Attending:
Natalia Kozlova (NK), Donal Murphy-Bokern (DM), Nick Hutchings (NH), Clare Howard (CH), Jürg Heldstab (JH), Adrian Leip (AL), Lidia Moklyachuk (LM), Albert Bleeker (AB), Wilfried Winiwarter (WW), Magdalena Pierer (MP), Andrea Schröck (AS)

Chair: WW, notes: AS and WW

WW welcomes all participants, invites for a short introduction round

Topics according to the agenda:

1) Draft final "showcase" document

MP introduces a revised version of the "humans and settlements" annex. The document has been made available to all participants. Improvements refer to defining a lower limit of N flows to be considered, the inclusion of the sub-pool "pets" and an approach covering treatment of products vs. substances in industrial products.

Comments received refer to the suggested lower limit of N flow (possibly 100 tN/mio inhabitants and year may be more realistic), request a less theoretical and more practical approach possibly including an example of calculations. Also connection to food industry (to be set in the industry pool) should be drawn. That would allow to better care for different loss pathways. There was general approval of the progress that has been made since the previous version.

2) Status discussion of further annexes

Atmosphere: A first draft has been made available by Alessandra di Marco (AdM) who unfortunately is unable to participate. As the text was distributed some feedback is possible, and will partly be presented directly to the author. Generally, it was noted that more structural coherence between annexes is desirable. As a closed budget is needed, also fixation flows need to be considered (industrial, biological N fixation, combustion-related fixation). To be further explored, whether the focus of these fluxes needs to come from the neighboring pools, which are not properly reflected in the current paper's Fig. 1. E.g., agriculture may have much better information about biological fixation – which does not mean the flow should be ignored in Atmosphere, only the quantification might be performed elsewhere. Finally, it is questioned how useful international datasets as recommended defaults are for such an exercise – after all, EPNB attempts to encourage national experts to derive national data.

The efforts of AdM to provide a first draft are greatly acknowledged by the goup, which is looking with considerable interest towards an improved second version of the paper.

Energy and fuels: AB still takes responsibility, but no progress has been made. An update of the situation will be provided at the next meeting.

Waste: CH will work on this and provide a first draft by the end of the year. She will interact with the "human and settlements" pool.

<u>Agriculture</u>: with a focus to farm budgets, NH will not be able to take this task. Instead, AL (probably in collaboration with Wim de Vries) will use to a large part existing guiding documents as a basis (also in order to be compatible and avoid double work).

<u>Forests and semi-natural vegetation</u>: WW reports from a funded project issued by UBA Germany (Markus Geupel) to Umweltbundesamt Vienna (Thomas Dirnböck). Activities will start beginning 2014, a first draft paper may be available for the next meeting.

3) Initialize work on any annexes (pools) still remaining

Material and products in industry; Hydrosphere are still open. WW asks for suggestions of possible authors, and encourages EPNB members to use the successful launch of the guidance document to request funding for their own activities and those of others in connection with EPNB work.

4) Farm nitrogen budgets

A paper draft has been provided by NH which was only circulated just before the meeting. NH shortly introduces the document briefly and asks for feedback. As an immediate reaction, the major differences to the "agriculture pool" of the national N budgets are questioned. Generally, there should be an aim to harmonize, but the farm budgets may see an item like N flows between farms quite differently. Furthermore existing approaches should be considered here too which may create some incompatibilities. DM will be able to offer from German experience where farm budgets start to attract public attention (to be further discussed bilaterally). There is a request to consider the situation in countries that have less advanced datasets available, as also these countries should be able to provide budgets of their test farms, in order to provide improvement considerations.

5) Progress on dynamic tool on N budgets.

JH presents slides of recent developments of the tool (now successfully implemented in GAMS) and the next steps planned. Specifically, the idea is to extend the currently operating "reduced model" for Switzerland to an extended model covering all flows, and to integrate the German inventory now also available for two years. If there is demand, JH and AL offer a half-day training workshop for EPNB at the next meeting – details to be determined. One idea is to ask potential participants to collect certain national information before and, in order to be able to implement these during that half-day workshop on their respective notebook computers, so an immediate result would become evident.

In the subsequent discussion, this suggestion is strongly appreciated by participants and several of them expressed their interest in such a workshop. AB suggested to possibly link this to the on-going activity to develop N indicators with OECD – he will use the opportunity to contact Myriam Linster.

6) AOB

Next meeting should be considered along the TFRN meeting planned for Kiew, Ukraine, spring next year (the first two weeks in April are under discussion). While there is no ideal date, WW will try to convince Mark Sutton that this date should be fixed rather soon. Ideally, there would be the TFRN and the EPNB meeting and at that occasion also a training session of the dynamic tool.

WW thanks all participants for their valuable contributions and discussion, allowing the expert panel to provide continuing good support to the TFRN.