

A Sample Survey of Peasant Sugar Cane Farmers with contracts
to supply Trinidad Sugar Estates Ltd.

This survey was undertaken by four post-graduate students at the Imperial College of Tropical Agriculture, U.C.W.I., in part fulfillment of the course leading to the D.T.A. The members of the team were Messrs. R.W.Bell, E.C.Bush, I.McMartin, and C.J.H.Rogers.

The investigation was conducted under the guidance and supervision of Dr.A.L.Jolly, Senior Lecturer in Economics I.C.T.A. and Mr.G.E.Hodnett, Regional Research Statistician.

INTRODUCTION.

It is stated in the report of the 1st Conference of Colonial Government Statisticians 1950, "There was complete agreement on the urgent need for the fullest possible information on Agricultural output. The dependence of the people in most Colonial Territories on Agricultural resources made it essential that every endeavour should be made to ensure that adequate statistics were available for the planning and development of these resources.

Moreover, changes in food supplies in relation to population trends is a major problem in most territories."

In the past, lack of sufficient knowledge and preliminary work has been responsible for the failure or only partial success of several agricultural development schemes. The prime example being the Tanganyikan Ground Nut Scheme. Because of the wide diversity of conditions under which farming is carried out it is important that before newly formulated improvements are put into operation in the field, such proposals should be investigated experimentally under local conditions and their effects on the present system of agriculture determined. To this end it is important to investigate existing methods and decide what potential, if any, there is for increased production.

Before any area can be improved, estimates of present production must be known. An increase in production may present a new problem. Are there marketing facilities capable of handling the increase? Other problems such as classification of land on a land utilisation basis, labour supply, present

agronomic practices, incidence of pests and diseases; upon a knowledge of these and like problems the success or failure of improvement programmes may well depend.

Sample surveys facilitate the collection of information about these problems and before launching new development schemes, the results of agricultural surveys should be carefully studied. Much time and money will be saved if future development programmes are planned with the results of carefully conducted surveys in mind.

In carrying out any survey, the choice exists between undertaking a full census in which all units of a population are concerned and in making a sample survey in which only some individuals are represented.

The type of survey undertaken will depend on the amount and type of information to be collected and the resources available to those seeking the information.

Complete censuses are of course not subject to sampling errors and would therefore appear to be more accurate; often they are cheaper per unit of information collected because the whole population will obviously be more dense than a sample drawn from it. On the other hand, a complete census has generally to be more restrictive in the information collected because there is usually insufficient time and the large number of enumerators cannot be sufficiently trained and supervised to obtain difficult information accurately. The apparent superiority of a full census in respect of accuracy may sometimes be illusory, because sufficient care is not given to defining the whole population and ensuring that information is collected from every unit. The first necessity of any sampling process is to obtain a frame of the whole population from which the sample is to be drawn.

When a sample survey is properly designed and correct statistical procedure is followed, the results obtained are usually sufficiently accurate for most agricultural purposes. Moreover, providing the sample is carefully selected the errors introduced by the sampling process can be accurately estimated by statistical methods. Sample surveys are cheaper to operate and are less time consuming than complete censuses, the cost and time can be varied according to the size of sample. They also allow for more detailed information to be collected and generally the information is made available more quickly. The accuracy of results can be checked much more readily than a

complete census if only because there is so much less data.

In underdeveloped countries Sample Surveys as opposed to Complete Censuses for collection of data can be used to full advantage.

No choice had to be made in the present survey between using a census or a sample survey because the whole point of the project was to give the team practical experience in conducting a sample survey.

- b) A minimum of sixteen enumerators, including the four members of the team, would be available for the field work.
- c) It was not essential, though of course desirable, that the survey would provide information of great agricultural interest.
- d) A suitable frame should either be available or easily constructed.
- e) The subject should illustrate the general principles of a sample survey.

A survey of peasant sugar cane farmers supplying cane to Trinidad Sugar Estates Ltd., satisfied these requirements better than any of the other subjects considered.

The proximity of Trinidad Sugar Estates to the College, the existence of records which were ultimately used as a frame and the close co-operation in the past between the College and Estate were such as to provide an excellent field for study.

At the outset there was some vagueness in the minds of the team concerning the peasant survey. Symptoms such as those outlined by Hansen, Harvity and Madav (1953) were apparent. They state, "We must be prepared in the early stages of planning to encounter a certain vagueness concerning why the information is needed, what information is needed, how important the information is, how the information will be used and why a survey is needed to obtain the information." It was not until the team had further discussions with the supervisor and had time to read around the subject that we became more enlightened.

This peasant survey follows the survey carried out at the College in 1960 by Bohan et al. The subject of their report being, "A sample survey of peasant sugar farmers supplying cane to Caroni Ltd." The present project then, is the second in a series of sample surveys which it is hoped in time will cover all the cane farming on the island.