

# **Task Force on Reactive Nitrogen**

## **Introduction**

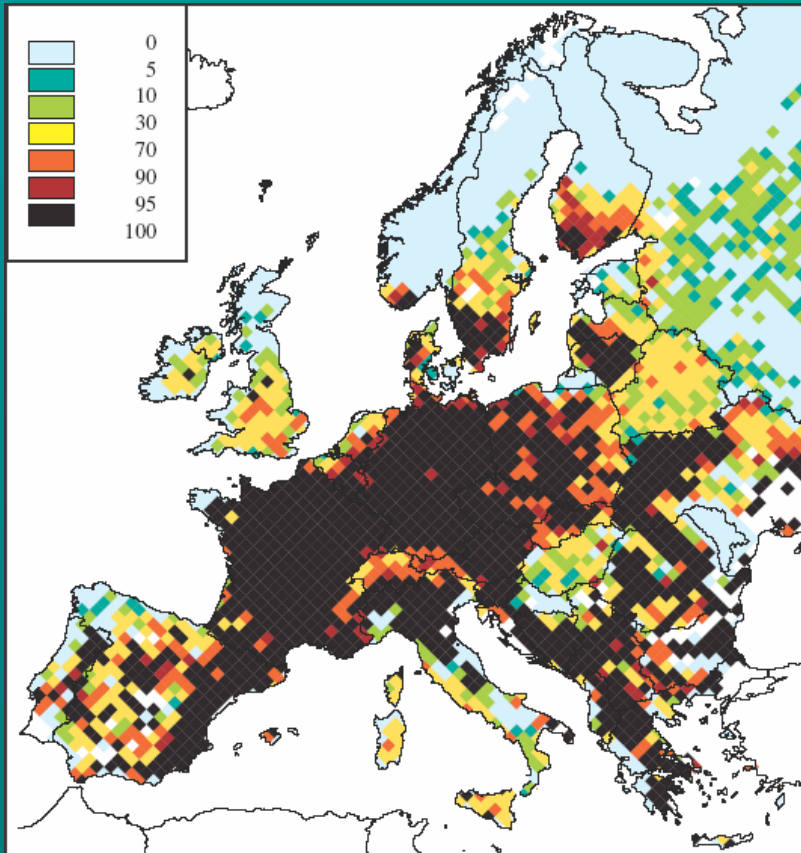
# Why a Task Force on Reactive Nitrogen?

- Increasing profile of reactive nitrogen
- Multiple impacts
- Developing holistic mitigation options
- Communicating across the CLRTAP
- Building relationships with N issues in other UN Conventions & national policies

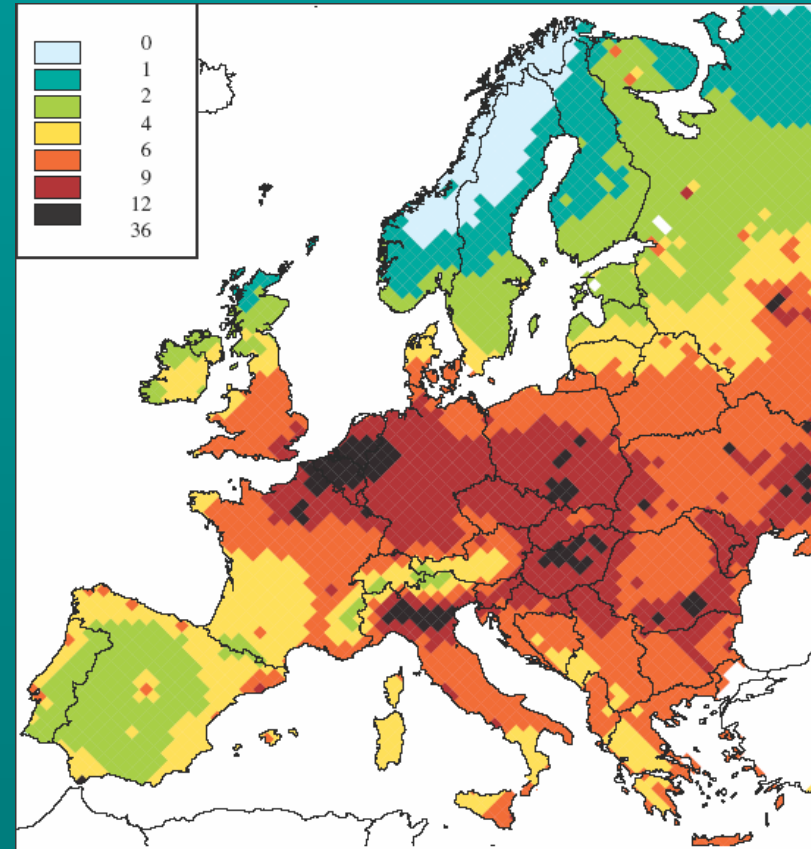
# Convention Long Range Transboundary Air Pollution

