



International Nitrogen Management System

Project Newsletter, December 2019



Adoption of the Colombo Declaration - a historic day! Photo: Mahesh Pradhan

Launch of the Global Campaign on Sustainable Nitrogen Management

From 23rd-24th October 2019, UNEP-CEH/GEF INMS and the UKRI GCRF South Asian Nitrogen Hub were pleased to support the launch of the Global Campaign on Sustainable Nitrogen Management in Colombo, Sri Lanka.

This High-Level Segment and Science-Policy Dialogue was planned under the joint leadership of H.E Maithripala Sirisena, President and Minister of Mahaweli Development and Environment of the Democratic Socialist Republic of Sri Lanka, and Ms. Inger Andersen, Executive Director of UN Environment, in order to support the implementation of the Resolution passed earlier this year at the Fourth Session of the United Nations Environment Assembly (UNEA-4) on '[Sustainable nitrogen management](#)' (UNEP/EA.4/Res.14).

The 24th October was an especially historic day with the signing of the Colombo Declaration by countries; a first of its kind in terms of governments agreeing to work together on a major quantitative global goal for improved nitrogen management. [Read the Colombo Declaration and other meeting documents here.](#)

Overall, the event was a great achievement, with over 100 delegates, representing 29 countries in attendance, including Ms. Joyce Msuya, Deputy Executive Director of UNEP. [Watch Ms. Joyce Msuya and Prof Mark Sutton speak about grasping the nitrogen challenge here.](#)

Building on the momentum from Colombo, a Nitrogen Working Group of country-level nominated focal points has been formed in order to work towards a more defined process and structure for an 'Inter-governmental Nitrogen Co-ordination Mechanism'. The Working Group's first meeting is planned for spring 2020.

The Music of Nitrogen

As part of the launch of the Global Campaign on Sustainable Nitrogen Management, Grammy Award-winning singer and songwriter Ricky Kej and his team performed the first ever Nitro-Concert, including the premiere of the Nitrogen Song!

This was a fantastic addition to the event and a chance to showcase nitrogen in a completely original way.

Thank you to Ricky and his team for putting on such an incredible show!



*The world's first Nitro-Concert by Ricky Kej and team!
Photo: Mahesh Pradhan*



Listen to the Nitrogen Song [here](#). Please share!

UNEP-CEH/GEF INMS Project Meetings



*Activity 1.3 meeting participants in the sun in Lisbon
Photo: Provided by Bill Bealey*

Activity 1.3 - Lisbon, Portugal November 2019

INMS Activity 1.3 entitled 'Development of methodology for N fluxes and distribution' held its workshop in Lisbon, Portugal, from the 26th to 28th November this year. It was hosted by Dr Helena Serrano at the Centre for Ecology, Evolution and Environmental Changes (cE3c), University of Lisboa.

The workshop focused on further development of the methods for the database, the chapter writing for the guidance document on N flux and distribution methods and the development of the N flux network tool.

Fifteen researchers attended the meeting from Europe, South Asia and Brazil, with remote contributions from France, Japan, Kenya, Russia, Spain, the United States and the UK.

The meeting was focused on providing guidance for practitioners interested in quantifying N fluxes in various settings around the world, so that progress can be made on monitoring, modelling and mitigating N pollution. The co-chairs Bill Bealey and Kevin Hicks would like to thank their host Helena and all the fantastic efforts of the team who attended and contributed via the video conference.

NUE Joint Workshop Madrid, Spain, November 2019

The INMS joint workshop '*NUE indicators for Demo Regions, Modelling and Barriers Assessment*' took place in Madrid under the framework of Task 1.1.3 on nitrogen use efficiency (NUE) and with the support of Activities 1.6 and 1.5/2.1. The workshop took place from the 18th-22nd November 2019.

38 researchers from 17 countries attended the meeting, including: NUE experts, INMS Regional Demonstration representatives (7 Demo Sites), and contributors to the Modelling (A1.5/2.1) and Barriers to Change (A1.6) INMS Activities.



