

I. INTRODUCTION

(1) The Need for Surveys.

The F.A.O. Handbook on Soil Surveys for Land Development discusses the need for Soil Surveys and the following quotation is appropriate.

"The most important problem of the world today is to ensure that the population of the world will be fed. To deal with the inevitable increase in food consumption due to rising populations we must use our soils and water resources to their greatest possible advantage: for this we must have precise knowledge about the geographic extent and location of different soils, and determine how they may best be used, and at the same time preserved for posterity." (11) The required increases in agricultural production can only be obtained by making better use of land already developed, and by opening up underdeveloped land.

The handbook states also "Soil mapping and classification are essential because

(a) they provide a systematic basis for the study of crop and soil relationships with a view to increasing productivity, and to help in soil conservation and reclamation.

(b) Predictions of crop and soil behaviour on new land intended for agriculture and silviculture can be made.

(c) Crops and fertilizers can be selected appropriate to soils and climates of areas where new agricultural development is planned.

(d) An inventory of soil resources of a nation indicates where and how production can be increased (Chenery has described a soil map as being "the balance sheet of a stocktaking of the food producing potentialities of the land.")

An important aspect of soil classification is that a soil series should be recognisable in the field, without recourse to elaborate laboratory investigations. It has been suggested (27) that the soil surveyor should attempt to make

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himself independent of the laboratory, which has its place in helping to give quantitative expression to his qualitative classification.

Before any development plans can be made it is also essential to have basic information on all aspects of land use. In 1950 the United Nations Organisation drew up plans for a World Census of Agriculture. The purpose of the census in underdeveloped countries was to obtain information on the following points:

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

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

(c) Areas under crops and livestock.

(d) Volume of production of all agricultural products.

Reliable estimates of the amount of land cultivated and the amount of land available, optimum stocking rates, etc., can be made from such information. Such information is invaluable when planning extension work, settlement schemes, marketing schemes, and research schemes.