

Best Practice examples on natural carbon sinks in agriculture

Category: Project / Initiative
Field: Soils / Agroforestry / Peatlands



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Name	Regional Cultural Landscape Management Plan
Country	Germany
Biogeographical Region	Continental
Region	Brandenburg
Landscape/ Eco system type / protected area	Brandenburg-Potsdam Havelgebiet / Waterscape (water-rich cultural landscape)
Size / Scope	See map below
Agricultural Use	Grassland, arable land, orchards
Best-practice / main idea	<ul style="list-style-type: none"> - Preservation of groundwater levels (peatlands, wet meadows and still water bodies) - Peatland and soil management and damming (peatlands) - Promotion of arable fallow land - Preservation and further development of open land areas (dry grassland, arable fallow land) - Preservation and revitalisation of old orchards - Promotion of structural elements (hedges, tree rows, copse)
Involved Stakeholders/ Partners	Farmers, nature conservation organisations, scientific institutions, municipalities

Duration	Sept. 2020 – Dec. 2022, implementation ongoing
Goals	<p>Overall goal: Retaining water within the landscape, conserving the cultural landscape</p> <p>Goal 1: Strengthening of ecosystems</p> <p>Goal 2: Collaboration and communication</p> <p>Goal 3: Formation of agricultural cooperatives</p> <p>Goal 4: Agri-environmental education measures / public relations</p>
How it works/ Activities	4 goals divided into 8 fields of activities
Measures addressing the climate	<ul style="list-style-type: none"> - Retaining water as long as possible within the landscape, especially from winter flooding, at least until April 4th - Establishment of agroforestry systems to improve the microclimate and to protect soil from erosion
Measures addressing biodiversity, water, soil	<ul style="list-style-type: none"> - Soil-conserving farming with protection of insects with use of double-blade mower, mowing height at least 10 cm - Multi-annual flower areas for soil rest, improvement of soil structure and biodiversity
Funding / Financing	<ul style="list-style-type: none"> - European Agricultural Fund for Rural Development (EAFRD) - Agricultural cooperatives project "Kollektive Modelle zur Förderung der Biodiversität" (KOMBI, <i>Collective models to promote biodiversity</i>), funded by the German National Ministry for Environment and regional ministries of participating regions
Transferability	The project measures are transferable to any other region similar to Brandenburg.
Role of Landcare organizations	The Landcare organisation acts as coordinator of the different measures and stakeholders and organises funding for implementing the measures.
Further information	https://www.lpv-potsdamer-kulturlandschaft.de/
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Description

The Regional Cultural Landscape Management Plan (RCLMP) was developed in close cooperation with the project stakeholders in thematic workshops, farm visits, network meetings and guided walks. The plan was one of the outcomes of the project 'Blue Ribbon of the Havel' ("Das Blaue Band der Havel" <https://www.lpv-potsdamer-kulturlandschaft.de/unsere-projekte/blau-es-band-der-havel1>).

Potsdam's cultural landscape has been shaped by a variety of uses and historical influences. The small-scale alternation of extensive lowlands, orchards, farmland and green spaces and the hills and slopes that follow are characteristic of this diversity.

The landscape urgently requires protection because of neglected maintenance of the natural and cultural landscape, intensive agriculture, the increasing pressure of utilisation due to the proximity to the Potsdam-Berlin metropolitan region and the impacts of climate change.

This is where the 'Blue Ribbon of the Havel' project comes in. From September 2020 to December 2022, it was funded by the state of Brandenburg and the European Agricultural Fund for Rural Development (EAFRD).

The joint development of the RCLMP within the network laid the focus on the following priorities:

- Establishing traditional and new agroforestry systems, such as orchards, tree rows, hedges, etc., in the cultural landscape
- Making agricultural use more nature- and environment-friendly without reducing profitability
- Managing partially rewetted peatlands between Potsdam and Brandenburg as CO₂ sinks
- Communicate the near-natural utilisation of landscapes close to settlements through various environmental education measures.

Implementation of the project

During the kick-off event, the importance of agroforestry systems, bog-friendly damming, flowering areas and direct marketing. The opportunities and challenges of the project were also discussed. The subsequent interactive project workshop focussed on 'Water in the landscape'.

Social media was used for accompanying public relations. In addition, guided walks were offered on the topics of agroforestry systems, buckwheat cultivation, and flowering areas.

Two measures were carried out during the project: the buckwheat sowing and the flowering areas. Given the low acreage in the state of Brandenburg, the search continues for alternative crops. Buckwheat is a knotweed plant that thrives on light, sandy to moderately moist soils. An area of buckwheat was sown on the farm of a cooperation partner in April 2021. After a prolonged dry period, nutlets formed. A beekeeper placed his bee colonies at the edge of the field to guarantee pollination of the flowers and harvest honey. Flowering areas are being sown to enable biotope connectivity in the landscape and promote biodiversity. Two different flowering mixtures (each 40% wild flowers / 60% crops)¹ from Rieger-Hofmann were sown in May 2022 on two hectares.

¹ "Blühende Landschaft" – spring sowing mix

"Wildacker – Wilddeckung – Wildäsung" – sowing mix for dry or dry to periodically wet areas

The sowing suffered badly from the drought. The remaining three hectares will now be sown in autumn to benefit from the winter humidity.