Wonderful collaboration between INMS Activities, Tasks and Regional Demonstrations. Photo: Provided by Luis Lassaletta

The two main objectives were: 1) to coordinate the writing of the guidance document on NUE indicators and 2) to harmonise methodologies to estimate NUE indicators in order for these to be applied across the different INMS Components and Regional Demonstrations.

The attendees arrived at several agreements concerning the way to estimate NUE and the externalisation of emissions at the farm level. The writing of the guidance document has been planned for the next months. There was also time to visit the permanent collection of Reina Sofía Museum on Contemporary art, as well as the opportunity to taste tapas and to listen to flamenco music.



The INMS Modelling Activities are working towards preparing the modelling contributions for the International Nitrogen Assessment. Photo: Provided by Wim de Vries.

Modelling Workshop, Wageningen, Netherlands, October 2019

The INMS Modellers' workshop took place on the campus of Wageningen University in the framework of Activities 1.5 and 2.1 from October 28-29, 2019. The Purpose of the workshop was to:

1. Take stock of status of the modelling work and coordinate/plan the work in second phase
2. Prepare modelling contributions for the International Nitrogen Assessment (INA)
3. Discuss how modelling results can be made useful for INMS demonstration areas
4. Discuss how modelling can be adapted to make it more useful in terms of assessing N shares on impacts and use it for cost benefit-analysis (CBA)

The modelling Activities in INMS have been organised into two phases of 18 months each, with the first phase concentrating on developing methodologies and the model linkages. The meeting in Wageningen took place at the end of phase 1. With 21 participants and 15 presentations of progress, a very good overview was achieved, and the modelling will now enter its second phase.

Agreement was achieved in all major aspects; the need to inter-compare the major economic models that will take up emission scenarios according to the INMS protocols, the formation of model chains (based on or integrated into either of these economic models) to adequately reflect N pollution effects, and the collaboration with the demonstration areas. Specific offers that consider the need of these communities were also created and further discussed with demonstration area representatives at the Madrid workshop in November 2019. In addition, agreements were made on the co-ordinating lead authors and potential participants of the book chapters on modelling in part D of the International Nitrogen Assessment.

Task 1.1.2 - Shijiazhuang, China, September 2019

Ten delegates met in Shijiazhuang, China from 16-20 September for a meeting on INMS Dairy Nitrogen Use Efficiency (NUE), hosted by the Center for Agricultural Resources Research, Chinese Academy of Sciences (CAS).

The Guidance Document on Farm Nitrogen budgets (Task 1.1.2) was discussed. This document will provide a clear and concise technical guide to aid the harmonisation of dairy NUE methodologies and interpretations by clearly describing: NUE definitions, system boundaries, data requirements and how NUE indices are calculated.



Task 1.1.2 will produce a Guidance Document on NUE; Photo: Provided by Lin Ma.

The draft structure of each chapter, case studies typologies and data collation approaches were developed in this workshop. There will be a consolidated effort in early March 2020 to pull all the chapter sections together. Many thanks to all involved for a productive meeting.

Future Meetings

INMS-5 & INI-8

It is with great excitement that we ask you to please save the date for the upcoming INMS-5 meeting which will be held in **Berlin from 30th April-2nd May 2020**.

As this will be a significant meeting in 2020 for the UNEP-CEH/GEF INMS Project we do hope that many of our Project Partners and INMS Component, Activity and Task Leads will be able to join us.

We will be in touch as soon as possible regarding the availability of meeting attendance support, registration, and accommodation.

INMS-5 will precede the **International Nitrogen Conference (INI-8) which will take place in Berlin from 3rd-7th May 2020**.

Please visit <https://ini2020.com/> for more information on INI-8.

Please note that Early Bird Registration for INI-8 closes 15th January.

Future Newsletters

We would like to hear from you!

Please email inms@ceh.ac.uk with any updates that you would like us to include in future newsletters.



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