

Methodology, Parameters and Criteria for Determination of the LFA in the Czech republic

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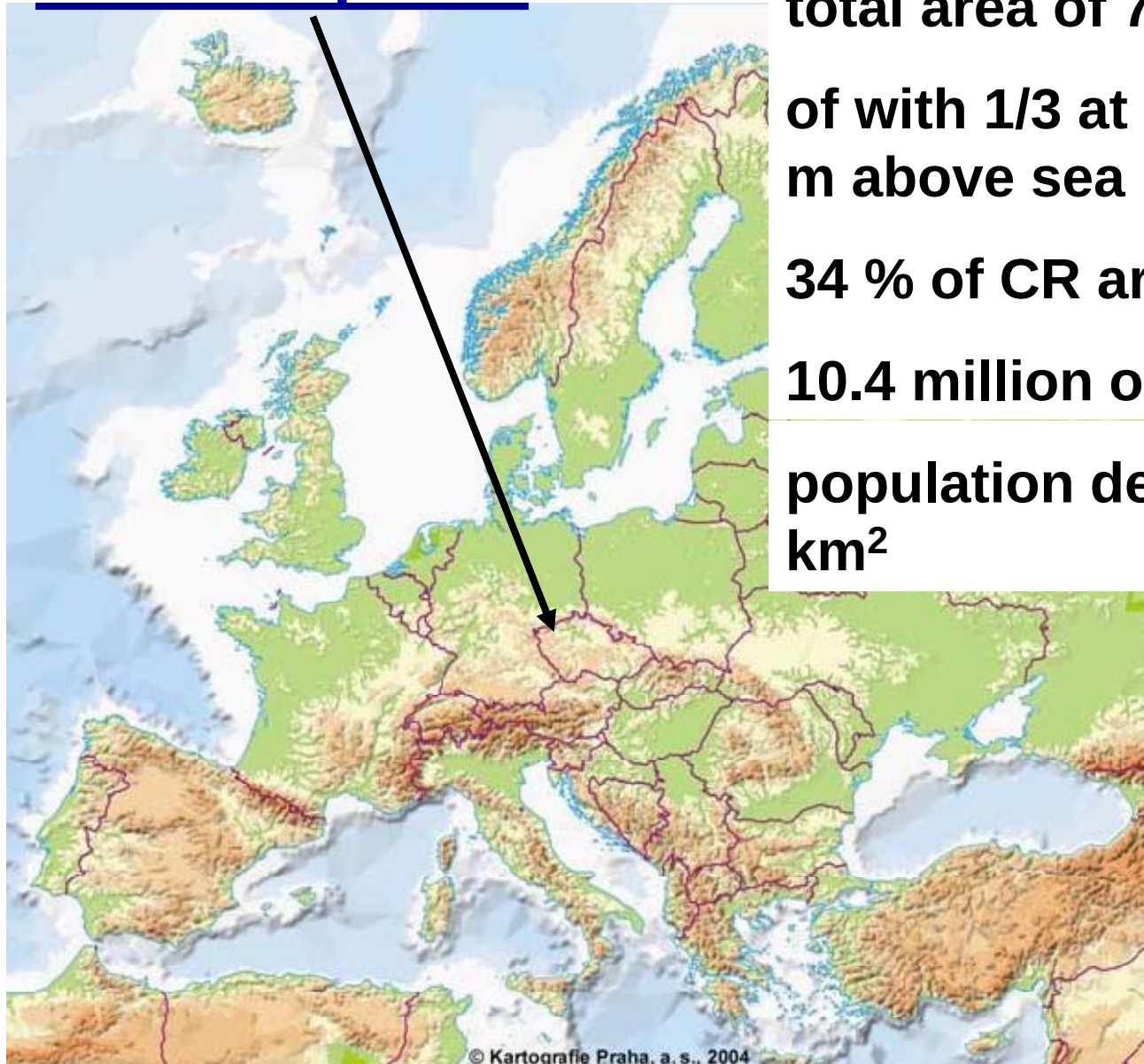


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Content

- ✓ **General information on CR**
- ✓ **History of LFA support**
- ✓ **Delimitation of LFA at the time of entry into EU**
 - **Experiences**
- ✓ **How we used new criteria for Other LFA**

Czech Republic



total area of 78 860 km²

of with 1/3 at an elevation > 500 m above sea level.

