

Dairy intensification trends in Costa Rica

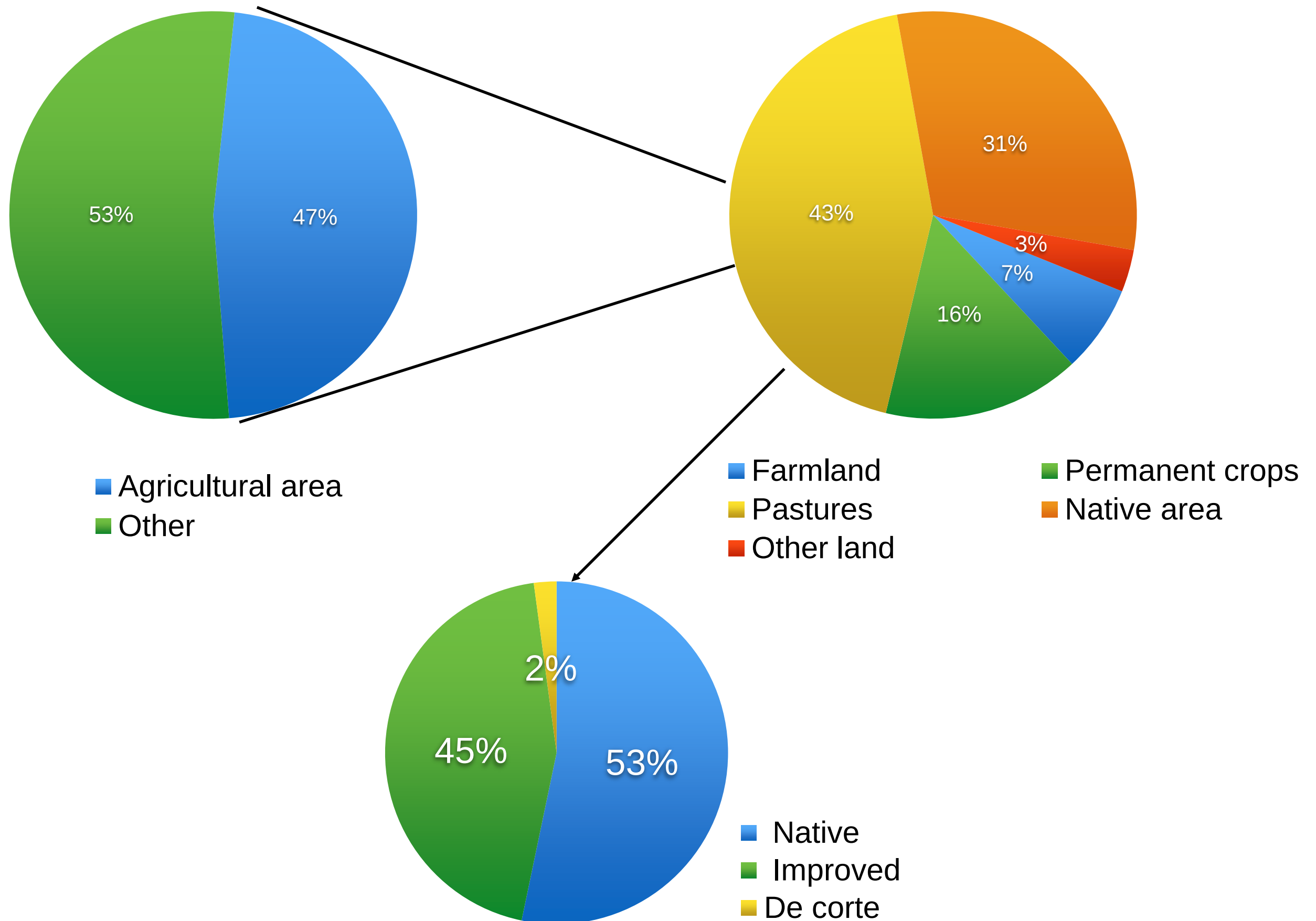


André M. Mazzetto
Bangor University



**CARBONO
NEUTRAL**
Reconocido por el Gobierno de Costa Rica

Stats



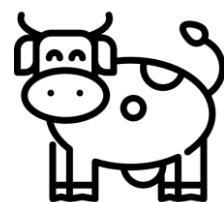
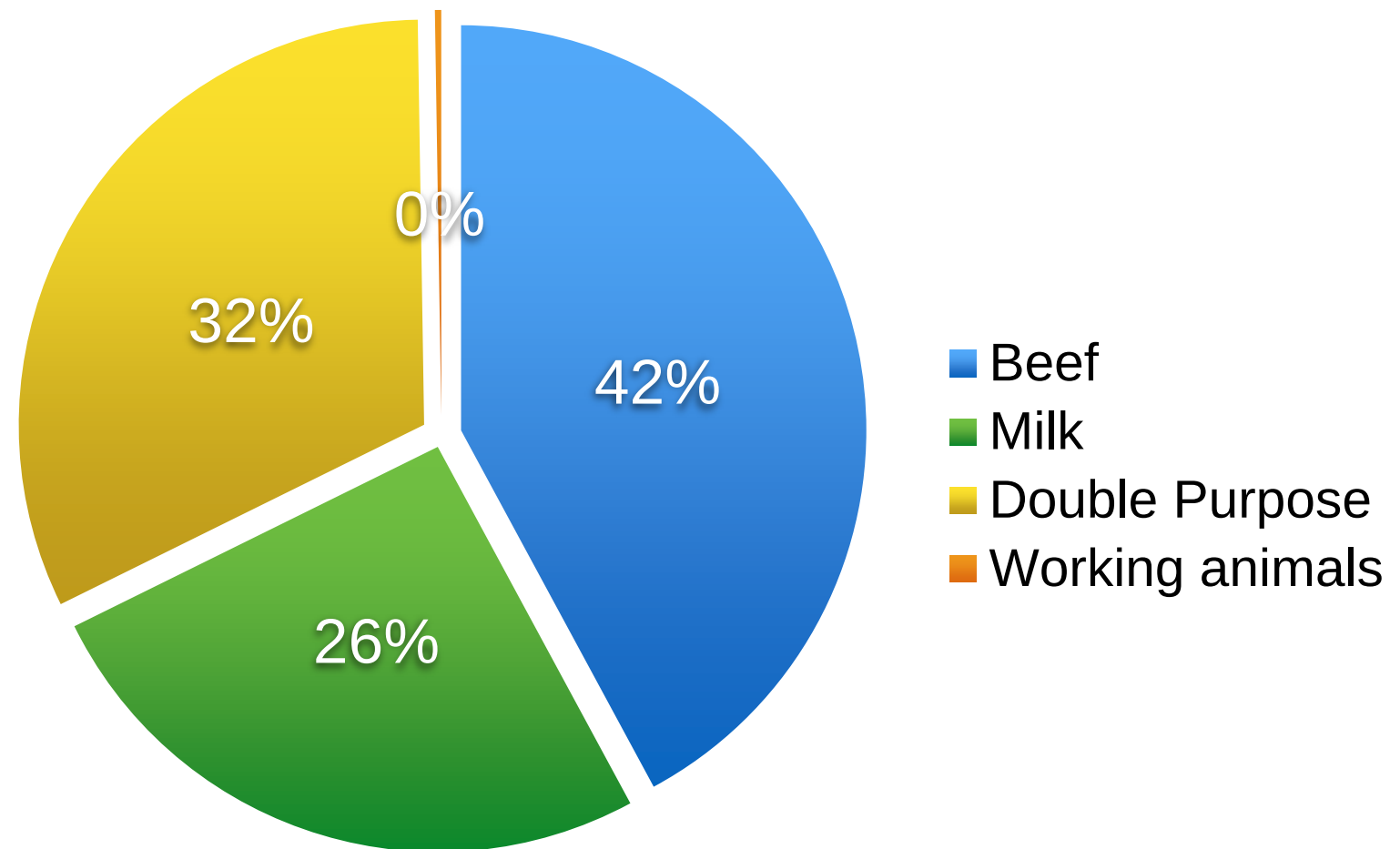
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■ Production on pasture



