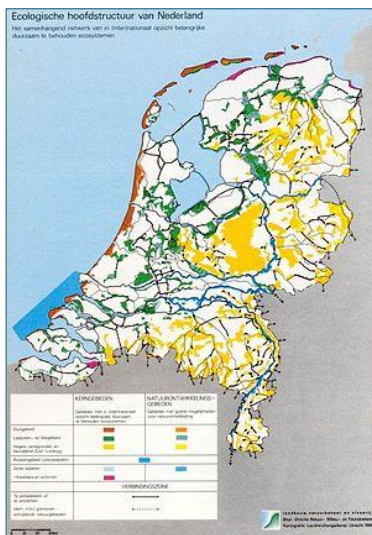


# Implementing an ecological network in a densely populated area under conditions of global change

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## The National Ecological Network (NEN)



- High ambitions in early nineties
- Toned-down several times
  - Declining support
  - Economic crisis
  - Budget cuts
  - Less farmland available



## Research questions:

- How will land acquisitions for the NEN proceed until 2025, for two contrasting global change scenarios?
- How will these acquisitions relate to the revised targets?



## Rural land exchange model: RULEX

- Estimates which farmers are willing to sell land (function of age, size and farming type)
- Estimates which parcels they want to sell and against which price (function of distance from farmstead and susceptibility to waterlogging)
- Estimates how much nature organizations are willing to pay for these parcels (function of distance to existing nature reserve and presence of wet conditions)

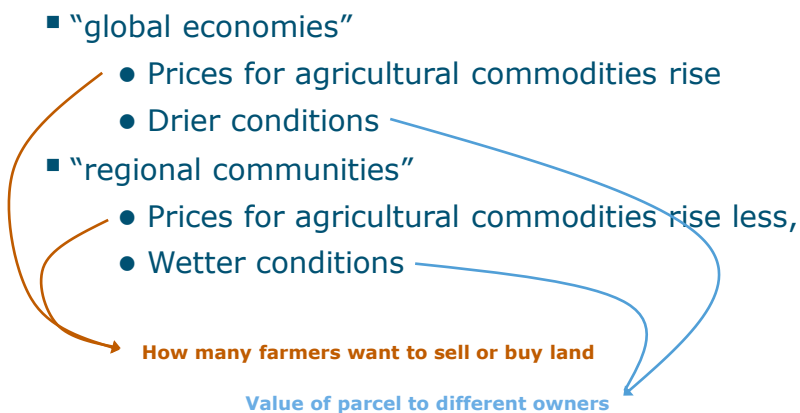


But,

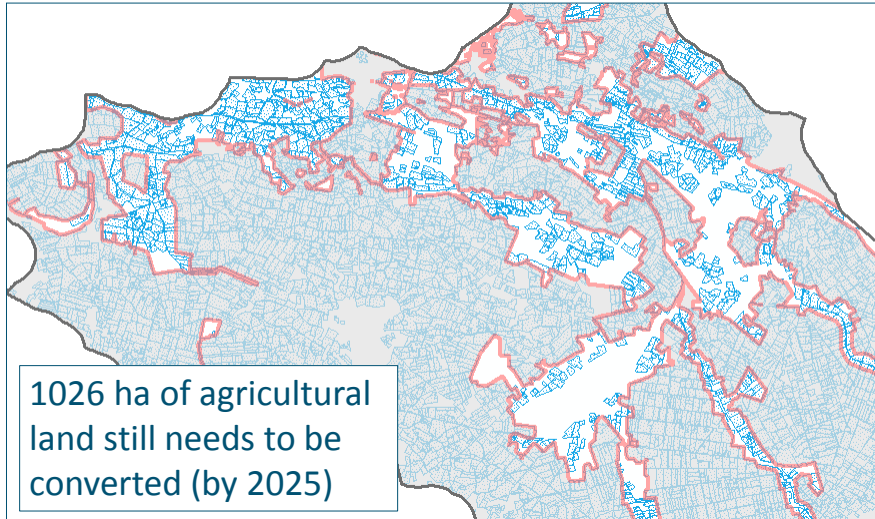
- .. they have to compete with other buyers:
  - Farmers that want to expand
  - Estate owners
  
- RULEX estimates their willingness to pay for for-sale parcels
- Parcel goes to highest bidder



