



# Re-introducing agroforestry in the Czech agriculture through a cooperative project

Chládová Anna<sup>1</sup>, Bohdan Lojka<sup>1</sup>, Jan Weger<sup>2</sup>, Antonín Martiník<sup>3</sup>, Jana Krčmářová<sup>4</sup>, Péter Szabó<sup>5</sup>, Jaroslav Šebek<sup>6</sup>

<sup>1</sup>Czech University of Life Sciences Prague, Faculty of Tropical AgriSciences, Department of Crop Sciences and Agroforestry, 165 00, Prague, Czech Republic, <sup>2</sup>Silva Tarouca Research Institute for Landscape and Ornamental Gardening, Department of phytoenergy, 252 43, Průhonice, Czech Republic, <sup>3</sup>Mendel University in Brno, Faculty of Forestry and Wood Technology, Department of Silviculture, 61300, Brno, Czech Republic, <sup>4</sup>Czech Academy of Sciences, Institute of Ethnology, 110 00, Prague, Czech Republic, <sup>5</sup>Institute of Botany of the Czech Academy of Sciences, Department of Vegetation Ecology, 602 00 Brno, Czech Republic, <sup>6</sup>Association of Private Farming of the Czech Republic, 110 00, Prague, Czech Republic

## Introduction

In the Czech Republic, industrialised agriculture is predominantly practiced. Intensive and industrial agriculture is able to provide sufficient agriculture products to supply high demands; however, it has a number of adverse effects on the environment such as, soil erosion and compacting, loss of biodiversity, reducing landscape functionality, breaking local nutrient and energy cycles, etc. (Fraňková and Cattaneo 2017). Agroforestry systems (AFS) entails an option that can minimized these negative effects, and can provide more diverse and sustainable production systems. Agroforestry as an agricultural practice in the Czech Republic is being forgotten and left behind even though they were past reports in the Czech countryside (Krčmářová and Jeleček 2017). This traditional agroforestry practice did not survive the countries agricultural industrialisation (Krčmářová and Jeleček 2017), and hence, it is scarcely practice or taught nowadays. Re-introduction of agroforestry as a sustainable agricultural practice among Czech farmers, technical background and research on its implementation is needed.

