Plan Overview

A Data Management Plan created using DMPonline

Title: NARRatives On restored Water

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Project abstract:

1. Short project description (2 pages)
In this transdisciplinary and trans-sectorial project, we examine effective biodiversity conservation and
climate change mitigation led by local communities. We innovatively look at restoration, rewilding,
biodiversity, Greenhouse gas (GHG) flux and carbon storage of Swedish and Finnish inland waters, wetlands
and adjacent meadows and forests. This issue is timely; modalities for effectiveness of local participation and
governance or their contributions to achieving biodiversity targets are as yet not completely understood.
Working with different sectors of society (firstly local communities including the Sámi, and also academics
and administrative actors, amongst others), we bring together social (oral histories, narratives, values) and
ecological (GHG, carbon and biodiversity measurements) methods to examine the success of locally led
restoration projects. Ultimately, we ask a critical and profound question: what are the ecological, cultural,
social and spiritual values that inspire local communities to restore and protect these different inland waterland
systems? Why are they important and how are such values determined and reflected in national and
international policy contexts?

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NARRatives On restored Water

1 Data collection and documentation

What data will you collect, observe, generate or reuse?

The data collected in this project is diverse. We will reuse publicly available biodiversity inventory datasets, for instance data from electrofishing in Sweden, already available online and much other Swedish biodiversity observations can be accessed through Artportalen ('the Species Portal').

The greenhouse gas measurements will depart from baseline assessments that have been carried out (based for example on Alm et al. 2007; Kivimäki et al. 2008; Minke et al. 2016). We will use gas flux (CO2 and CH4) monitoring with closed chamber technique based on repeated flux measurements from sampling units, with simultaneous monitoring of factors that are known to affect the flux, such as temperature, amount of light and vegetation inside the chamber.

We will use semi-structured interviews (Kallio et al. 2016; Young et al. 2018) and
dialogue meetings with local communities and other relevant actor groups. The interviews need to be piloted with an iterative design for all case sites and analyses streamlined, as well as to follow ethical standards. Other oral methods will include: dialogue meetings with actor groups; narrative interviews; narrative discourse analysis; documenting data on cultural keystone species and ecosystem services.

For work package 4 (joint analysis) and 5 (policy dissemination), we will have access to both publicly available and confidential IUCN documents including policy documents.

Initial formats include field data sheets (scanned), data logger outputs, and laboratory machine readings; the final format of the data will be in large spreadsheets.

Mapping and remote sensing data includes satellite imagery, diverse spatial data sets and outputs. Social data includes interview notes, observation notes, focus group and workshop notes and outputs (e.g. hand-drawn maps), and household survey data. Its format includes audio recordings, handwritten notes, typed notes.

How will the data be collected, observed or generated?

The full data collection methods can be found in the SNF submitted project description. The greenhouse gas measurements will depart from baseline assessments that have been carried out (based for example on Alm et al. 2007; Kivimäki et al. 2008; Minke et al. 2016). We will use gas flux (CO2 and CH4) monitoring with closed chamber technique based on repeated flux measurements from sampling units, with simultaneous monitoring of factors that are known to affect the flux, such as temperature, amount of light and vegetation inside the chamber.

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dialogue meetings with local communities and other relevant actor groups. The interviews need to be piloted with an iterative design for all case sites and analyses streamlined, as well as to follow ethical standards. Other oral methods will include: dialogue meetings with actor groups; narrative interviews; narrative discourse analysis; documenting data on cultural keystone species and ecosystem services.

What documentation and metadata will you provide with the data?

It will be the responsibility of each work package leader to ensure that each sub-project participant annotates final data outputs with metadata. The final data will be accompanied by metadata files (for example an INFO.txt file) that describe the data according to metadata standards – we propose to use basic DDI specification.

This will include: title, creator, data, keywords, description and contextual information, type and format of data, methodology, software and device versions and characteristics used to create data, identifier (e.g. DOI), dataset citation, contact information, and access rights.

2 Ethics, legal and security issues

How will ethical issues be addressed and handled?

For each output, we will apply the FAIR principles to ensure that data are complying with current data policies.

The social data do of course raise such issues, as people are asked about their livelihoods. For the social data, all local participants are always first be informed about the research and its purpose, and must give informed consent (orally) in order for the interview/survey to continue through the use of the ethical guidelines of the Finnish Academy of Science and Letters, the Free, prior and informed consent and also the Ottawa Principles of Traditional Knowledge of the Arctic Council. These three principles will inform how the Indigenous knowledge and potential oral history narratives will be handled, including future publications. All local participants will co-own their materials and be considered as co-researchers as they will also participate in its analysis. For case areas community-based oral history archives will be developed with local participants to see how to make data available.