Critical load exceedance  
for N effects on ecosystems

Loss in life expectancy  
attributable to  $PM_{2.5}$



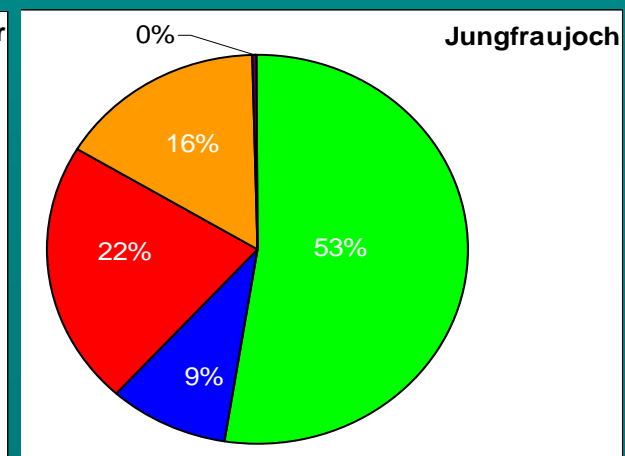
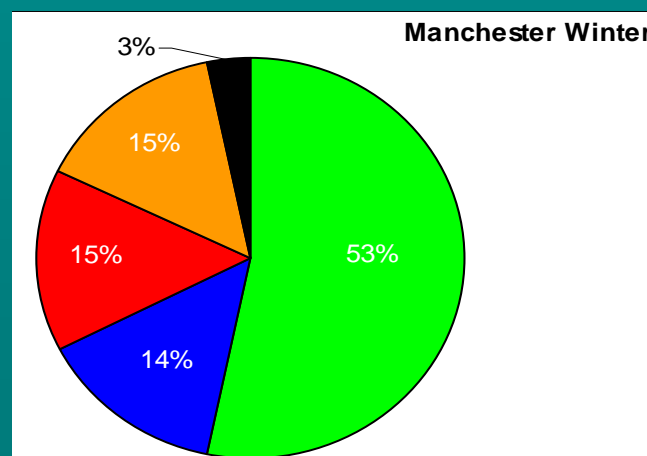
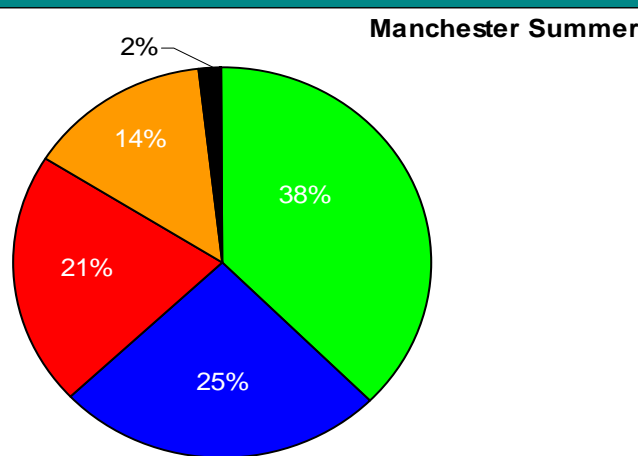
% of ecosystems area with grid  
average N deposition > eutrophication  
critical loads (for 2000)



Loss in average life expectancy  
in months due to identified  
anthropogenic  $PM_{2.5}$  (for 2000)

# Nitrogen as a fraction of PM1.0

- Example data from Aerosol Mass Spectroscopy (AMS)
- Nitrogen ~20-40% of total PM1.0
- Nitrogen ~ 50-70% of the ionic fraction



