

Multifunctional agriculture in Czechia: non-commodity production or integral part of rural development?

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Introduction

▶ Main aim

- ▶ Evaluation of multifunctional agriculture in Czechia based on different conceptualisation in regional perspectives

▶ Research question

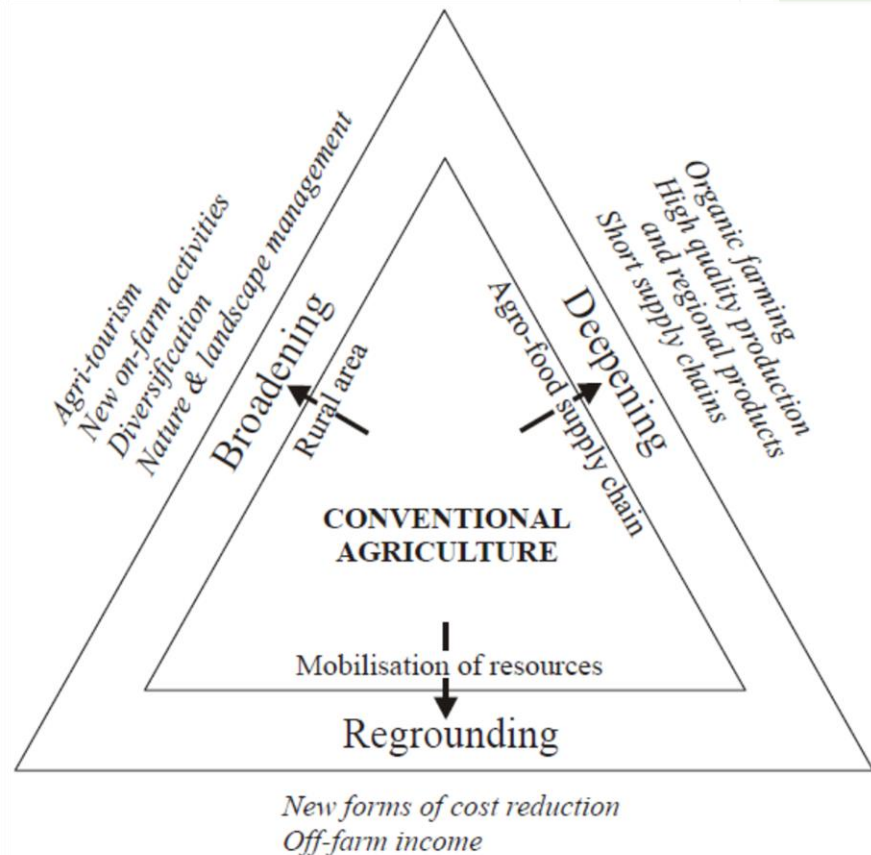
- ▶ What conceptualisation of multifunctional agriculture (Multifunctional agriculture as non-commodity production; Multifunctional agriculture as integral part of rural development) does represent the prevailing direction of development of Czech agriculture and rural space?
- ▶ Is multifunctional agriculture spatially differentiated according conditions of area for agriculture?
- ▶ Empirical evaluation of multifunctional agriculture development
- ▶ Spatial analysis of multifunctional agriculture activities

Conceptualisation of multifunctional agriculture as non-commodity production

- ▶ Multifunctional agriculture fulfil both of the commodity and non-commodity character of agriculture (OECD 2001)
- ▶ Agriculture does not only produce food and fibre, but it also shapes the landscape and biodiversity (Renting et al. 2008)
- ▶ Non-commodity functions of agriculture are associated with the landscape management ➡ extensive suckler cows and sheep farming
- ▶ Public support
 - ▶ Started before the EU entry
 - ▶ After the EU entry implementation of Agri-environmental measures (AEM) ➡ increase of subsidy

Multifunctional agriculture as integral part of rural development

- ▶ Multifunctional agriculture can be a source of rural development (Van der Ploeg and Roep 2003), or plays the central role in rural development (Van der Ploeg et al. 2000)
- ▶ Van der Ploeg and Roep (2003) have introduced a comprehensive classification of the activities with a reach outside the conventional agriculture
- ▶ Support for this activities was implemented in period 2007 - 2013 by Rural Development Program (RDP) (e.g. Measure for farm diversification, agritourism, etc.)




