

## Can combined food/non-food cropping systems facilitate transitions to agroecological systems in Europe?

Jens Dauber Thünen-Institute of Biodiversity



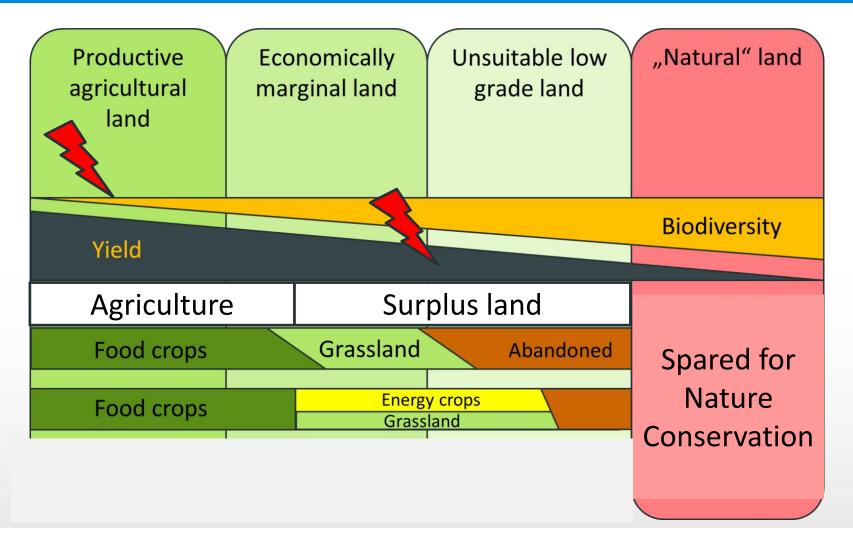
Agroecology-Europe Forum Lyon, 27.10.2017

#### Making the transition! But on which type of land?

(	Productive	Economically	Unsuitable low	"Natural" land
	agricultural	marginal land	grade land	
	land			



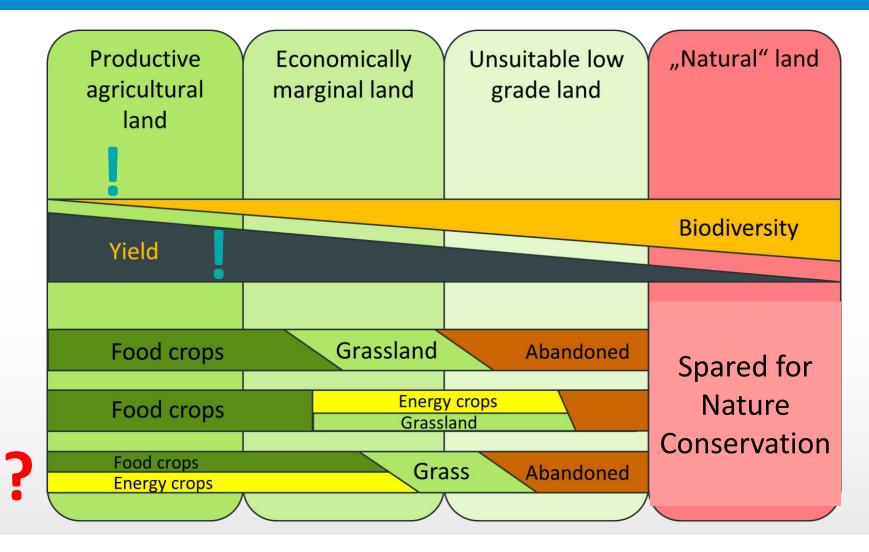
#### Segregation: Food first on productive land



Dauber & Miyake (2016) Energy, Sustainability and Society 6:25



#### **Integration: Combined food/non-food systems**



Dauber & Miyake (2016) Energy, Sustainability and Society 6:25

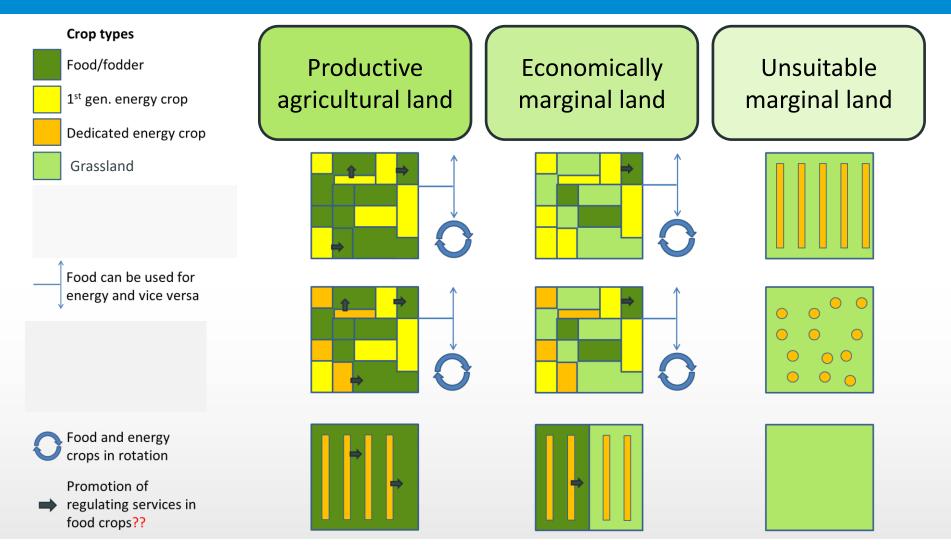


### Examles of combined food/non-food systems

- Agroforestry systems (silvo-arable, silvo-pastoral)
- Multicropping systems:
  Double cropping
  - Relay cropping
  - Intercropping
- Mixed crop rotations with food and non-food crops
- Perennial crops interspersed with annual crops at the landscape scale



### Scenarios of combined food/non-food systems Do non-food-crops function as service crops?



Dauber & Miyake (2016) Energy, Sustainability and Society 6:25



#### Questions

- Which type of combined food/non-food cropping system on which type of land?
- Which constraints have to be overcome for such a transition?
- Could non-food crops fulfil a double-function: provisioning and regulating ecosystem service?







# Thank you!

#### jens.dauber@thuenen.de

Thünen-Institut of Biodiversity



www.thuenen.de