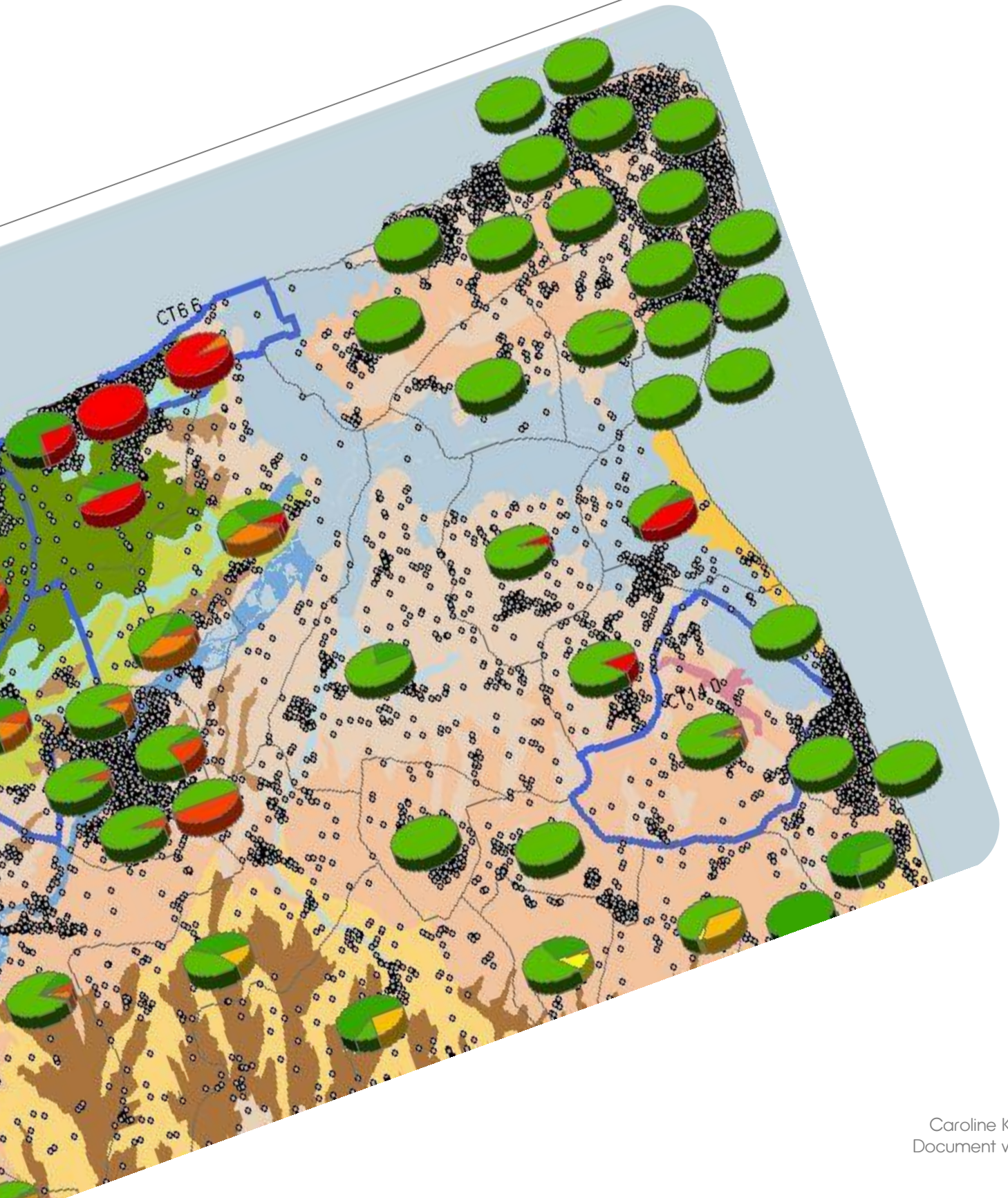


Cranfield Soil and AgriFood Institute
Information paper

Soil Data Structures and Relationships



CSAFI soil data structures and relationships

This document outlines to users of CSAFI soil data, some of the more complex relationships between the various datasets, firstly outlining the key datasets, then explaining the relationship between soil series and soil associations. Finally this document describes the basics of using relational database joins with soil series-based attribute data to association-based soil mapping unit codes within digital maps.

This document does not deal with the *National Soil Inventory* (NSI) point dataset, which is held as an 'x,y' point-based spatial dataset. The NSI dataset is self-standing and not designed to be joined to other tabular CSAFI data.

Key datasets:

The NSRI data offerings from LandIS include a number of specific data themes, including:

- *NATMAPvector* is the 1:250K scale National Soil Map
- *NATMAPsoilscapes* is a 1:250K scale reclassified, simplified version of the National Soil Map
- *NATMAP1000, 2000 and 5000* are 1km, 2km and 5km gridded vector version of the National Soil Map, where each square is attributed with the amount (%) of the various soil series contained within it.
- *NATMAPlegend* is the legend for NATMAPvector data. Link this to the NATMAPvector shapefile on the MAP_UNIT field.
- *NATMAPassociations* provides the proportions of associated soil series within each map unit. This is the linking table used to add the soil series based tabular data to the mapped soil association in *NATMAPvector*.
- *SOILSERIES and HORIZON data* are tabular datasets that can be used in conjunction with any of the NATMAP products except NATMAP soilscapes.

