
Plan Overview

A Data Management Plan created using DMPonline

Title: TRANSPLANT - Translating Paris Climate Action for Northern Transport

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Affiliation: University of Manchester

Funder: Engineering and Physical Sciences Research Council (EPSRC)

Template: EPSRC Data Management Plan Customised By: University of Manchester

Project abstract:

This project will develop methods and a framework to determine a 'fair' share of carbon budget for transport in the North of England consistent with the Paris climate change agreement. For the effectiveness of decarbonisation aligned with Paris, it is essential to know the scale of the challenge and the amount of remaining carbon emissions that transport can emit. A top-down approach of downscaling the global carbon budget to the transport sector for a sub-national area can be useful to set goals and required targets. However, top-down approaches also need to consider specific geographic and techno-economic characteristics of local areas so that mitigation efforts can be shared fairly. Since the nature of mobility varies between areas due to the level of urbanisation, economic activity, and the residents' age, ethnicity, income, equality needs to be considered in the budget allocation. To get a concrete sense of what must be considered when setting a fair share of Paris mitigation challenges, the project has chosen the Lake District and Liverpool city region as a case study. For cities, existing and planned transport infrastructure needs to be considered when setting climate targets. If the 'embodied' carbon emissions of new transport infrastructure itself are high or lead to an increase in transport, those emissions will result in a reduction of the available carbon budget. High levels of cross-boundary transport such as Liverpoolians travelling to the Lake District or people travelling to visit Liverpool, to the Airport or the Port also make sub-national emissions accounting complex. Hence it is important to consider the locally specific nature of travel, rural-urban dynamics, intra-city passenger mobility, existing and planned transport infrastructure, etc. when developing a fair carbon budget. We will co-design our carbon budget framework with stakeholders through two virtual workshops with participants from Liverpool and the Lake District, including policymakers, small and medium-sized businesses, farmers, tourists, residents from diverse backgrounds etc. The first workshop (month 3) will gather specific transport decarbonisation challenges for these local areas and will examine the gap between what is promised in the Paris Agreement, current emissions and equity approaches that need to be considered. The second workshop (month 5) will identify gaps in our understanding of the factors that shape the local transport systems with all the interlinkages that might affect the achievement of full decarbonisation and effects on different communities and individuals. This includes understanding the carbon trade-offs of infrastructure solutions, comparison of re-purposing existing infrastructure with building new, and evaluate the size of carbon budget that should be ring-fenced for infrastructure projects. The workshops will also identify the type of datasets that are required for the stakeholders to

be able to understand and implement effective and fair decarbonisation strategies. Our place-based carbon budget framework and pathways should be replicable by other urban and rural areas. This project will be a stepping-stone for further funding from EPSRC or similar to develop detailed budgets and tools that will enable stakeholders to implement decarbonisation strategies aligned with the Paris Agreement.

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Manchester Data Management Outline

1. Will this project be reviewed by any of the following bodies (please select all that apply)?

- Funder

2. Is The University of Manchester collaborating with other institutions on this project?

- Yes - Part of a collaboration and owning or handling data

3. What data will you use in this project (please select all that apply)?

- Acquire new data
- Re-use existing data (please list below)
- Generate textual supporting information only

Recordings of two virtual stakeholder workshops will be conducted.

4. Where will the data be stored and backed-up during the project lifetime?

- Other storage system (please list below)

The data will be stored on Dropbox for Business. The folder will be shared with the main collaborator (Hadi Arbabi) from University of Sheffield. Analysis of the data will be done on University desktops/ laptops. Once analysis is complete the data will be encrypted to AES-256 standard using 7-Zip before storage on Dropbox for Business.

5. If you will be using Research Data Storage, how much storage will you require?

- Not applicable

6. Are you going to be working with a 3rd party data provider?

- No

7. How long do you intend to keep your data for after the end of your project (in years)?

- 0-4 years

Questions about personal information

Personal information, also known as personal data, relates to identifiable living individuals. Special category personal

data is more sensitive information such as medical records, ethnic background, religious beliefs, political opinions, sexual orientation and criminal convictions or offences information. If you are not using personal data then you can skip the rest of this section.

Please note that in line with [data protection law](#) (the General Data Protection Regulation and Data Protection Act 2018), personal information should only be stored in an identifiable form for as long as is necessary for the project; it should be pseudonymised (partially de-identified) and/or anonymised (completely de-identified) as soon as practically possible. You must obtain the appropriate [ethical approval](#) in order to use identifiable personal data.

8. What type of personal information will you be processing (please select all that apply)?

- No sensitive or personal data
- Audio and/or video recordings

There will be two stakeholder workshops where we gather data/information from stakeholder about transport in the north of England specific to decarbonisation. No sensitive data will be collected. Audio and video recordings of workshops will be stored. The recordings and analysis will be pseudonymised. The list of participant details will be kept separately and linked to the recordings and analysis by an ID number. The participants will not be asked to identify themselves on the recordings.

9. How do you plan to store, protect and ensure confidentiality of the participants' information (please select all that apply)?

