Key project findings

Through building the capacity and capability of soils advice in Devon and Cornwall, delivering seven soil focused feasibility studies in target catchments and two demonstration SAC remediation catchments, the *Devon and Cornwall Soils Alliance* (DCSA) has the following key recommendations to feedback to policy makers:

1. Significantly greater regulatory presence is needed to ensure compliance with the Farming Rules for Water and SSFAO and act as a baseline for further incentivisation from other partners.

2. In some areas, farming practices are not appropriate for the inherent soil capability so a more fundamental change is needed to deliver WFD compliance, including incentivising significant non-regulatory changes (e.g., reducing stocking or shifting away from arable cropping).

DCSA Project Overview

In south west England, ***38% of soils have degraded soil structure***, leading to enhanced surface-water run-off within catchments[1]. The severity of this degradation is driving failure in water quality, increasing drought risk, increasing flooding as well as devastating river habitats and species, including Special Areas of Conservation (SAC).

With these pressures in mind the ***Devon and Cornwall Soils Alliance (DCSA)*** was launched on the 3 June 2019, with the aim to build capacity and capability in soils advice across Devon and Cornwall. During this time DCSA has trained ***137 people*** in soils, through attending workshops and tailored events. The project has also ***supported 39 soil mentors*** that have provided training and better placed to utilise advice in the future.

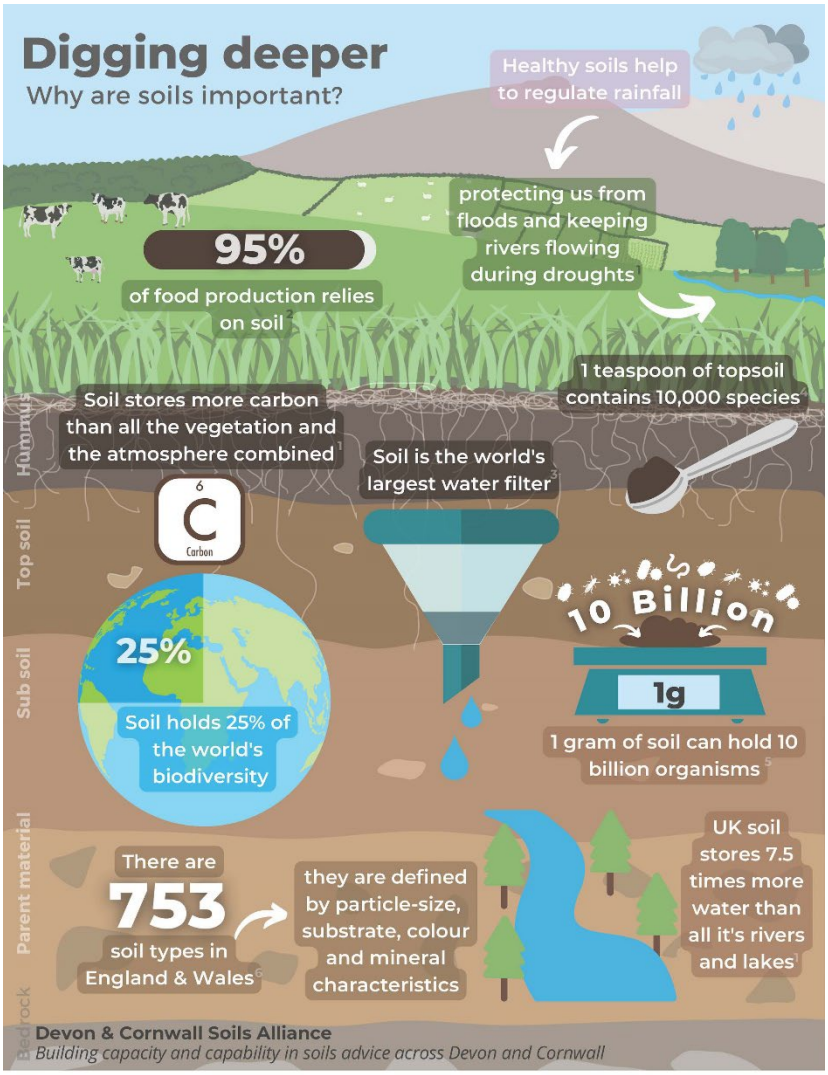
DCSA has also overseen the delivery of seven catchment feasibility studies undertaken with business case reports produced by soil mentors, hosted within organisations including ADAS, North Devon Biosphere, Cornwall Wildlife Trust, Creedy Associates and Westcountry Rivers Trust. Two business case reports have also been produced for the Allen and Corry Brook SAC catchments. From these studies eight out of nine soil mentors interviewed indicated that ***51-75% of issues would be classified as regulatory failures*** and all responded that better enforcement of current regulations would improve 'some' or 'all' issues.

Reports identifyed key reasons for soil structure degradation and WFD status failures within catchment. Highlighted causes included late harvested and sown crops, compaction from livestock, insufficient infrastructure impacting on soil management, poor access to advice and grants, ***low presence from regulators*** and farming practices that were not aligned to the inherent land capability. Solutions and actions varied between catchments but included additional soils advice and grants for capital items and in field interventions. A key item identified by soil mentors also was the need for ***the upscaling of enforcement of regulations*** and this was fed back through liaison meetings with mentors.

Aligned comments from mentors also highlighted the importance of ***enforcing older regulations such as SSAFO*** (Storing silage, slurry & Agricultural Fuel Oil), as it would bring about infrastructure improvements that drive many un-timely operations. Also, enforcement of DEFRA's Farming Rules for Water, would help to tackle soil degradation from the late harvesting and sowing of crops, where considered inappropriate. Having this stronger baseline of enforcement would also facilitate and improve efficiency of Payments for Ecosystem Service Schemes, allowing them to concentrate on additional benefits and services, rather than supplementing regulatory requirements.

As part of the project the DCSA trialled new ways of joint working between the regulator and the farm advisor base (both NGO and private sector). This included water body level sharing of failures rather than singling out issues as this can cause a break down in trust between the advisor and the farming community.

As part of the project the DCSA also assessed the levels of carbon across Cornwall and Devon soils to understand the potential for carbon offsetting in improving wider soil health. The project found that ***measured soil organic carbon in grassland differed from the literature data from estimated soil organic carbon and was closer to the NATMAP estimate.*** It was noted that appropriate measuring and validation would be required but *slake tests might act as a more cost-effective assessment*.



DCSA videos and best practice:

1. Soils MATTER Devon & Cornwall Soils Alliance
2. Soil erosion related to the wet weather (Part1)
3. Soil erosion related to the wet weather (Part 2)
4. Maize under sowing trial blog
5. Maize under sowing trial VLOG

The WEG funded element of the Devon & Cornwall Soils alliance completes in September 2022, however the alliance as a movement of like-minded individuals shall continue and provide a platform for training and to voice and evidence concerns around soil degradation whilst building capacity and capability around soils advice.

1. Palmer R.C. & Smith R.P.2013. *Soil structural degradation in SW England and its impact on surface-water runoff generation*. Soil Use and Management. Environment Agency, Exeter.