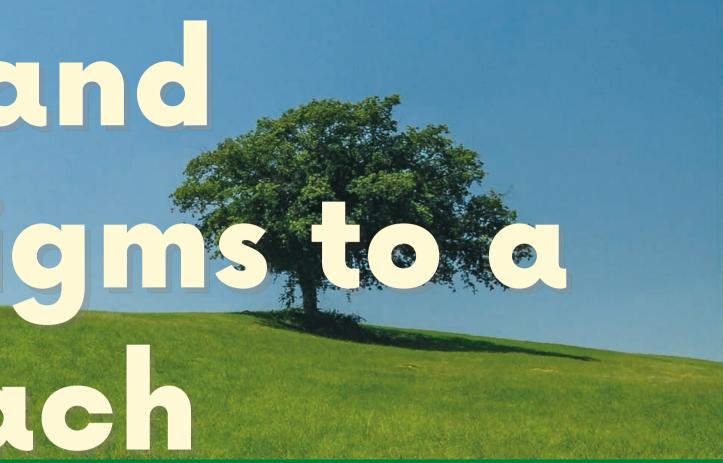
From production and protection paradigms to a and seape approach opportunities for cooperation between Protected Areas and large conventional agricultural enterprises





LISANNE RUISWIJK

Internship Analysis

- Internship Research (WUR & EUROPARC)
- 6 months
- Interviews and survey
- Personal perspective



Protected Areas and agriculture

- Together they make up 85% of EU land
- Cooperation usually focusses on sustainable agriculture
- More conventional agriculture, more impact
- Zero sum game or system of mutual benefits?

Research goal: Explore opportunities for cooperation between PAs and **Conventional agriculture**

"can nature be facilitated at the expense of agriculture or the other way around?"(Aarts et al., 2015)



Research Questions

How are PAs influenced by conventional agriculture and how do they work with large conventional farms?

2 What are the prevailing paradigms of PAs towards conventional agriculture?

B What opportunities can be found to cooperate with conventional agriculture?





- 6 months
- Definition conventional agriculture
- Germany, the Netherlands and Luxembourg

Conventional agriculture refers to farming systems which include the use of synthetic chemical fertilizers, pesticides, herbicides and other continual inputs, genetically modified organisms, concentrated animal feeding operations, heavy irrigations, intensive tillage or concentrated monoculture production. This type of agriculture is typically highly resource and energy intensive, but also highly productive.



Paradigms

- 'Scientific truth'
- Used to map scientific development
- Paradigm shift

For Agriculture and Protected Areas:

- After WWII: food safety & production paradigm
- Now: ecological limits to production
- Landscape Approach

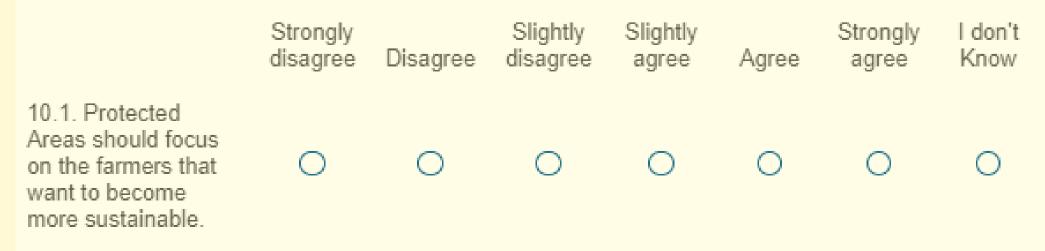
"though the world does not change with a change of paradigm, the scientist afterward works in a different world." (Kuhn, 2012)

Q methodology

- Qualitiative and quantitative research
- Systematic study of participant's viewpoints or paradigms by having participants rank statements (Brown & Rhoades, 2019)

Interviews (N=5)

- Best practices and lessons learned
- Statements collected for ranking
- Online Survey (N=16)
 - General information on cooperation with conventional agriculture
 - Ranking statements on a 7 point scale



THE CASE

nitrogen deposition -> cattle reduction

ALTH SETAIPAN S

- Circular and biodiverse
- Farmers as initiators
- Local cheese factory and branding

- Natural demarcation of landscape • Tourism and markets



- Inspiration for larger companies ->
 - changes in system thinking

Harana II III LESSONS LEARNED THE CASE

- Dissertation by Kristina Hondrila
- Farmer paradigm shifts
- Quality assurance (soil & water)
- Farmers remain market producers at their core

- Open mind towards others Cooperation must be practical • Flexibility for farmers • Find (sustainable) markets for farmers



CISE II: INSEC roject in Gera

THE CASE

- Five diverse biosphere reserves
- Insect conservation measures (new & old)
- Interview farmers in areas on perspective
- Looking forward to results!



