

GLOBAL RESEARCH ALLIANCE

ON AGRICULTURAL GREENHOUSE GASES

September 2023 - Update

Şeyda Özkan, Nick Wheelhouse, Lydia Lanzoni

Animal Health & Greenhouse Gas Emissions Intensity Network
(AHN)

Aims

AHN aims to bring together researchers, governments, non-governmental organizations, private sector from multiple backgrounds to:

- Understand and tackle the impacts of
 - climate change on animal health
 - animal health on the environment

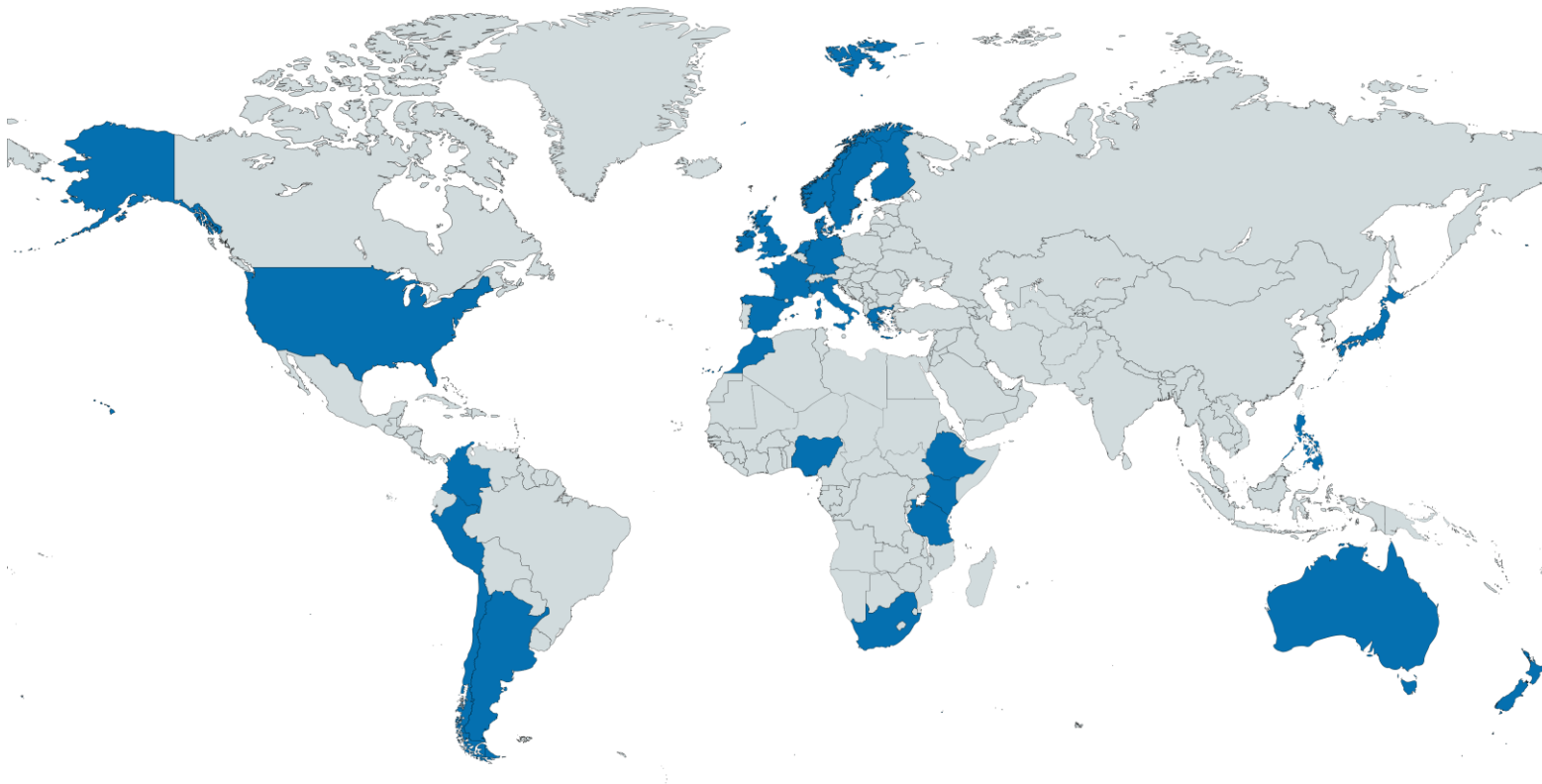
- Advance the process of integrating animal health interventions to policy settings
 - linking animal health data and disease surveillance systems
 - Tier 2 GHG inventories
 - Nationally Determined Contributions (NDCs).

