

Review of EEA livestock system analysis

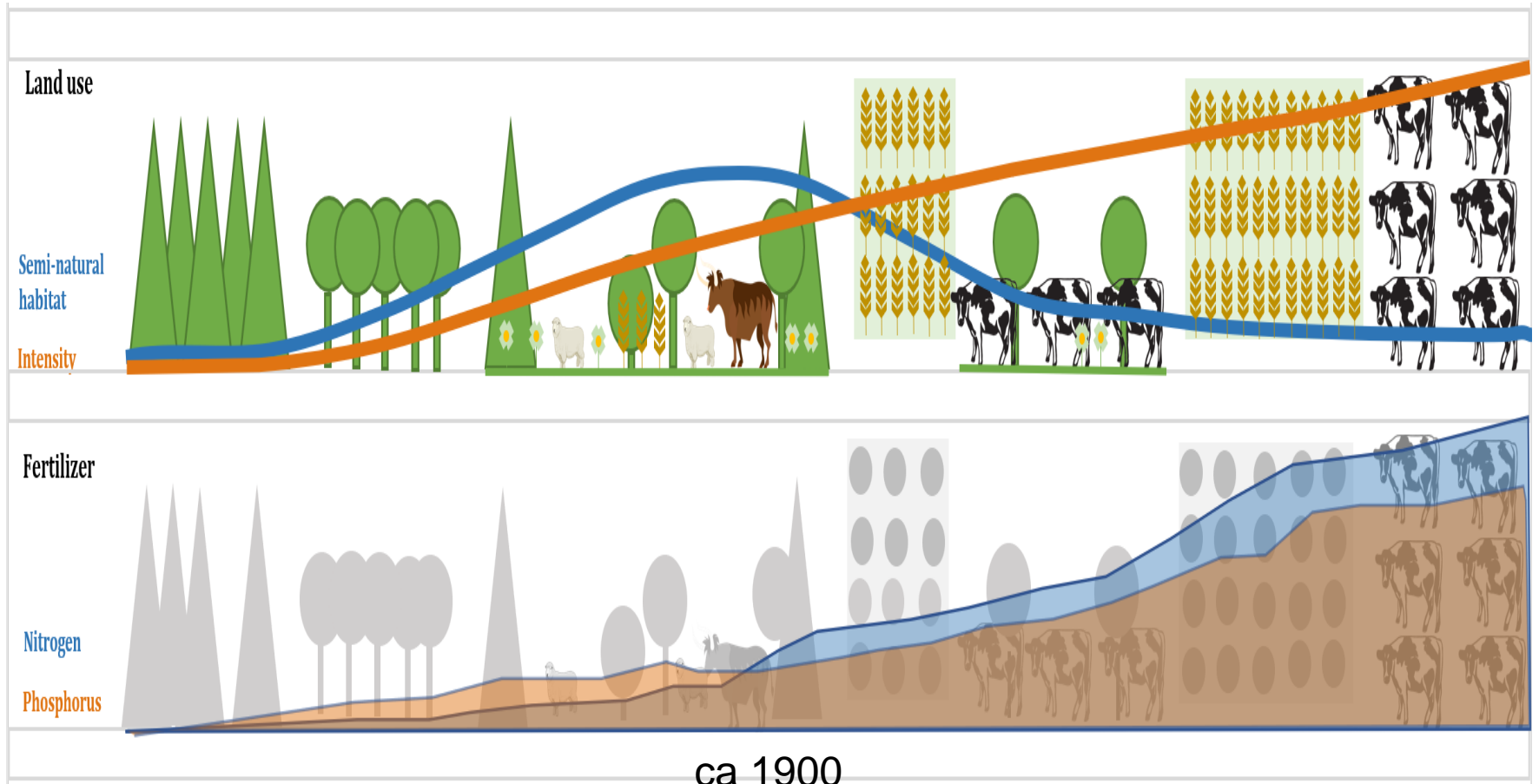
Some additional reflections from an EEA perspective

- a) Today we focus on extensive livestock systems
- b) However, grazing livestock also has high biodiversity relevance in intensively farmed landscapes
- c) EU Green Deal sees ‘nature as a solution’ and the EU Biodiversity strategy aims to ‘bring nature back into our lives’

What does that mean and how do we achieve that?



