

PART I
SECTION A

General Introduction

Departments of Agriculture frequently find it necessary to collect information about areas under their care, indeed paucity of information often limits the efficiency of agricultural officers in the tropics.

Recourses available to a department are always limited and information is therefore needed to ensure that they are used to the best possible advantage. For example low yields of an important crop would indicate a research programme but before the potential value of such a programme would become apparent both the importance of the crop and the occurrence of low yields would have to be known. Again the appearance of an unknown disease in a cash crop would require that information about how far production was limited and how widespread the disease was before expensive research was undertaken.

Information is also necessary for administrative reasons, for example knowledge of population density, crop yields and degree of fragmentation in an area might indicate that a land settlement was required. Such a finding would create a need for even more information about proposed settlement areas, the occurrence of diseases of humans and stock, the rainfall and its distribution, the water supplies and the possibility of erosion would all have to be known before action could be taken.

Sometimes such information can be collected from records already existing, for example the total production of arrowroot in Saint Vincent could be found from export

records or the production of sugar cane in Barbados found from factory records.

In underdeveloped countries it is often found that even the most simple records are not kept and that other methods of obtaining desired information must be employed. Examples in this case are that it might be necessary to know the population of an area, the proportion of cultivated land to fallow, the average yield of a crop or the average size of families. A complete survey would, in many cases, cost so much that it could not be considered but a sample survey would cost far less and would yield results of an accuracy sufficient for the purposes to which they were to be put. In addition the accuracy of the results may be computed from the data themselves.

As well as cheapness sample surveys offer several other advantages, in the first place they are relatively quick, a full scale survey may take so long to prepare and execute that the findings may be out of date before they can be used. In the case of a run of bad yields, for example, a possible famine might be suspected and only a sample survey could measure the food reserves of an undeveloped country rapidly enough for counter measures to be taken if these were required. Sample surveys also allow the collection of extremely detailed information, this is because a large range of facts may be collected about a small number of farms, if this were attempted on all farms costs and administrative difficulties would be prohibitive.

From this short introduction it can be seen that the sample survey, in the hands of the agriculturalist, is a tool of great importance.