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A golden anniversary for soil science in Fiji

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A golden anniversary for soil science in Fiji

Abstract

2015 represents the golden anniversary of the publication of a most significant document for soil science in Fiji. The Soil Resources of the Fiji Islands, 2 Volumes, by Ian T. Twyford and A. Charles S. Wright was published in 1965 by the government printer in Suva. This was the result of intensive field work with accompanying laboratory studies and a detailed inventory of land use in the colony (as it was then) in the 1950s and early 1960s. The publication consisted of a descriptive and interpretative volume (Volume 1, 570 p) and an accompanying set of maps (Volume 2). The set was originally sold for 7 guineas (£7- 7-0).

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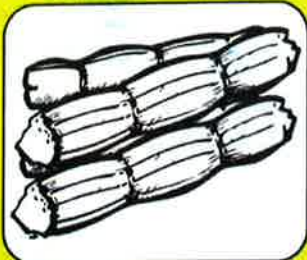
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SHORT NOTE

A Golden Anniversary for Soil Science in Fiji

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2015 represents the golden anniversary of the publication of a most significant document for soil science in Fiji. *The Soil Resources of the Fiji Islands*, 2 Volumes, by Ian T. Twyford and A. Charles S. Wright was published in 1965 by the government printer in Suva. This was the result of intensive field work with accompanying laboratory studies and a detailed inventory of land use in the colony (as it was then) in the 1950s and early 1960s. The publication consisted of a descriptive and interpretative volume (Volume 1, 570 p) and an accompanying set of maps (Volume 2). The set was originally sold for 7 guineas (£7-7-0).

Volume 2 contained a set of 8 soil map sheets produced at a scale of 1 inch to 2 miles (1:126,720), 8 land classification sheets, a soil map legend, a land classification map legend, a general soil pattern, a generalised land use map, a geological map, a rainfall and climate environmental map, a map of alienated land in Fiji, a landslope map and a population distribution map. These two volumes thus presented an extensive body of information on the soils of Fiji providing the country with one of the best resource statements of any developing country at that time. The information was widely used for land use and other resource decision making for about 30 years until new soil maps and accompanying information was produced following new soil mapping and related research in the 1980s.

This new information was produced in a collaborative effort coordinated through the Land Use Section of the Fiji Department of Primary Industries, and led by a senior soil surveyor (D.M. Leslie) seconded using NZ Ministry of Foreign Affairs and Trade support. Substantial support came from the New Zealand Soil Bureau

DSIR (now part of Landcare Research Manaaki Whenua), along with financial and technical inputs from Australia and USA. Collaboration involved the University of the South Pacific, the Sugar Research Centre of the Fiji Sugar Corporation (now the Sugar Research Institute of Fiji), Fiji Pine Commission, Queensland DPI, South Pacific Applied Geoscience Commission (SOPAC) and the Secretariat of the Pacific Community (SPC).

The new information includes a set of 48 soil maps at scale of 1:50,000 covering the whole country, an accompanying set (Leslie and Seru, 1998) of Soil Taxonomic Unit Description Sheets for each of the 220 soil series identified, a monograph summarising the key features of the soils of Fiji (Leslie, 1997), detailed soil survey reports of the Fiji government agricultural research stations (and the Tutu station on Taveuni), and a user friendly interpretative manual for managing Fiji soils (Leslie, 2012). Fiji once again has one of the best soil information databases for strategic land use planning and management.

Over the last 50 years significant changes have occurred in the Fiji economy with a move away from heavy dependence on sugar and other agricultural commodities as the main foreign exchange earner. Tourism, mining and forestry have become more important, but there is still a heavy dependence of soil related activities for export earnings and local economic activity. Domestic production of food is still of critical importance and a degree of subsistence living is still found in more rural areas.

This dependence on soil resources is expected to continue far into the future and the knowledge base that should be used for land use and related decision making is now readily available.

Activities based on Twyford and Wright have helped Fiji in achieving many of its development goals, and the future well-being of its citizens will continue to involve good use of the soil resources.

REFERENCES

Leslie, D.M. (1997). An introduction to the soils of Fiji. Fiji SCEP, Ministry of Agriculture, Fisheries and ALTA, Suva, Fiji. AusAID. 182 p.

Leslie, D.M.; Seru, V.B. 1998. Fiji soil taxonomic description handbook. Manaaki Whenua Press. 2 volumes. 928p.

Leslie, D.M. (2012). A Manual for Utilising and Managing the Soil Resources of Fiji, Secretariat of the Pacific Community, Suva, 164 p.