I. INTRODUCTION

THE NEED FOR AGRICULTURAL SURVEYS.

In common with the rest of the world the Colonial Territories are faced with the problem of supporting an increasing population on limited areas of land. The required increases in agricultural production can only be obtained by making better use of land already occupied and by opening up undeveloped land. Before any development plans can be made it is essential for the Government of a country to have basic information on all aspects of land use, but in most countries very little reliable information of this nature exists. To obtain this vital information agricultural censuses and surveys are essential and their need was recognised by the United Nations Organisation who drew up plans for a 1950 World Census of Agriculture (F.A.O. of U.N.O. 1948). In under-developed countries the purpose of the census was to obtain information on the following points:-

(a) The number of agricultural holdings and their practical characteristics.

(b) The number and characteristics of the people who secure their livelihood from agriculture.

(c) Areas under crops and livestock.

(d) The volume of production of all agricultural products.

From a survey of this nature reliable estimates can be made for the following points:- the amount of land required to support a family; the amount of land already cultivated and the amount of additional land available; the number of livestock and the optimum stocking rate; the degree of soil erosion; the relative profitability and productivity of different crops, different systems of farming and of farms in different regions. This and other information is invaluable in planning research programmes, extension work,

settlement schemes, marketing schemes, etc. This information is also useful in planning Government agricultural and economic policy as it indicates whether or not an export crop economy is more desirable than self sufficiency in food production.

SAMPLE SURVEYS.

Sampling is the selection of a part of an aggregate of material to represent the whole aggregate. To avoid bias in a sample it is essential that the sample should be selected at random.

A sample survey is a survey carried out on a properly selected sample to give an estimate for the whole population. In survey work the whole population consists of a large number of separate units which are often dissimilar in various respects and so a sample cannot be exactly representative of the whole population. However by using modern scientific sampling techniques the random sampling errors can be made sufficiently small not to invalidate the results for the purpose for which they are required and the magnitude of these errors can be calculated by statistical methods. (Yates. 1953.)

In cases where information on all the individual units of a population is required a complete survey must be made. Sample surveys may be used in cases where results are required for the population as a whole but not for the individual units. They may also be used in cases where information is required for different parts of the population, such as towns and districts, provided that these parts contain a sufficient number of units. However in this latter case a larger sample must be taken than in the former case to obtain results of the same degree of accuracy. In certain cases the sample may have to be so large that there is little point in using a sample survey instead of a complete survey.