STAATSMINISTERIUM
FÜR UMWELT UND
LANDWIRTSCHAFT

Freistaat
SACHSEN

Workshop on Areas facing natural or other specific constraints

Fine-tuning: Saxony

Saxony
in Germany

1,8 Mio. ha total area
1,0 Mio. ha agricultural area
↳ ≈ 1/3 LFA (current)

Criterion	Fine-tuning approach
Low temperature	Standard output Tree density Livestock density Greenhouses Average yield Normal land productivity Farming system Production method
Dryness	Standard output Tree density Greenhouses Irrigation Average yield Normal land productivity Farming system Production method
Excess soil moisture	Standard output Livestock density Artificial drainage Average yield Normal land productivity Farming system Production method
Limited soil drainage	Standard output Livestock density Average yield Artificial drainage Normal land productivity Farming system Production method
Unfavourable texture and stoniness	Standard output Tree density Livestock density Average yield Normal land productivity Farming system Production method
Shallow rooting depth	Standard output Tree density Livestock density Average yield Normal land productivity Farming system Production method
Poor chemical properties	Standard output Tree density Livestock density Average yield Normal land productivity Farming system Production method
Steep slope	Standard output

Examples of correspondence between bio-physical Criteria and fine-tuning Indikators

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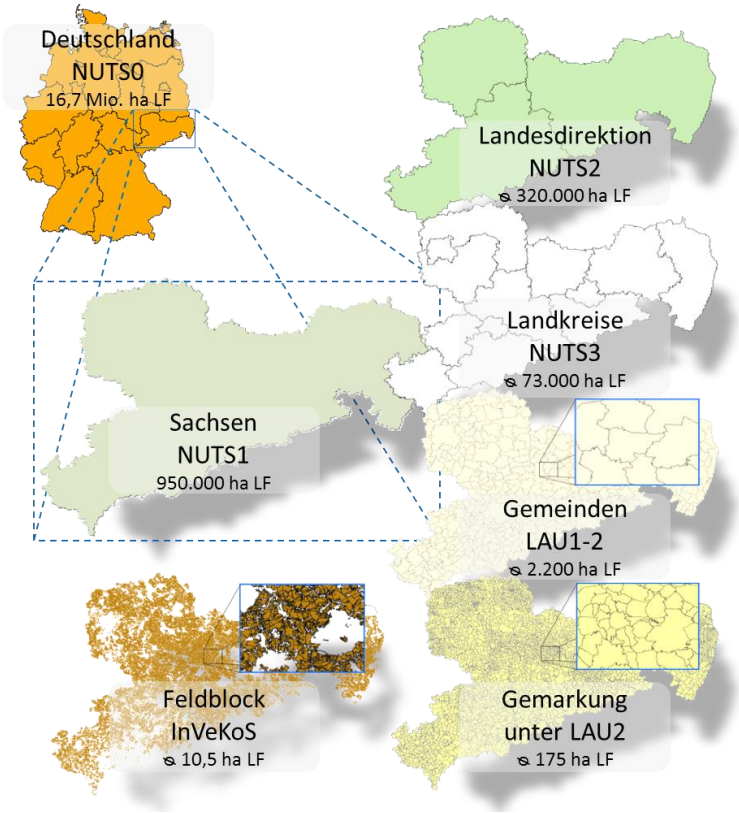
Steps of Fine-tuning

1. Analysis Working paper of the COM

- What is relevant for Saxony?
- Which indicators can be used for many biophysical criteria?
- For which indicators are data of official statistics available in Saxony?

Steps of Fine-tuning
2. Search for small-scale data

Average size of units



- How can the gaps in official statistics (Standard output on NUTS 3, yield on NUTS 3) be closed?
  - Most data are available on NUTS1 to NUTS3
  - NUTS1 to NUTS3 are not suitable for Fine-tuning
  - Not much data at LAU level → many spatial data gaps

- Solution:
  - Integration of the IACS data
  - special evaluation of official statistics

Steps of Fine-tuning
3. Determine the level for fine-tuning

- What level is the best to show the natural handicaps on a small scale?
  → under LAU2 (Gemarkung)
- Which reference value allows an objective fine tuning?
  → national average
- What thresholds are to be set?
  → Recommendations COM

Steps of Fine-tuning
4. Fine-tuning to any biophysical criterion

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		Biophysical Criterion (1. Stage)				
		C1	C3	C4	C5	C7
		Tempera-ture	Limited Soil Drainage	Soil texture/ Stoniness	Rooting depth	Terrain
Indicator	Permanent crops – tree density	√	X	√	√	X
	Livestock density	√	√	√	√	X
	Yield	√	√	√	√	X
	Cultivation ratio	√	√	√	√	√

- Which indicators are technically and logical useful?

Steps of Fine-tuning
5. Summary

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		Fine-tuning in Saxony			
		Derivation	Threshold	Unit level	Data source
Criteria and theresholds for Fine-tuning in Saxony	Permanent crops – tree density	Area ratio of permanent crops on the UAA	80 % of the national average (COM)	under LAU 2 (Gemarkung)	IACS 2011 bis 2015
	Livestock density	Livestock density in livestock units (GV) per hectare UAA	1,4 GVE/ha agriculture area (COM)	under LAU 2 (Gemarkung)	IACS 2010 bis 2014
	Yield	Grain yield (55 % of the arable area in Saxony)	80 % of the natioanl average (COM)	under LAU 2 (Gemarkung)	Saxony Statistical Office (special analyses) 2011 bis 2015
	Cultivation ratio	Cultivation ratio of crops on preferred locations fpr arable area	80 % of the national average (COM)	under LAU 2 (Gemarkung)	IACS 2010 bis 2014

Steps of Fine-tuning
7. Problems/difficulties

- Existing (nationally proven) index systems were not accepted for a long time
- Data for COM indicators (recommendation) are not available on smaller scale (standard output, yield)
- Data from official statistics often are not available annually
- Special analyses are necessary

Thank you for your attention!

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