Changes in land use over last 5000 years



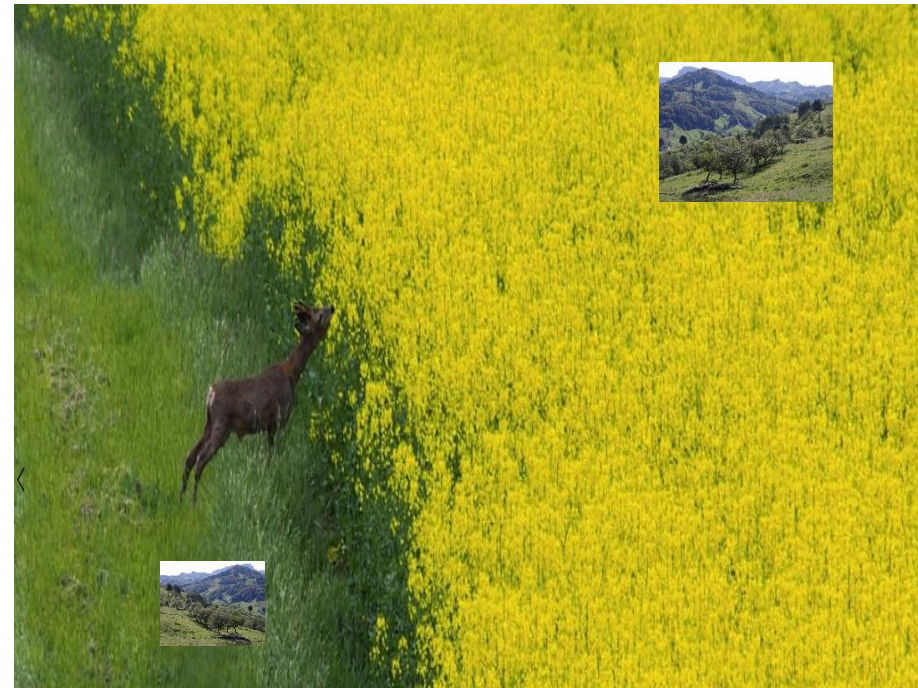
Increase and decrease of semi-natural habitat over time linked to farming practices.
The bottom half illustrates growing fertiliser use

Livestock system intensity & conservation

Semi-nat. habitats as part of farming system

lots of variation in between..

