THE NATIONAL COMMITTEE ON SOIL AND TERRAIN (NCST)

COMMITTED TO IMPROVING THE ACCESSIBLITY AND USABILITY OF SOIL INFORMATION FOR AUSTRALIA

WHAT IS THE NCST?

The National Committee on Soil and Terrain (NCST) comprises an experienced group of Commonwealth, state and territory government representatives committed to delivering the best possible information on the nature, distribution, condition, including trend limitations and potential of Australia's soil resources. The group operates as a standing committee on the Australian Soil Network (ASN), the body charged with driving implementation of the 2014 *National Soil Research Development and Extension Strategy*. The NCST provides a critical interface between technical know-how, science and policy, and services an ever-expanding range of users including land managers, extension officers, industry and research organisations, governments and educators at all levels.

ACHIEVEMENTS

For over 25 years, the NCST* has consistently provided national coordination of soil landscape assessment and monitoring programs. The Committee was responsible for publication of the *Australian Soil and Land Survey Handbook Series* and for ongoing improvements to the *Australian Soil Classification*. These standards are used across Australia by horticulturalists, pasture and crop agronomists, researchers and natural resource planners – people represented by the industry organisations, research bodies, education and government agencies within the ASN. These standards make it possible to work towards a vision of national consistency and accessibility as demonstrated to be a viable and valuable goal by the Bureau of Meteorology.

The Committee also worked collaboratively with the CSIRO, University of Sydney and the Terrestrial Ecosystem Research Network (TERN) to produce the *Soil Landscape Grid of Australia*, the first national soil map compiled in over 50 years. This would not have been achieved without the NCST's commitment and collaborative approach to building national soil information. This was the culmination of a 10 to 20-year commitment by agencies to build corporate soil databases to harness the value of existing data languishing within their archives.

THE ISSUES

While the compilation of over 280, 000 soil records is a significant development for Australia, it is only the first step towards developing a national soil information facility that can address the needs of different stakeholders and practically assist land managers in the maintenance or improvement of soil condition across the country. With some exceptions, this level of information is currently lacking across large areas of Australia's agricultural zones; a void that can only realistically be addressed through government and industry data-sharing partnerships. Australia is a wealthy western country but lacks adequate soil data to effectively, and intelligently address broad-scale land management issues such as acidification, soil carbon decline, and sedimentation.

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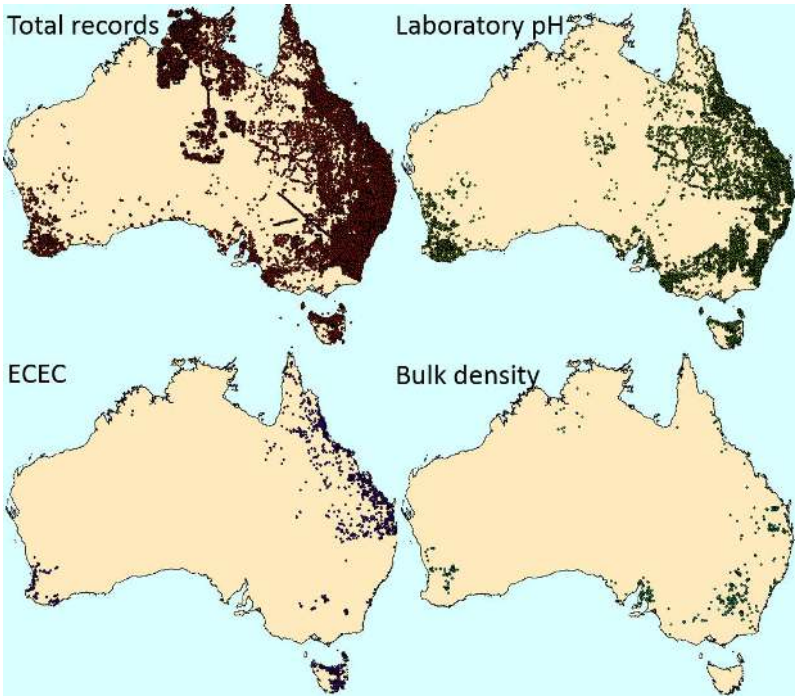
* Previously known as the 'Working Group on Land Resource Assessment'

IMPLEMENTING THE NATIONAL SOIL RD&E STRATEGY

In 2013 the NCST prepared a proposal for the Soil Research, Development and Extension Implementation Committee* outlining the Australian Soil Assessment Program (ASAP) to engage governments and the private sector in the development of national soil information infrastructure and directly address the goals of the national soil strategy.



National soil records collated from state and territory databases, the Commonwealth and University of Sydney in 2013. Although 281,202 records were collated, sites with soil chemical and physical measurements such a laboratory pH, effective cation exchange capacity and bulk density is significantly lower. Incorporation of industry records into this national database would significantly expand this data, providing the basis for a national audit to assist future priority setting and underpin the development of a national soil information facility.

While the ASAP program was not adopted at the time, the NCST sees an immediate opportunity to implement a key element of this program – a national soil information facility. This builds on the success of the national soil data collation in 2013 leading to the development of the *Soil and Landscape Grid of Australia* and provide benefits for users whose needs may range from: on-ground practical applications in grain or cotton growing regions to broad-scale, longer term planning applications, or for example, the examination of high quality, statistically based data for researchers investigating soil pH changes in vineyards. In short, a national soil information facility would provide benefits for numerous applications and users.

OPERATIONAL AND STRATEGIC PLANNING

The NCST receives no dedicated funding and relies on in-kind commitment from members to attend annual meetings and actively develop and implement strategic and operational plans such as that currently being presented to the ASN.

The NCST has, over a 25-year period, been the vehicle for collaboration and coordination of national activities including the delivery of soil data and information to a range of agricultural, environmental and land use planning industries. The potential to broaden membership of the NCST to include representatives from the university sector will only strengthen its capacity. Given its history of achievement, the NCST will be pivotal to the success of the *National Soil RD&E Strategy* by providing technical support and advice to the ASN, and by seeking active commitment to progressing Australia's soil information capabilities.

* This body was the precursor to the ASN.