## Agroforestry in Czech Republic: potential for regional development and sustainable rural landscape

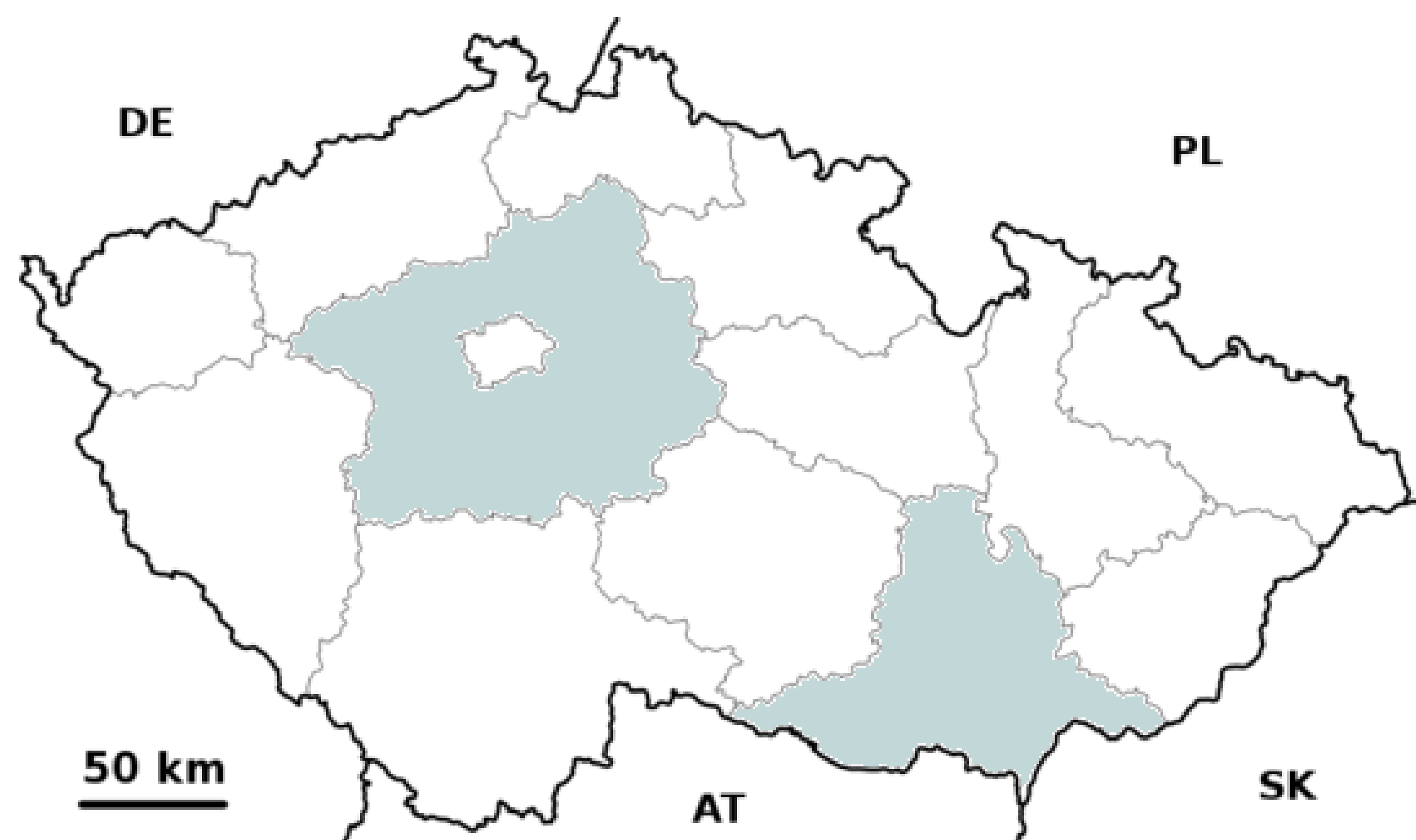
**Project funded by the Technology Agency of the Czech Republic**

**Duration:** 3/2018 – 12/2020

**Budget:** 13,400,000 CZK (approx. 530,000 EUR)

Cooperation of Czech research institutions and Association of Private Farming

Target areas are contiguous arable lands with intensive agriculture in the Central Bohemia and South Moravian Region (highlighted on the map)



**Aims of the project:**

- Evaluating the benefits and constraints of using AFS in Czech Republic
- Primary focus on socio-economic, legislative and environmental context

**Methodology:**

The AFS benefits on the agricultural land will be evaluated based on detailed literary reviews, socio-ethnological surveys, production and economic data gathered from farmers. Also, legislative constraints and subsidy opportunities will be analyzed.

## Outputs of the project

Certified methodology for farmers

practical steps for implementation of Agroforestry systems in Czech Republic

Summary Research Report

Scientific publications

### References:

Fraňková E, Cattaneo C, in Socio-Metabolic Perspectives on the Sustainability of Local Food Systems, 2017, Fraňková E, Haas W, Singh SJ, 193-230, doi: 10.1007/978-3-319-69236-4

Krčmářová J, Jeleček L, 2017, Agroforest Syst, 1087–1100, doi: 10.1007/s10457-016-9985-0

**T A** Links: [agrolesnictvi.cz](http://agrolesnictvi.cz); [facebook.com/agrolesnictvi/](https://facebook.com/agrolesnictvi/)

**Č R** Contacts: Bohdan Lojka, tel. +40 734 170 763, [lojka@ftz.czu.cz](mailto:lojka@ftz.czu.cz)

**Founding:** Technology Agency of the Czech Republic (ETA programme, TL01000298)



Some examples of traditional or newly established agroforestry plots in Czechia. A) Agro-silvicultural AFS in Drnovice. B) Silvopastoral AFS near Kutna Hora. C) Newly established agroforestry research plot "Michovka" in Průhonice. D) Silvopastoral AFS, Milešovka.