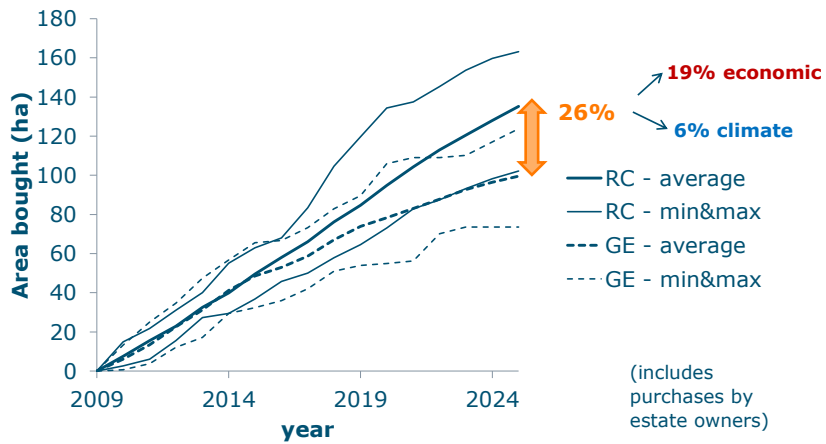
## two scenarios of global change



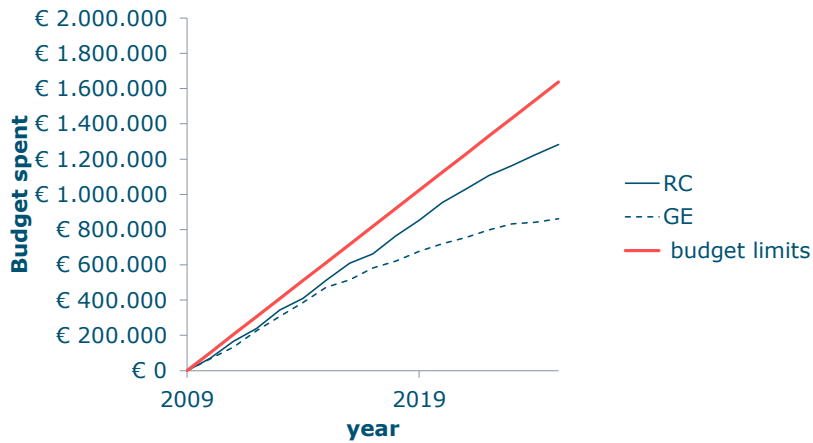
## Case study area



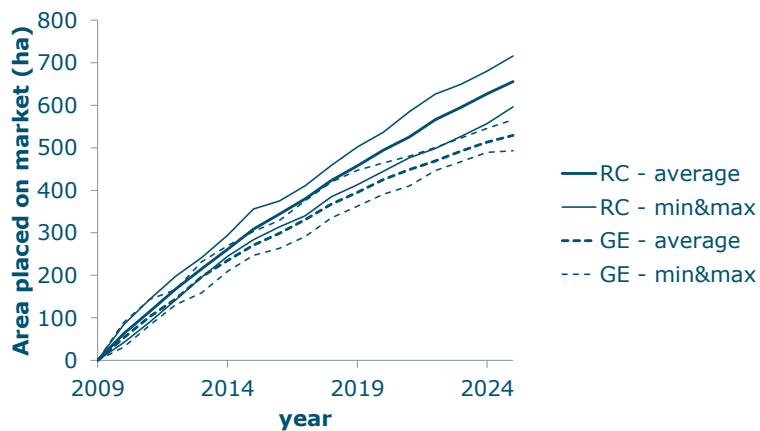
## Results:



## Budget limited?



## Important limitation: not that much land is placed on the market



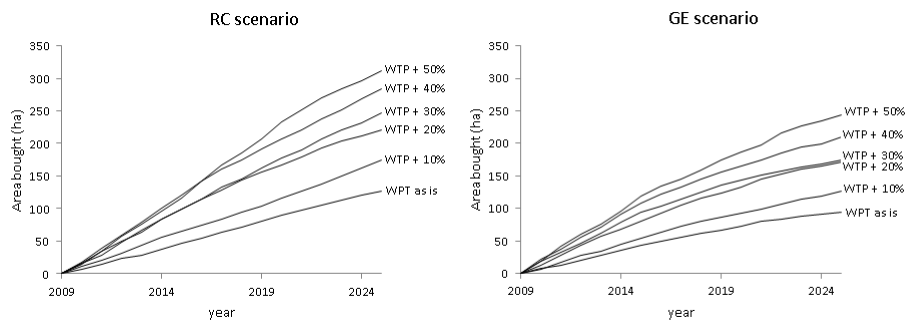
## Why?