Stats

Animals per purpose



1,278,817 animals

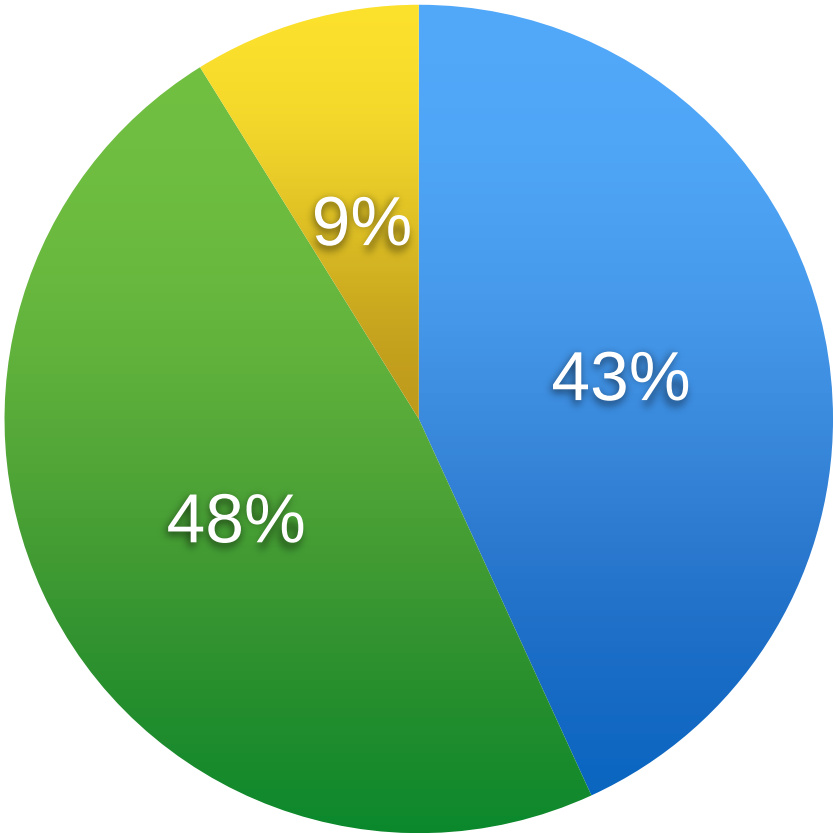


37,171 farms

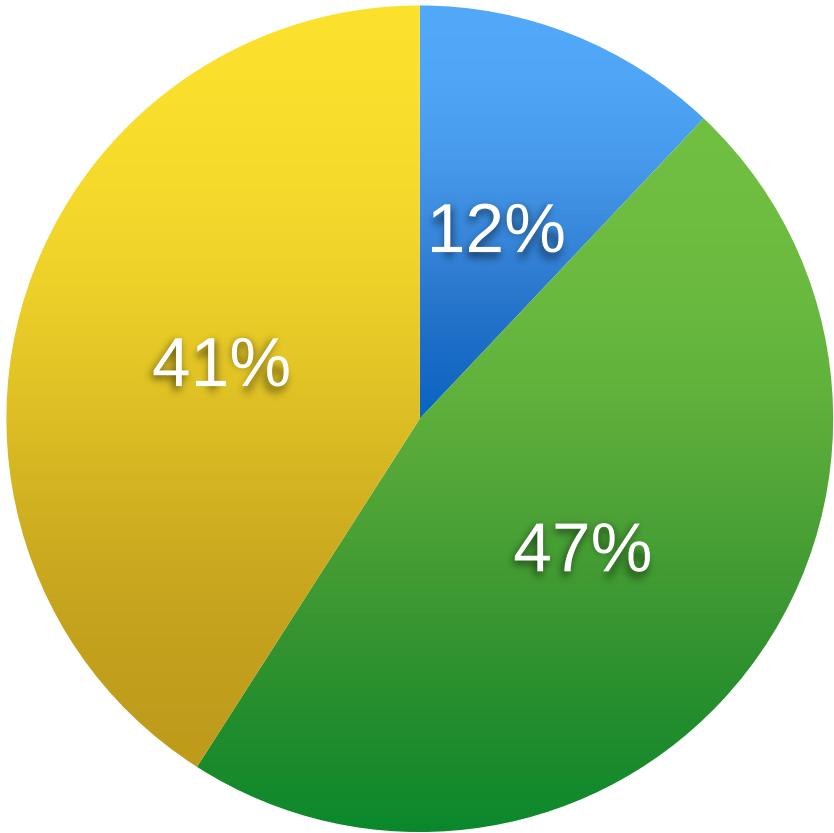
Stats

Farm area	Number of farms	Herd
1 a 10 ha	15,995	154,065
11 a 100 ha	17,783	600,882
> 100 ha	3,282	523,329