Source: Van der Ploeg, Roep 2003

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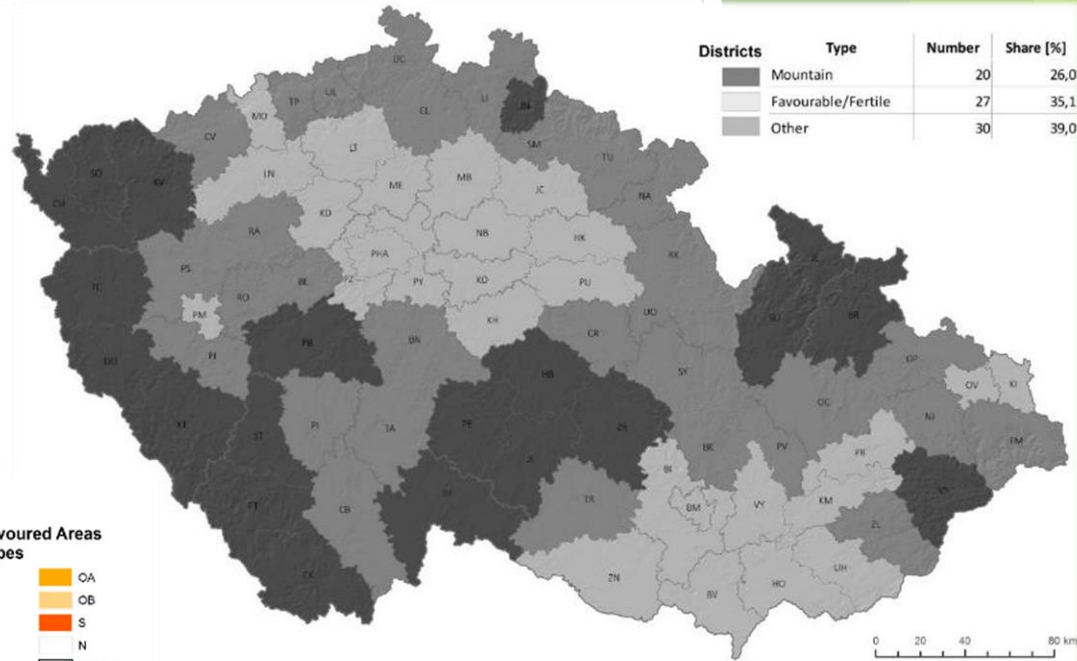
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Methodology

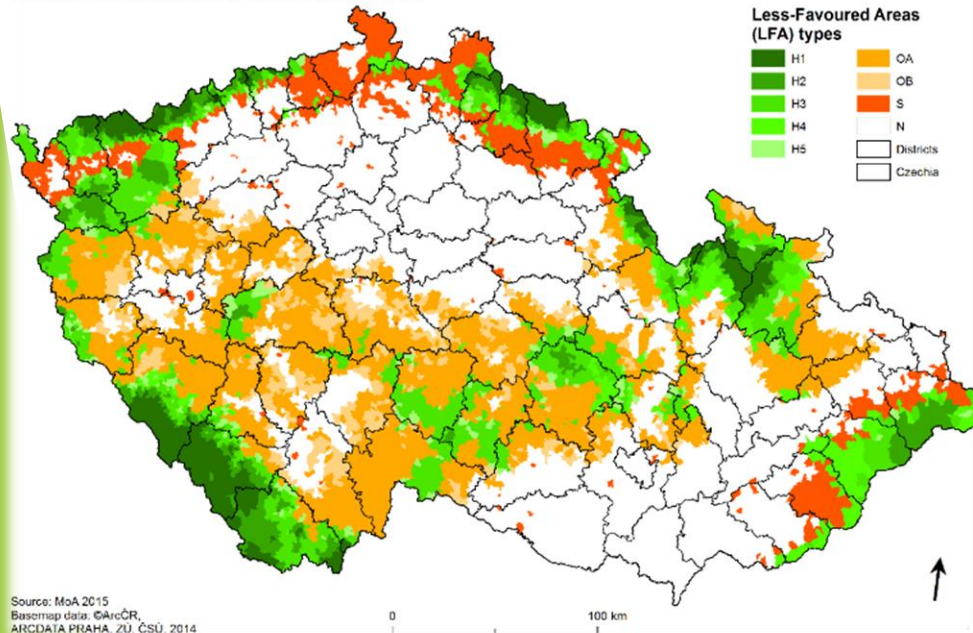
- ▶ Quantitative methodology based on the agricultural statistics (CSO), SAIF data, Czech Biogas Association data, databases of agritourism and MoA data
- ▶ Geographical approach  spatial issues (Gini index, coefficient of variation, indicator of territorial inequality, typological classification)