LESSONS LEARNED

• Centralise bottom-up initiatives to find best practices and learn lessons • (diverse) funding sources are needed for these types of initiatives.

Survey results

- 16 respondents
- Netherlands and Germany
- 2 'double' responses
- 2 respondents from multiple areas



Kiel Rostock Lübeck Hamburg

oS

Berlin

Dresden

Pragu

Austria

Cz

Potsdam

Salzburg

Leipzig

Bremen

Hanover

Esseno

Cologne

Germany

Frankfurt

Mannheim

Nuremberg

Munich

Magdeburg.

Stuttgart

Strasbourge

Freiburg im Breisgau

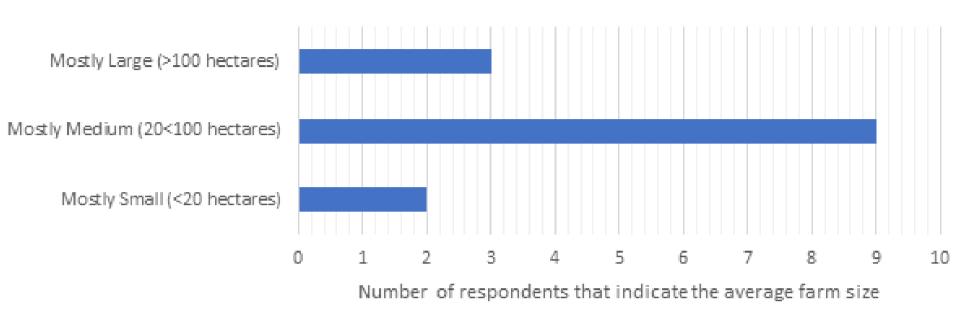
> Zürich \mathbf{O}

> > Liechtenstein

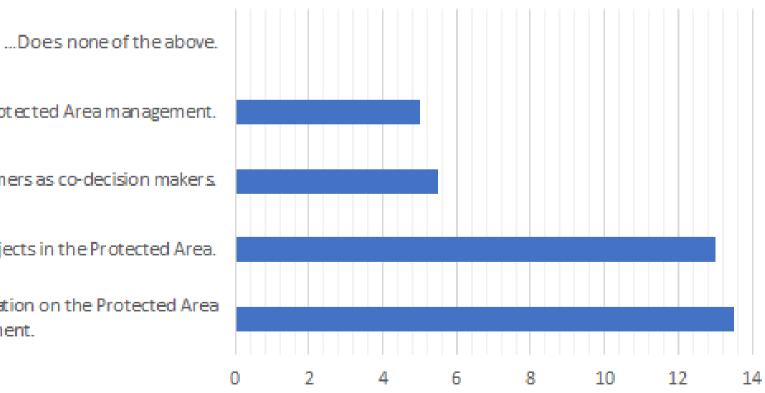
What is the average size of farms in and around* your

protected area?

*Around the protected area is defined as the farms that still expected to connect to the protected area through e.g. ground water.



Number of PAs that... (N=14)



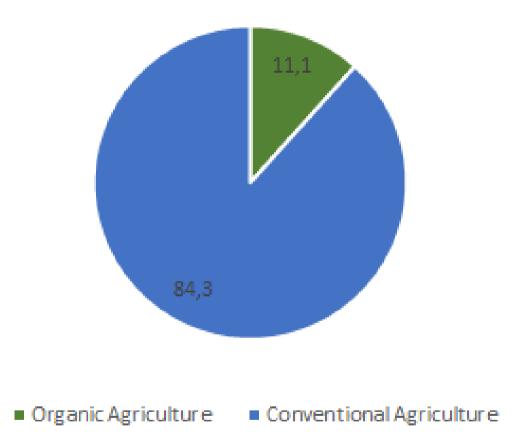
...Asks farmers for feedback on Protected Area management.

... Involves farmers as co-decision makers.

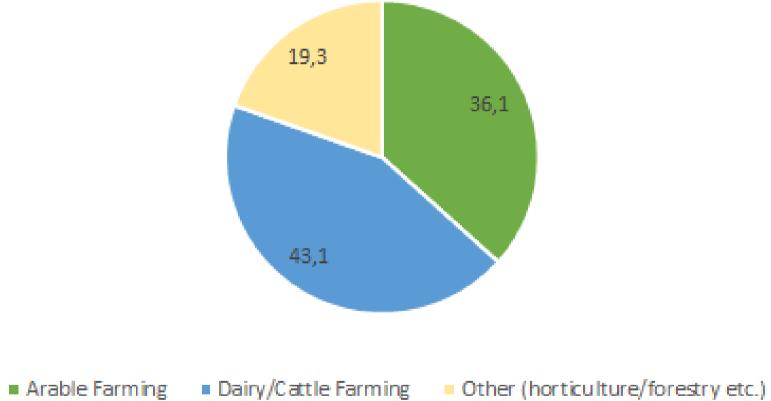
... Involves farmers in projects in the Protected Area.

