Planned ENA workshops

ENA Workshop 1:

Multiple nitrogen problems and current policy measures

Dates: 22 - 23 May 2008
Focus: Development of ENA chapters 2, 3 and 4, plus review of wider ENA approach
ENA Lead: Oene Oenema

ENA Workshop 2:

Nitrogen processing in the biosphere

Dates: 18 - 20 June 2008
Focus: Development of ENA chapters 5-8, plus review of wider ENA approach
ENA Lead: Mark Sutton
Other information: Plan for 4 working groups (terrestrial, aquatic, marine & atmosphere), with a total of c. 60 leading experts

ENA Workshop 3:

Dispersion, budgets and impacts of nitrogen on different scales

Dates: 4 - 6 November 2008
Focus: Development of ENA chapters 9-13
ENA Lead: Gilles Billen
Other information: Plan for 5 working groups (i. rural landscapes, ii. urban landscapes, iii. regional watersheds & coastal eutrophication, iv. atmospheric transport & deposition and v. integrating European N fluxes), with a total of c. 60-70 leading experts

Other ENA Workshops

Managing Nitrogen in Relation to Key Societal Threats

Proposed dates: early 2009
Focus: Development of ENA chapters 14-18
ENA Lead: Peringe Grennfelt

European Nitrogen Policies and Future Challenges

Proposed dates: mid 2009
Focus: Development of ENA chapters 19-23
ENA Lead: Jan Willem Erisman & Hans van Grinsven

Please visit the N*in*E website regularly (www.nine-esf.org) to keep updated about further details of the different workshops.

Some more facts about the ENA

Major Sponsor:
Nitrogen in Europe: Current Problems and Future Solutions (N*in*E) - A research network of the European Science Foundation (ESF)

Key information sources:
National and European research projects and stakeholders, especially the NitroEurope Integrated Project

Coordinated by:
European Centre of the International Nitrogen Initiative (INI)

Coordination Team:
Mark Sutton, Jan Willem Erisman, Gilles Billen, Hans van Grinsven, Stefan Reis, Albert Bleeker and Peringe Grennfelt

Advisory Group during 2007:
Keith Bull (UNECE), Klaus Butterbach-Bahl (DE), Oswald van Cleemput (BE), Despo Fatta (CY), Benjamin Gimeno (ES), Liana Kalognomou (GR), Maria Loucao (PT), Luc Maene (Int. Fert. Industry Assoc.), Ulo Niinemets (EE), Oene Oenema (NL), Joergen Olesen (DK), Till Spranger (DE), Michel Sponar (European Commission), Wim de Vries (NL), Maren Voss (DE), Bernard Wehrli (CH)

Get in contact with the ENA team

If you want to contribute in any way to the ENA, please feel free to contact the ENA team via the N*in*E website (www.nine-esf.org) or by email (ena@nine-esf.org).

More N*in*E information

The N*in*E website (www.nine-esf.org) is the place where you can find information about the progress of N*in*E and ENA. We hope that this website will evolve to a meeting place for people interested in nitrogen-related work in Europe and beyond. A special topic on the N*in*E website is a database on Who-is-Who in Nitrogen. This searchable database facilitates interested researchers and/or other parties in finding the right person in the field of nitrogen-related activities. The database not only contains information about names, addresses of people and institutes, but also on fields of expertise and participation in relevant networks. To find out more about Who-is-Who in the world of nitrogen, go to the N*in*E website, register and you will be taken to a database of people involved in the European N-world.

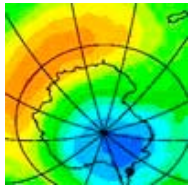
The European Nitrogen Assessment

As the major outcome of the ESF Nitrogen in Europe (or N*in*E) programme, the European Nitrogen Assessment (ENA in short) will address current nitrogen issues, the cascade effects and the interactions and feedbacks. The ENA provides valuable insight for governments and other stakeholders in the balance between the benefits of fixed nitrogen to society, against the different adverse effects of excess nitrogen in the environment.

This flyer contains information about the background of the ENA, its structure and the working plan for the coming years. Furthermore, it provides information on how to get involved in the production of this major effort in the field of integrated nitrogen in Europe.