- Reason 1: nature organizations are picky
- Reason 2: they lose the competition with farmers

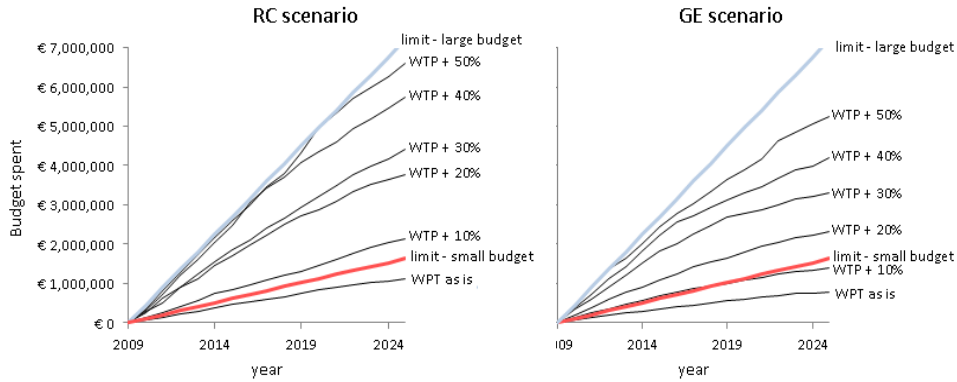


## What if nature organizations are willing to pay higher prices?

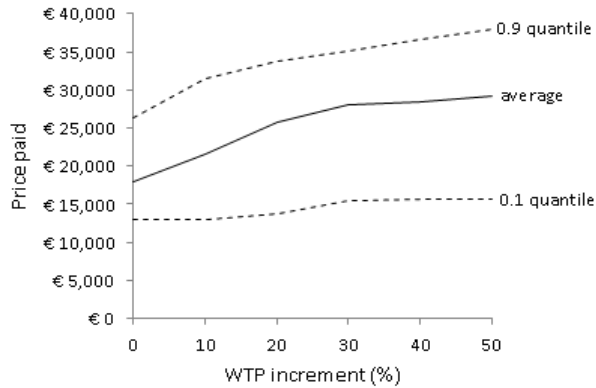
- Simulate increases of 10%, 20%, 30%, 40% and 50% higher willingness to pay (WTP)



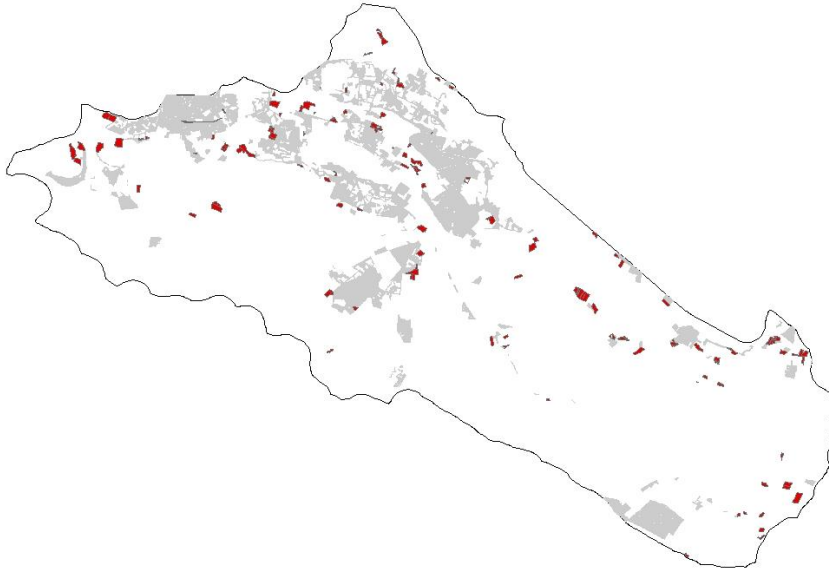
## But budget needs to be increased



## Should public money be used to outcompete farmers?



## Spatial pattern



## Conclusions

- NEN targets are not realistic
- Competition for land by farmers increases
- Wetter conditions alleviate competition somewhat



Thank you for  
your attention

