

Data Management Plan

General Project Information

Project Name: *Interactions of Groundwater Surface Water and Soil in an Irrigated Agricultural Landscape*

Research Field: *Ecology & Environment*

Project Characteristics: *One-time observation, Repeatable experiments, Time series, Field Work, Observational, Laboratory, Modelling*

Most data will be collected between May and September. Due to costs, resources as well as transitions in agriculture and water management, data can only be collected once and reflects a snapshot of this period.

Project Abstract: *The investigation area is located in southwestern Uzbekistan. The region is greatly influenced by agricultural production dominated by cotton, rice and wheat. Due to very low precipitation, the region depends on irrigation water input from the Amu-Darya river from which the water is channeled off through huge canals. Within this enormous irrigation system, the region of interest is located at the very end and thus, is endangered by water shortages and depends on upstream conditions. The sustainable use of water resources requires wide knowledge about hydrological coherences but also about local conditions of elevation and soil. Thus, investigations aim at (1) the generation of an elevation model of the area of interest, (2) the description of linkages between groundwater table and electrical conductivity (EC), (3) the identification of specific patterns of canal water and groundwater level and EC and their potential correlations, (4) the description of differences in soil textures in vertical and horizontal direction and their impact on the soil's permeability and (5) the identification of characteristics which might be useful for the distinction between hydrological sites.*

Project Data Contact: *Franziska Helbing, helbing@sub.uni-goettingen.de*

Principal Investigator/s: *Prof Dr Jürgen Soil*

Funding Application: *DFG Individual Grants Programmes*

Coordinated Programme: *-/-*

Part of a Research Unit? *No*

Volume of Research Proposal: *-/-*

Relevant Policies and Guidelines: *DFG Guidelines on the Handling of Research Data, DFG Guidelines on the Handling of Research Data in Biodiversity Research, DFG Guidelines for Safeguarding Good Scientific Practice, Forschungsdaten Leitlinie der Universität Göttingen*

<http://www.uni-goettingen.de/de/01-juli-2014-forschungsdaten-leitlinie-der-universitaet-goettingen/488918.html>

Data Collection

Physical Objects: *Yes*



Dead or Alive: *Dead*

Taxon-Based: *No*

Mainly Sequence Data: *No*

Type of Data: *Text (notes, surveys, etc.), Models, code, GIS data, Numeric (spreadsheet, measurements, etc.), Multimedia (images, sounds, video, etc.)*

Data Formats: *xls, shp (shp, dbf, shx, prj), doc, tif, tiff, txt, sav, sta, bmp, raw, adf and others*

Estimated Data Volume: *< 5TB*

Number of Data Sets: *< 1000*

Standards, Methodologies and Tools: *-/-*

Documentation and Metadata

Supported Metadata Schemas: *ISO 19115 Geographic information (Metadata), Other metadata or documentation*

Manual notes, txt, xls

Ethics and Legal Compliance

Legal Requirements: *Not applicable*

License: *CC BY: Creative Commons Attribution-4.0*

Access Restriction: *Yes*

How long: 1 year

Reason: Project specific restrictions

Preservation and Sharing

Data Submission to GFBio: *Data linked to an article (or another kind of publication) will be submitted before or at the same time as the publication of the article. This option will allow you to refer to your dataset via unique identifier (e.g. DOI) within your article., All datasets will be submitted at least one year after the project's end.*

Data Backup: *Data will be stored in the project's infrastructure which is part of the university infrastructure hosted by GWDG (see <https://www.gwdg.de>). GWDG is responsible for the servers being backed up regularly. Additionally, data will be copied to a local hard drive once a week to enable analysis outside the university's infrastructure. Conversely, results of this work will be fed back into the project's infrastructure. Franziska Helbing is responsible for the data transfer between hard drive and project infrastructure.*

Data Archiving: *GFBio Data Centers*

Persistent Identifier: *Yes*

GFBio recommends

GFBio provides individual data management support and recommends contacting us for your personal data management strategy and DMP support. We give advice regarding storage, security, quality assurance and backup and help you optimizing the findability, accessibility, interoperability and



re-usability of your research data. We highly recommend using common standards for data and metadata formats. You can find an overview of GFBio services on www.gfbio.org.