Conceptualisation of multifunctional agriculture		Indicator	General point of view	Spatial point of view
Non-commodity production		Permanent grassland		CSO, 2010
		Suckler cows		CSO, 2010
		Sheep		CSO, 2010
Rural development	Broadening	On-farm renewable energy production/Agricultural anaerobic digestion plants	CSO, 2013	CZBA, 2013
		Tourism activity/Agritourism		Konečný, 2014
	Deepening	Organic farming		MoA, 2013

Regional differentiation according to the LFA: typological classification



Less-Favoured Areas in Czechia according to the types Mountain Areas (H1-H5), Other (OA-OB), Specific (S)

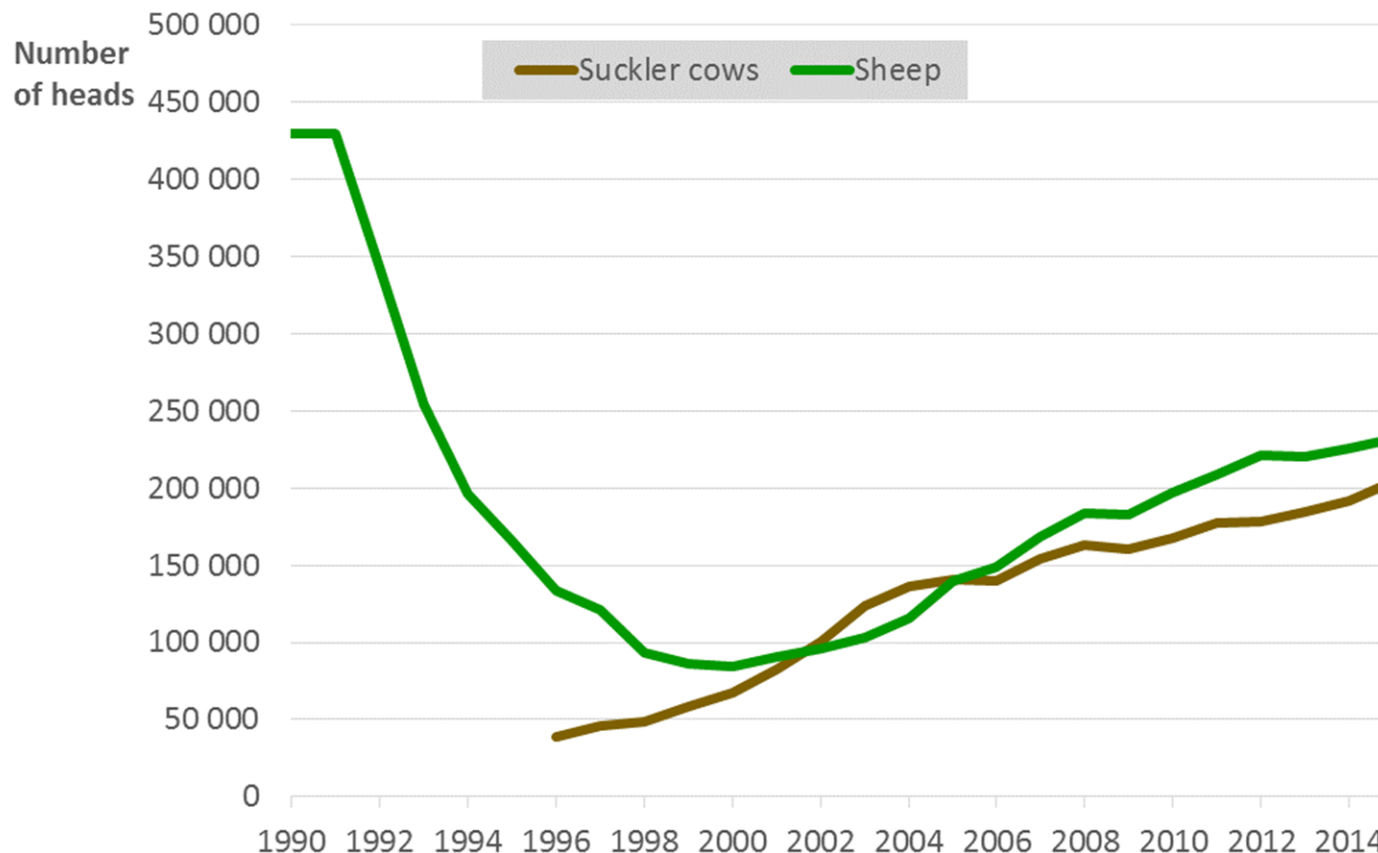


Multifunctional agriculture as non-commodity production



Development of multifunctional agriculture as non-commodity production

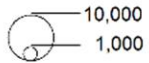
- ▶ Increase of permanent grassland from over 657,307 ha in 1995 to over 960,000 ha in 2013 (more than 45 %)
- ▶ Increase of suckler cows and sheep breeding