Number of farms



Herd

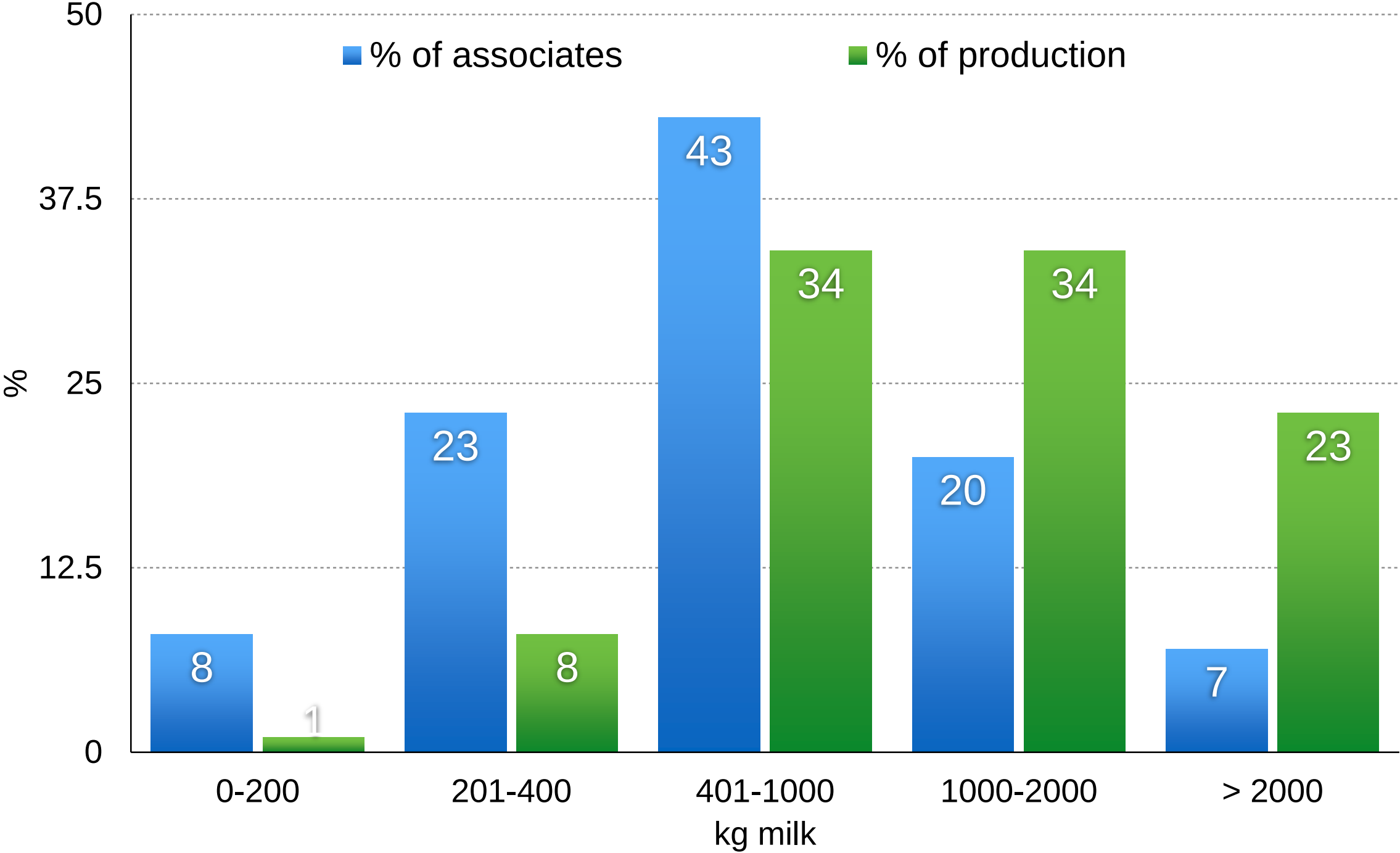


1 a 10 ha 11 a 100 ha > 100 ha

Distribution of the herd



1,400 farms



Preliminary results

Eilidh Forster MSc dissertation
CATIE finca



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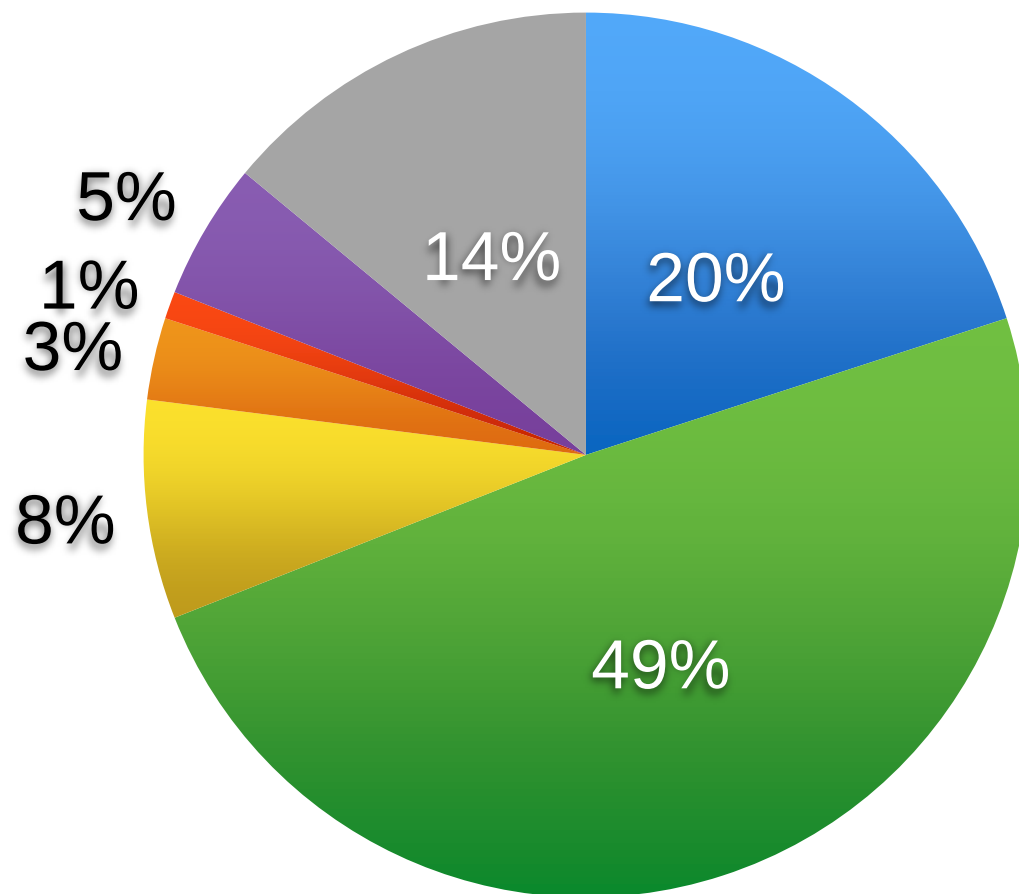


Preliminary results

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Eilidh Forster MSc dissertation
CATIE finca