... Provides farmers with information on the Protected Area management.

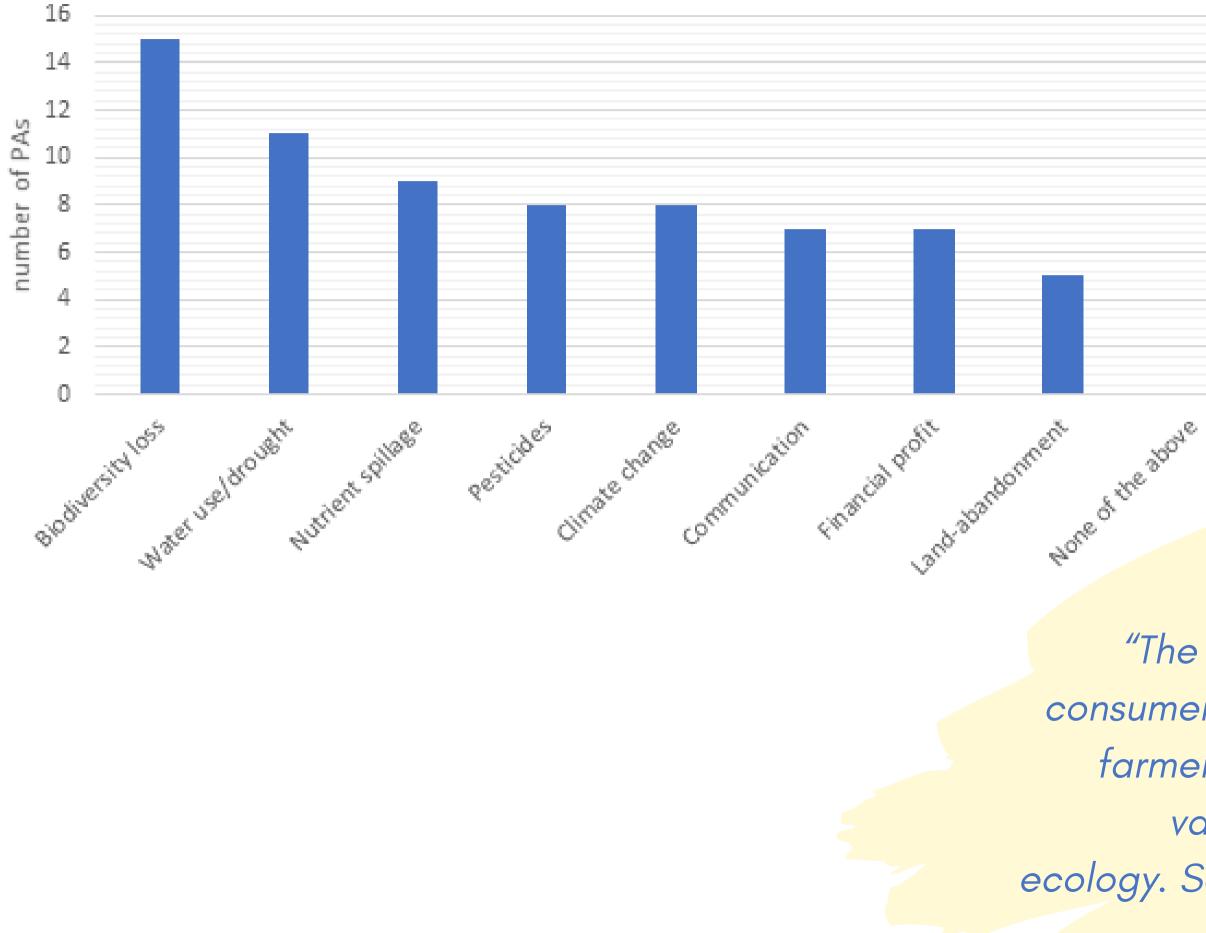
Division in organic and conventional agriculture



Share of agricultural elements



Number of PAs that identify main issues concerning PAs and large conventional agricultural enterprises (N=16)



"The products of farming are too cheap for consumers. The payment for ecological working farmers is too less and the consumers do not value the work of farmers for nature and ecology. So farmers often do not value ecology."

"In short: enhancing sustainable farming (in many ways) is a mutual interest of farmers and NPs."

Perceptions on conventional agriculture in PAs (N=16)

There should be more and more easily accessible information on Protected Area and Agriculture projects throughout Europe.

