PA2 Update

Modelling Wildlife Corridors

Lukas Buchmann

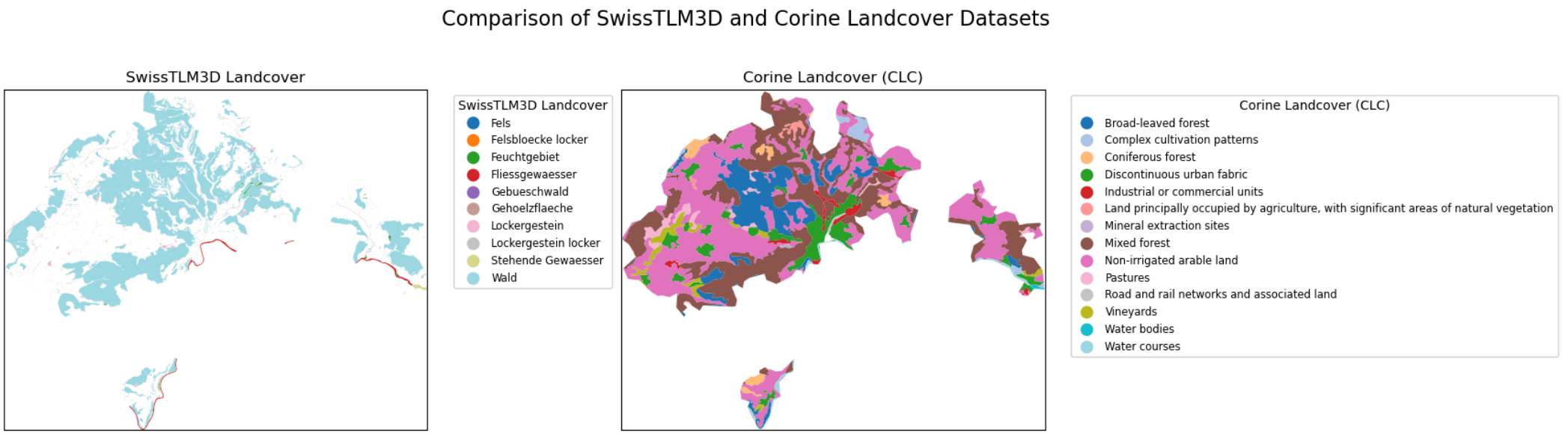
2025-10-21

Progress

Overview

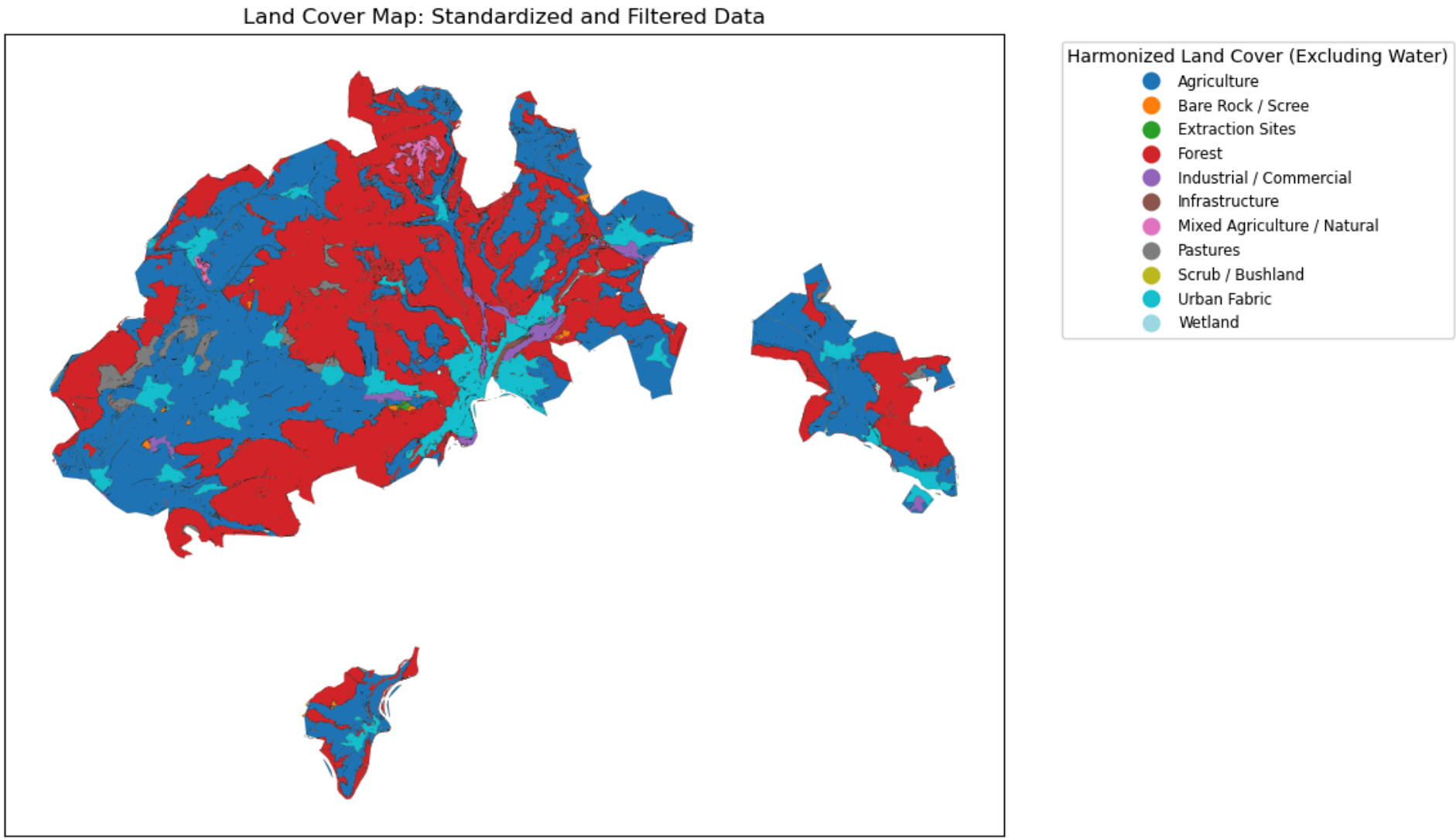
- Disposition revised and submitted
- Created Github Repository
- Set up Quarto Document for Report
- Searched for Literatur
- Started with first model