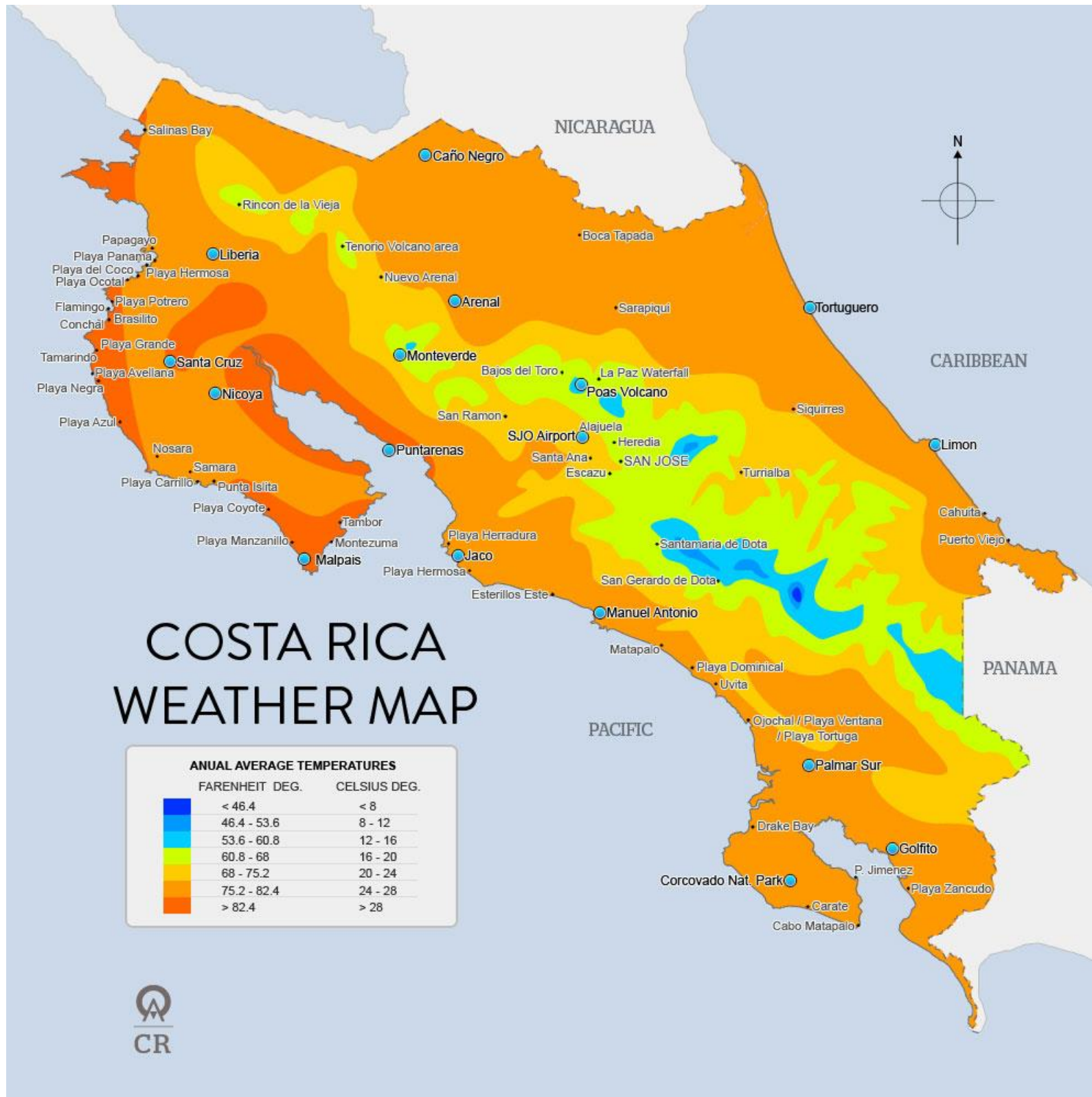
Milk carbon footprint



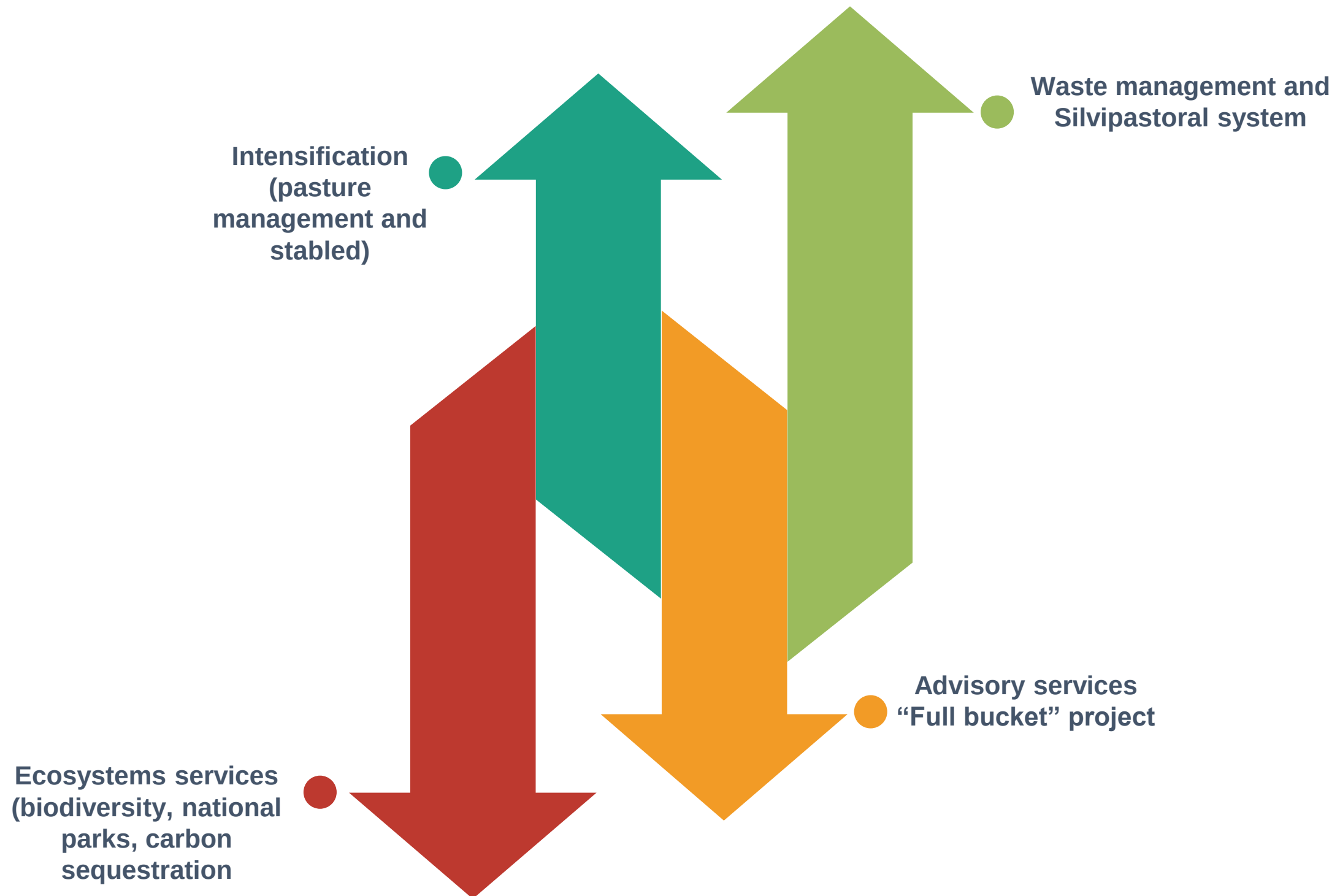
0.91 kg CO₂eq kg milk⁻¹

- Imported feed
- Manure Sotorage
- Diesel
- Soil Emissions
- Enteric fermentation
- Eletric + heat
- Fertilizer / lime

