



Reflection on the proposal by Sri Lanka on a new nitrogen resolution for UNEA 5.2

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Air Quality

Why Nitrogen? \$200 billion of N wasted annually

Climate

Soil Quality

Biodiversity

Water Quality



Nitrogen Everywhere and Invisible

- *X-Press Pearl* May 2021
- Ship carrying nitric acid (HNO₃)
- HNO₃ leak may have started fire
- Reported high NO_x emissions from burning ship
- 1100 tonnes of urea....
- Massive coastal impacts that will take years to recover





UNEA5.2 Resolution on sustainable nitrogen management

- Urgency of moving forward addressing nitrogen pollution
- Building on UNEA4 resolution (March 2019) which identified the issue in UNEA for first time.
- Colombo Declaration (October 2019) agreed by 14 countries agreed to accelerate action including:
 - National Road Maps for nitrogen pollution
 - Identified goal to halve nitrogen waste by 2030 as contribution to SDGs
 - Recognition to establish Interconvention Nitrogen Co-ordination Mechanism (INCOM)

Timing and Urgency

- To reach the 2030 goal to halve nitrogen waste, need to start now. Cannot wait until UNEA6 (2 or 3 years time), as several years needed to mobilize the transition by 2030.
 - Nitrogen and Air pollution. Nitrogen Share 24M YLL per year.
 \$400 billion worth of health loss per year (*Science*, 5 Nov 2021)
 - Nitrogen destroying biodiversity, terrestrial and water pollution, coastal dead zones.
 - Climate change and ozone depletion from nitrous oxide, solutions need a joined up approach across the nitrogen cycle.
- Builds on the work already done by UNEP and INMS in following up UNEA 4/14 resolution.

Interconvention Nitrogen Co-ordination Mechanism (INCOM)

• INMS 4 High-Level Meeting (at UNEP Nairobi, April 2019) showed preference among options:

– Option 1: Status Quo = fragmentation between policy areas

- Option 2: One Convention leads for others = limited by mandates
- Option 3: Nitrogen Convention. Preference to work with existing conventions
- Option 4: Inter-convention mechanism = better communication and knowledge sharing to accelerate coordinated actio

Draft Resolution to UNEA5 builds on the Colombo Declaration

- Adoption of option 4: Inter-convention Nitrogen Coordination Mechanism (INCOM)
- Establishment of National Road Maps (Action Plans) as critical for mobilization change and better coordination within country
- A broad framing of ambition to halve nitrogen waste
- Need to establish secretariat

Establishing an intergovernmental process on nitrogen



Sutton et al. The Nitrogen Decade One Earth, January 2021

Emerging elements *still to be incorporated* in revising the draft UNEA5.2 resolution

- Other recent outcomes by the relevant conventions. e.g. UNECE Guidance Document on Integrated Sustainable Nitrogen Management (ECE/EB.AIR/149)
- Definitions Total nitrogen wasted has been defined as the sum of all forms of reactive nitrogen (N_r) lost as pollution plus denitrification to N₂, which is equally a waste of N_r resources #
- UN Global Nitrogen Campaign Welcoming awareness raising
- NitroFinance Promoting investment to recover \$100 billion/yr
- **Roadmap:** 2022 to 2024

"The Nitrogen Decade: mobilizing global action on nitrogen to 2030 and beyond", One Earth 4, 10-14. https://doi.org/10.1016/j.oneear.2020.12.016

Nitrogen innovation for the circular economy

- Agriculture Less nitrogen waste means more available for food production, allowing inputs to be reduced
- Industry Gaseous nitrogen recovery for cleaner air & circular economy
- Wastewater Nutrient recovery & recycling for innovative products
- Landscapes designed for C & N co-benefits (water, air, climate, nature, resilience...)
- Reduced Food-Prints for healthy & sustainable diets