Contacting CSAFI

Should you have any questions arising from this document or use of NSRI's data, please don't hesitate to ask. Please contact the Data Lease Officer at:

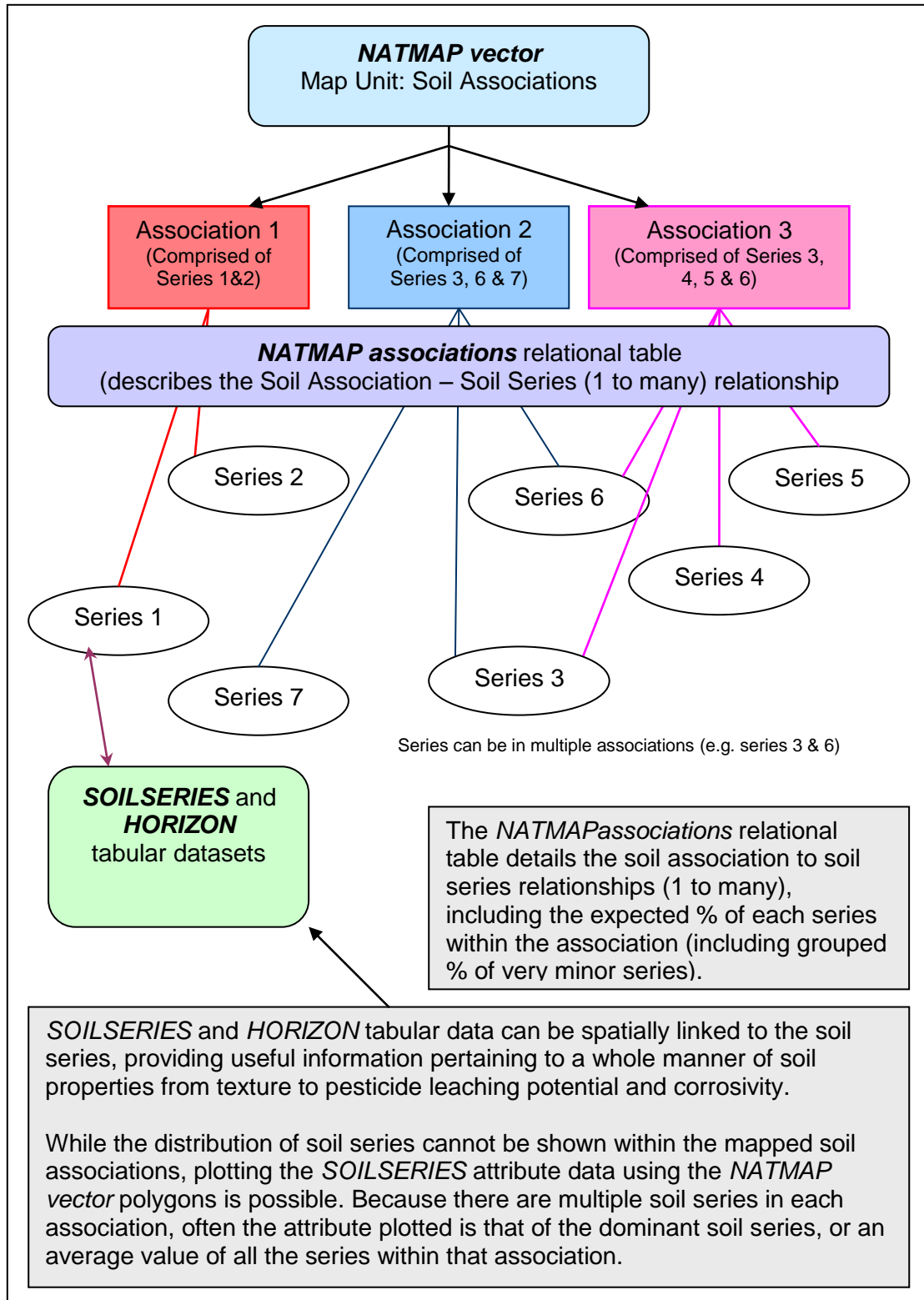
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The Soil Association – Soil Series Link

Soil Associations are groups of soil types, or soil ‘series’, that occur typically together in the landscape. The soil mapping units (SMUs) on the national soil map are expressed with soil association codes. Multiple soil series are combined to make a soil association.



Joining tabular, non-spatial data to spatial NATMAPvector data

If non-spatial tabular data (*SOILSERIES*, *HORIZON* data) is to be attached to *NATMAPvector*, this is achieved by using *NATMAPassociations* as the linking table.

