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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).

### Disciplines

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# SOIL SCIENCE AUSTRALIA



## Presidents Message

Tim Overheu CPSS-2  
Federal President Soil Science Australia



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As the International Year of Soils progresses, I recently took the opportunity to travel east to attend a number of Society events, including a Regional Soil Forum in Canberra hosted by the NSW Branch, join a CPSS Board meeting in Brisbane and attend a special International Year of Soils event hosted by Queensland Branch activity and delivered through the Queensland Rural Press Club. It was a great opportunity to meet members, encourage potential new members, and discuss the challenges confronting soil science in Australia and share ideas about potential new activities for the Society in the coming years.

A notable discussion with members highlighted a critical need for soil science to better engage with federal and state politicians, together with their associated ministerial advisors and policy officers. It's clear that soil science needs to keep pressing the importance of sustainable soil management as the basis for food systems, fuel and fibre production, essential ecosystem functions and better adaptation to climate change for present and future generations.

Most Society IYS activities should now be locked in through to the end of the year. In early December, I hope to join the Victorian Branch on World Soil Day to participate in a number of activities including what we hope will be a National webinar and a prominent IYS activity in Federation Square, which will involve an installation representing the soil cover of Victoria using soil samples crowd sourced during the year. This exciting event in Melbourne will communicate the importance of soil to a wide audience.

Other items of relevance to report include a significant discussion during the recent CPSS Board meeting to simplify the program; our evolving style of communications; and planning for events to celebrate the 60<sup>th</sup> Anniversary of the Society in 2016.

The rationale behind the changes to CPSS is to keep the program simple. The current system with multiple levels is considered confusing and is not well aligned with other industry accreditation programs. The proposed changes have been drafted and are included in the CPSS chair Report in this newsletter prior to them being tabled at the next Federal Council meeting in early June.

Hopefully you will have noticed a more engaging presentation style for the monthly Crumbs bulletin. Our quarterly newsletter Profile is also set for some mild changes as we trial different formats and content styles. The Society website has been revamped providing a more user friendly interface and improved format for accessing and registering for Society

## A Golden Anniversary for Soil Science in Fiji

**John Morrison<sup>1</sup> and David Leslie<sup>2</sup>**

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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.

Leslie, D.M. (1997). An introduction to the soils of Fiji. Fiji SCEP, Ministry of Agriculture, Fisheries and ALTA, Suva, Fiji. AusAID. 182 p.  
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Leslie, D.M. (2012). A Manual for Utilising and Managing the Soil Resources of Fiji, Secretariat of the Pacific