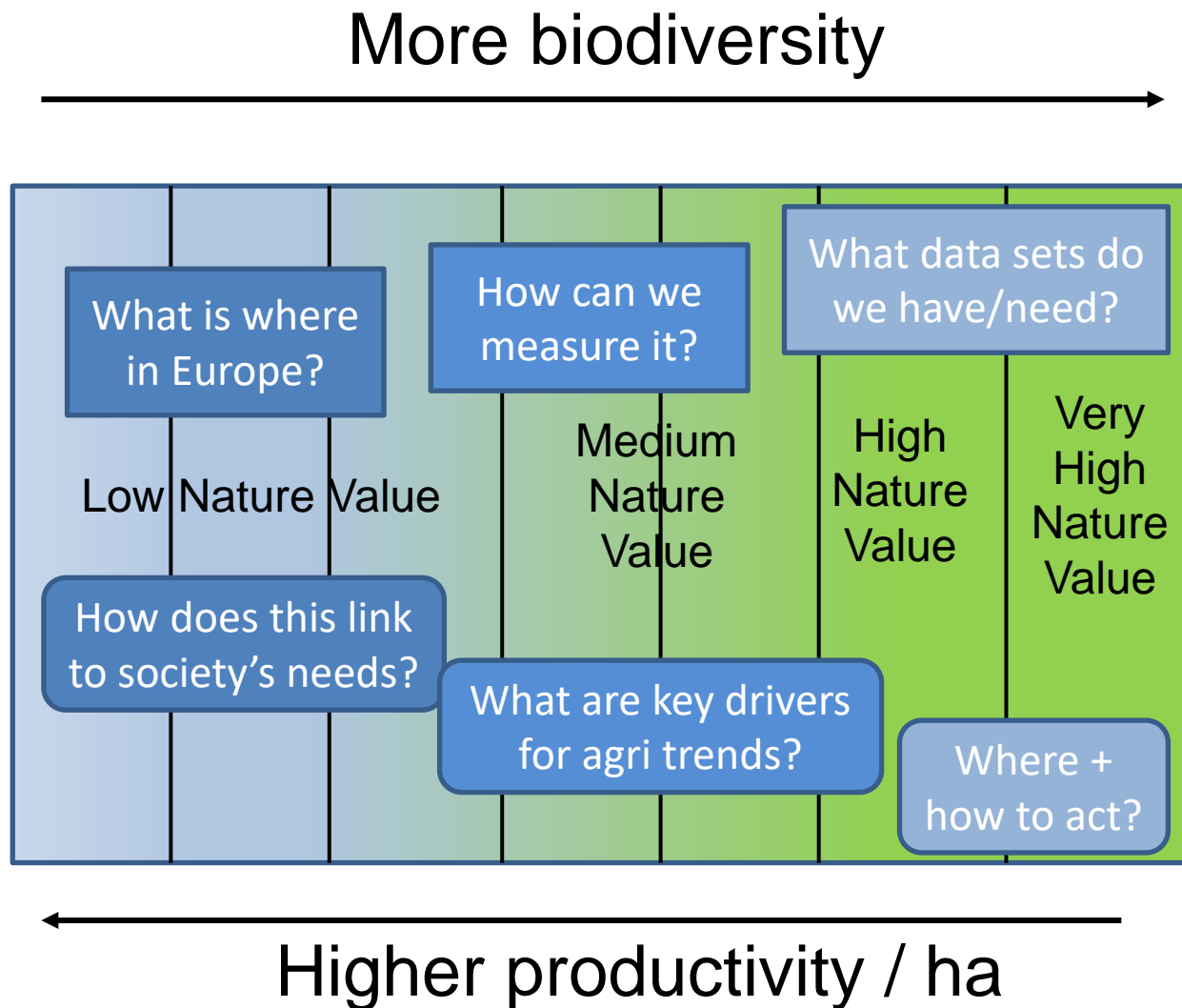
Semi-nat. habitats maintained by conservation grazing



+++ General biodiversity (dependent on dung, landscape variety etc) +



Farming – biodiversity works along a gradient..



The analytical challenge

- Extensive livestock systems are important for biodiversity conservation but many semi-natural habitats are in poor condition / abandoned.
- This leads to the following questions:
 - Do we have enough extensive grazing livestock to maintain the habitat area to be preserved or restored?
 - Is there a good spatial match between the two?
 - Is the type of grazing still suited for conservation?

Use of proxy data by EEA to explore that.



Initial / proxy data sets developed

- Estimate of grazing share of semi-nat. CLC classes
- Identify the grazing density on this area (LU/ha)
- Develop an estimate of optimal grazing density per 'Halada habitat' & combine with Art 17 data
- Compare the two estimates for each country

Note: this is initial work to be confirmed and/or improved



Grazing on semi-natural CLC classes

Table 3.4.1 Semi-natural CLC Classes considered to be grazed are marked in green.

