EJP SOIL
European Joint Programme

Towards climate-smart sustainable management of agricultural soils

SCALE

Managing Sediment Connectivity in Agricultural Landscapes for reducing water Erosion impacts

Deliverable WP2-D1

Description of common database including functionality and management

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GENERAL DATA

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DELIVERABLE NUMBER:	WP2-D1
DELIVERABLE TITLE:	Description of common database including functionality and management
DELIVERABLE TYPE:	Database description + metadata scheme
WORK PACKAGE N:	WP2
WORK PACKAGE TITLE:	Data sharing/pooling and harmonisation of data sets
DELIVERABLE LEADER:	BAW, IUNG, UNIPA
AUTHORS:	Lisbeth L. Johannsen, Elmar Schmaltz, Giuseppe Lo Papa, Rafal Wawer
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1 Introduction

Work package 2 (WP2) under the SCALE project deals with data sharing/pooling and harmonisation of datasets.
The sharing of datasets in the database was preceded by the collection of metadata from the project partners. The metadata was added to a metadata scheme (Excel file) with all needed information on the datasets available from the partners for sharing in the database.
The common database provides data relevant to soil erosion modelling applications carried out by the partners during the project. The data is provided by the project partners for selected catchments in their country and/or at regional or national scale. Furthermore, the shared database allows for analysis of data and observation techniques between catchments. This helps in analysing needs for dataset harmonisation, and fosters the project goals towards assessing tools, methods and practices to be used in policy support against soil erosion issues across Europe.

2 Database structure

The common database is hosted on the SCALE project's web cloud (NextCloud at https://cloud.baw.at) with access of all project partners. The database is specifically situated in the SCALE folder – 2_Work Packages – WP2 – Database.
The database is organised according to country (Fig. 1) and then catchments within each country (Fig. 2).
Within each country folder, the metadata scheme is also located (Fig. 2). In case of national/regional data that extend beyond the catchment or can be used for several catchments within that country, those files are situated within the overall country folder.
Within each catchment folder, the relevant catchment data files are situated with the same ID as in the metadata scheme (Fig. 3).

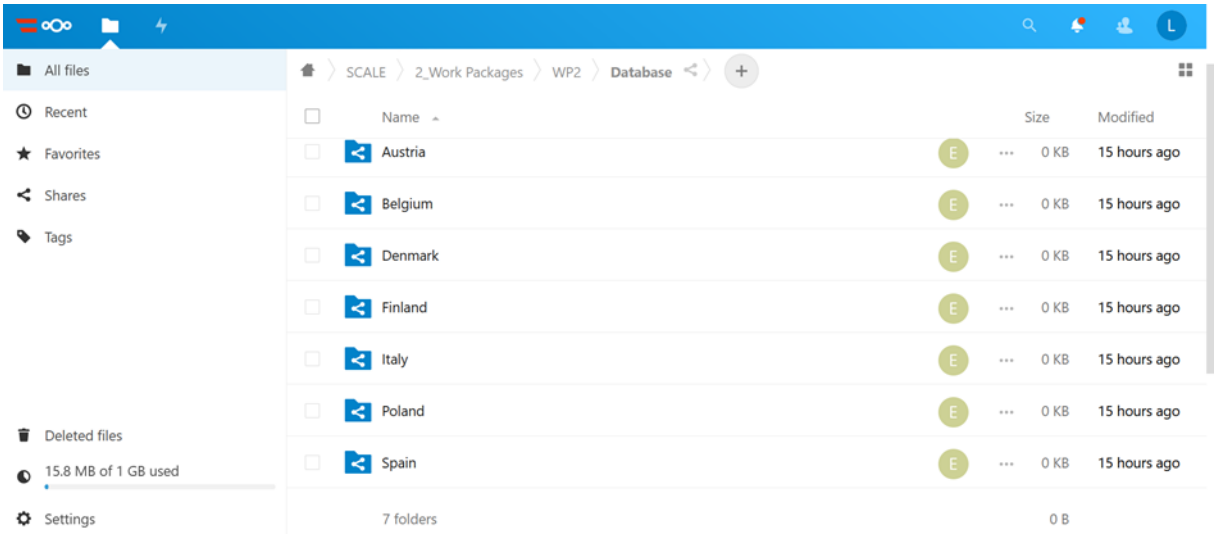

Figure 1. Folder structure according to country within the database.