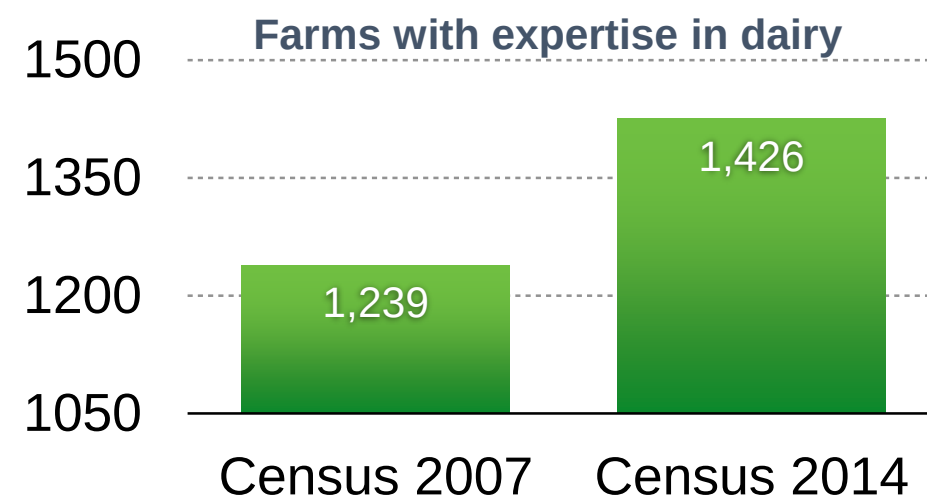
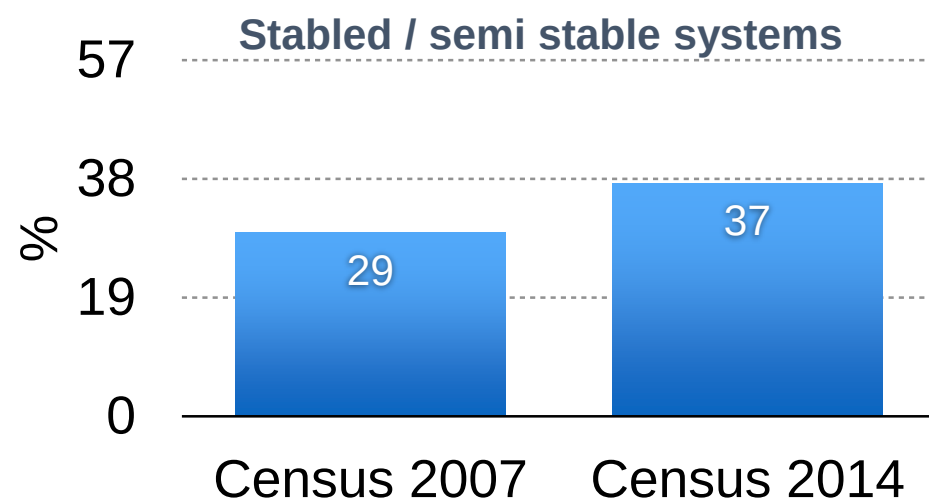
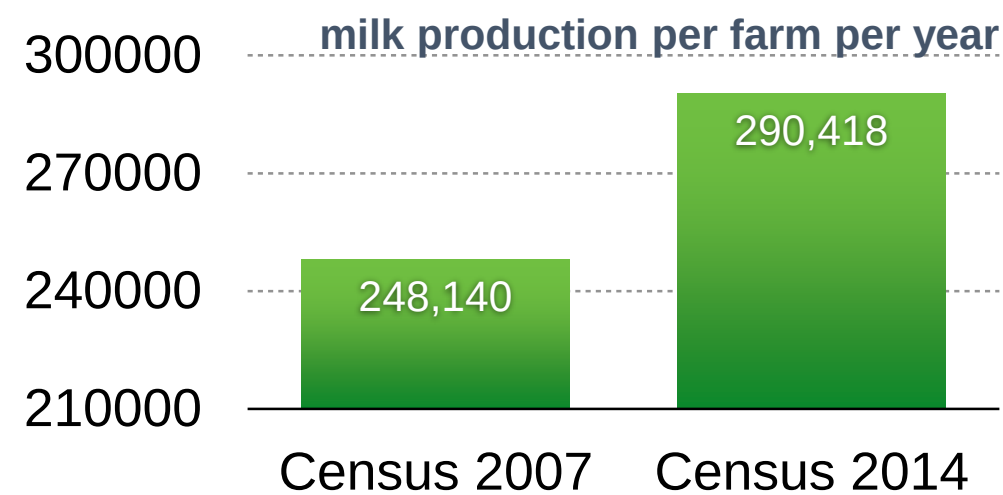
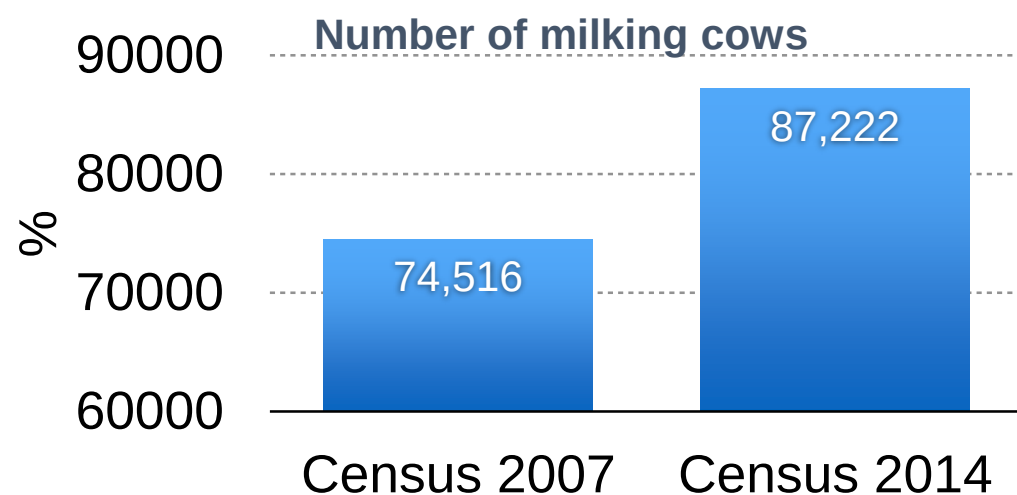
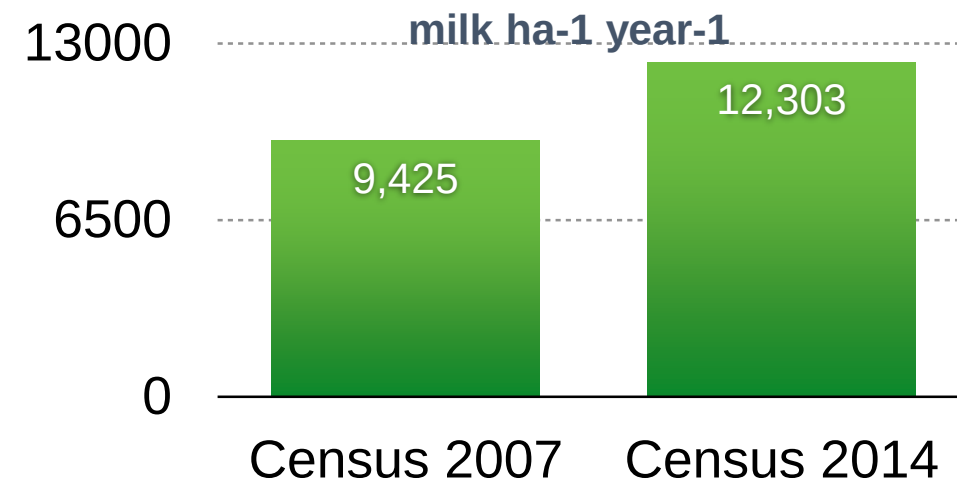
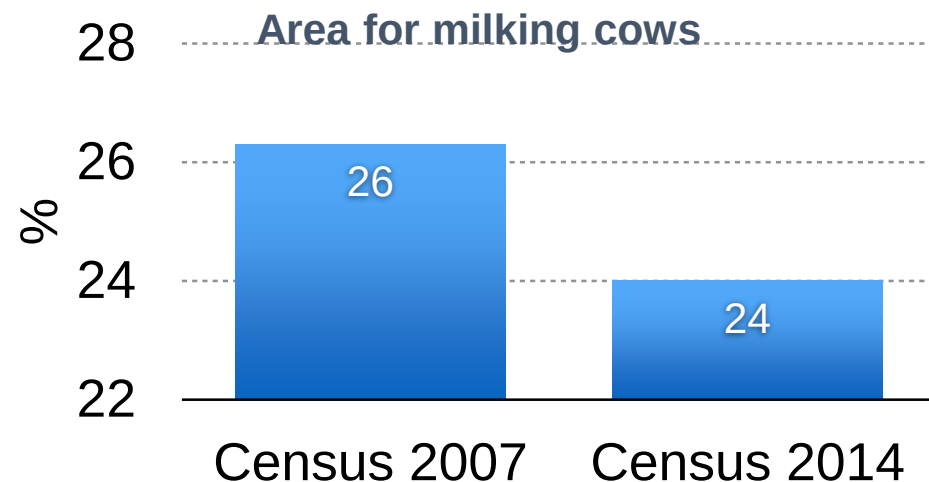
Climate



Different strategies



Intensification



Intensification

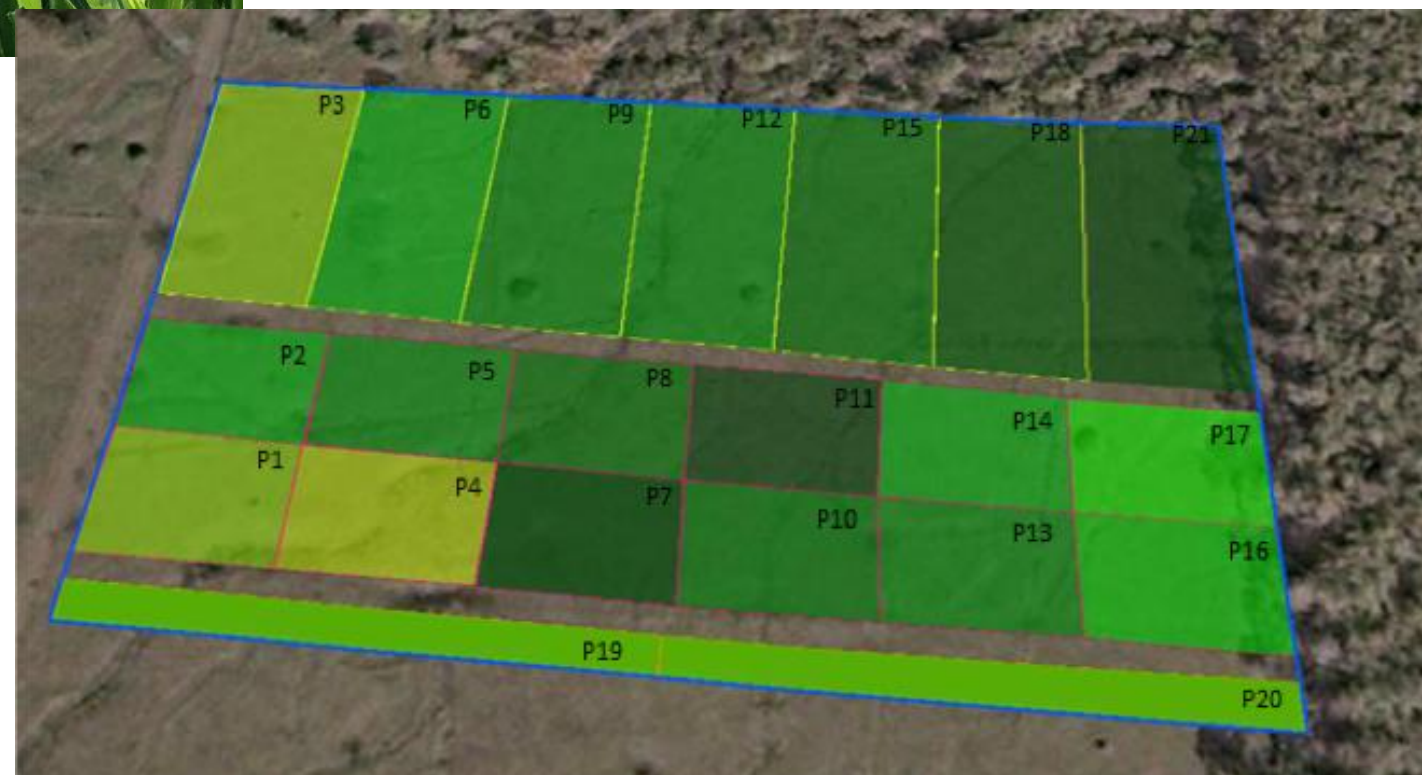
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Fertilisation and irrigation