Landcover Data



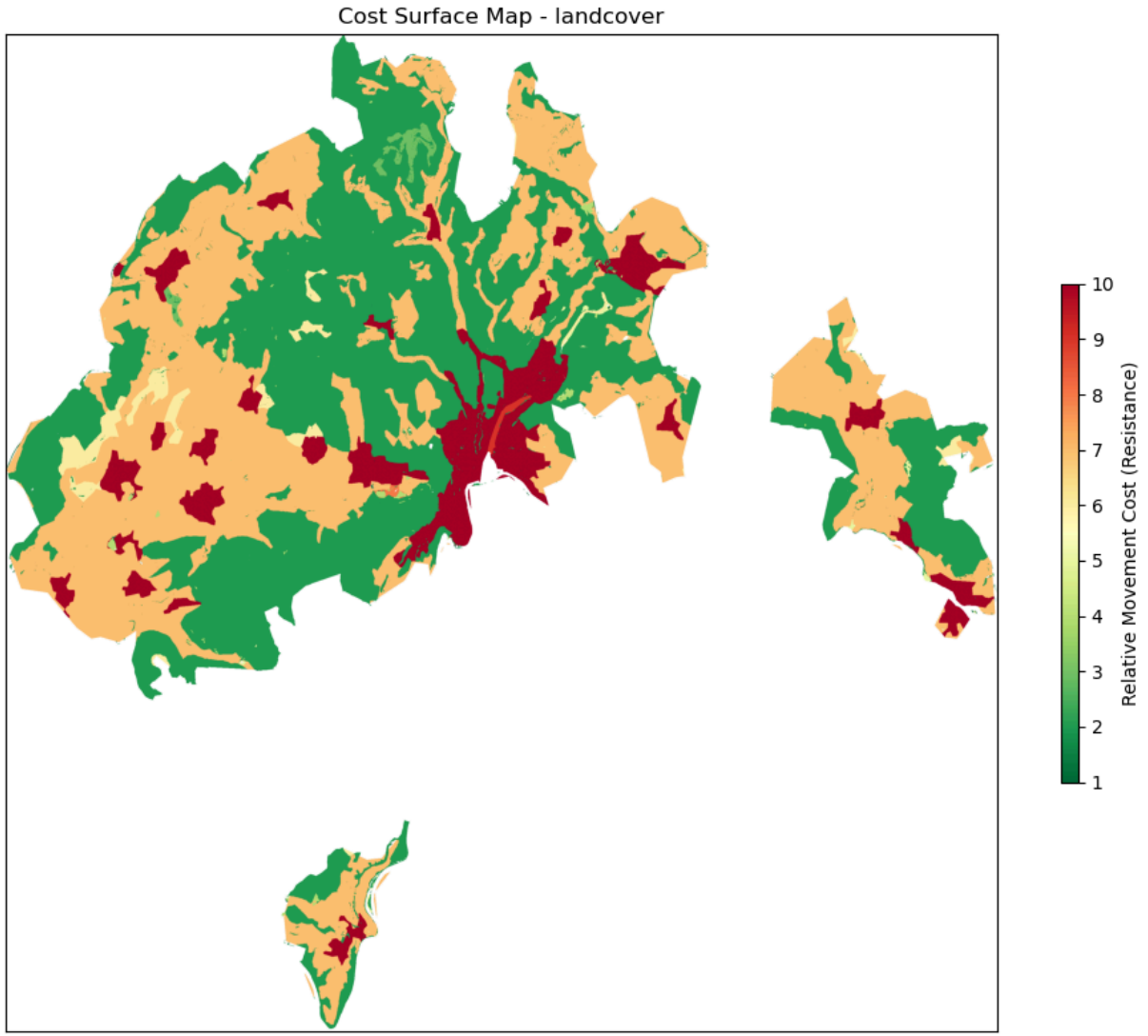
Map of the Landcover in Schaffhausen

Combined Landcover Data