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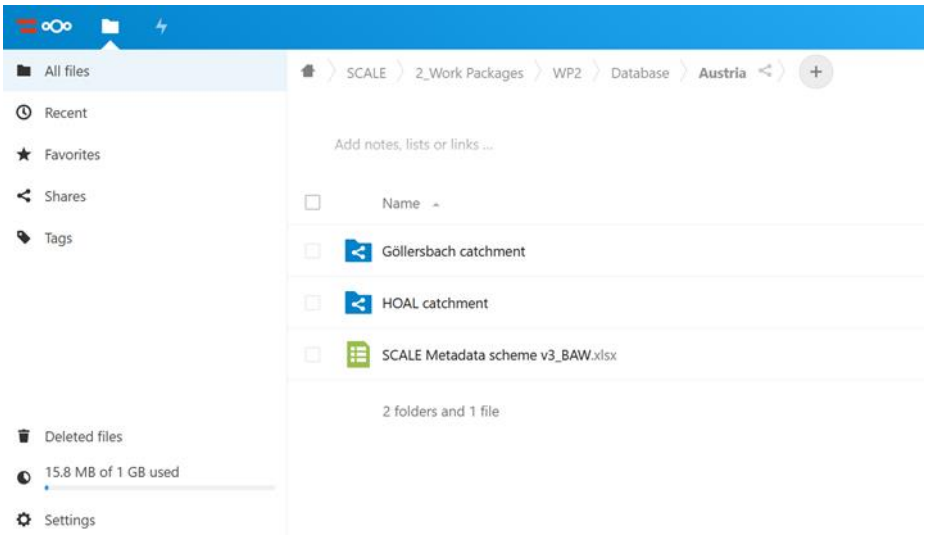

Figure 2. Within each country folder the data is organised according to catchment.

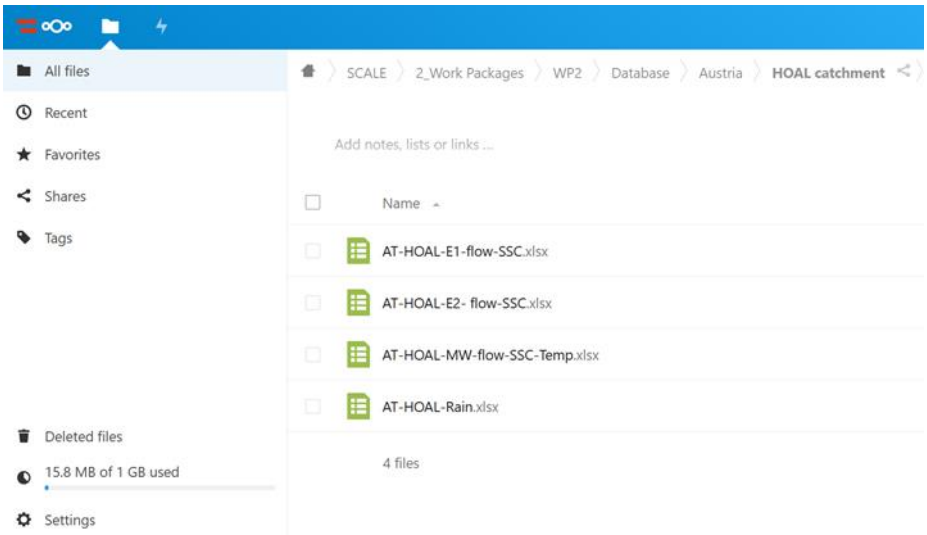

Figure 3. Examples of data files within the catchment folder.

3 Database management

The cloud is managed and maintained by BAW. Continuous improvement of the database structure, functionality or management will occur after feedback from the project partners during use of the database.

All project partners have editing rights and can alter and upload files accordingly. However, the relevant partner should be in charge of uploading and altering files for their specific country. All other partners should function only as users of the data, and thereby only download the needed data for their modelling exercises.

In case further or additional data is needed for modelling applications the partners will exchange these internally. The database can be used for this exchange with the additional data also being added to and described in an updated metadata scheme.

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4 Outlook

The setup of the database and the management actions mentioned above, along with the collection of the metadata preceding it, all lead towards a harmonisation of the common database and metadata profile (milestones WP2-M2 and WP2-M3). It also provides an overview of the status of observation equipment within catchments and how these can be uniformed and harmonised (WP2-M4). This all aids the analysis of data collection harmonisation rules and best-practice guidelines on the selection of model-relevant parameters (WP2-D2), which are also relevant to the further work in WP3 and WP4.

Supplementary Material

The metadata scheme is available in the Excel file “SCALE_WP2-D1_Metadata_scheme” uploaded together with this database description.

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