Source: CSO

Regional differentiation of suckler cows breeding

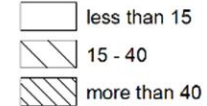
Suckler cows (number of heads)



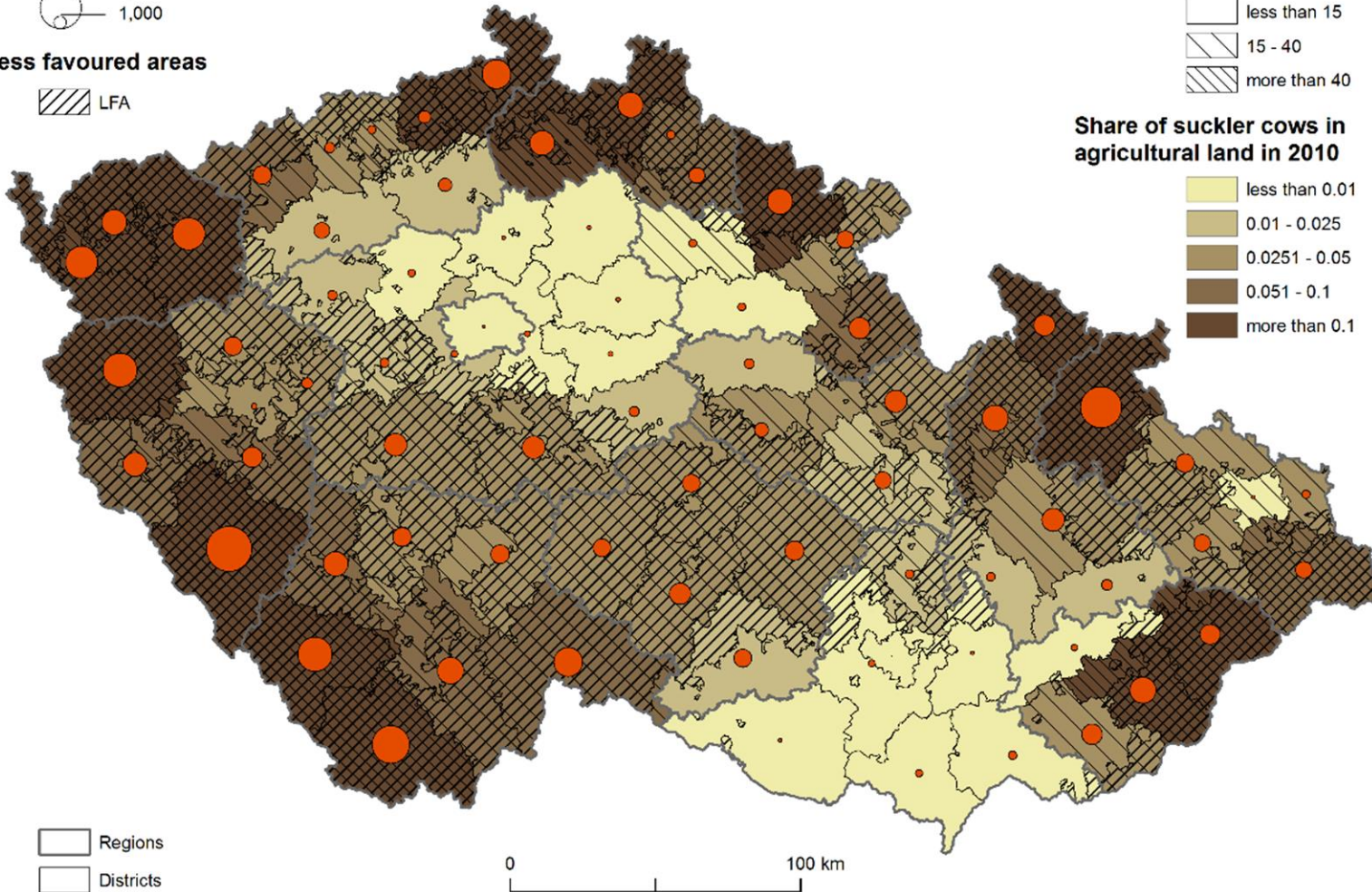
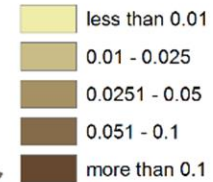
Less favoured areas