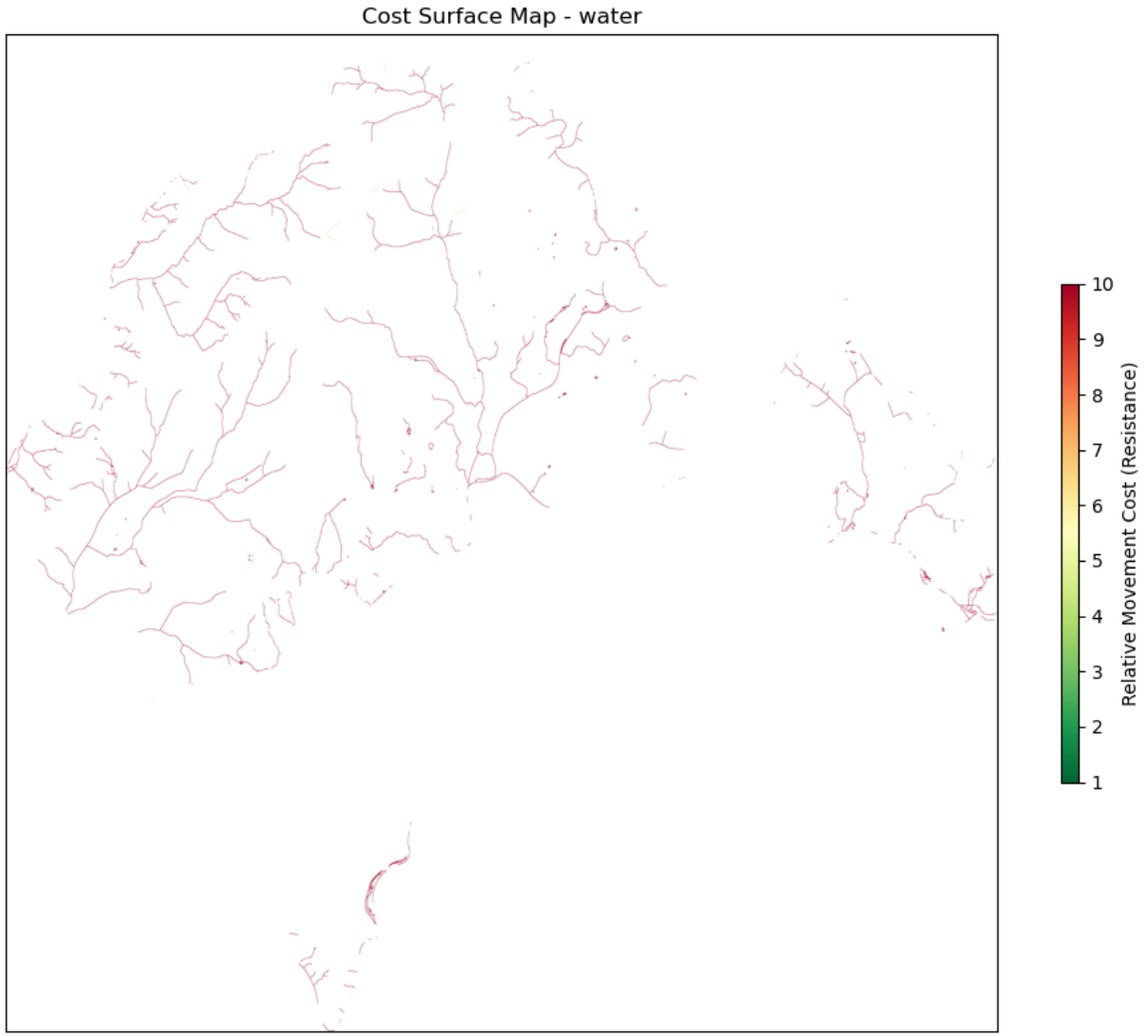
SwissTLM3D and Corine Landcover Data combined and harmonized