Pasture management

Rotational grazing



Study case

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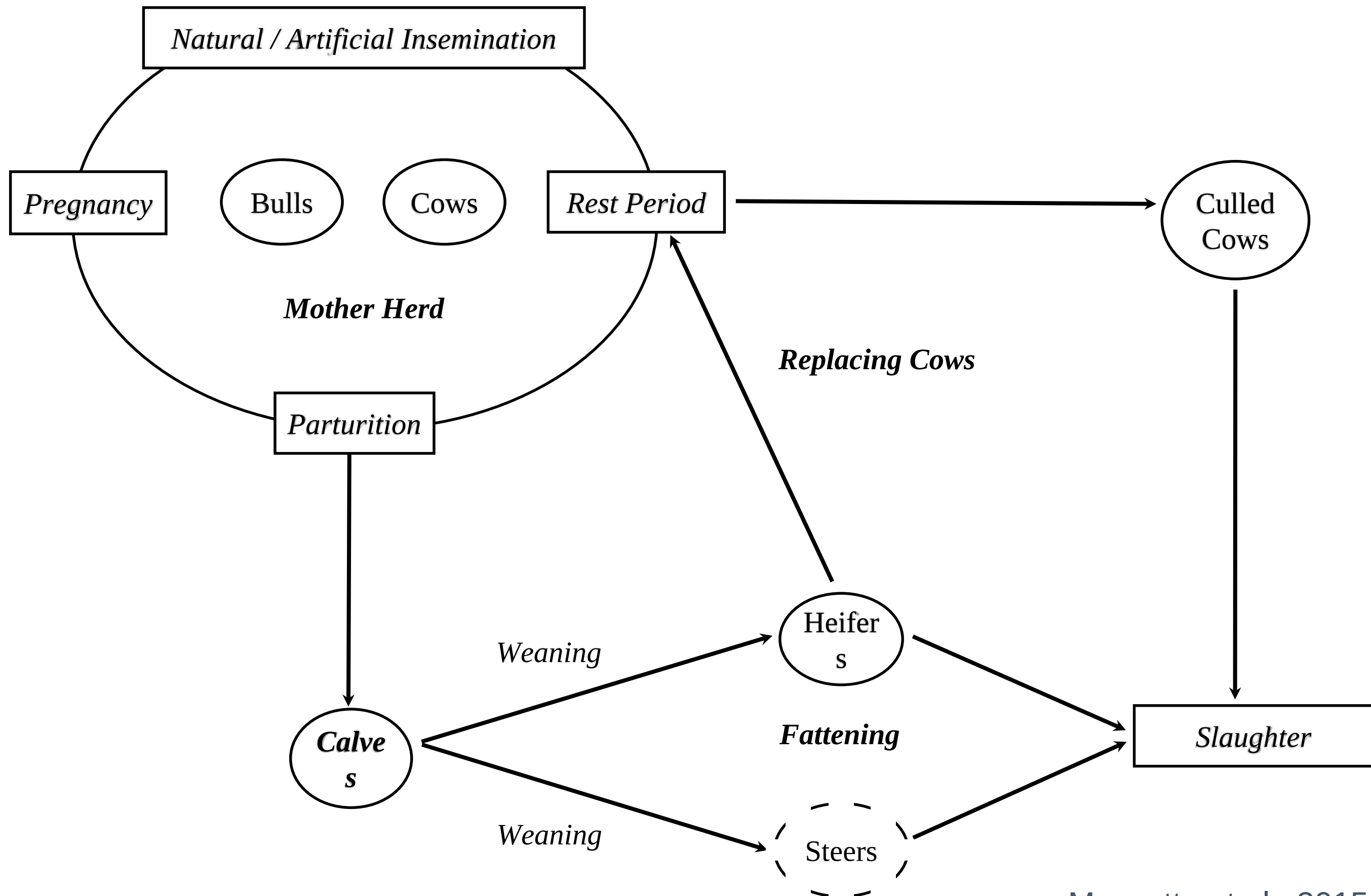