34 % of CR area is forest

10.4 million of inhabitants

population density 131 inh. per km²

Agriculture in the CR

Agricultural land	4. 3 million ha
Share of agricultural land	55 % of CR area
UAA registered in LPIS	3,5 mill ha
Share of grassland	26 % of UAA
Share of agriculture on GDP	2,3 %
Agriculture on total employment	
dropped from 11.6 % in 1991 to 3 % in 2009	

Average size of farm 89 ha

Wages in agriculture	73 % of CZ average of other branches
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History of LFA support in CR

Until 1990

Supplement to a fix prices – negative impact on environment
- high living standards in rural areas

1991- 2001

LFA without support

debts and bankruptcy

reduction of animals (more than 50 %)

abandoned agricultural land in some regions (40%)

negative impact on the countryside

LFA support: pre-accession period

2001

First definition of LFA in the CR - decision of the minister, our institute was charged with this task .

Difficulty to find information – Brussels – refer to council regulation
mountain areas – we understand criteria, lack of data

Other than mountain – point system (Germany, Austria) lack of knowledge
how to use

Result:

LFA was 60 % of UAA

Similar but not identical to CR1257/1999

Very scattered picture a lot of troubles in practice

We learned

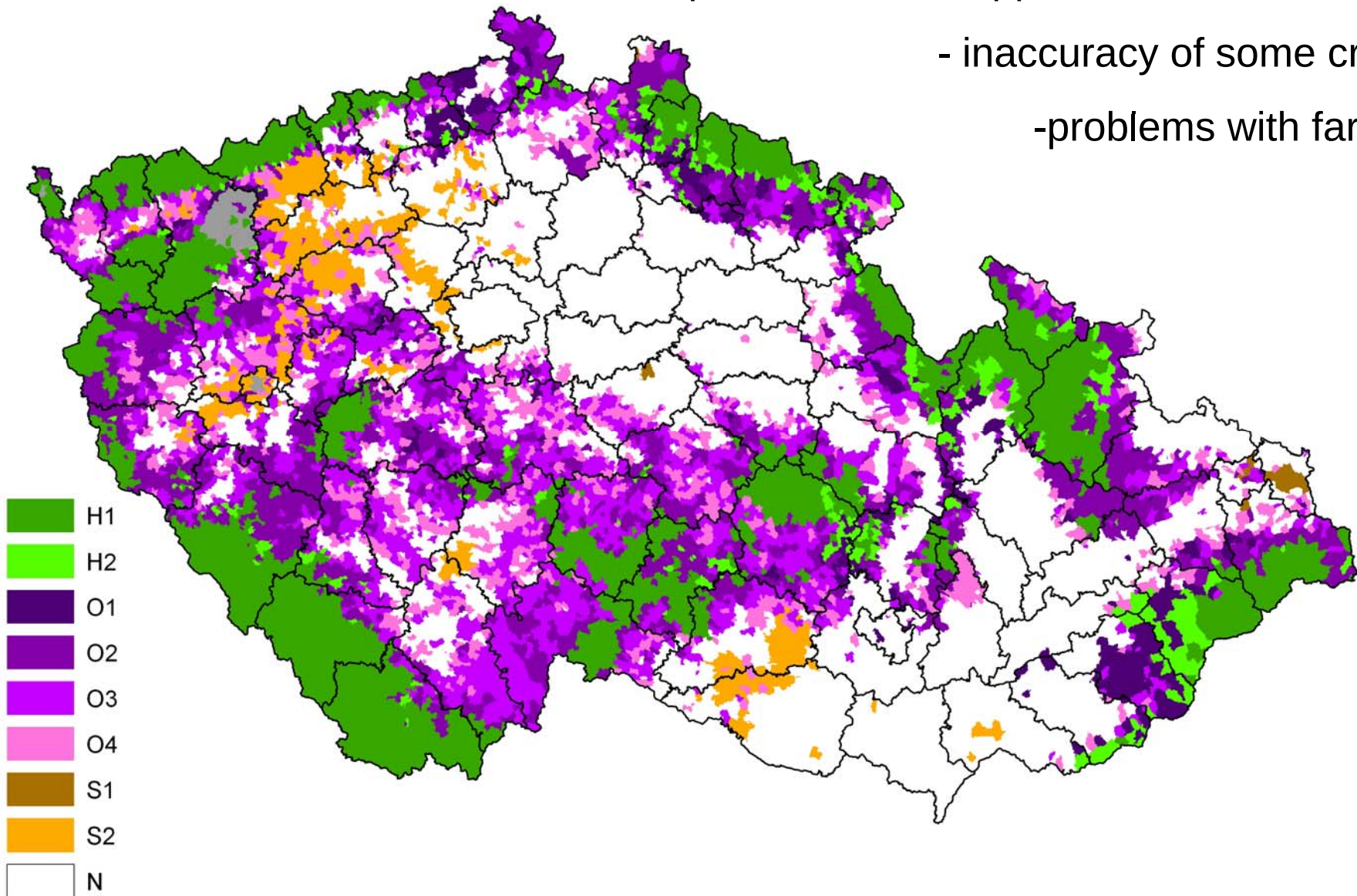
+ a positive impact on land use

+ we gained experience in LFA delimitation

+ experience in the application of the measure

- inaccuracy of some criteria

- problems with farmers



LFA after accession to EU - 2004

2 years of business trips to gain information

France, Germany – Bavaria, Saxony, Austria

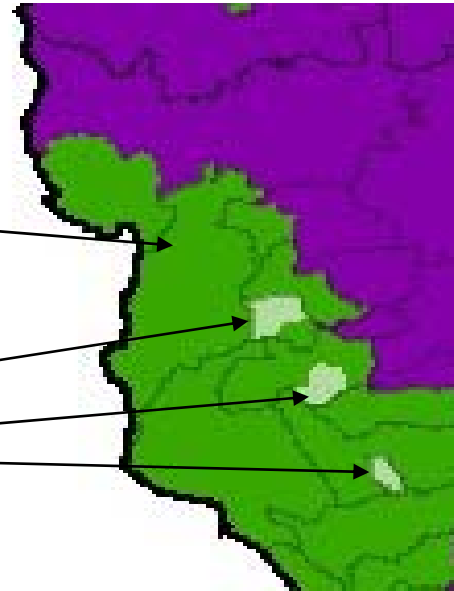
Mountain areas

(Austria, > 600 m altitude, combination 500-600 m + slope >15% >50% area.
Germany – not necessary solely high slope

How to apply?

Communes - fulfil the criteria

Communes - not fulfil the criteria



LFA after accession to EU - 2004

Other LFA – index system (Austria, Germany, Slovakia, Poland, ...)

code of Quality Evaluated Soil-ecologic Unit (BPEJ)

X	XX	X	X
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- x code of climatic region (0 – 9)
- xx code of the main soil unit (01 – 78)
- x code of slope and exposure (0 – 9)
- x code of coarse material content and soil depth (0 – 9)

Soil productivity is expressed by an index ranging from 6 to 100 points.

National average soil productivity score in the CR is 42.2 points.

Other LFA - productivity index of area < **80 %** of national average.

Population density below 75 persons per km², workers in agriculture more than 8% of economically active population.