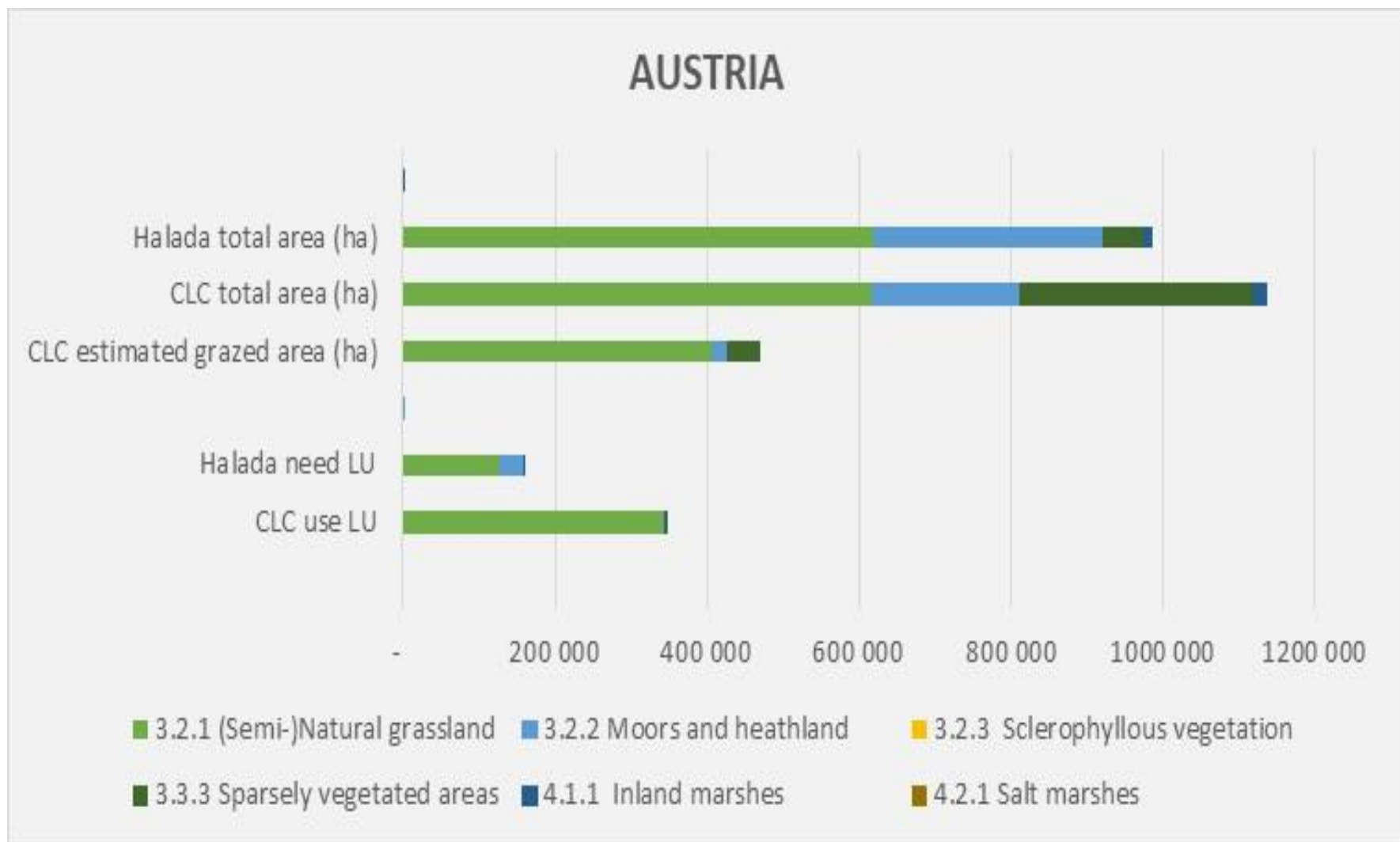
3. Forest and semi-natural areas	3.1 Forests	3.1.1 Broad-leaved forest
		3.1.2 Coniferous forest
		3.1.3 Mixed forest
	3.2 Scrub and/or herbaceous vegetation associations	3.2.1 (Semi-)Natural grassland
		3.2.2 Moors and heathland
		3.2.3 Sclerophyllous vegetation
		3.2.4 Transitional woodland-scrub
	3.3 Open spaces with little or no vegetation	3.3.1 Beaches, dunes, sands
		3.3.2 Bare rocks
		3.3.3 Sparsely vegetated areas
		3.3.4 Burnt areas
		3.3.5 Glaciers and perpetual snow
4. Wetlands	4.1 Inland wetlands	4.1.1 Inland marshes
		4.1.2 Peat bogs
	4.2 Coastal Wetlands	4.2.1 Salt marshes
		4.2.2 Salines
		4.2.3 Intertidal flats



