Soil data rescue led by stakeholder requirements: no need for DSM?

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Initial phases of digital soil mapping utilize soil legacy information for training and validation data. In many cases
digital soil mapping products are produced to defined specifications (eg. global soil map) yet often do not consult
the stakeholders that will eventually use the outputs. We present a case study of data rescue that puts the stakeholder
first, ultimately leading the requirements for the data rescue exercise. Agricultural land classification (ALC) is used
in planning policy by local and national government to protect high grade agricultural land from development. In
Wales there are small areas of high grade agricultural land but these areas are under significant pressure from
development as they are located close to existing large urban areas. This study collated previously unpublished
soil mapping and commercial soil surveys undertaken to assess land capability for agriculture of different scales
(regional to farm level) and formats (record cards, maps). These were digitized and translated by pedologists in
consultation with stakeholder policy team to update various soil data sources (e.g. assigning soil classification to
unknown descriptions). The stakeholders favored preserving 'Frankenstein' mapping (e.g. where different scales of
maps are available in the same viewer) rather than use the detailed information to produce a regular DSM standard
grid output. They preferred this output to indicate levels of uncertainty (ie where there were detailed surveys for
specific areas) and rather than the uncertainty estimates commonly produced from a DSM process. The resulting
data collation bundle will be used to update a national predictive map of ALC for Wales and to inform other policy
initiatives related to natural resource prioritization and planning. This study illustrates the importance of involving
both stakeholders and pedologists in the initial phases of the DSM process to produce outputs that are relevant for
stakeholder requirements. In some cases a DSM product is not the desired output for specific stakeholder groups.