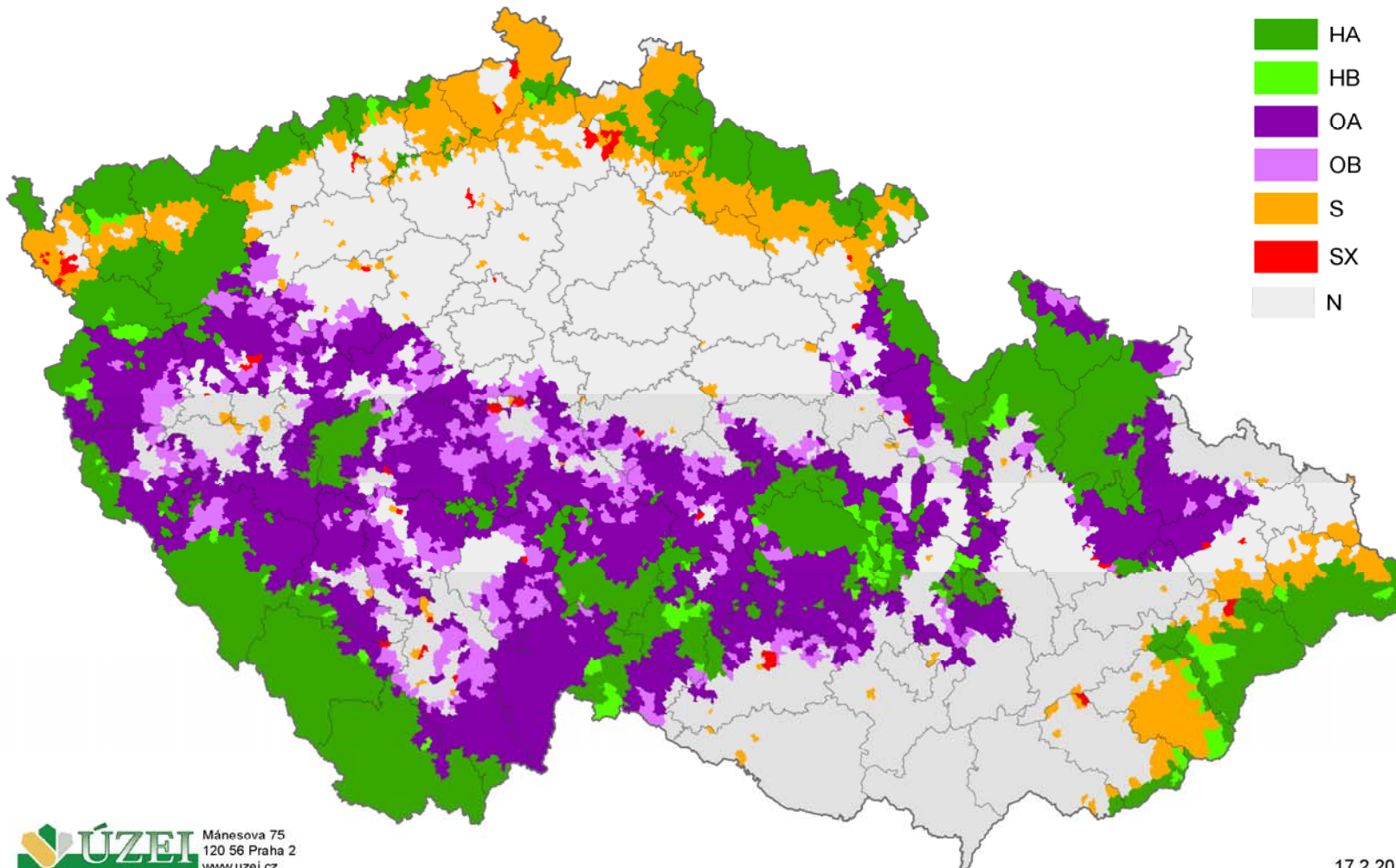
Areas with **specific handicaps** – soil of low fertility - sub mountain on the northwest and east of country – specific history, former state farms

LFA 2010

51 % of UAA is LFA (15 % M, 29% O, 7% S)

