

EPNF2 - 4th meeting - Minutes

Webex-meetings 6-9/12/2017

The Expert Panel on Nitrogen and Food (EPNF, <http://www.clrtap-tfrn.org/epnf>) aims “to create a better understanding of the relationship between human diets and the impact of the N-cycle on the environment” (WGSR 47th, September 2010). The objective is to produce a report to the Parties of the Convention on the key questions around the topic of how current diets can be made more healthy and more sustainable. These key questions were formulated in the Proposed aims, structure and scope for the second phase of the Expert Panel on Nitrogen and Food (EPNF) ([WGSR 53rd, December 2015](#)).

The EPNF met so far on four occasions, i.e. Paris (May 2016¹), Milan (November 2016²), Wageningen (June 2017³), and via webmeeting (December 2017). During these meetings, much progress has been made to define the focus of the report, the chapter/paper required to support the report with the latest scientific evidence, and to ‘recruit’ a group of experts covering the wide range of disciplines required for comprehensive food system assessment. Objective of the fourth meeting was to update each other on the progress and challenges in each of the planned papers, decide on next steps, and discuss cross-cutting issues.

The meeting was held as a series of webex sessions in the first week of December as shown in [Table 2: Agenda of the meeting](#). The responsibilities of each chapter briefly presented:

- Brief sketch of the idea/outline
- Progress so far and current status of paper
- Challenges/problems if any and ideas to overcome these
- Planning for next steps,

followed by a discussion. This information was compiled in a [Google spreadsheet](#)

Here, main conclusions and action points are listed. A brief summary of content, status and an assessment of ‘being on track’ for the planned background papers for the EPNF2 report (either as peer reviewed paper or as a report) is given in [Table 1](#). Overall the work is sufficiently on track in view of the current ambition to be ready for submission to a special issue in late-summer 2018, however, some papers are delayed and require increased efforts.

¹ http://www.clrtap-tfrn.org/sites/clrtap-tfrn.org/files/documents/EPNF2/EPNF2-1_minutes.pdf

² http://www.clrtap-tfrn.org/sites/clrtap-tfrn.org/files/documents/EPNF2/EPNF2-2_minutes_v2.pdf

³ http://www.clrtap-tfrn.org/sites/clrtap-tfrn.org/files/documents/EPNF2/20170621-2epnf2-3_minutes.pdf

Actions and Decisions:

- ❑ **Special issue:** M to contact Charles Godfray for pre-information on Special Issue in the [Philosophical Transactions of the Royal Society B- Biological Sciences](#) ([Submission for proposal deadlines](#) on 15th January, 16th April, 16th July - pre-proposal enquiry suggested)
- ❑ **Next meetings:**
 - ❑ Two groups (Consumer policies, Farm level NUE) plan one additional web-meeting for the end of January; exact date(s) to be defined.
 - ❑ Alberto to investigate logistics for next physical meeting. Current plan: <http://residencialucasolazabal.es/en/> (vicinity of Madrid) in May - doodle to be sent out once availabilities are checked.
- ❑ **Communication:** Proposal (A) to use twitter for sharing relevant information and later own results to a wider public (those following food system / sustainable food production / etc. news) was not accepted as currently most EPNF members do not use twitter and don't see twitter as an efficient dissemination tool.
- ❑ **Drafts promised** to be shared 'soon' (January)
 - ❑ R/B: Diet narratives
 - ❑ N: List of technologies
 - ❑ L/M: list of papers included in review + assignment (done)
 - ❑ S: proposal for questionnaire/interviews (to be done in January)
- ❑ **Data exchange**
 - ❑ B to provide gridded emissions to FASST (netCDF, 0.5 deg) for testing; CAPRI data to be provided in February
 - ❑ CAPRI data to be provided to GREEN model in February for testing
 - ❑ Diet model results to be shared soon (kcal per MagPIE commodities, waste fractions)
- ❑ **Contacts**
 - ❑ J/S to contact BW and check possible cooperation with FENS
 - ❑ S to contact TL for possible cooperation and FAO-SDG group
 - ❑ F to check with ROBUST project partners

Table 1: Summary of planned (background) papers for the EPNF report [back](#)