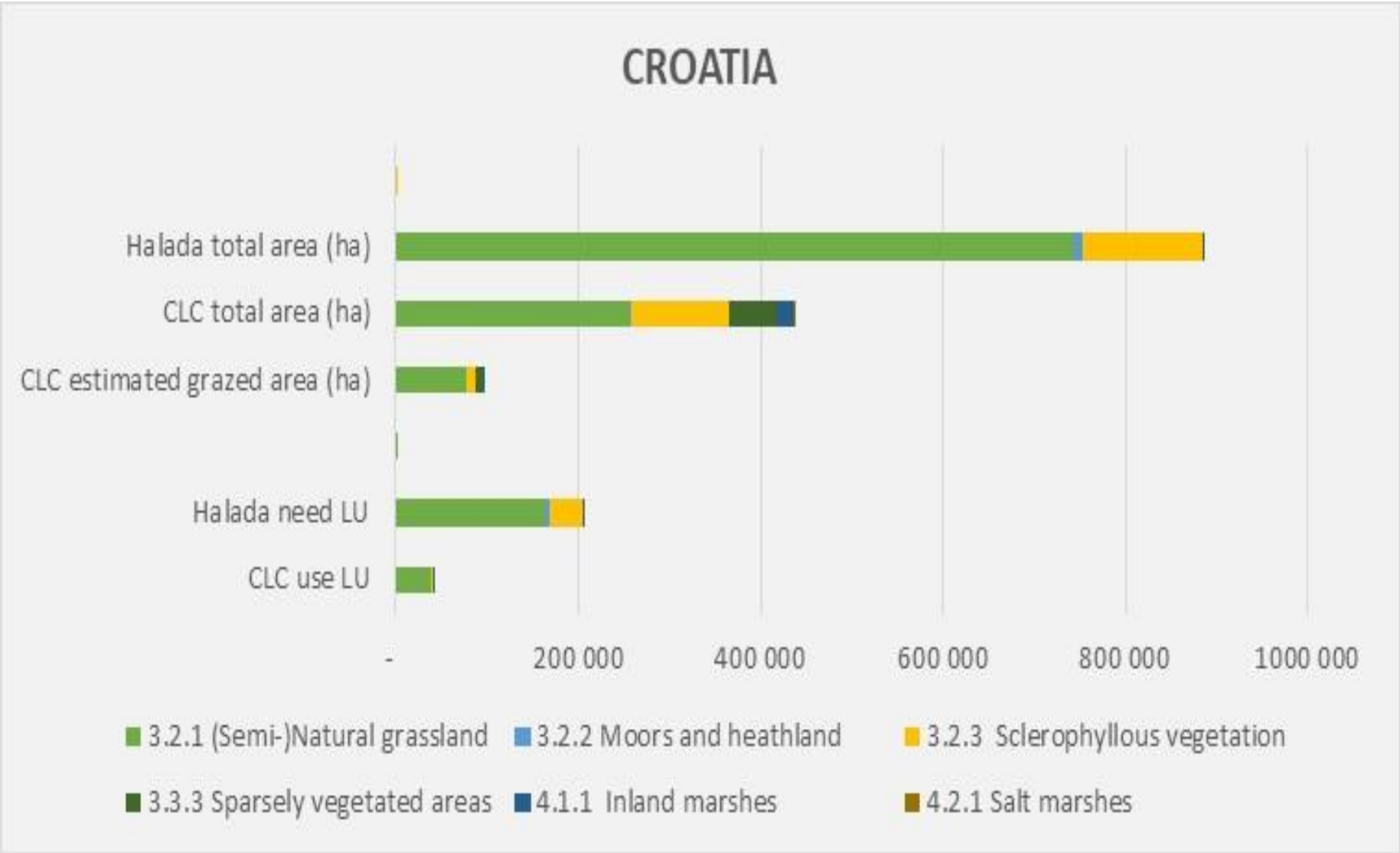
Grazing estimates for CLC classes in Austria