Vymezení LFA pro aktualizovaný PRV 2010

Kategorizace LFA



LFA for the next programming period

Common Bio-Physical Criteria for Other LFA definition in the Czech Republic

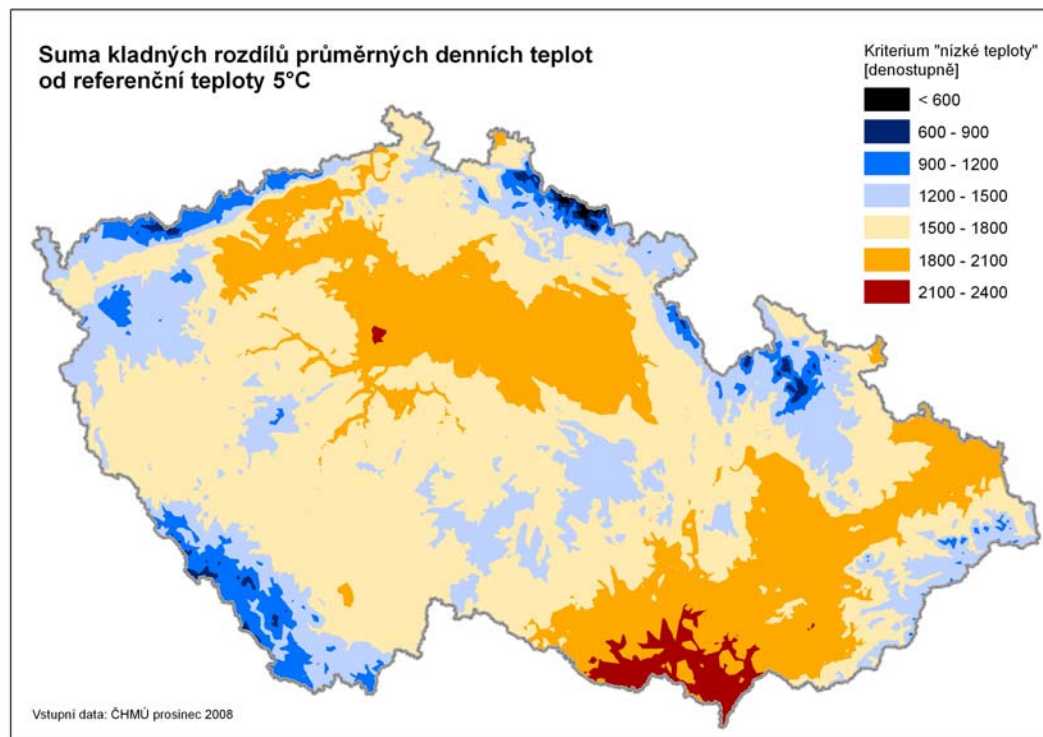
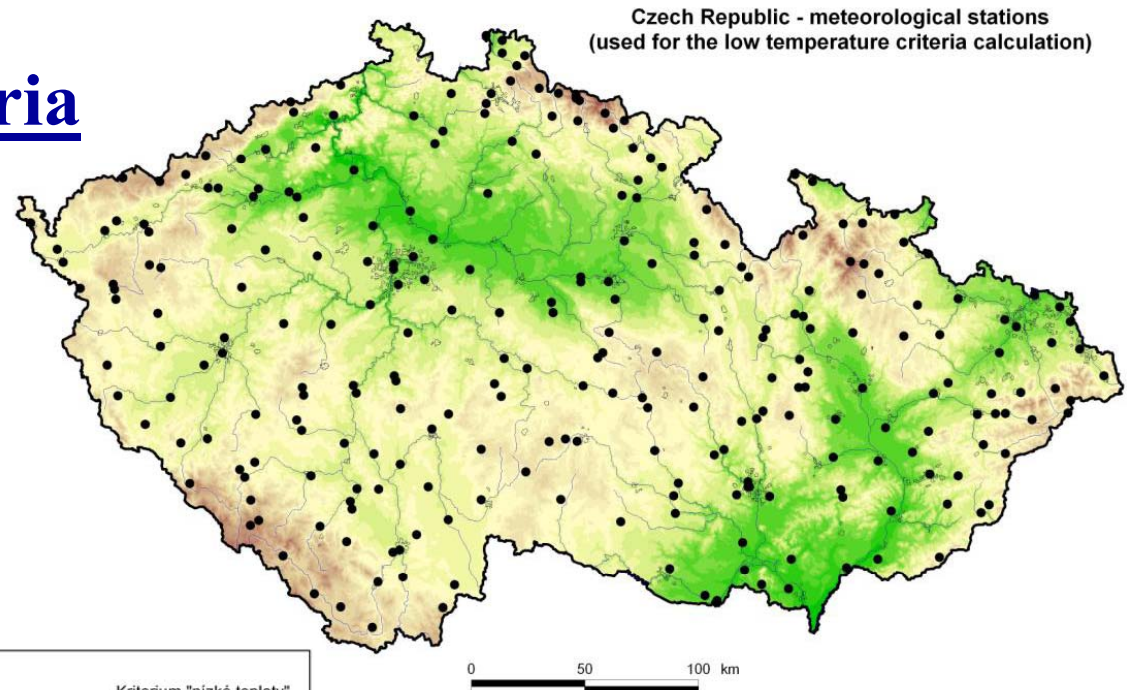
Low temperature	Thermal-time sum - accumulated daily average temperature $> 5^{\circ}\text{C}$ ≤ 1500 degree-days
Drainage	Poorly drained soil
Texture	abundance of clay, silt, sand
Stoniness	$> 25\%$ of soil profile volume is coarse material ($> 15\%$ of topsoil volume is coarse material – Commission)
Rooting depth	< 30 cm from soil surface to coherent hard rock
Slope	$> 15\%$
<i>Dry areas</i>	<i>aridity index</i>

