

Integrated agroforestry, grassland, and livestock systems







Geographical scope:

Bavaria, Germany (Swabian Donaumoos region)



Organisation name: Institute for Rural Development Research, Swabian Donaumoos Association (ARGE Donaumoos)



Number of participating farmers: Approximately 20 farmers actively involved



Total budget: MIXED project Funding: Horizon 2020

A bit more about the Case Study

The Case Studyintegrates agroforestry practices with grassland management and livestock rearing to create productive and environmentally beneficial systems. The project focuses on combining fruit orchards, forest meadows, and livestock systems to promote ecological balance, reduce soil erosion, and improve biodiversity

Haus Bollheim is an excellent example how sustainable mixed farming systems are. The bio-dynamic farm combines milk production, laying hens, arable farming and vegetable growing. All milk is processed on the farm and a baker bakes the cereals. Most of the vegetables are marketed directly and regionally

The participating farms test and adapt mixed farming practices while addressing challenges such as profitability, data collection, and policy alignment. Key activities include increasing tree cover, optimizing pasture management, and engaging stakeholders



Highlights



Successfully implemented a 100-hectare grazing concept on re-wetted peatland, enabling farmers to receive subsidies while restoring ecosystems



Developed new value chains through paludiculture, turning wetland crops like Carex into biodegradable products and sustainable building materials



Strengthened collaboration between farmers, policymakers, and industry, securing funding for climate-friendly farming and peatland conservation initiatives

Website and project information

http://projects.au.dk/mixed/netw orks-national-teams/germany/

https://projects.au.dk/mixed/



Key outcomes and insights

Innovative features

The case study introduced unique approaches, such as integrating fruit orchards with livestock and implementing scattered tree systems in pastures. By fostering synergies between agricultural and natural components, the farms increased efficiency while maintaining ecological balance. Additionally, tailored grazing concepts, such as using forest meadows for large animals, were developed to adapt to local environmental and production challenges

Environmental and socio-economic benefits

Rewetting and paludiculture restore ecosystems, enhance biodiversity, and sequester carbon, reducing CO2 emissions from degraded peatlands. Farmers gain financial stability, infrastructure support, and access to new markets, making sustainable practices profitable. Eco-friendly industries, such as biodegradable materials and construction, benefit from wetland products, creating jobs and strengthening local economies

Good practices & Lessons learned

Problem 1. Profitability of moor-friendly farming

Farmers face economic insecurity when transitioning to climate-friendly peatland management due to low profitability and undeveloped markets for wetland products



Solution 1. Establish financial incentives, develop new value chains for wetland products, and strengthen connections between farmers, policymakers, scientists, and industry to ensure long-term economic viability

Problem 2. Soil damage due to grazing

Grazing heavy animals on wet peatland can cause soil damage, raising concerns about increased greenhouse gas emissions and long-term sustainability



Solution 2. Implement optimized grazing concepts, monitor soil carbon levels and greenhouse gas emissions, and adjust land-use practices to balance ecological benefits with sustainable livestock management

Problem 3. Limited access to grazing land

Farmers lack access to sufficient land for extensive grazing, and high infrastructure costs make pasture management challenging



Solution 3. Develop designated grazing areas in nature reserves, provide infrastructure support, and implement monitoring programs to ensure sustainable land use and animal welfare

Problem 4. Farmer participation and engagement

Low farmer participation in events and limited awareness of new farming opportunities hinder the adoption of sustainable practices



Solution 4. Organize farmer-focused events with practical demonstrations, leverage existing agricultural forums, and provide clear information on financial and regulatory benefits to encourage engagement











