



JOINT OECD/TFRN WORKSHOP: THE NITROGEN CASCADE AND POLICY – TOWARDS INTEGRATED SOLUTIONS

OECD HEADQUARTERS, PARIS, 9-10 MAY 2016

Questions the workshop will address

- What are the scale and nature of the reactive nitrogen problem?
- Why a joined up approach to the nitrogen cascade could help?
- Which parts of the nitrogen cascade, or points of intervention, should we prioritise?
- What scale is best to address nitrogen challenges?

Potential Aim and concept of the workshop

Around 80% of anthropogenic reactive nitrogen is lost to the environment, representing a waste of an expensive resource, while contributing to threats to both ecosystems and human health. The key environmental and health impacts associated with changes in the nitrogen cycle include (i) climate change and stratospheric ozone layer depletion, (ii) air pollution and ground-level ozone, (iii) soil quality, (iv) water pollution and ocean dead zones, (v) biodiversity loss.

The OECD Working Party on Water, Biodiversity and Ecosystems (WPWBE) and the UNECE Task Force on Reactive Nitrogen (TFRN) have identified a common goal to address the benefits of optimizing practices to improve nitrogen management and reduce these adverse effects. In particular joined-up approaches across the nitrogen cycle may enhance cost-effectiveness and offer substantial co-benefits that can help overcome the barriers to meeting different environmental, food and energy goals.

This workshop will explore how thinking across the 'nitrogen cascade' may offer benefits for integrated nitrogen management. Specifically, it will consider the cascading costs of nitrogen cycling (in different forms and with different impacts) between air, soil and water. The workshop will explore the benefits of intervention at different points in the nitrogen cascade (e.g. air, soil, water) and at different scale(s) (e.g. country, region, airshed, watershed). The workshop's aim is not to look at instruments to achieve environmental (air, soil, water) policy objectives in isolation, but to develop a holistic view to inform and help to prioritise policy action (e.g. how to select intervention points) based on how the nitrogen cycle works.

This workshop will discuss current thinking on how to address the nitrogen pathways within and between air, soil and water. For example, what are the implications of the nitrogen cascade for developing practices that minimise pollution swapping and maximise co-benefits? Is nitrogen 'pollution swapping' still an issue when considering a framing toward improving nitrogen use efficiency? What implications does the nitrogen cascade have for the development of effective policy instruments? Could strategies that seek win-win situations across the nitrogen cycle help overcome barriers-to-change?

The presentation of background papers, international and national case studies will stimulate debate, leading towards developing a better mutual understanding between science, practice and the economics of nitrogen management. The emerging messages from the workshop will inform the future development of WPBWE and TFRN guidance aiming at maximizing cost-effectiveness by linking policies and practices to nitrogen pathways across the nitrogen cycle.

PRELIMINARY AGENDA (AS OF 19 FEBRUARY 2016)

Monday 9 May	
09:30-10:00	Opening of the Workshop
	This introductory session will outline the rationale for why we should “think cycle”.
10:00-12:30	Session 1. Toward “joined up” approaches
	There is growing awareness that more integrated/holistic/cross-sectoral approaches to nitrogen management are needed to respond to nitrogen challenges. This session will explore the opportunities and challenges associated with developing such “joined up” approaches.
10:00-11:00	TFRN, OECD and keynote speakers will introduce the following questions: <ul style="list-style-type: none"> • Are current nitrogen management policies adequate to the task of managing the spatial and temporal characteristics of nitrogen impacts on the different environmental media? • Do the uncertainties associated with the nitrogen cycle suggest that countries should adopt nitrogen use efficiency policies across the economy? • Is across the board efficiency enough, or could a better understanding of nitrogen pathways guide future policy intervention and improve cost-effectiveness?
11:00-11:30	Coffee break
11:30-12:30	Floor opened for discussion
12:30-14:00	Lunch break
14:00-16:30	Session 2. Country experiences
	This session will discuss countries’ efforts to improve the coherence of nitrogen policies and, as appropriate, steps taken by countries to develop “joined up” approaches.
14:00-16:00	Volunteer delegates will present on recent developments in their countries with respect to joined up approaches to nitrogen management Questions and answers after each presentation
16:00-16:30	Coffee break
16:30-18:00	Session 3. Toward an International Nitrogen Management System (INMS)
	This session will discuss the architectural relationship between INMS as science support and the "nitrogen policy arena" and clarify what information is needed from both the science and the policy sides from different user views.
16:30-17:00	Keynote speakers will provide an update of the Toward INMS initiative
17:00-18:00	Floor opened for discussion
18:00	Close of Day 1
Tuesday 10 May	
09:30-16:30	Session 4. Toward best management practices
	This session will review the unintended consequences of current nitrogen management practices on nitrogen pathways -- both positive consequences (co-benefits) and negative consequences (pollution swapping) -- and recommend “best management practices from a nitrogen cycle perspective” (BMP_Nc) that should be emphasized in policy.

	<p>This session will also address key questions related to food choices.</p> <p>Session 3 will consist of four parallel sessions.</p> <p>For the three parallel sessions on agriculture, fossil fuel combustion and wastewater, experts will introduce the following questions:</p> <ul style="list-style-type: none"> • What are the key unintended consequences of current nitrogen management practices on the nitrogen cycle? • Which “best management practices from a nitrogen cycle perspective” (BMP_Nc) should be emphasized in policy? • To which extent do current policies create incentives or disincentives toward adopting such BMP-Nc? <p>For the parallel sessions on “optimizing food choices”, experts will introduce the following questions:</p> <ul style="list-style-type: none"> • How much could food choice optimization contribute to reducing nitrogen pollution? • What could be the health benefits of optimizing dietary choices to reduce nitrogen pollution? • What measures aimed at the consumer could change behavior? 	
09:30-10:00	Parallel session on agriculture Experts will introduce the key questions	Parallel session on fossil fuel combustion Experts will introduce the key questions
10:00-11:00	Floor opened for discussion	Floor opened for discussion
11:00-11:30	Coffee break	
11:30-12:30	Wrap up discussion	Wrap up discussion
12:30-14:00	Lunch break	
14:00-14:30	Parallel session on optimizing food choices Experts will introduce the key questions	Parallel session on wastewater Experts will introduce the key questions
14:30-15:30	Floor opened for discussion	Floor opened for discussion
15:30-16:00	Wrap up discussion	Wrap up discussion
16:00-16:30	Coffee break	
16:30-17:00	<p>Report back from the four parallel sessions</p> <ul style="list-style-type: none"> • Agricultural N management • Optimising food choices • Wastewater treatment • Fossil fuel combustion 	
17:00-17:45	Session 5. Nitrogen budgeting	
17:00-17:15	This session will discuss how comprehensive national nitrogen budgets can support policy prioritization and what more needs to be done.	
17:15-17:45	Experts will provide an update of nitrogen budget as a tool for policy making	
17:45-18:00	Floor opened for discussion	
17:45-18:00	Closing remarks	
18:00	Close of Workshop	