Spatial Planning and Ecological Main Infrastructure in the Netherlands

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The Dutch Deltametropolis in context
Of the NW European mega metropolis
Two dimensions of Spatial planning

Spatial arrangements
- spatial concepts,
- knowledge of physical environment and physical interventions

Organisational and procedural arrangements
- planning styles, management of process and plan formats
Ontwerp Structuurvisie Infrastructuur en Ruimte

Nederland concurrerend, bereikbaar, leefbaar en veilig

NOTA RUIMTE
RUIMTE VOOR ONTWIKKELING
Integraal

Groenproject
Landbouw
Water
Natuur
Recreatie

Hierkomen
Woningen
Winkels
Wegen
Stadspark

Integraal
Fragmentation of peat bogs in the Peel Area

Reclamations

- Still intact
- 1960-1980
- 1940-1960
- 1920-1940
Number of species of forest birds vs. acreage of woodlots in Netherlands

Van Dorp & Opdam, 1987
Green and Blue ‘Veins’

i.e. natural infrastructure of landscape
Metapopulation: Colonization from source population

→ Spatial dynamics within network
Ecological main infrastructure EMS designated in 1991
Nature Conservation Policy

Goal
• Preservation of biodiversity

Means
• Integration EU plans and directives
• Development of national ecological network EMS
• Corridors

Top down policy; implementation of EMS
Indicative ecological corridors
Ecological main infrastructure + robust connections + N2000 areas

In support of network populations in Netherlands
What happens to the green corridors?

Oosterwold
Province Flevoland
**spatial cohesion generator**

**Patch quality**
- change management
- change groundwater level
- change water quality
- create buffer zone
- ........

**Network density**
- add stepping stones
- add habitat patches
- ........

**Matrix permeability**
- increase density
- green veining
- add corridor
- use ecoducts
- ............

**Network area**
- create key patch
- enlarge patches
- merge two networks
- add robust corridor
- ........
Conclusions

- Spatial planning system under pressure: subsidiarity without clear designations
- Nature and land use planning long time partnership
- Ecological main infrastructure on hold
- Provinces take disparate perspectives