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### PRESIDENT'S INAUGURAL SPEECH\*

It has given me great pleasure to be once again in your midst to inaugurate the 9th Annual Meeting of the Indian Society of Agricultural Statistics. Important as the work of this Society is, my attachment with it has an element of personal interest. It was in 1947 when the Society was started and as Minister for Food and Agriculture, I was asked to be its first President. It was during the term of my office in that Ministry that I realised, as never before, how deficient we were in agricultural statistics and how urgent it was to make up that deficiency if the country was to progress in developing its agriculture on planned lines. I am glad to say that during the nine years that the Society has been in existence, substantial progress has been made in improving our agricultural statistics. Your Society can claim to have made a substantial contribution to this improvement.

It seems to me very necessary that we should know for each small area in the country the basic structure of agriculture, the number and size of holdings and their characteristics, the conditions under which the land is held and worked by the farmer, the pattern of land utilization, availability of animal power and most important of all, the state of agricultural employment. At the last meeting of the Society, I placed before you a somewhat different aspect of agricultural statistics concerning information on increase in yield expected under actual farming conditions from different agricultural improvement measures, such as fertilizers, irrigation, improved varieties of seed and so on. On the present occasion, I want to place before you a somewhat more integrated picture of the interrelationship and utilization of these statistics in view of the sustained and systematic effort that we are making for

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a planned development of our agriculture. In presenting this broad picture, however, I must warn you that I am neither a planner nor a statistician. I shall speak as a layman, who is impressed with the need and the value of having adequate agricultural statistics as the basis for effective planning.

Everyone of us, in a sense, has to plan for securing for himself and for his family maximum comforts and happiness within his resources and income. In regard to agricultural planning, the idea could be best illustrated by considering the case of an individual farmer. The resources ordinarily available to a farmer are his land, his own labour and that of his family and some capital.

The alternatives open to him for using his resources are many. He can grow one or more crops and choose a smaller or a larger acreage for each, keeping in view all the while the investment that he will have to make and the return that he is likely to get. He may decide to devote a part of the area to *rabi* crops and a part to *kharif* crops, having regard to the limited labour that he and his family can put into the land at any one time. If he were to use all his land for growing *rabi* crops, he may have to use a part of his working capital for hiring labour, at the same time keeping his own and his family's labour idle during the other season, both of which he can avoid if he distributed the cropping between the two seasons. Even after deciding which crops to grow, various alternatives are open to our farmer in using his limited capital for providing irrigation, fertilizer, improved seed, special cultivation, etc., to his crops. His basic problem in allocating his resources is to secure the maximum return from them. To be able to solve this problem, the farmer clearly needs to know not only the exact resources at his command, but also the output per unit of these resources, or, to state it the other way, the resources required for securing a unit output. Assuming for illustration that the land is capable of growing both cotton and wheat, he would have to figure out what amount of land is required for securing a unit return in terms of value or money from cotton alone and wheat alone. He would also have to figure out what capital is necessary to secure this return from the two crops and its breakup among the different items of cultivation. These are, I believe, what you will prefer to call input-output coefficients.

The problem of planning the agricultural development of the country is somewhat analogous. We have to remember, however, that the problem is not merely one of securing the maximum net return or income from agriculture, but we have to aim at meeting the needs of the population, providing raw materials for the industries and alleviat-

ing the extensive under-employment that is prevalent in the rural areas in order to give agriculture its rightful place in the overall plan of national development. Clearly the problem would be how to use the available resources in land, labour and capital to attain these objectives. We have to have first of all a correct appreciation of the resources available to us in land, labour and capital. What is the total cultivated land in the country? What is its distribution among the different soil types? How much more land is cultivable and can be brought under cultivation? What will be the effort and capital required to bring such land under cultivation and what additional employment will it provide? How much of the land is served with irrigation and is otherwise suitable for specialized crops like fruits and vegetables, jute, cotton, sugarcane, etc.? Unless we have reliable data on each of these aspects relating to land, we cannot claim to know our resources and to that extent there must be a handicap in effective planning. We must also know the increase in yield per acre likely to be brought about under the different soil and farming conditions by the various agricultural improvement measures made available to us through research, in which the Indian Council of Agricultural Research and the State Departments of Agriculture play a prominent role. We must, at the same time, be able to assess the extent to which our capital resources will allow us to use these improved measures for increased production. This assessment will include items like the amount of fertilizers that our factories can produce, or we can buy from outside, the extent to which new irrigation works can be constructed for irrigating more land and so on. In planning the development of agriculture, therefore, it would seem necessary to go by the information accumulated over a series of years and to allow for the range over which both our targets and outputs are likely to vary.

Equally important with planning is the need for appraising the results actually attained. Not only is an appraisal necessary for determining whether we have succeeded in getting what we set about to achieve, but what is perhaps even more important for modifying the plan in the light of the experience gained.

In the Second Five-Year Plan which we are about to initiate, we shall not only be concerned with the increase in our national income from agriculture, but also with the extent to which gainful employment from agriculture has increased and the under-employment alleviated. I need hardly emphasize that the assessment of the latter is a problem beset with serious difficulties. The rural population will nonetheless judge the success of our Plan by the extent to which they have secured

greater employment from agriculture and related occupations to be provided under the Plan. I attach a great importance to this aspect of appraisal of our Plan and I am wondering whether the Planning Commission should not make over to independent regional bodies the task of continued appraisal of the achievements of the Plan. These bodies might comprise agricultural statisticians, economists and representatives of the Governments and rural population in the region.

While I attach great importance to what may be called continuing appraisal of results being achieved, I do not shut my eyes against the most real and serious difficulty which faces every planner in this country. The holdings of our agriculturists are by and large small and tiny and by far the largest majority of them do not produce for a market but for their own consumption. Their decisions are not and cannot be based on an appreciation of the trend of the market but are dictated by necessity for growing their food. A choice between wheat and cotton in many cases is not available and per force they have to decide in favour of wheat or other food crop, even though it may give a lesser yield with all the contemplated improvements. An appraisal of achievement is, therefore, all the more necessary. We may not also forget that money introduces a most disturbing factor. A money crop can be more profitable but a food crop may be essential for life and the former can be preferred only at the cost of life, because it cannot be said that there is always a parity in prices in respect of all crops, the prices of money crops particularly depending on a number of factors much beyond the ken and control of a country. In this country therefore we cannot afford to be complacent about these matters and have to take into consideration, factors not easily calculable. In making a plan account has to be taken of these and many other factors and the appraisal of achievement is correspondingly complicated and difficult.

A continuous appraisal of the results of the Plan made by such bodies will not only help to increase the people's confidence in the efficacy of the Plan, but would inspire them to participate more actively in the Plan for accelerating the tempo of progress.

I wish your conference success and hope that your deliberations will contribute to a wider appreciation of the important part that the agricultural statistician has to play in planning for greater prosperity of our agriculture.