Ammonium

Sulphate

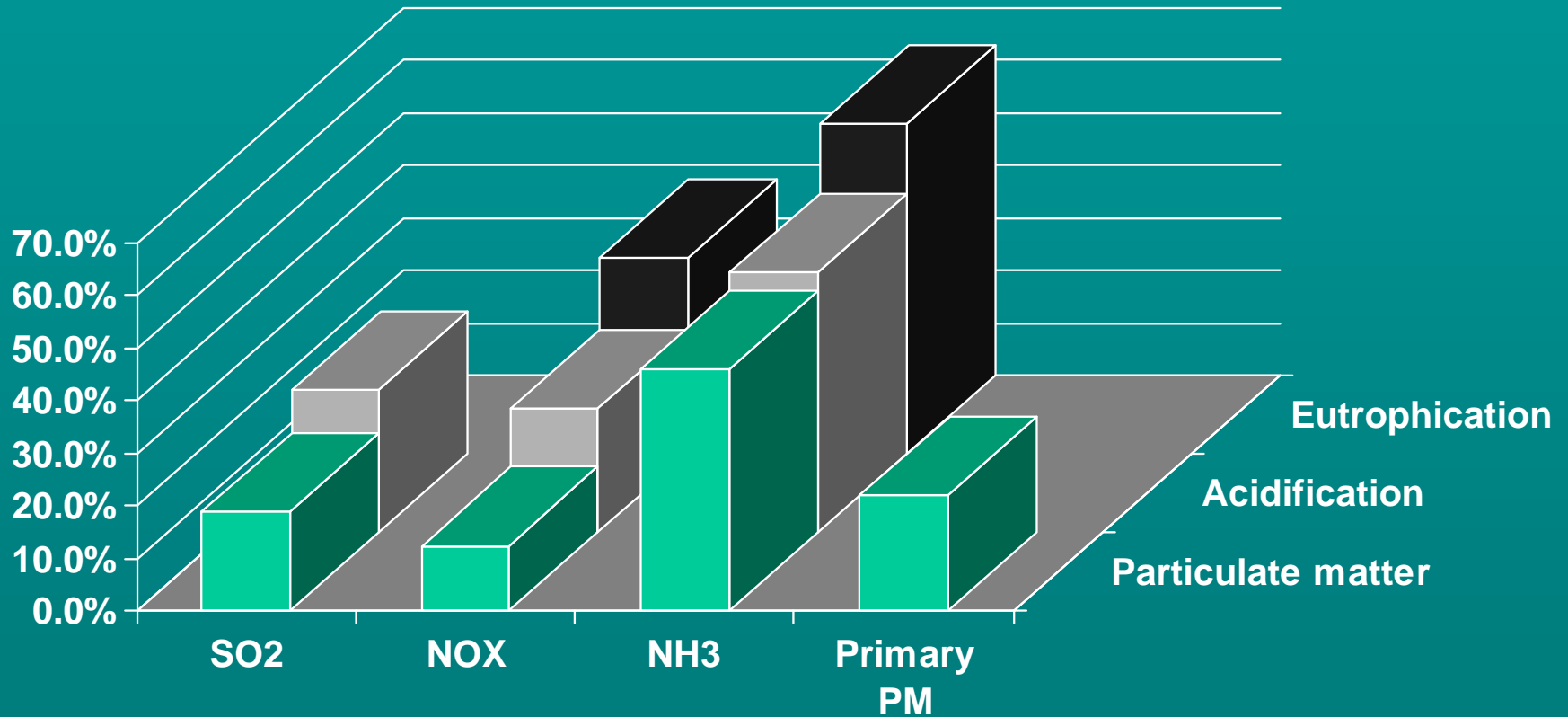
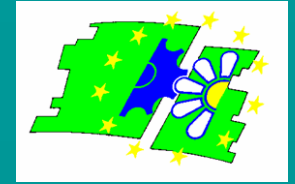
Nitrate