Share (%) of permanent grassland in agricultural land in 2010

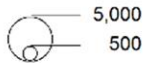


Share of suckler cows in agricultural land in 2010



Regional differentiation of sheep breeding

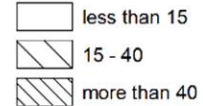
Sheep (number of heads)



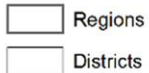
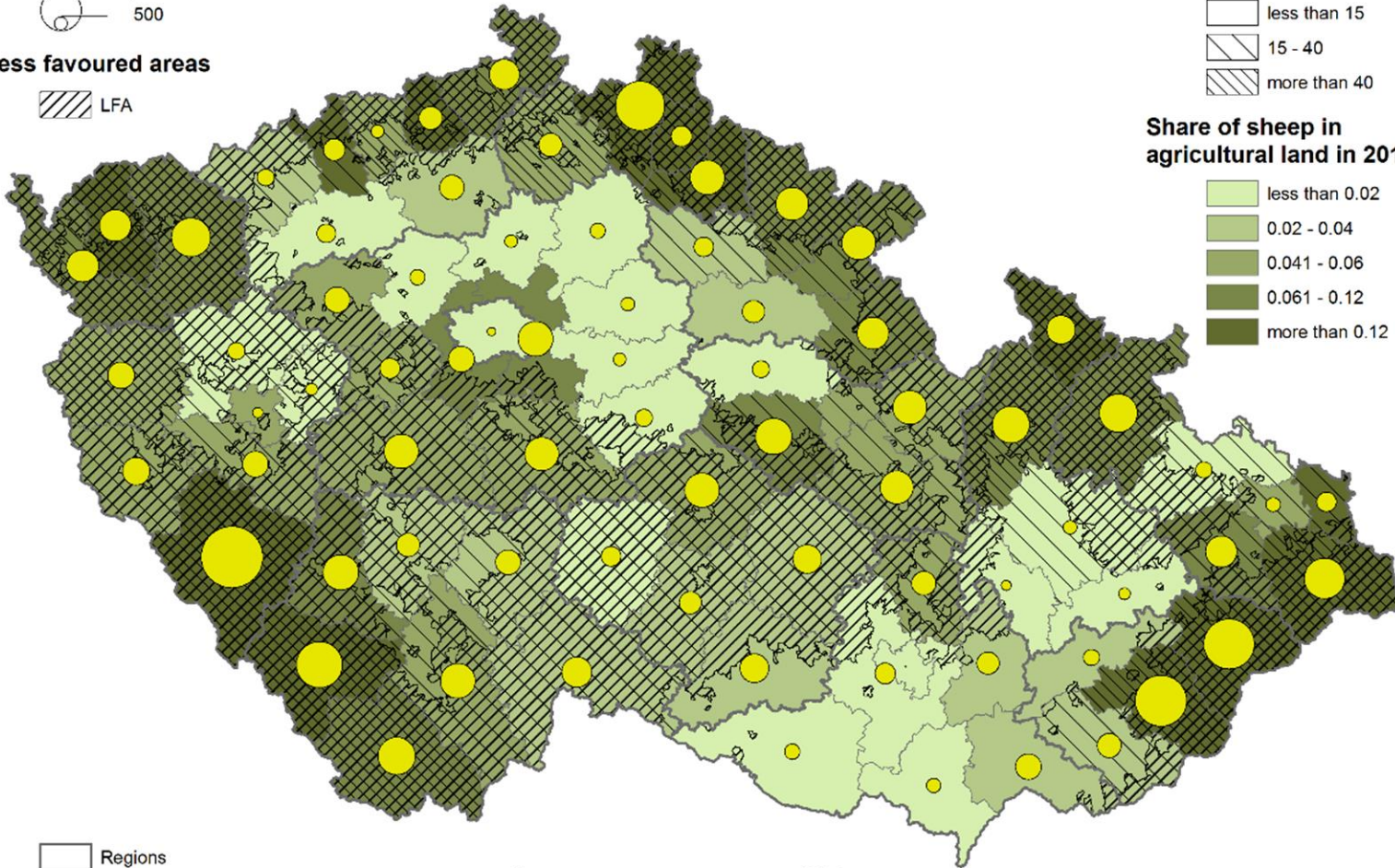
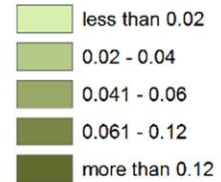
Less favoured areas