The current negative image of farmers in the media is misplaced.

There should be a focus on the win-win's between nature and agriculture.

To transform agriculture, the entire food production chain needs to be addressed, including markets and consumers.

Farmers and Protected Areas share a need to care for the landscape.

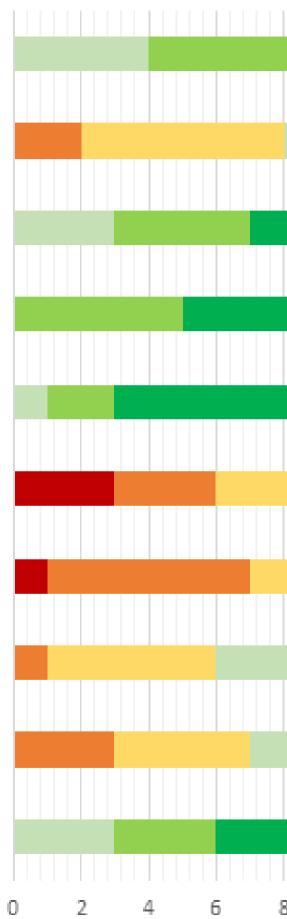
It is better to have intensive agricultural enterprises in and around your protected area than to have farmdisplacement or land-abandonment.

We should stop asking for more extensive agriculture and also welcome intensive agriculture due to its efficiency.

To cooperate with Farmers, Protected Areas must focus on technical aspects of agriculture such as soil quality and technical innovations.

Farmers cannot all become organic because there is not enough market for it.

Protected Areas should focus on the farmers that want to become more sustainable.



"Both [farmers and PAs] care for the landscape, but have often different opinions on what is meant by "good care" and how to care properly for a landscape."

16

Perceptions on environmental and agricultural regulation (N=16)

0

2

6

4

There needs to be stricter regulation on Environmental measures in agricultural policies like the CAP.

More environmental regulation are reducing the possibility to go organic because of the loss of freedom for custom-solutions

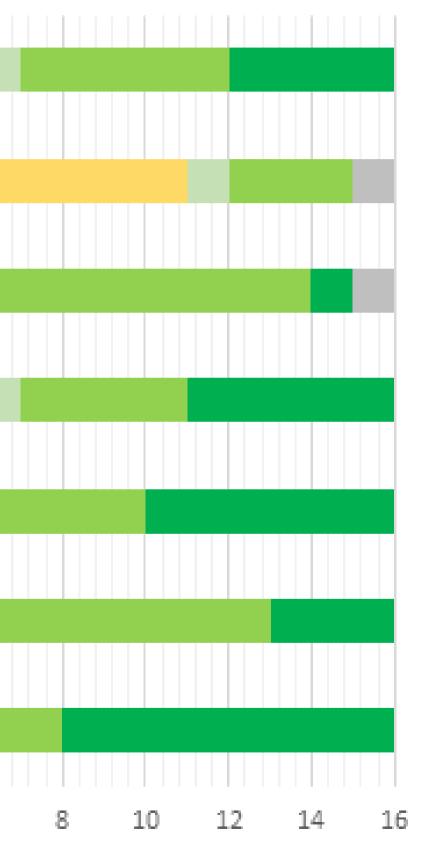
Subsidies for sustainable agriculture are not enough. Farmers need to keep producing for the market.

There should be more flexibility in regulations for farmers.

There should be less bureaucracy in EU agriculture policy to make it easier for farmers.

There should be more transparency on EU policies like the CAP.

> There should be more EU funding for sustainability measures.



Conclusions

How are PAs influenced by conventional agriculture and how do they work with large conventional farms in Germany, the Netherlands and Luxembourg?

- A lot of conventional agriculture in and around PAs (Cattle/Arable)
- Information provision and projects popular inclusiveness projects
 What are the prevailing paradigms of PAs towards conventional agriculture?
 - Protection Paradigm
 - Landscape Paradigm
 - Market Paradigm

What opportunities can be found to cooperate with conventional agriculture?

- Technical solutions
- Market appraoch
- Inclusive governance structures

v do they work with large oourg? le/Arable) projects onal agriculture?

Recommendations

- Keep an open mind towards different values and paradigms.
- Discuss how PAs differ in their approach on conventional agricuture through the protection paradigm and landscape approach.
- Explore:
 - technical solutions for conventional agriculture.
 - Possible markets and retail strategies for agricultural products.
 - Governance structures that involve farmers in PA management.
- Keep centralising best practices and new ideas.
- Continue to advocate for more money for sustainability, result based measures and more transparency in EU agriculture policies like the CAP.

Do you agree? Additions?



