THE SOIL RESOURCES OF THE FIJI ISLANDS

CONTENTS—VOLUME 2

LIST OF MAPS

FIGURE

TABLES

NOTE TO USERS OF THE MAPS

THE main purposes for which this soil survey was carried out were to make an overall assessment of the land resources of the Colony for national and regional planning and development, to provide a guide to the soils of Fiji for the use of the general public and to study the origin, development and relationships of the soils in order to understand something of their fertility and reactions towards changes in management, for the use of agronomists and agriculturalists. To some extent, these aims are conflicting when the accuracy of mapping is considered. The first requires only broad scale maps, the third hardly any at all but the second, to be of maximum value, requires mapping in some detail. The decision was therefore made at the outset, with the facilities available to carry out what might be termed a " detailed reconnaissance " survey. The approach was to show on the maps only the major features of the soil pattern but to study and record in the report the components of the pattern in some detail. In this sense therefore the text is more accurate than the maps.

The soil maps are published at a scale of two miles to the inch and this must be regarded as indicating the limit of their accuracy. A quarter of a mile on the ground is only one-eighth of an inch on the map and a quarter of a mile square, 40 acres, only one-sixty-fourth (0·0156) of a square inch. Hardly any soil changes can be shown in such a small space but there are few areas so large as 40 acres in Fiji which have uniform soil. Moreover the detail of the maps will not be improved by enlarging them. For regional purposes, e.g. in which the land potential of a particular district might be required, the errors arising from such approximations as had to be made would be expected generally to balance out but for use in smaller areas, e.g. within the boundaries of one estate, caution is clearly necessary in the use of the maps.

In the text, on the other hand the appearance, origin, typical position in the landscape, inter-relations, chemistry (in most cases), indications of fertility and potential land use of most of the soils of the Colony are recorded. Whilst by no means all variants of all soils were studied, nevertheless there should be enough information to enable users of the report to recognise soils in areas which they may be able to examine in detail with some confidence and to relate soils in different parts of the Colony for agronomic purposes. As a guide to the soil pattern and land potential in small areas however, the correct method of use of the soil survey, if more than approximate knowledge is required, is as follows: The soil map should first be examined for the area under consideration together with the surrounding district and notes made of general features, environment and the soils shown as occurring. The text should then be consulted for all information relating to the soils, particularly the means of recognising them in the field (appearance, type of landscape,etc.). Particular thought should be given to the probable physiographic meaning of any soil boundaries shown, as these will usually be prominent reference points in the field. At this point, examination on the ground is necessary. This consists of systematic traverses of the land with the object of recording the detailed pattern of the soil and landscape, using the information gathered from the soil survey as a guide to the recognition of the components. It may sometimes be necessary to commit the data to a large scale plan or aerial photograph, particularly in cases where soil conservation works or fine land subdivisions are anticipated. In this way maximum correct use can be made of the available information, i.e. as a foundation for more detailed studies.

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