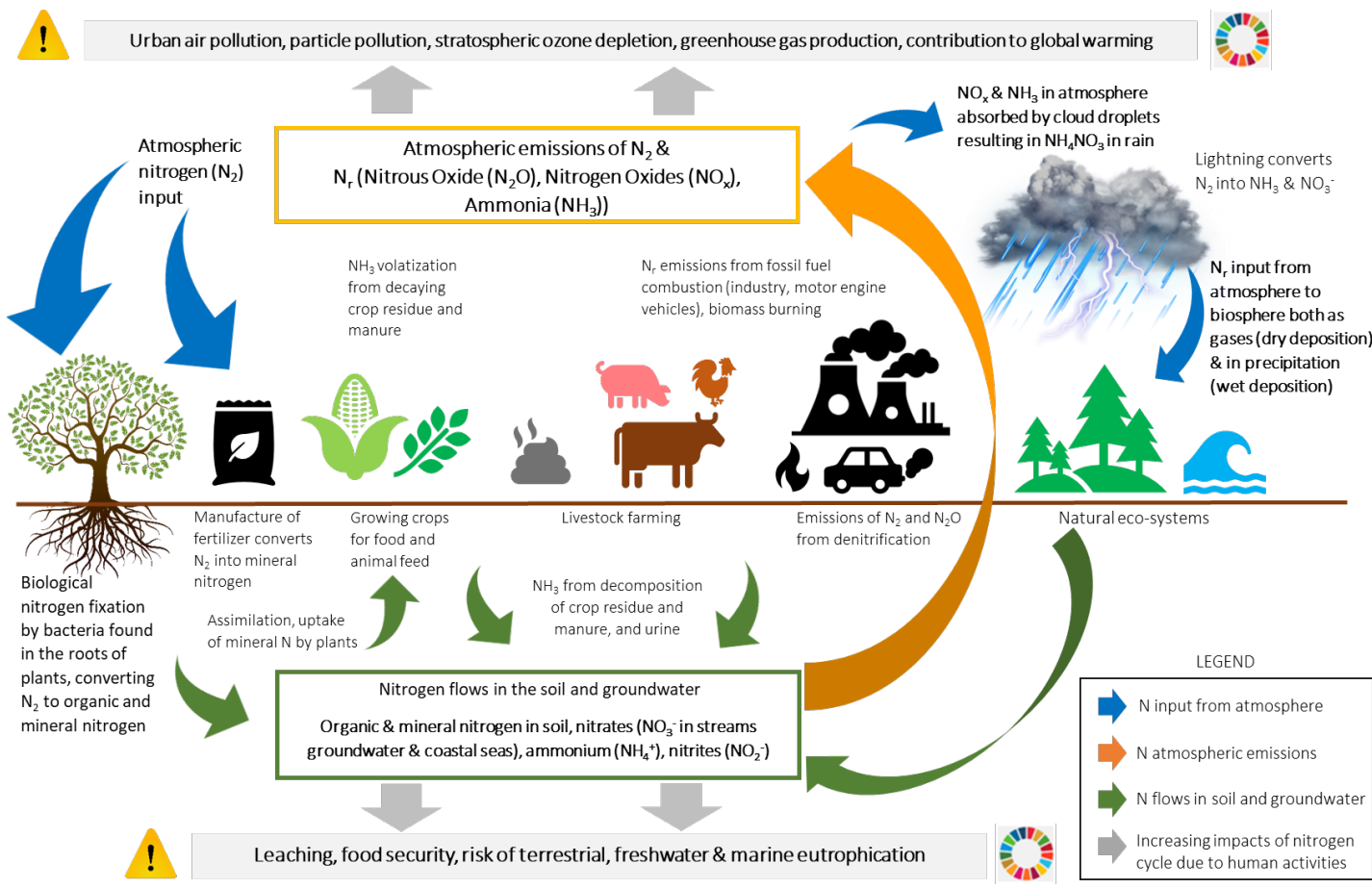




Nitrogen Cycle



Nitrogen is an essential nutrient to feed the planet. In excess, it contributes to air, soil, water and ecosystem pollution.



Too much of a good thing: though essential for life, excess of nitrogen is leading to ubiquitous pollution in soil, water and air.

INSA is driving the development of a holistic assessment of nitrogen in Africa. Final goal is to mitigate nitrogen impacts by improving use efficiency.

Visit the INSA project website:
<https://h2020-insa.aeris-data.fr/>
 Follow us on Twitter:
 [@AfricaNitrogen](https://twitter.com/AfricaNitrogen)

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Scientific Work Packages

Nitrogen lateral & deposition fluxes

- Literature review & study selection
- N contents in soil, vegetation, aquatic systems
- Lateral fluxes between aquatic & terrestrial systems
- Dry & wet deposition fluxes

Natural & anthropogenic emissions; livestock farming & agriculture

- Literature review, study selection & NANI
- N flows in natural & semi-natural systems
- N flows in livestock systems & manure management
- N flows in cropping & agro-forestry systems
- Anthropogenic environmental N losses due to energy generation, transport, & waste management

Impacts of nitrogen uses

- Interactions with atmospheric chemistry & climate
- Impacts on natural ecosystems, biodiversity, critical loads & eutrophication
- Impacts of food security, agricultural sustainability, & nitrogen use efficiency

Expected Outcomes

- 60 early-stage & experienced researchers involved for 270 person months
- 2 research workshops: Abidjan, 2022 & Nairobi, 2023
- Peer-reviewed publications
- Policy briefs and Standard Operating Procedures for technical guidelines on Nitrogen use in Africa
- Educational tools, dissemination & training for young audiences, researchers & general public



INSA project funds and facilitates staff exchanges between consortium partners to work on Nitrogen in Africa.

INSA Project Consortium

14 research & higher learning institutions
2 non-academic organizations
in 7 African and 5 European countries

- Aarhus University, Denmark
- Abomey Calavi University, Benin
- Association Les Petits Débrouillards – Occitanie, France
- Félix Houphouët-Boigny University, Côte d'Ivoire
- Ghent University, Belgium
- Giessen Justus Liebig University, Germany
- IHE Delft Institute for Water Education, Netherlands
- International Institute of Tropical Agriculture, Cameroon
- International Livestock research Institute, Kenya
- Institute of Agricultural Research & Training, Nigeria
- Institut Sénégalais de Recherches Agricoles, Senegal
- Karlsruher Institut für Technologie, Germany
- Ministry of Water and Sanitation, Kenya
- North West University, South Africa
- University Jean Lorougnon Guédé, Côte d'Ivoire
- Université Toulouse III- Paul Sabatier, France