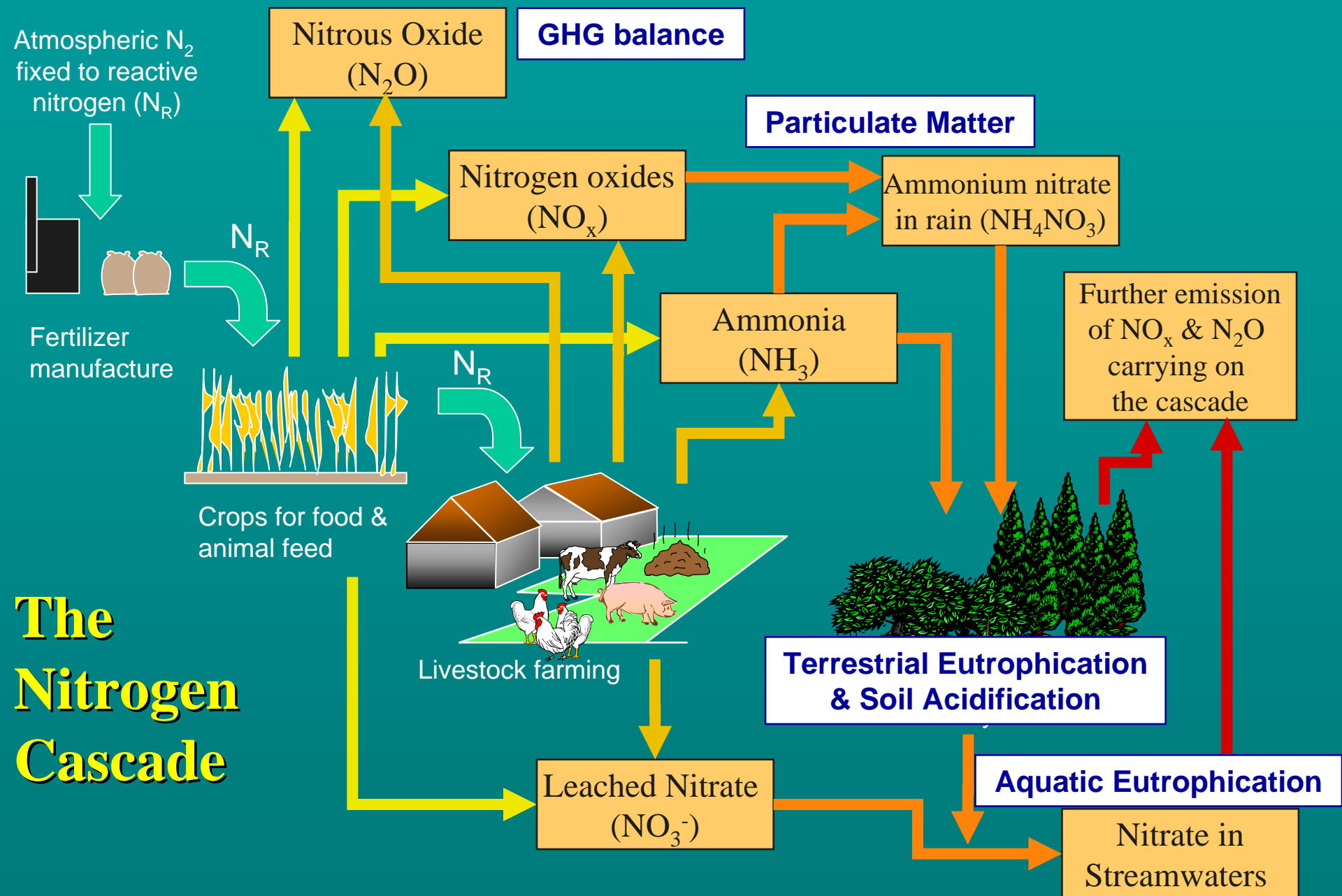
Chloride

Black carbon



# Percentage contribution of primary pollutants to the effects in 2020





# **Integrated Approach for Nitrogen**

- Discussions in the 1990s...
- International Nitrogen Initiative (INI)
- UNEP Process (Paris Meeting, Feb 2006)
- Recognition of need for integrated approaches in UNECE e.g. ammonia expert group

# Establishment of TFRN

- **March 07.** Saltsjobaden-3 Erisman: “Can the CLRTAP host an integrated approach to nitrogen?”
- **April 07.** WGSR: Proposal from UK and NL to reform Ammonia Expert Group as a NTask Force
- **Summer 07.** Discussion at WGE and EMEP SB on the proposal
- **Nov 07.** TFIAM/COST 729 Workshop on Integrated modelling of Nitrogen
- **Dec 07.** Executive Body (EB) of the Convention Presentation and decision

# Key challenges for TFRN

- *Develop scientific and technical information and options that encourage coordination of air pollution nitrogen policies... may be used by other bodies*
- Not replicating work of other TFs, WGs in Convention – but working with
- Develop a strategic overview for nitrogen
- Technical work on ammonia abatement and guidance document – discussion on the way forward
- **Task Force has high degree of flexibility on how to operate – depend on the contributions of you – National Focal Points and Experts.**