Photo: Flowering area, Landschaftspflegeverein Potsdamer Kulturlandschaft, Anne Brandenburger

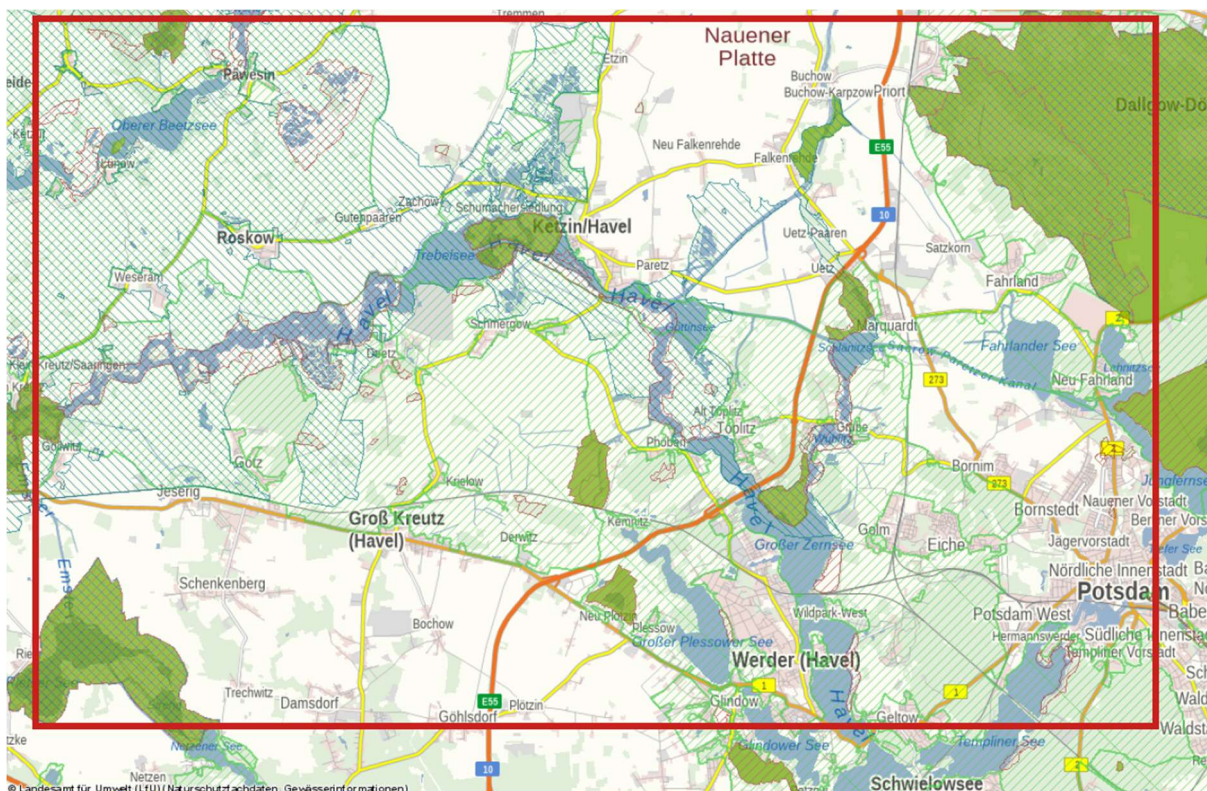
The Regional Cultural Landscape Management Plan (RCLMP)

The RCLMP is an instrument for integrating nature and landscape conservation into the operations of a farm. It is used to design and recommend measures for nature and landscape conservation that are in line with the farm's economic concept. The spatial coverage area is congruent with the core area of the Landcare organisation "Landschaftspflegeverband (LPV) Potsdamer Kulturlandschaft e. V." – extending from the west and north of the state capital of Potsdam via the town of Werder, the municipalities of Groß Kreutz (Havel) and Kloster Lehnin in the district of Potsdam-Mittelmark further north via the town of Ketzin and the municipality of Wustermark in the district of Havelland.

Several potentials of the regions are addressed:

- An important potential of the region lies in the peatlands of the lowlands. A major contribution to climate protection can be made here with peatland-friendly management and damming to create CO₂ sinks.
- The existing wet meadows and standing waters help retain water and are characterised by a high level of biodiversity.
- Dry grassland communities are of particular importance in times of climate change. They provide a habitat for diverse animal and plant species.
- The former strong influence of fruit growing on the cultural landscape can be seen in the old orchards. Today, these serve as stepping stone biotopes in the otherwise intensively used agrarian landscape.

- The Potsdam cultural landscape continues to be structured by hedges, tree rows and copse, which provide a refuge for numerous animal species and protect against wind and water erosion.



Map: Coverage area of the RCLMP, © LfU Potsdam

Conclusion

The RCLMP aims to preserve and enhance the cultural landscape in the region. It provides action recommendations for associations, municipalities and businesses in the agricultural and nature conservation sector. For the "LPV Potsdamer Kulturlandschaft", it represents a guideline for future land use and for the implementation of agri-environmental measures over the next ten years. In the course of the 'Blue Ribbon of the Havel' project, possible measures were collected and prioritised. Short-term measures, such as the creation of flowering areas, are implemented within the first 1-3 years. Medium-term measures planned for the following 3-6 years include the establishment of agroforestry systems. Peatland protection measures are mentioned as long-term measures to be implemented in 5-10 years.

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