AUSTRIA – CLC grazing estimates							
CLC Code	CLC Name	CLC total area (ha)	CLC estimated grazed area		CLC LU	CLC LU/ha (est. grazed area)	Comments
			ha	%			
3.2.1	<i>(Semi-)Natural grassland</i>	615 300	407 160	66%	342 014	0.8	Reliable, mostly mountain pastures
3.2.2	<i>Moors and heathland</i>	196 300	18 510	9%	2 221	0.1	Areas surrounding mountain pastures
3.2.3	<i>Sclerophyllous vegetation</i>	-	-	-	-	-	
3.3.3	<i>Sparsely vegetated areas</i>	305 700	44 220	14%	5 306	0.1	Areas surrounding mountain pastures
4.1.1	<i>Inland marshes</i>	19 200	-	-	-	-	Not grazed
4.2.1	<i>Salt marshes</i>	-	-	-	-	-	
total		1 136 500	469 890	41%	349 542	0.7	

Comparison of Halada needs and CLC use in Austria



Comparison of Halada needs and CLC use in Croatia



Summary & what to explore further

Fairly good confidence in results:

- Estimate of % grazing per semi-natural CLC class
- Likely grazing density during grazing season per ha CLC class

To be further tested and improved:

- Optimal grazing density per Halada habitat
- Total grazing need (no. of total livestock) for Halada maintenance
- Spatial match between occurrence of grazing and distribution of Halada habitats

A system reflection:

Farming and nature conservation have become separate

Can we combine them again by grazing of semi-natural habitats ?

So nature becomes a solution by providing part of our food requirements



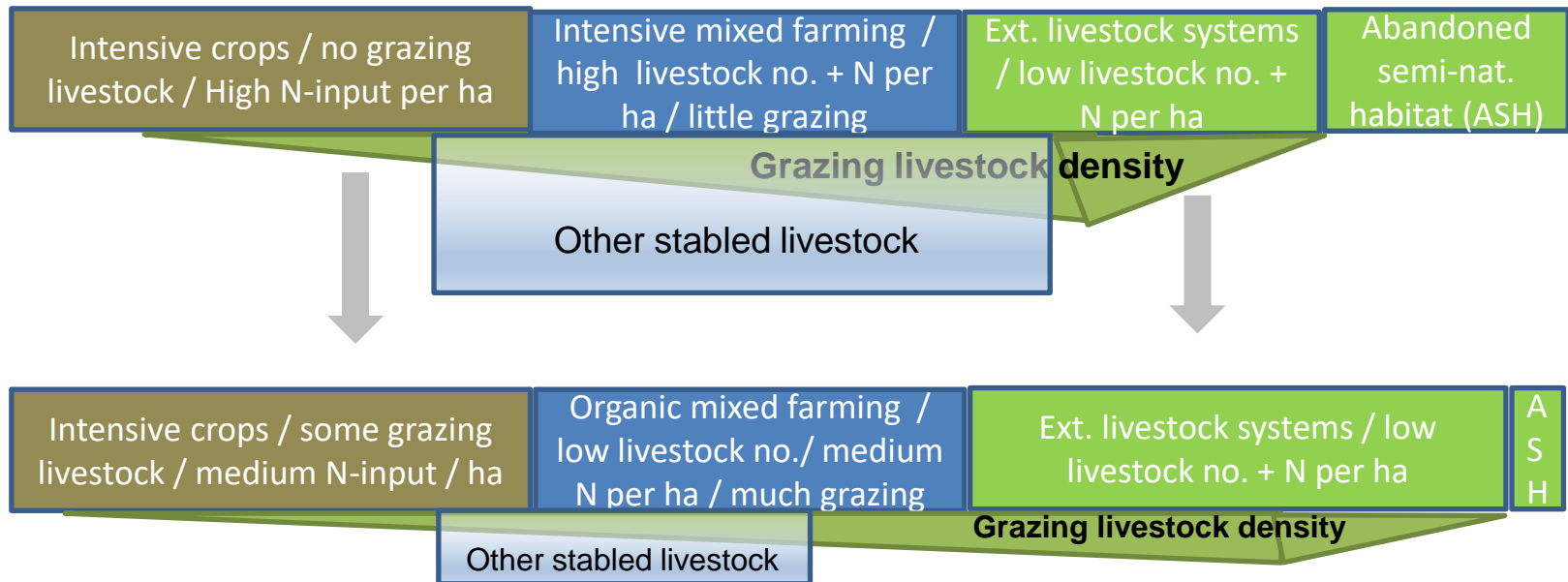
Only extra slides below.