Tool – Geographical Information System – analysis of GIS data (ArcWiew)

Data for Climate Criteria

Low temperature

Aridity index



**Data from 268
meteorological stations**

40 years 1961 – 2000

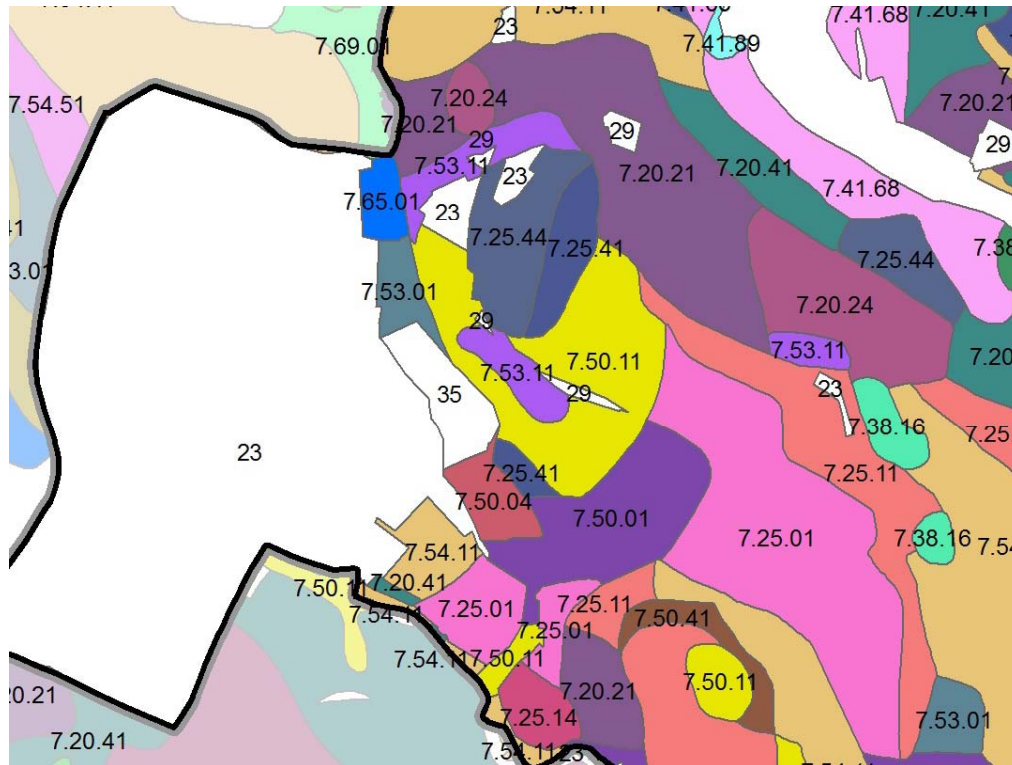
**The Czech Hydro
meteorological Institute**