Landcover Cost Surface



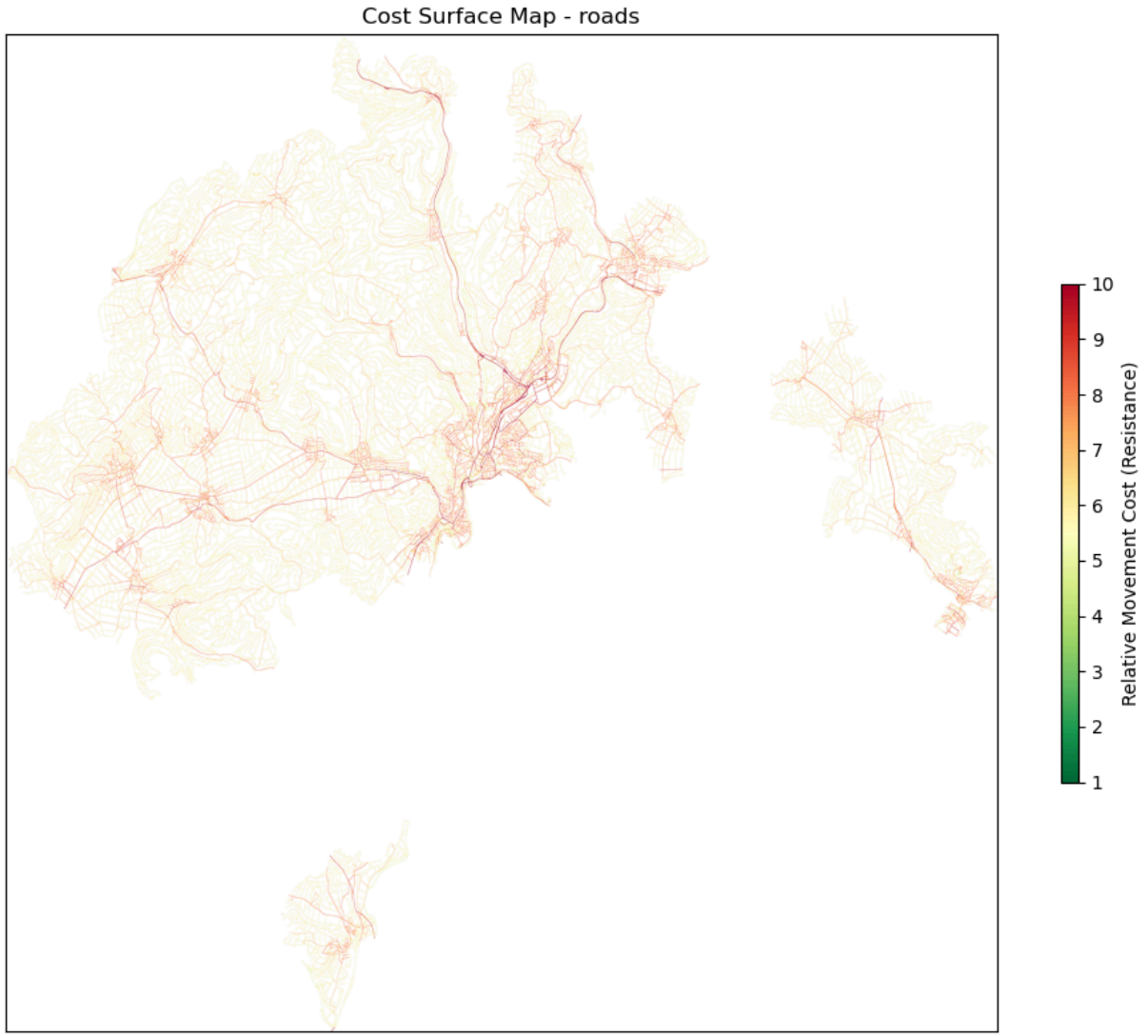
Cost Surface of Landcover in Schaffhausen

