



# RC3:

## Management Strategies

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Post Doc, Line Block Hansen

DNMARK Seminar, Skive October 2013



# RC3 – 3 interconnected tasks

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- 3.1: Identifying spatially explicit least cost options to reach N-reduction targets.
  
- 3.2: Investigating farmers responses to N-regulation policies.
  
- 3.3: Investigating landscape effects of N-regulation policies

# 3.1 OPTIMAL MEASURES

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Depends on:

Retention (Andersen)

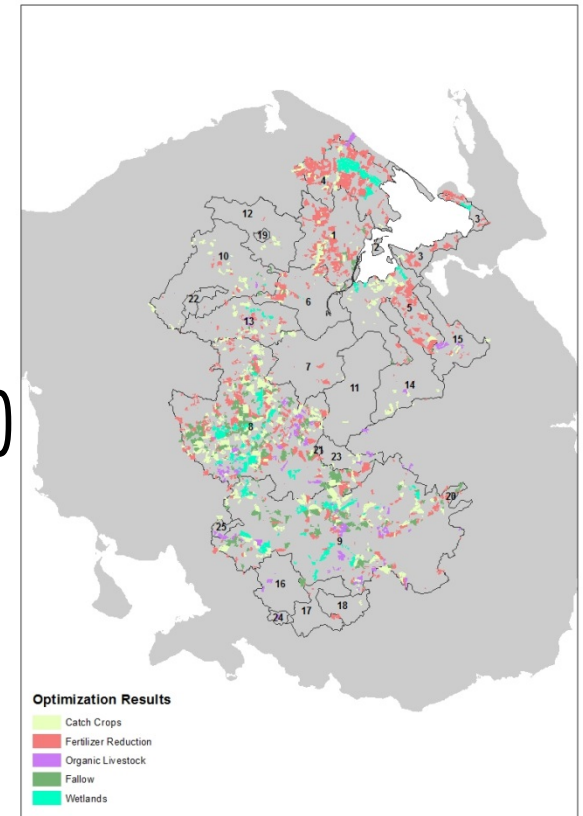
Effectiveness of measure (Andersen)

Cost of measure

Productivity

DNMARK:

Apply model framework  
to Limfjorden



Konrad et al, 2013

## 3.2 FARMER RESPONSES TO N-REGULATION

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- 1) Land is often in private ownership and voluntary agreements are often the only viable way governments can influence private decision making.
- 2) Landowners are different, productivity of their land varies and will respond differently to government initiatives
- 3) The regulator knows less than the farmer. Seek to achieve environmental goals without spending more of tax-payers money than needed.

# 3.2 FARMER RESPONSES TO N-REGULATION

## Testing potential schemes

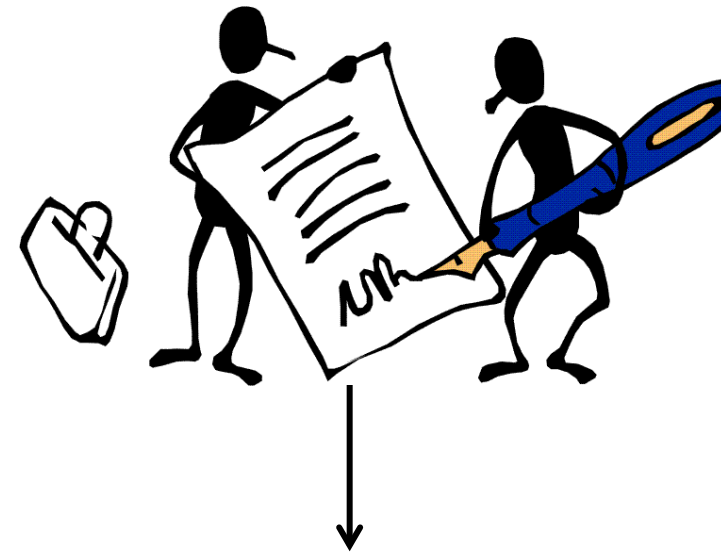
Attributes:

Land Management requirements:

e.g. Fertiliser application,  
Seasonal & spatial restrictions,  
Wetland creation,

Other contract issues:

Length of agreement,  
Burden sharing in catchment  
Payment.



DATA

Contract **A**

Contract **B**

No contract

## 3.2 FARMER RESPONSES TO N-REGULATION

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Use these behavioural data to reveal responses to potential schemes.

Develop farmer typology charactering different types of farmers and their likely responses to N-regulation

# 3.3 LANDSCAPE EFFECTS



Government

Land owners



Farm  
characteristics

Preferences →

A

B



BAU

ATT<sub>1</sub>

ATT<sub>2</sub>

Schemes

N-reductions

Participation