# Expert Panel on Nitrogen and Food

Proposal for approach and terms of reference

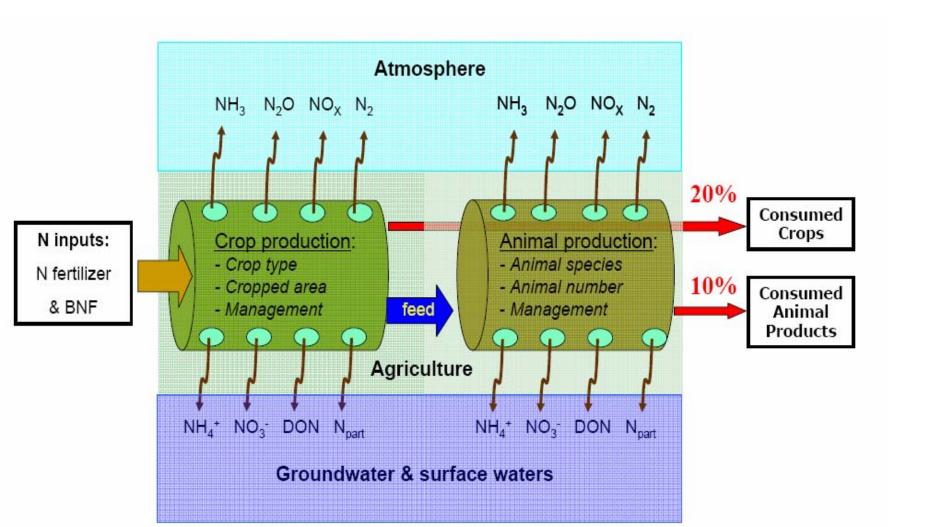
TFRN-3 Amsterdam November 24-25 2009

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## Suggested tasks

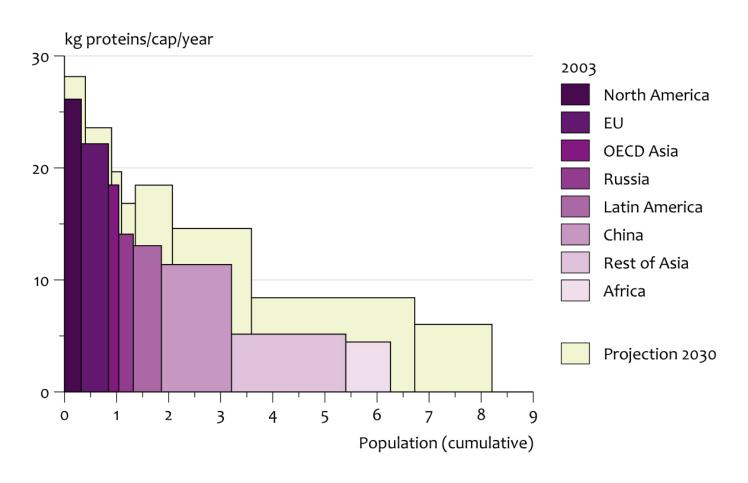
- to create a better understanding of the relationship between human diets and the N-cycle;
- 2. to investigate **the effects a lower human intake** of plant and animal originated protein **on N emissions and the societal cost** for mitigation NH3 and greenhouse gas emissions;
- 3. to investigate **additional side-benefits** of dietary changes, compared with technical measures, including effects on land use, greenhouse gas emissions and biodiversity.
- 4. to investigate the translation of the WHO-recommendations for protein into national requirements and to analyze the current human diets in (most) countries (parties of CLRTAP).

# Large N losses in production chain



#### Large differences in consumption of animal products

#### Consumption of animal proteins per regio



## Suggested approach

#### N in agriculture

- Determine N balances per food product
- Uptake, export and losses (in % and values)
- · Link volume of N losses to societal costs

#### Current diets and N

- Current diets in countries
- Translation of diet components to N losses (air, GHG, water)

#### Gap analysis

- · Translation of WHO standards to local recommendations
- Determine difference actual consumption and WHO / national recommendation
- Potential for improvement (steps in food chain; in which food sectors?)

## Suggested time frame

2009: Definition of task

Invitation of experts

2010: 1-2 meetings

First draft document

2011: 1-2 meetings

**Draft final document:** 

internal and external review

Adoption of final document by TFRN

## Expertise needed

#### Expertise on:

- Nutrition
- Nitrogen flows and losses in agro-systems
- Step from agriculture to food (amongst others: losses in the food production chain)