Some short final comments on grazing livestock analysis

- One can argue that the proposed change in livestock production (strong overall reduction, much higher share of grazing animals & distributed over a wider area) is 'solution based on nature' as and where:
- Production of grazing livestock is mainly based on biomass available from grassland and semi-natural habitats (as in the past), which helps to:
 - Maintain and restore semi-natural habitats (a BDS 2030 target)
 - Reduce fire risk which is partly due to the build up of biomass due to lack of grazing of scrub and woodland areas in the Mediterranean
 - Reduce the N-pressure in the core agricultural area as livestock are spread over a wider land base (note that the current share of cattle sheep & goats that really graze semi-natural habitats is probably about 5% of the EU ruminant livestock population)



Potential changes in livestock farming to support restoration of semi-nat. habitats – expand grazing area, lower overall numbers



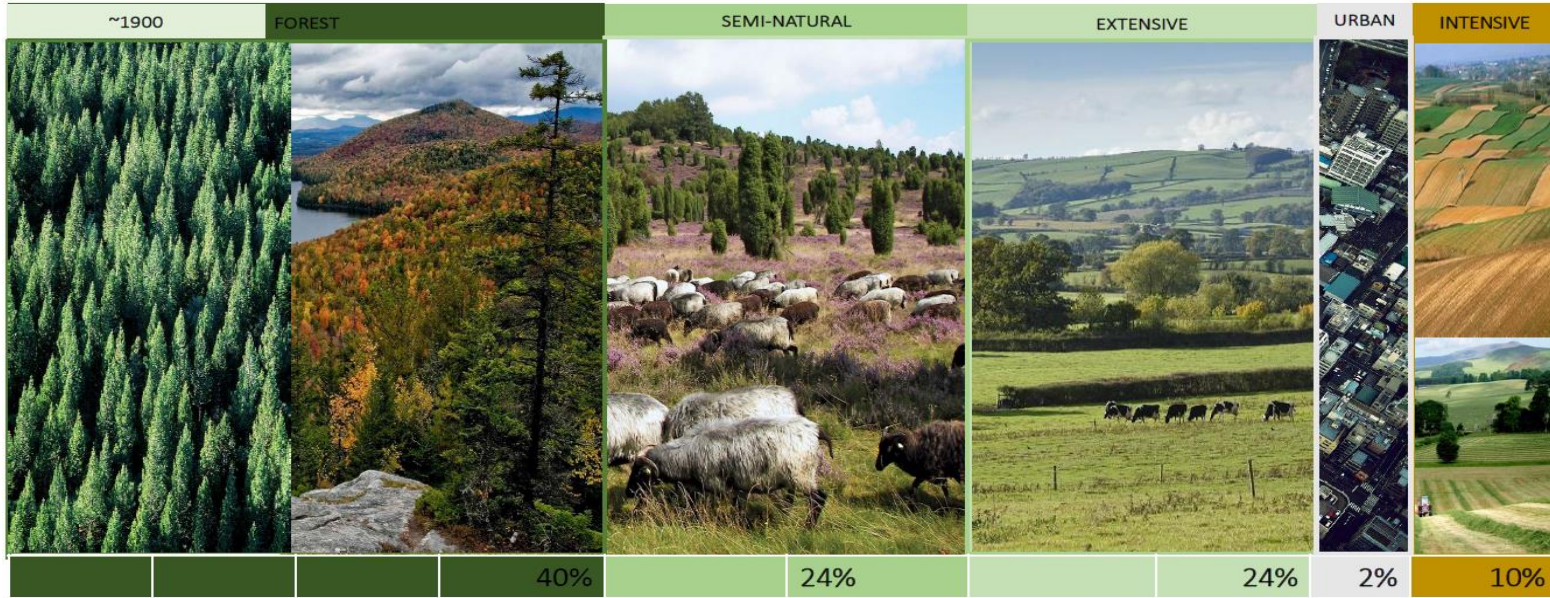
Note: these shapes aim to illustrate how grazing can be a ‘nature-based solution’ – as:

