother of industry. Industry produces cloth, oils and a variety of other human needs; but they all have their origin in agriculture. The industrialised countries of the West attach no less importance to agriculture than to industry. Intensive inputs and high yields in those countries are a living proof of it. The agricultural statisticians in the states should not, therefore, be content merely with assessing what the yields of the crops are in their own regions; it should be equally their interest to see how the gulf between the yields in high-yielding regions and others could be bridged. They should study what factors account for this difference and how through trials and demonstrations and statistical assessment of their results, systematic effort could be made for permanently augmenting the production. This is the surest way of the Emergency Crop Plan leading to lasting improvements in agriculture. The agricultural statisticians can show the way to the technologist and the agronomist by providing them with norms and relationships between varying levels of different inputs and yields resulting therefrom. It is heartening that several agricultural statisticians in our country are now engaged in this task under the inspiring leadership of the Institute of Agricultural Research Statistics. I hope the pace and coverage of this research would be expanded fast.

Ours is a unique country in so far as the machinery for collection of agricultural statistics is concerned. We have an accountant at the village level and the estimates flow from him upwards to constitute all-India estimates. The all-India figure is thus a summation of village statistics. While this system has its virtues, it has come to suffer from the defect that it leads to delay in formulating the statistical picture of the current status of agriculture in a state or the whole country. The remedy for this defect would appear to lie not in ending this system but in mending it. The way out is to strengthen the agency at appropriate levels and relieve it of extraneous duties having no relation with village statistics. I might refer here also to the FAO programme for world agricultural census. This programme appears but once in ten

years on the statistical horizon. It may suit the needs of countries which do not have the machinery as we have in our country. In our case, it deserves to be considered whether we could not so mould our statistical system that what other countries collect through decennial censuses becomes an automatic feature of our system. If that could be accomplished, it would provide a comprehensive statistical basis for improving our agriculture in various ways.

Experts are known to differ, and statistical experts more so. Mutual examination and healthy criticism are good for science because they promote its progress. Let it not be forgotten, however, that knowledge is the province of all, not the preserve of the expert. What is the good, for instance, of an expert telling us that we have already crossed that mark in our food production at which we could make substantial exports when it is a plain fact that today we can't do but with imports? What is the good, I wonder, of an expert telling us that an *average* Indian eats as much as 25 oz. of foodgrains per day, when we all know that under-nourishment and not obesity is what so many of our countrymen suffer from? I, for one, am afraid of those statistics which do not conform to what is visible to the naked eye. To my mind, a true statistician must not go about blindly resting on his figures but must be wide awake to the realities around him, so that he fully comprehends the phenomena he is studying. I do not, of course, expect him to be an alchemist producing gold out of worthless material. But I do expect him to be a chemist who assays the value of his material as it is, and has the daring to call a spade a spade. I hope our research workers are alive to this need.

You, as statisticians, are seekers after truth. Your methods of enquiry must, therefore, maintain objectivity, accuracy and consistency. They should be immune from the evil effects of preconceived notions; they should be dynamic and not rigid; pragmatic and not doctrinaire. The research worker should have an open mind; a spirit of continuity of enquiry should attend his thoughts. The process of research is never complete; no position is final there. The scientific method holds that knowledge is dynamic and permanency is not its virtue. This is more true of statistical research. It is a tool of reasoning which, if properly used, is the surest safeguard against making wrong decisions too often. Yet, I might warn, it does not guarantee that correct decisions will be drawn each time. After all, the theory of probability is as much at play in your sophisticated techniques as it is in reasoning and judgment and in things of everyday life.

I have always been a believer in quality. By quality, I mean all those virtues for which statisticians use different technical expressions—reliability, precision, comprehensiveness, comparability and timeliness. So long as agricultural statisticians have their eyes on quality, they are on the right road. I am glad to find that a Committee on Improvement of Agricultural Statistics under the Ministry of Food and Agriculture is concentrating on improving the quality of data. Pains taken to evolve basic statistical schedules in such a manner that the statistics derived from them would satisfy the criterion of quality, deserve commendation. But after that initial job has been done, it is equally essential to see that the spirit of improvement runs through the entire process of implementation. Agricultural statistics in our country are a cooperative venture of state agricultural statisticians and other agencies. For this co-operative venture to succeed, it should be the noble duty of all concerned to extend their utmost co-operation. I do hope none will be found wanting in this respect.

While talking quality I should refer to statistics of agricultural prices, because they have acquired considerable significance in the present emergency to keep a continuing watch on the market behaviour. Prices are known to differ not only according to quality and variety but also according to locality and the time of the day when they are collected. This is particularly true of retail prices. If the delicate task of collecting reliable prices data were entrusted to the inexpert—and by the inexpert I mean one who is not in day-to-day touch with the market conditions—such data might do more mischief than good. They might ill-serve the very purpose for which they are intended to be collected. Collection of statistics by the inexpert has led to the odium that statistics are like clay of which one can make a God or a devil, as he pleases. I have particularly referred to prices statistics because they are all pervasive and touch every fringe of our economy—production, income, wages, allocation of resources and, I might venture to say, even the political and economic stability of the country.

I do not propose to be long. I am sure the present session of the Society is going to be very useful. With our population according to the 1961 census having surpassed all earlier expectations, we are keenly looking forward now to listening to Shri Mitra's address giving his critical analysis of the latest findings of the census and their possible impact on our agricultural prospects. Besides numerous technical papers that will be discussed at subsequent sessions, I find that you have organised two symposia, one on the current status of agricultural statistics in India and tasks ahead and the other on long-term demand

and supply projections in agriculture. These topics have been well chosen. They are most opportune. I have no doubt that the discussions at this session will go a long way in suggesting improvements in the quality and content of agricultural statistics and the statistical tools required for economic planning. I am also glad to see that Dr. P. V. Sukhatme, who holds a position all his own in the statistical world, will deliver a popular lecture on the need for reorienting plans for food production. The topic he has selected is particularly appropriate to the circumstances in which India finds herself today; and coming, as it does, from one who has with him the experience of a large number of developed and developing countries, I have no doubt it will prove of immense benefit to our experts here. I may not have the time to attend your deliberations but I can assure you of my deep interest in them.

I have great pleasure now in inaugurating the sixteenth session of your Society.