Best Practice examples on natural carbon sinks in agriculture

Category: CAP measure

Field: Agroforestry

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Name	**CAP measure for Agroforestry**
Country /Region	Czech Republic
Biogeographical Region	Continental, Pannonian
Size / Scope	In 2023-2024 the total area of established agroforestry systems was 1,750 ha within CAP.
Agricultural Use	Arable land and grassland eligible for CAP support and registered in the Land Parcel Information System (LPIS) (3,5 million ha).
Best-practice / main idea	Establishment of silvoarable and silvopastoral systems on agriculture land
Involved Stakeholders/ Partners	Farmers, municipalities and research/academic institutions
Duration	Since 2023
Goals	Planting of new silvo-arable or silvo-pastoral systems to increase the resilience of agricultural land to climate change, protection against erosion, biodiversity and diversify of agricultural income.

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How it works/ Activities	Farmers are obliged to fulfil the following conditions: • Notification: total size of land on which the AFS will be established, announced by 15th of May • Application for an establishment subsidy: - Until 30 November in the year when the AFS was established/planted - Parcel list, incl. culture in LPIS: standard arable land (R), grass cover on arable land (G), permanent grassland (T) - Agroforestry project incl. map of agroforestry design and documents on the origin of the trees - Approval opinions, permits by the Nature conservation agency • Application for inclusion in management subsidy: - Along with the request for an establishment subsidy - For 5 following calendar years • Application for subsidy for the following management - Together with annual single request by 15th of May (year after establishment) • Applicant: Land users registered in LPIS, minimum for entry 0.5 ha, all Czech regions except Prague • There is the strict rule to plant maximally 100 trees per ha in spring or autumn. Of those trees, more than 50 % have to be the forest ones, presenting at least three tree species. There is a limit of maximum 40 % for one species. • Farmers have to choose from the list of permitted trees (46 forest + 13 fruit trees) and list of permitted shrubs under trees (these are not calculated). • Minimal height of trees is 120 cm • 75% of viable individuals, 5 years after the establishment • Planting at arable land in lineages with width 1-10m and distance between lineages 10-100m
Measures addressing the climate	Integrating trees and shrubs on agricultural land will increase carbon storage through carbon sequestration in the plants and the soil in the long term. Planting trees will also increase water retention and improve the microclimate by supporting a small water cycle. On arable land, trees (and potentially shrubs) are planted in lineages up to 10 m wide. If these lineages are optimally placed in fields, this is an optimal measure against water and wind erosion.

Measures addressing biodiversity, water, soil	There are many benefits from agroforestry into the biodiversity, water and soil, both for the farmer and for society: Soil: - Improving soil structure: Tree leaves and organic matter from leaf litter enrich the soil with humus, which improves its structure and permeability to water and air. - Trees, with their roots and above-ground parts, protect the soil from water and wind erosion. - Fallen tree leaves decompose and release nutrients into the soil, increasing its fertility. - Trees provide shade and regulate temperature, which benefits crop growth and reduces the negative effects of extreme temperature fluctuations and impact of storms. Water: - The root systems of trees help retain water in the soil, which is especially important during dry seasons. It also supports natural infiltration. - Agroforestry systems promote water evaporation from plants and soil, which increases air humidity and contributes to the local water cycle. - Better water infiltration and reduced surface runoff reduce the risk of floods and inundations. Biodiversity: - Agroforestry creates a more diverse environment that supports the development of different species of plants and animals, including soil microorganisms, contributing to a healthier ecosystem. - Trees and shrubs in agroforestry systems provide shelter and food for birds, insects, mammals, and other animals. - Agroforestry systems can provide important sources of food and shelter for pollinators such as bees and butterflies.
Funding	CAP support: 1) investment measure for establishment of the agroforestry system is 4,353 EUR/ha,

	2) 5-year payment for its regular maintenance is 754 EUR/ha/year. Also, the measure is established by a government decree and is a claim measure, so all who fulfilled conditions will receive subsidy.
Transferability	Agroforestry systems have been developed in all European regions – these experiences can be shared and used for further development of the system. Theese experiences have been used when the Czech measure for agroforestry was designed and it seems, that conditions including sufficient payment level were set up well, as general interest of farmers to join the measure has overcome the expectations (the total area was expected to be 900 ha at the end of the programming period). Despite some technical details, that could be improved (e.g. higher flexibility of planted trees, or more flexibility in combination of different measures), the overal system has proven to be acceptable for farmers.
Role of Landcare organizations	Landcare organisations can advise and guide farmers in implementing agroforestry systems on their land to maximise soil, water and biodiversity objectives. They can also support the integration of best practices into policy (CAP) or legislation.
Further information	https://agrolesnictvi.cz/
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