Title	Content	Status	On track?
The limits of food production NUE	Farm level NUEs embedded in SSP narratives, based on technology mixes	Idea developed - "real" work has yet to start	Delay but not of concern yet
Do we really need land and sun for food production?	Substitution land vs energy for food production based on LCA thinking; discussion of paradigm that agriculture 'contributes' to mitigation by delivering biofuels.	Idea developed but not more	Delay but not of concern yet
Future foods: towards a planet friendly diet for a growing population	Micro and macro-nutrients in alternative protein sources and corresponding environmental impact (land, energy, GHG)	Paper close to submission (will not be part of special issue)	Yes
Future foods 2 - N aspects	As future foods 1 for Nr, based on CAPRI	Idea, work will start seriously once Future food 1 has been submitted	Delay but not of concern
Food losses and circular nitrogen flows in the post farm gate food chain	Material-flow analysis of whole post-farmgate food systems incl. disposal phase, identifying hotspots and opportunities to improve circularity of food systems	Outline available, draft paper planned for April 2018	Likely
Dietary recommendations	Assessment of dietary guidelines on communication of EPNF-relevant issues (e.g. proteins, plant vs animal sourced food etc.)	Addendum to ongoing work - will be technical report (not peer-reviewed)	Yes (not urgent)
Dietary megatrends and storylines for future scenarios	Create food and diet storylines for SSPs, focus on health and sustainability	First storylines already developed. Draft planned for April 2018	Yes
Diet models	Diet model based on Schoenefeld equation (as function of income and demography)	Models established, some fine-tuning to be done. Draft paper available in April.	Yes
Health effect of Nr losses to the atmosphere in the food chain	Review current state of knowledge on emissions, resulting pollutant levels and their impacts; identify knowledge gaps. (Assessment of health effect of scenarios to be discussed later)	Outline available; draft report foreseen for March 2018 (planned as JRC technical report, not peer reviewed paper)	Yes (not urgent)
Impact of Nr losses to water	Explore the effects on human health of nitrogen losses from the food chain to waters, under current conditions and future scenarios.	Content discussed, work will start once first simulation results are available.	Yes as can only 'start' later
Expanding horizons: policy opportunities to reduce nitrogen pollution along the agricultural value chain	Possible policy intervention for major value chain actors on the basis of examples (case studies) and development of criteria to assess effectiveness.	Paper coordinated independently of EPNF with EPNF contribution. Draft available	Not applicable (but yes nevertheless)

Mapping of policies for a more sustainable food choice	Inventory of policies aiming at improving sustainability of consumer choices. Focus vegetable vs animal sourced proteins, household waste, obesity.	Extended outline available, work distributed. Draft paper available in April.	Yes
Understanding policy and societal changes to promote transition towards sustainable and healthy agri-food system	Integrated approach for policy making to public health and the environment and how to prompt changes in this direction. Case studies at city level	Outline available, case studies must be developed. Draft paper envisaged by April 2018 (challenging).	Possibly yes
Healthy and nitrogen-smart: trade-off or win-win?	Focus not yet decided ... to be discussed at next meeting.	Not started yet	Somewhat delayed.
Reduction of N pollution: improved supply versus changed demand	Identify the 'mitigation gap' to reach Nr and GHG mitigation target for a number of scenarios and their policy space with model simulations.	Delayed start. First results expected for April; outline early summer, draft paper in summer.	Somewhat delayed.
Representative diet-pathways: the cost of unhealthy diets	Extension of Oxford health model (age, physical activity).	To be decided of extra paper of (likely) part of larger overview paper.	Undefined

Table 2: Agenda of the meeting [back](#)

Working title	Main author(s) Deleted for online version	Day	Start	End
Food losses and circular nitrogen flows in the post farm gate food chain		4/12/2017	15:30	16:30
Health effect of Nr losses to the atmosphere in the food chain		6/12/2017	08:30	09:30
Impact of Nr losses to water		6/12/2017	08:30	09:30
Dietary recommendations		6/12/2017	09:30	10:15
Dietary megatrends and storylines for future scenarios		6/12/2017	09:30	10:15
Agricultural pathways		6/12/2017	09:30	10:15
Healthy and nitrogen-smart: trade-off or win-win?		6/12/2017	10:30	11:30
Reduction of N pollution: improved supply versus changed demand		6/12/2017	10:30	11:30
Representative diet-pathways: the cost of unhealthy diets		6/12/2017	11:30	12:15
Plenary Session		6/12/2017	13:30	14:30
The limits of food production NUE		6/12/2017	15:30	16:30
Do we really need land and sun for food production?		6/12/2017	15:30	16:30
Future foods: towards a planet friendly diet for a growing population		6/12/2017	16:30	17:15
Future foods - N aspects		6/12/2017	16:30	17:15
Expanding horizons: policy opportunities to reduce nitrogen pollution along the agricultural value chain		7/12/2017	13:30	15:15
Mapping of policies for a more sustainable food choice		7/12/2017	13:30	15:15
Understanding policy and societal changes to promote transition towards sustainable and healthy agri-food system		7/12/2017	13:30	15:15