Share (%) of permanent grassland in agricultural land in 2010



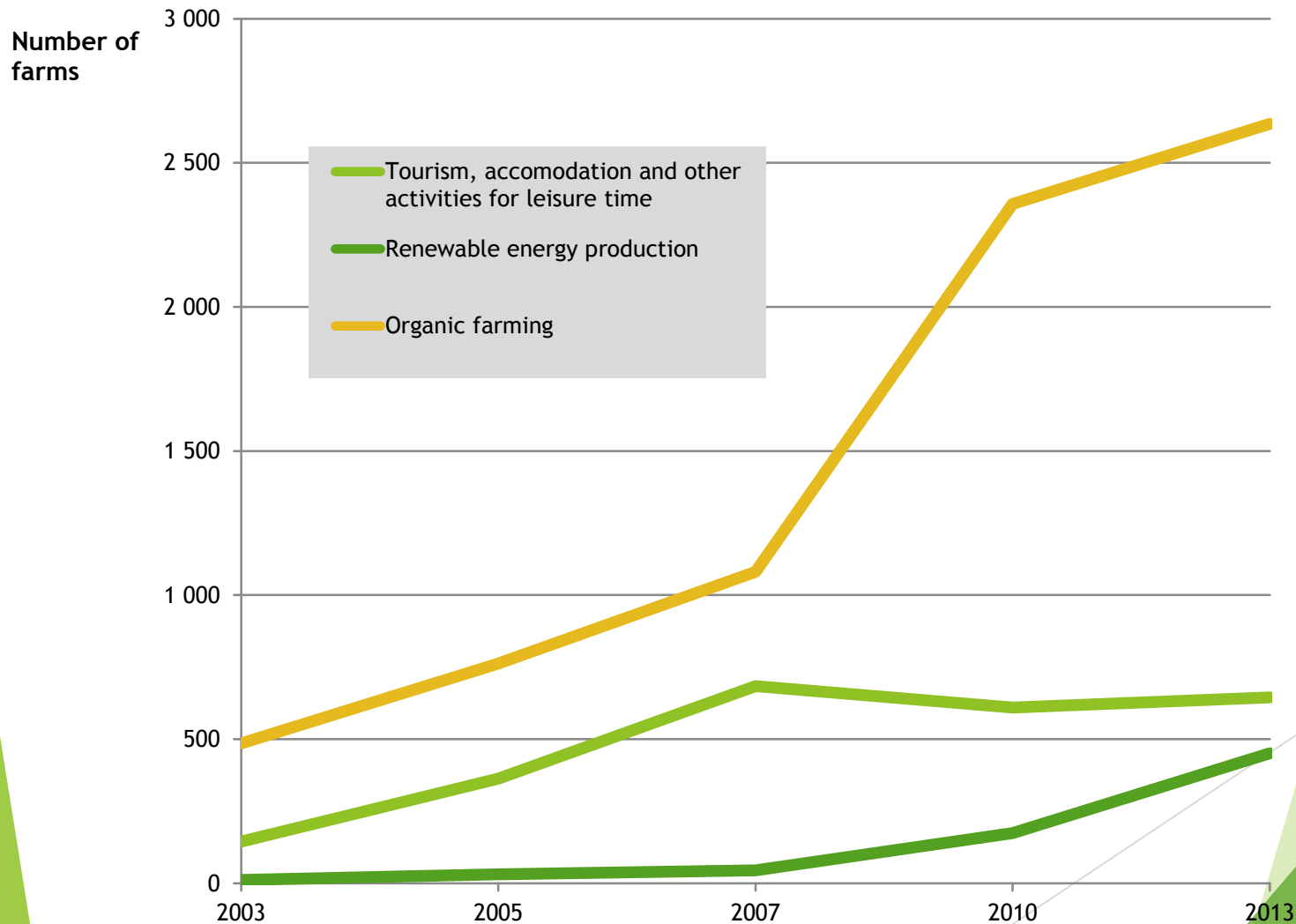
Share of sheep in agricultural land in 2010



