

## ON ACCURACY OF CROP PRODUCTION ESTIMATES IN INDIA\*

RAM GOPAL

1. Lord Kelvin remarked long ago "When you can measure what you are speaking about and express it in numbers, you know something about it, but when you cannot measure it, when you cannot express it in numbers your knowledge is of a meagre and unsatisfactory kind". An important characteristic of Statistics is that it describes things in quantitative terms. However, a deceptive feature is that statistics gives the description an air of accuracy and precision which may be specious. Statistics is the end product of a long process of collection of data and tabulation. Some error is likely to creep in at any stage even if all the units under study are observed. If the statistics is based on a sample rather than all the units it would be further subject to sampling error as only a part and not the whole is observed. This points to the need for proper caution in using statistics. The need for caution is greater in that often the extent of error is not indicated.

2. Reliable estimates of crop production are of great importance for the trade and in the present day circumstances much more for the government of the country. In India, official estimates of crop production are published state-wise and for the country as a whole, by the Directorate of Economics and Statistics, Ministry of Food and Agriculture, Government of India. Collection of crop acreage and yield statistics is done by the State Governments. The traditional method has been to report the yield rate at primary level in terms of normal yield. The method has been gradually replaced, for most of the crops, by the scientific method of crop cutting experiments on a random sampling basis. Acreage statistics is required to be collected by field to field inspection on complete enumeration basis in all the states except in Kerala, Orissa and West Bengal. In these

\* This note has been prepared by the writer in his personal capacity and the views expressed herein are his personal views.