Water Data



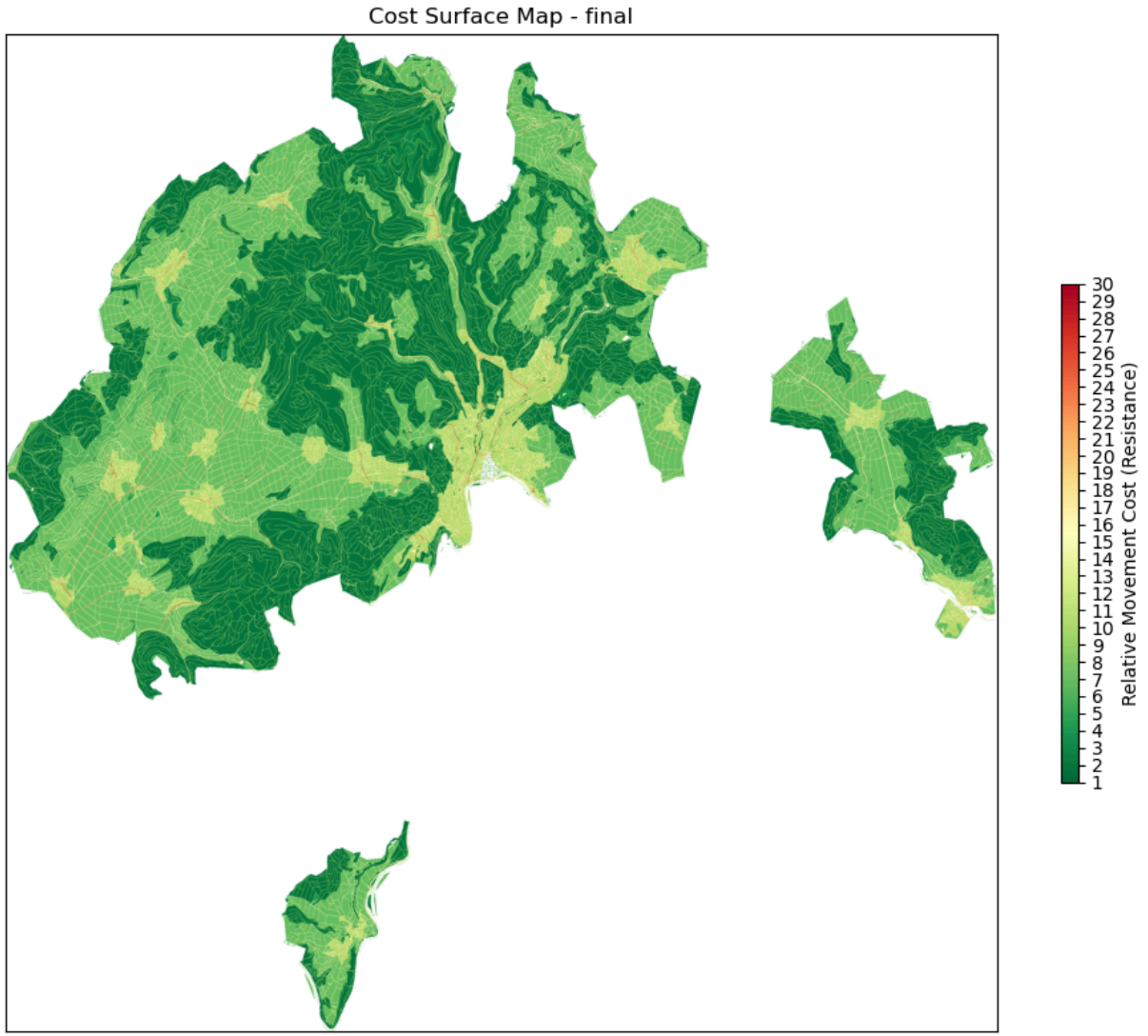
Cost Map of Flooting and Standing water in Schaffhausen

Road Data



Cost Map of Roads in Schaffhausen

First Final Cost Surface Visualization



First Cost Surface of Landcover, Water and Roads

Challenges

SwissTLM3D

SwissTLM3D only offers data for the whole of Switzerland for download.

- Therefore, I had to use additional data from swissBOUNDARIES3D to determine the geographical boundaries of the canton of Schaffhausen and then filter the SwissTLM3D data accordingly.

Corine Landcover

Corine Land Cover has a classification code for land cover types and a separate file with the legend.

- I also had to import the legend and merge it with the land cover data using the classification code.

Combining Landcover

Combining the land cover data was not entirely straightforward, as they use different terminology.

- I have grouped similar landscape descriptions together and created a map of 11 different landscape types.

Cost definition

It is relatively difficult to determine the costs for the different types of landscape, water, and roads.

- I will look for some literature to find standardized costs for the areas.

Next Steps

- Add the Steepness from the SwissAlti3D Dataset as a next Cost Surface to the model.
- Apply Buffer zones around cities or roads.
- Create a clean Code and outsource functions to a seperate Python file.
- Start writing the Report (Introduction, Methods)
- Apply first Least Cost Path Analyses