Importantly each interviewed person will be signing a consent form and the documentation of intellectual property (interviews, maps, etc), especially Indigenous knowledge materials, will remain primarily the ownership of the interviewed person, but materials will be shared for the sake of the project. Drafts of the materials will always be returned to the documented individuals for approval. Interview materials and other personal data will be located on an off-line server hosted at the Snowchange HQ, meaning there will be no internet access to the data sets directly. Outside the project participants, and as all local participants co-own their materials and be considered as co-researchers. access to this data can only be given with consent from the local participants.

Access to the confidential IUCN documents are subject to IUCN Data Protection Policy, which is the document that underpins all legal and ethical obligations concerning data management for IUCN. This policy includes how to get consent to use their confidential documents

How will data access and security be managed?

Each interviewed person will be signing a consent form and the documentation of intellectual property (interviews, maps, etc), especially Indigenous knowledge materials, will remain primarily the ownership of the interviewed person, but materials will be shared for the sake of the project.

Drafts of the materials will always be returned to the documented individuals for approval.

Interview materials and other personal data will be located on an off-line server hosted at the Snowchange HQ, meaning there will be no internet access to the data sets directly. Data security person will be assigned from the project team to coordinate, and monitor data safety and integrity that no breaches will happen.

For each output, we will apply the FAIR principles to ensure that data are complying with current data policies.

Access to the confidential IUCN documents are subject to IUCN Data Protection Policy, which is the document that underpins all legal and ethical obligations concerning data management for IUCN. Confidential data is stored on a local server and is not accesible to the wider world.

Since there are three partners involved in this project, we aim to have one responsible for the data and digital outputs management plan from each partner, Dr Tunón for Sweden, Dr Mustonen for Finland and Dr Hymas for Switzerland.

How will you handle copyright and Intellectual Property Rights issues?

We have no reason to believe that there will be any issues related to intellectual property rights within this project. So we will not encounter specific copyright and IPR issues within our work (like commercial and patenting issues), other than classic situations in academic knowledge production (citation of references, prior consent of an author for the reproduction of one figure, etc.).

3 Data storage and preservation

How will your data be stored and backed-up during the research?

In Scandinavia governmental agencies, including academia, are subjected to the Principle of public access to official records, hence data stored in Swedish universities are publicly accessible. The SLU Swedish Biodiversity Centre (Dept. of Urban and Rural Development, SLU) has a compulsory data management plan. Consequently, all project data must be stored on a server at the SLU including computer backup-facilities. This way the data will be available after the project and if the researchers are no longer at the university. In Switzerland, data of UNIL project staff will be stored on UNIL institutional servers which are automatically centrally, securely, and frequently (15 min) backed up using CrashPlan.

At IUCN, data will be backed up on the institutional server. In Switzerland, data collected by Swiss partners will be archived at the end of the project on the FORSBASE research database (social research).

What is your data preservation plan?

Scandinavia governmental agencies, including academia, are subjected to the Principle of public access to official records. Due to this the data will be available after the project and if the researchers are no longer at the university.

In Switzerland, data collected by Swiss partners will be archived at the end of the project on the FORSBASE research database (social research).

4 Data sharing and reuse

How and where will the data be shared?

The data will be embargoed for two years from the end of the project to guarantee us the time to be the first to exploit the data. Datasets will be given a DOI and associated metadata; this information will be uploaded onto the UNIL publication repository SERVAL at the time of publication and uploaded onto the MySNF site.

We do not presently imagine that any of the expected data from the project will be sensitive to the local actors and therefore can't see any reasons to restrict future access of data and publications from the project.

The aim is that all reports and publications from the project will be open-access in scientific journals or official report series (e.g. CBM:s skriftserie ISSN 1403-6568) such reports are archived at the Royal Library in Stockholm, and the official procedures at the Department of Urban and Rural Development is to archive all publications produced by its staff and made available upon request. Therefore all published material will be made long term accessible. As much as possible, data relevant to specific articles will be shared in open access online supplemental information linked to journal publications. Our outputs will follow classic IPR rules of academic literature (paper journals, publications, etc.). Open access publications (gold) will be favoured when possible, green otherwise. We will promote sharing and unlimited use of data that we produce using explicit licences – for sharing our data, we will use the Creative common licence CC BY – Attribution or CC BY NC.

Are there any necessary limitations to protect sensitive data?

Not all social data will be published. As local participants co-own their materials and be considered as co-researchers, only social data that they wish to be shared will be published. With interview materials and other personal data being located on an off-line server hosted at the Snowchange HQ, meaning there will be no internet access to the data sets directly, access to this data can only be given with consent from the local participants.

I will choose digital repositories that are conform to the FAIR Data Principles. [CHECK BOX]

- Yes

I will choose digital repositories maintained by a non-profit organisation. [RADIO BUTTON yes/no]
If the answer is no: "Explain why you cannot share your data on a non-commercial digital repository."

- Yes