<http://www.chmi.cz>

Soil criteria –detail mapping in the CR

maps of BPEJ 1 : 5 000 – agriculture land

maps of soil texture 1 : 50 000 – agriculture land



Institute of Melioration and
Soil Protection

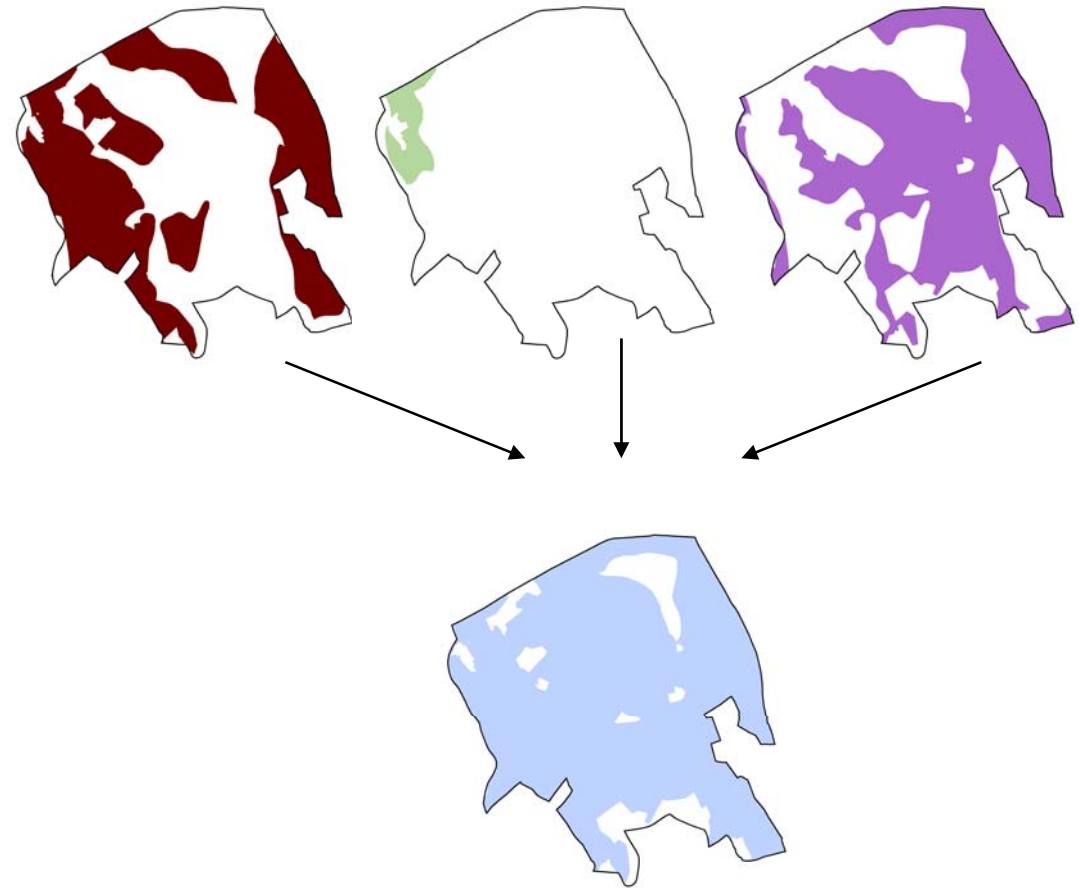
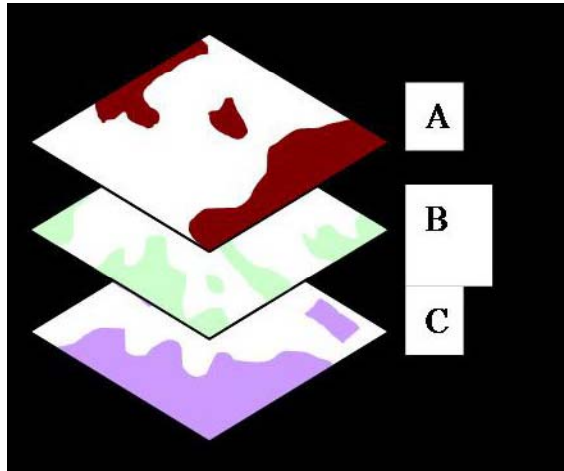
www.vumop.cz