Multifunctional agriculture as integral part of rural development



Development of multifunctional agriculture as integral part of rural development

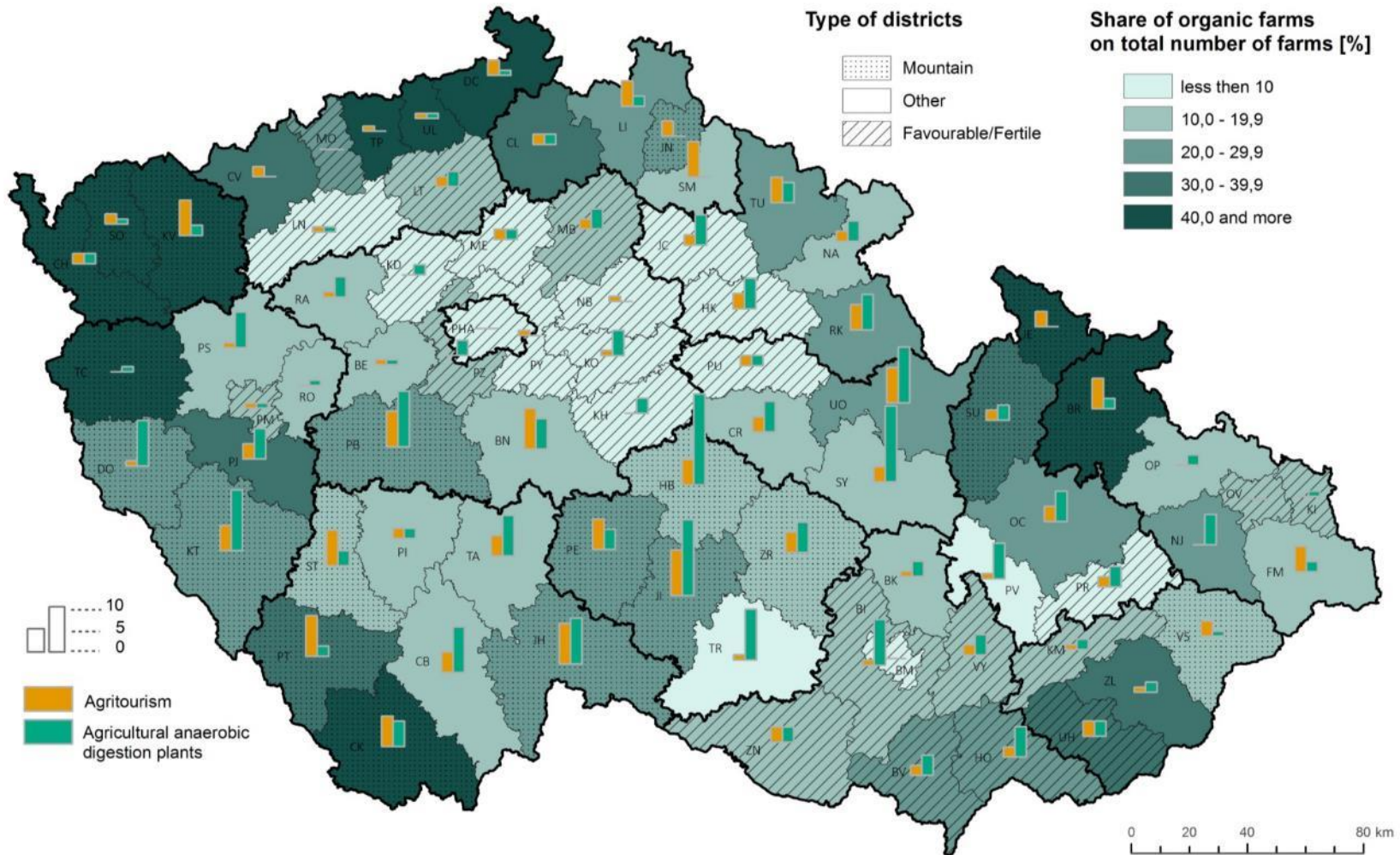


Source: CSO, Farm Structure Survey

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Regional differentiation of characteristics associated to multifunctional agriculture as integral part of rural development