- Harvesting of biomass from semi-nat. areas via grazing has created them & needs to continue
- An expansion of the grazed area enables livestock density to be lower & reduce env. pressures
- Grazing livestock and in particular their manure support a wide array of insects and birds
- Overall: reduce livestock no’s as we eat less meat but keep or expand extensive systems

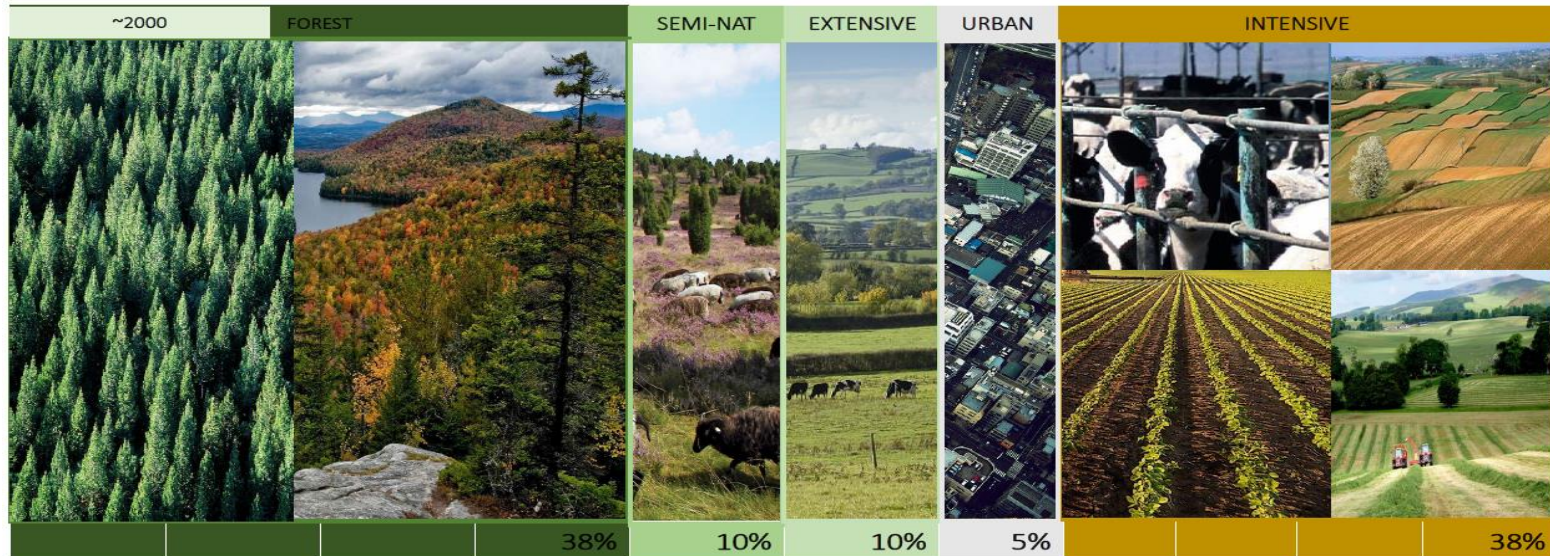


Land use & habitat mix in 1900 + 2000

~1900



~2000



Halada habitats in relation to all Annex I habitats