Tropical EFs

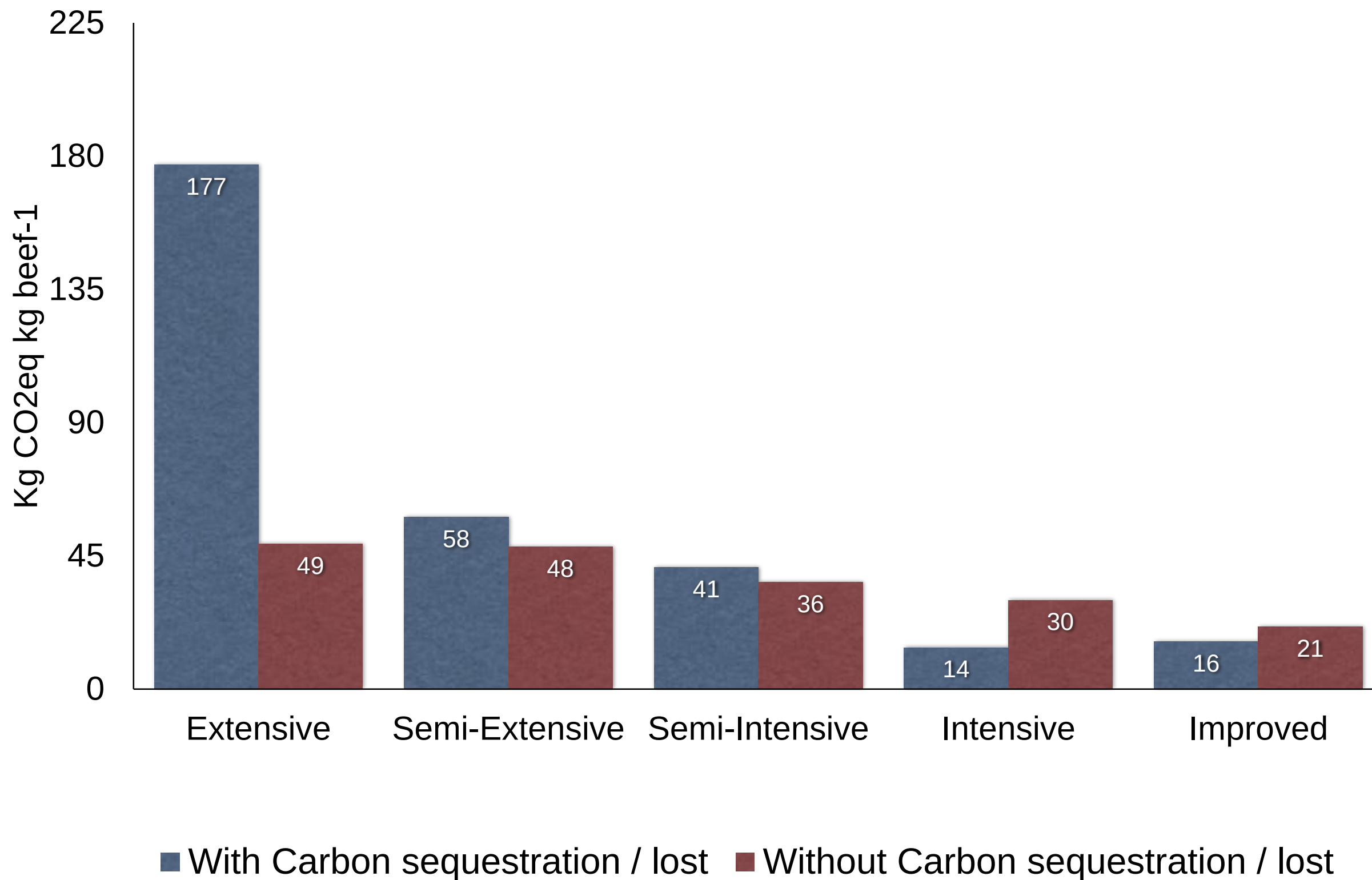


Study case

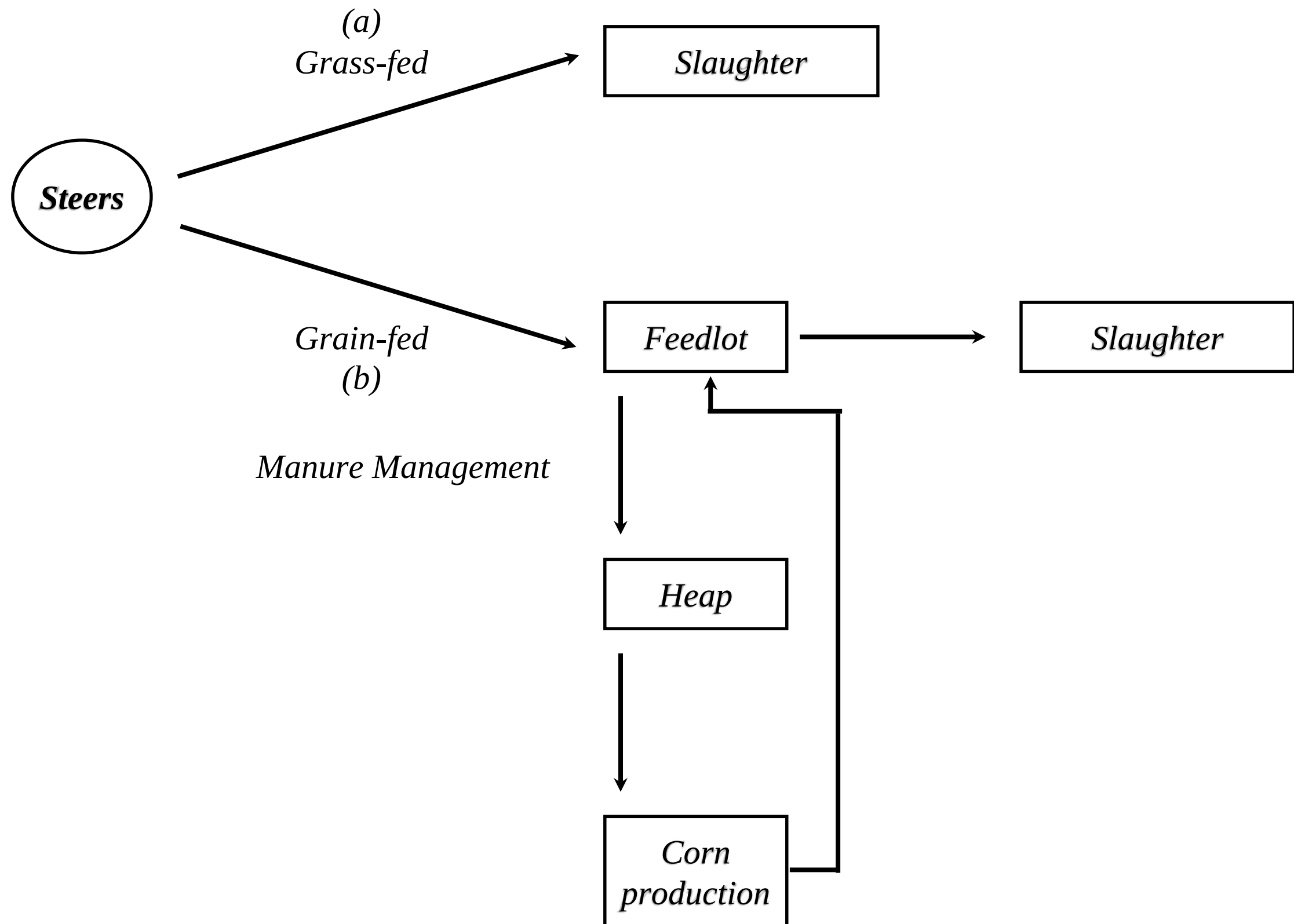
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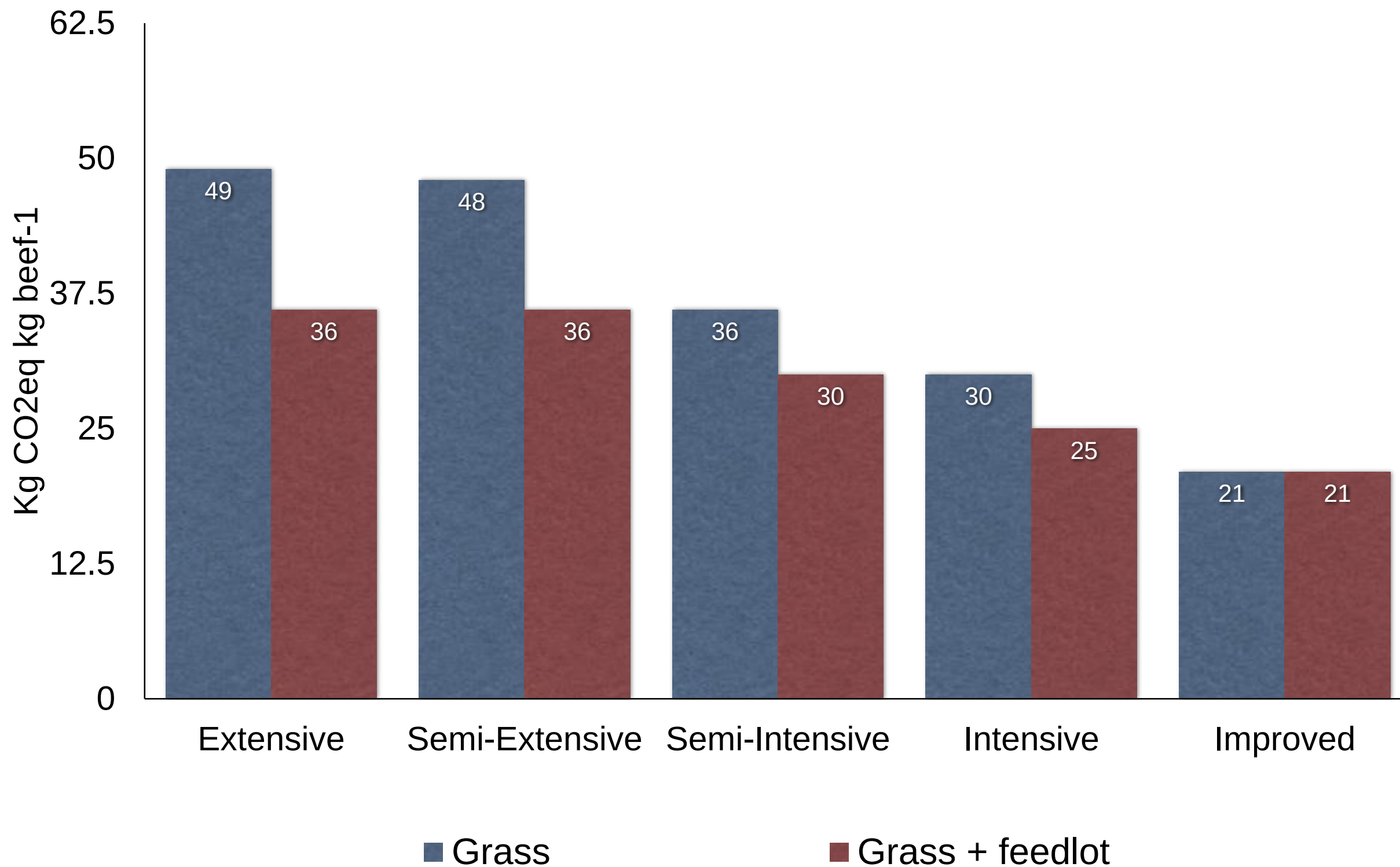
Study case



