

Integrated Nitrogen Emission Abatement Strategy for Germany

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Why this strategy?

- Integrated N not established as an issue: fragmented approach
- N cascade not established as a concept
- N related environmental protection targets will not be reached
- They will be easier to reach when emitters and effects are treated in an integrated manner
- Policy support needed (environment, agriculture, traffic, energy,...)

Method

- based upon Nitrogen Abatement Programm (1997)
- UBA in-house data, knowledge and cooperation
- 2 years work-plan (August 2006 - July 2008), followed by external review and implementation
- 80 page „Background paper“ finalized mid 2007

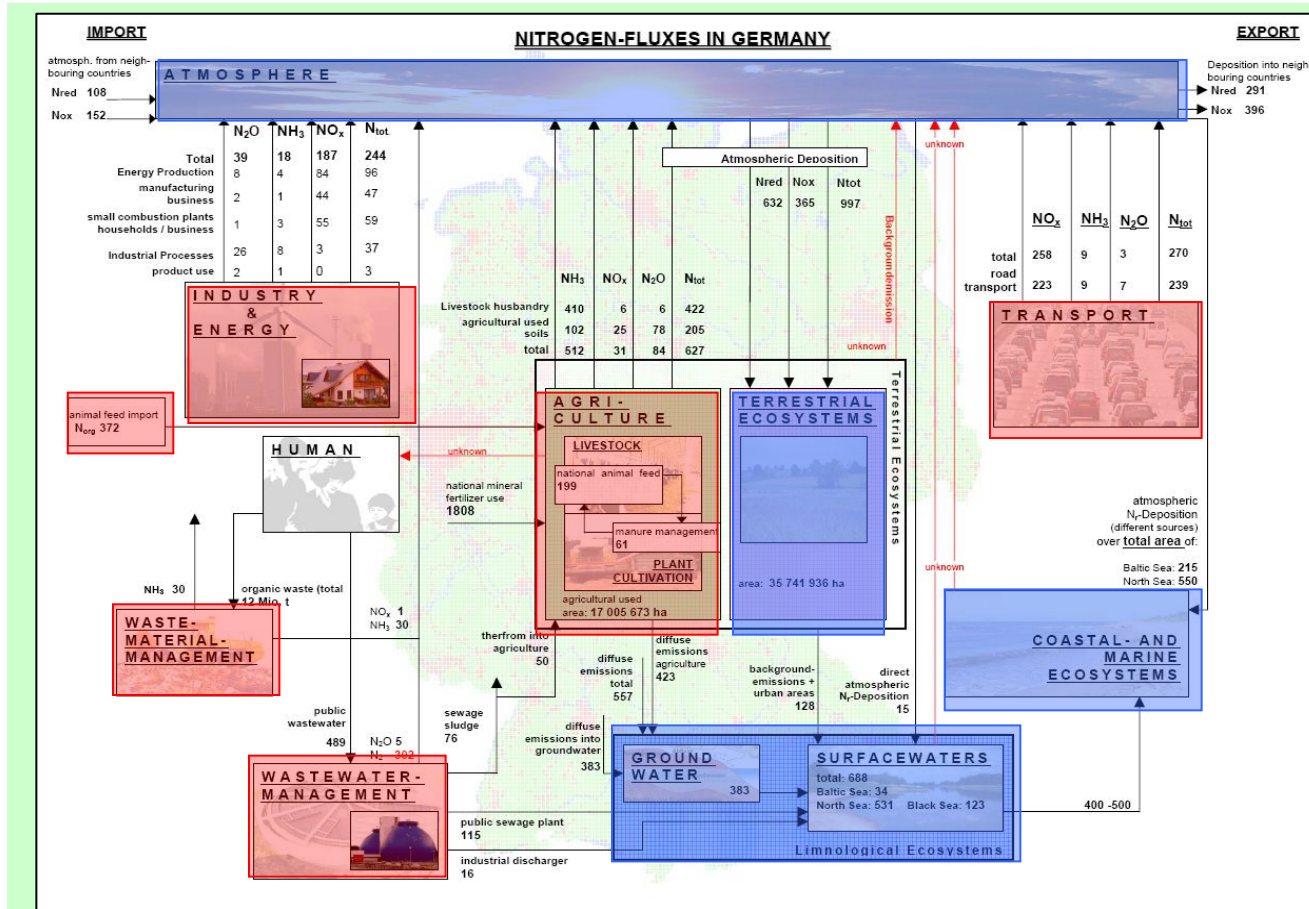
Customers and relation to international activities

- Environmental, Agriculture, Energy & Transport Policy
- NGOs and interested public
- European (NinE, COST729, TFIN, ...) & global N-networks;
- Structured similarly to ENA:

Structure

1. Effects in relation to the Nitrogen Cascade
2. National budget: Sources & fluxes of Nr
3. Nr related environmental policies and quality targets and their attainment
4. Effectivity of existing and planned measures & efficiency of instruments
5. Evaluation of measures&instruments in relation to quality targets (incl. pollution swapping) and recommendation of m&i packages

German N Budget



sources:

- Transport
- Industry / Energy
- Agriculture
- Wastewater treatment
- Waste treatment

fluxes:

- aquatic
- terrestrial
- atmospheric

Some results

- 1.900 Gg N_r Emissions
- 63 % atmospheric pathway
 - 50 % ammonia
 - 40 % nitrogen oxides
- 37 % terrestrial/aquatic pathways
- 56 % agriculture emissions
- 14 % Transport
- 14% Industry / Energy
- 14% Wastewater treatment
- **BALANCE NOT CLOSED!**

Ongoing work :

Evaluation of measures & instruments

- More than 40 measures & instruments (incl. packages) in different sectors to be assessed
- Most important criteria:
 - effectiveness of measures
 - efficiency of instruments (costs vs. abatement potential)
 - pollution swapping

Outlook

- Integrated N management for Germany in a European and global perspective
- Policy support on e.g.
 - NEC Directive and Gothenburg Protocol revision
 - Nitrate / WF Directive implementation
 - IPPC Directive and other source oriented legislation
 - UNFCCC incl. bioenergy, sequestration
- Integration: Evaluation of measures & instruments in relation to environmental effects and quality targets (incl. pollution swapping) and recommendation of m&i packages

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