Terrain Criterion – we have set slope above 15 % according digital model of terrain.

Fine tuning

Poorly drained soil	Amelioration layer of areas with drainage
Aridity index	layer of areas with irrigation
Other soil criteria	Standard Gross Margin above national average
Slope	No fine tuning
Low temperature	No fine tuning

Combining and overlapping of the criteria



LFA -- constrains on more than 66 % of UAA

Conclusion

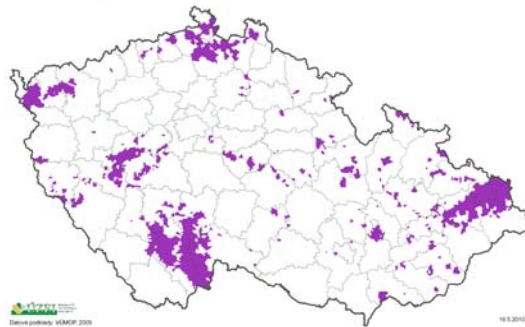
Start delimitation of LFA - the data available at present

To observe progress of European Commission in LFA measure

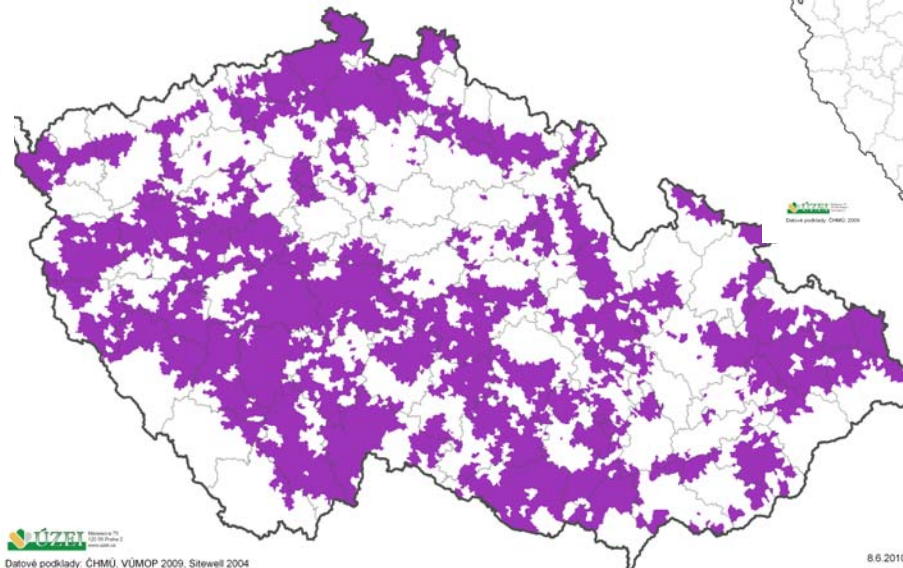
Communicate with Commission

Ask for help JRC as EC research institute

Dopad kriteria Zamokřeni
Intermediate areas only



Combinaace kriterií včetně aridity po aplikaci "fine tuning"
Intermediate areas only



Dopad kriteria Index Aridity po aplikaci "fine tuning"
Intermediate areas only