- Store data on servers or computers that are approved by The University of Manchester and securely backed up
- Pseudonymise data and apply secure key management procedures
- Encrypt files, folders, computers and devices where personal data is held

The data will be stored on a university provided Dropbox for Business account. A University provided desktop will be used for analysis.

10. If you are storing personal information (including contact details) will you need to keep it beyond the end of the project?

- No

11. Will the participants' information (personal and/or sensitive) be shared with or accessed by anyone outside of the University of Manchester?

- Not applicable
- Yes - Public institutions with contractual arrangements (e.g. NHS research sites)

The shared folder be used by the Co-I of this project from the University of Sheffield

12. If you will be sharing personal information outside of the University of Manchester will the individual or organisation you are sharing with be outside the EEA?

- No

13. Are you planning to use the personal information for future purposes such as research?

- No

14. Who will act as the data custodian for this study, and so be responsible for the information involved?

Jaise Kuriakose

15. Please provide the date on which this plan was last reviewed (dd/mm/yyyy).

Question not answered.

Data Collection

What data will you collect or create?

Primary research data will be audio and video recordings from stakeholder workshops about transport plans in the north of the UK. Workshops will be recorded using zoom with each workshop (two in total) last about 3 hours long. Recordings of the workshops will be pseudonymised by means of ID numbers and the files will be stored in MP4 format. The project will also create a list of participants including names, job title, employer and contact details.

How will the data be collected or created?

The data will be collected from stakeholders including lake District national park authority, Zero Carbon Liverpool, Liverpool city region authority through two stakeholder workshops. Workshops will be virtual through zoom and will be conducted using zoom with its recording function. Prior to the workshop participants will be informed of their rights in relation to the recording as per the University procedure for recordings and transcriptions. Recordings also will be based on University guidelines and as approved by the Ethics committee. Recordings will be stored on the university storage and files will be encrypted to AES 256 standard. Since the data needs to be shared with University of Sheffield, a data transfer agreement will be made prior to the workshop. Data will then be shared using Dropbox business.

Documentation and Metadata

What documentation and metadata will accompany the data?

Data is related to the transport plans and statistical dataset already published and available to the public. Raw data from workshops (participant list, recordings) won't be published. A metadata in the form of a README file which gives detailed information on the workshops, topics discussed, dates, access conditions, file format etc will be provided.

Ethics and Legal Compliance

How will you manage any ethical issues?

If funded the project will check whether ethical approval is needed from departmental ethical committee. Data from the stakeholder workshops (recordings) will be stored in the university drive and no sensitive personal information will be taken or stored. Workshops will be virtual through zoom and will be conducted using zoom with its recording function. Prior to the workshop participants will be informed of their rights in relation to the recording as per the University procedure for recordings and transcriptions. The video recording of the meeting will be shared with the collaborator (Sheffield University) using Dropbox business. As the data needs to be shared with University of Sheffield a data transfer agreement will be made prior to the workshop.

How will you manage copyright and Intellectual Property Rights (IPR) issues?

The copyright and intellectual property rights for this project will be managed as per the University of Manchester Intellectual Property Policy <http://documents.manchester.ac.uk/display.aspx?DocID=24420> As such project is not planning to collect any data other than views

from stakeholders from two workshops.

Storage and Backup

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

The data will be collected and stored on University of Manchester's Research Data Storage (RDS). This data will be then shared with collaborator using Dropbox for Business account. Once the data is no longer needed for analysis and can be archived, it will be encrypted to AES-256 standard using 7-Zip.

How will you manage access and security?

The data will be collected and stored on University of Manchester's Research Data Storage (RDS). The data will be will be encrypted to AES-256 standard prior to sharing with collaborator using Dropbox for Business. The access to Dropbox for Business will only be granted to the collaborator named in this data management plan. No physical copies of the data will be made. Workshop recordings will be made using zoom.

Selection and Preservation

Which data are of long-term value and should be retained, shared, and/or preserved?

The stakeholder workshop recording will be stored in the Research Data Storage (RDS) beyond project duration for writing papers and proposals but no longer than 4 years. The raw data (stakeholder workshop) will not be published and only needs to be preserved for writing papers. All data will be disposed based on the Information Governance Office guidance.

What is the long-term preservation plan for the dataset?

Raw data (stakeholder workshop) will be stored on Research Data Storage until all papers have been published. All data will then be disposed as data is not required to store afterwards.

Data Sharing

How will you share the data?

The analysis of the data will be published in an appropriate academic journal/report or be used for additional funding application. The raw data (workshop recordings) or the transcripts will be shared if relevant using data repository - [Figshare](#).

Are any restrictions on data sharing required?

All data will be shared if relevant using Figshare without any restrictions. Consent will be taken from stakeholders prior to the workshop on how the data will be shared.

Responsibilities and Resources

Who will be responsible for data management?

Jaise Kuriakose

What resources will you require to deliver your plan?

Dropbox for Business. Jaise Kuriakose will host the Dropbox for business folder shared with the team member stated in this data management plan.