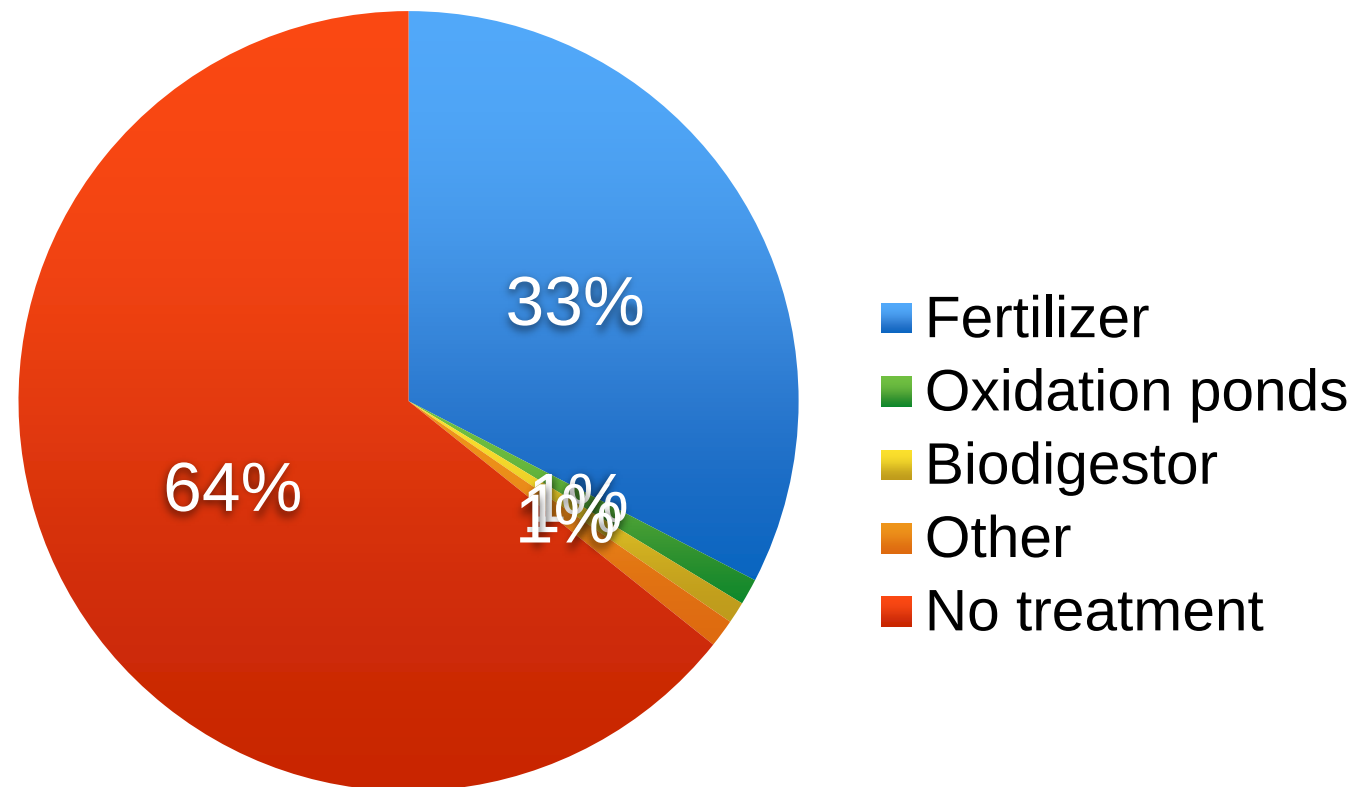
Study case



Study case



Waste management



Silvipastoral systems



Animal welfare

Biodiversity

Shadow on pasture

Timber production

Silvipastoral systems



Silvipastoral systems



Silvipastoral systems



Silvipastoral systems



Ecosystems services



Biodiversity
Carbon sequestration



Production

“Full bucket” project

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Dr. Arthur Chinelatto
Embrapa - 1997

PROJETO BALDE CHEIO



“Full bucket” project

Farmers job:

- Open the farm for visits



Increase production and income

- Climatic data
 - Rainfall
 - temperature



Application of sustainable methods

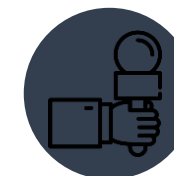


Advisory from technicians
Transfer technology

- Finances
 - income
 - expenses



Finances and soil analysis



Visit and interview

- Herd
 - milk production

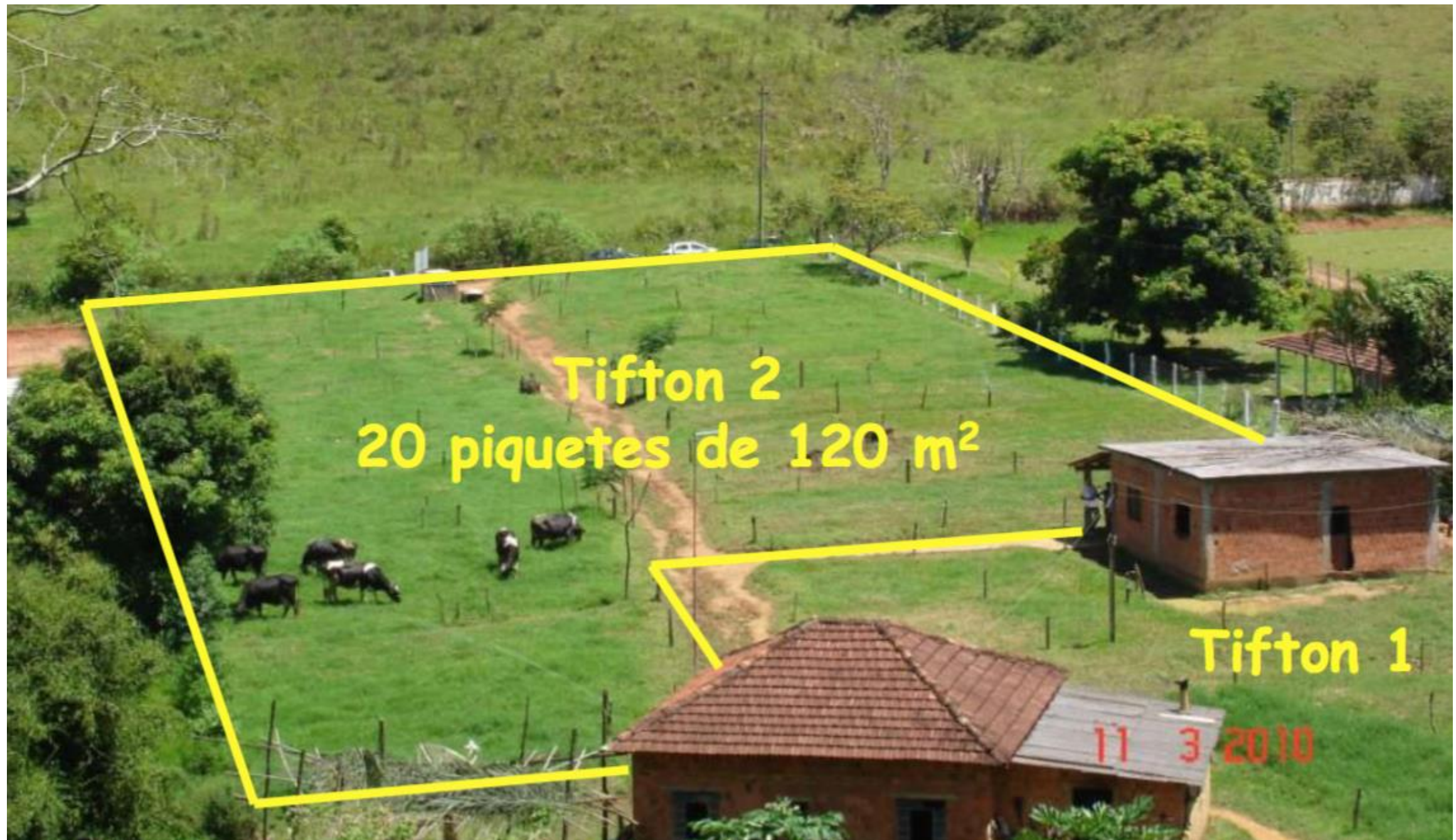
Study case



2,400 m² (20 areas of 120 m²)

600 m² (20 areas of 30 m²)

Study case



Study case



Study case

**Fluxo de Caixa = R\$ 1.000,00 / mês
(média de 2012)**



Conclusion



Conclusion