Non-commodity production or integral part of rural development? General

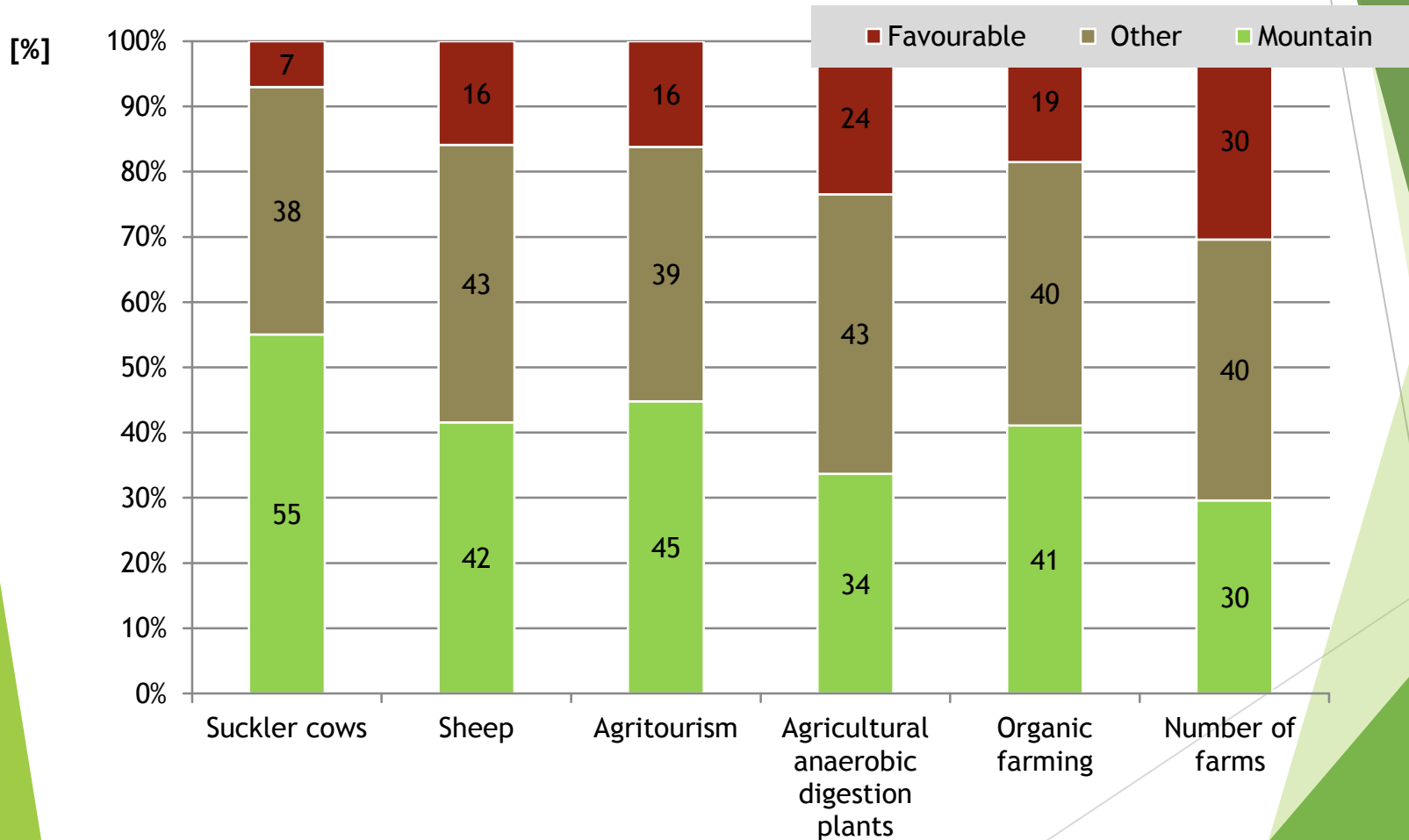
	2013	Number of farms
Non-commodity production	Suckler cows	7,596
	Sheep	15,898
Integral part of rural development	Agritourism	645
	On-farm renewable energy production	451
	Organic farming	2,635
The total number of farms (SAIF, 2010)		24,596

Source: CSO, 2013; SAIF, 2010; MoA 2013

Non-commodity production or integral part of rural development? Spatial pattern

	Variation coeff.	Gini coeff.	Indicator of territorial inequality
Suckler cows	107,2	0,53	12,9
Sheep	85,2	0,43	20,5
Agritourism	87,3	0,47	29,5
Agricultural anaerobic digestion plants	94,9	0,49	28,2
Organic farming	65,8	0,37	29,3
Number of farms	51,0	0,28	28,0

Non-commodity production or integral part of rural development? Spatial pattern - condition for agriculture



Thank you for attention

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