Background

Human perturbation of the nitrogen cycle is a major societal threat with impacts on a wide range of global change issues from climate change and air quality to water quality and biodiversity. Much is already known about nitrogen and its transformations in the environment. However, the complexity and extent of the interactions mean that current scientific understanding and policy making has become separated into several parallel streams.



By focusing on these separate streams, there is the danger that developing adaptation and mitigation strategies will be far from optimal. The potential for trade-offs – or pollution swapping – between the mitigation of different nitrogen forms is well established. But, a more comprehensive understanding of the nitrogen cycle is needed to maximize synergies in future strategies. A key challenge from European nitrogen activities is to synthesise science in a form that is useful to governments and society. An assessment is needed that asks the question:

How can our scientific understanding of multiple nitrogen effects help Europe develop a more integrated approach to managing nitrogen in the environment?

There is a low public understanding of the importance of excess nitrogen as a threat affecting many environmental issues. The complexity of multi-pollutant – multi-effect interactions is a major hurdle to improving public awareness. How can the scientific community better communicate the "nitrogen challenge" facing society?

N*in*E develops the necessary synthesis between nitrogen issues, with the task of preparing the ENA. The ENA represents a three year effort (2008-2010) bringing together scientists, policy makers and other stakeholders with interests across the full range of nitrogen issues.

Structure of the ENA

The ENA represents a process of scientific and policy synthesis that will provide a major review of the role of excess nitrogen on environmental problems. Based on analysis of the problems and interactions, the review will explore the potential to establish integrated solutions and better communicate the implications to society.

The ENA report will have 5 major Sections, with 23 chapters. Each chapter will be written by leading international experts, comprising of Lead and Contributing Authors. Under the editorship of the Coordination Team, each chapter will be submitted to international peer review. The early chapters of the ENA report will be developed first, gradually building the understanding of integration, which will feed into development of the later chapters. The ENA process will contribute to bringing the different research and policy communities together, so that later chapters can be more synthetic across scales and issues.

The general approach will use workshops funded through N*in*E to develop groups of chapters. Relevant international experts will be invited by the Coordination Team to lead the preparation of background documents, which will be presented to these workshops. The workshops will be openly advertised through the ENA web portal (hosted by the N*in*E project). Similarly, the workshop reports will be disseminated through the ENA web portal, being open for interested parties to send comments to Lead Authors and/or the Coordination Team.

Approval for funding of the planned and future workshops will remain under the decision of the N*in*E Management Committee, each of whom is also a member of the ENA Advisory Group.

Outline of the ENA report

Summary for Policy Makers

Technical Summary

1. Introduction, Scope & Objectives

Section A - Nitrogen in Europe: the present position

2. The European nitrogen problem in a global perspective
3. Nitrogen in current European policies
4. The need to integrate nitrogen science and policies

Section B - Nitrogen processing in the biosphere

5. Nitrogen turnover processes and effects in terrestrial ecosystems
6. Nitrogen turnover processes and effects in aquatic ecosystems
7. Nitrogen turnover processes and effects in coastal and marine ecosystems
8. Nitrogen turnover processes in the atmosphere

Section C - Dispersion, budgets and impacts of nitrogen on different scales

9. Dispersion and fate of nitrogen in rural landscapes
10. Dispersion and management of nitrogen in urban landscapes
11. Nitrogen and regional Watersheds in Europe (including Coastal and Marine issues)
12. Atmospheric transport and deposition of reactive nitrogen in Europe
13. Integrating nitrogen fluxes at the European scale

Section D - Managing nitrogen in relation to key societal threats

14. Benefits of reactive nitrogen for food fibre and industrial production
15. Prioritization of the key threats of reactive nitrogen
16. Reactive nitrogen as a threat to European water quality
17. Reactive nitrogen as a threat to European air quality
18. Effect of reactive nitrogen on the European greenhouse balance
19. Reactive nitrogen as a threat to European terrestrial ecosystems and biodiversity
20. Effect of reactive nitrogen on European soil quality

Section E - European nitrogen policies and future challenges

21. Costing nitrogen in the environment
22. Future scenarios of nitrogen in Europe
23. Developing integrated approaches to better nitrogen management
24. Coordinating European nitrogen management between international conventions
25. Societal choice and communicating the European nitrogen challenge