

## ABSTRACT

Many millions of acres of land in the humid tropics are virtually unexplored with respect to agricultural potential. Faced with the problem of simplifying the study of such land in Bolivia, an attempt was made to develop a method for the initial assessment of land use potential.

Effectively, a two-phase programme was employed. The first phase consisted of mapping Land Systems and the second involved a more detailed assessment of land use potential based, partly on the findings of the first phase of the investigations and partly on the results of the analysis of growth of major tropical crops. This latter study emphasized the need to investigate both climatic and soil conditions in predicting land use potential.

It was considered that soil mapping was fundamental to the investigations. Aerial photographic interpretation played an important role in this respect. Changes in the vegetative cover, as seen on the aerial photography, often coincided with significant soil differences. Some facets of the mechanics of mapping soil have also been discussed, including the recording and analysis of information.

The importance of agronomic work in supplementing soil mapping was not overlooked; to this end, several series of large pot trials were designed to complement the study of soil fertility and the interpretation of analytical data.

It has been shown that a relatively comprehensive programme of land use potential studies can be carried out quickly and cheaply in the under-developed tropical environment.