Membership

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Over 70 members now on the mailing list or working with the network across 24 Countries



What have we been up to?

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Stakeholder Expectations for the Relationship Between Animal Health and Livestock Emissions

Venue: Riddel Hall, Queen's University, Belfast, UK
Date and Time: 31 January 2023, 11:00 start



International Workshop:
Barriers to Achieve Net Zero in Agriculture & Food
Belfast
23 – 24 March 2023

Environmental Defense Fund
Dialogue on Methane & Health

Stakeholder engagement

ECONOMICS OF CATTLE GHG MITIGATION (EMIFA)

Can we really reduce greenhouse gases emissions in ruminants?

Trends on tools for reducing greenhouse gas emission in ruminants
13th april 2023

2ND OCTOBER
2pm WELCOME AND REGISTRATION
3pm CONFERENCE OPENING
UPDATE ON ACTIVITIES 22-23
EPIC WORK - FLASH PRESENTATIONS
5.30pm DRINKS RECEPTION AND POSTER PRESENTATION
7pm DINNER
3RD OCTOBER
9am WELCOME AND REGISTRATION
10am PARALLEL SESSIONS
• S1: The role of Animal Health in Reaching Net Zero Targets
• S2: Avian Influenza Vaccination
BREAK
PARALLEL SESSIONS
• S3: Lessons Across One Health: Advances in Methods to Quantify Disease Outbreaks
• S4: Biosecurity, from Policy to Implementation
1.30pm LUNCH
2.30pm PLENARY DISCUSSION
4.30pm CLOSING REMARKS

EPIC CONFERENCE
2-3 OCTOBER 2023
JOHN MCINTYRE CONFERENCE CENTRE, EDINBURGH
epic
Centre of Expertise on Animal Disease Outbreaks

"Welfare Science and Sustainability in Sheep Farming" webinar

Contents in brief

9 May 2023



CLIFF – GRADS

Climate, Food and Farming Network

GRA Development Scholarships

MICROBIO VISION 2022
3rd CONGRESS SCIENTIFICO
07-08 ET 09 DICEMBRE 2022 A UFGC ROVERETO
THEME: Microbiologia e Salute
PRIX D'EXCELLENCE CHERCHEUR
PRIX D'EXCELLENCE ETUDIANT

Regional mapping workshop

Mapping workshop on animal health and national climate commitments

Our proposal

A workshop to bring together stakeholders from different regions around the world to exchange, investigate and map the main animal health issues in the different countries and the legislative strategies implemented to tackle them.

Our proposal is to divide the participants according to skills and geographical region into balanced working groups, specific to each animal species (cattle, pigs, poultry, small ruminants...). The groups will address simultaneously the following issues:

What are the animal diseases that exist in a certain country causing major economic concerns?

What are the barriers and potential ways to tackle these concerns?

How to connect this information to national climate commitments?

Expected outputs

- 1 Mapping of the most important animal health issues by country
- 2 Mapping of barriers at institutional, policy and enterprise level, and the strategies adopted at each regional scale to tackle these issues
- 3 Investigating the current ways of capturing the improved animal health, and evaluation of the eventual integration of these strategies in the national climate commitments
- 4 A communication document reporting the findings

Future developments

Suggestions of tailored mitigation packages to tackle the animal health priorities in regional climate commitments

The issue

Mitigation packages (MP) that include animal health interventions can be beneficial not only for the welfare of farmed animals but also for the production and environmental efficiency of farming systems. Although this co-benefit is clear, these strategies are not always implemented in national climate commitments. Indeed, to be effective, MPs must be country-specific, targeting regional priorities from an animal health perspective. To effectively implement these strategies, a discussion with stakeholders it is necessary to understand the priorities, strengths and possible weaknesses in their application (Özkan et al., 2022).



The Network

The Animal Health and Greenhouse Gas Emissions Intensity Network (AHN) is an international network focusing on the interplay between animal health and greenhouse gas (GHG) emissions from a systems perspective.

For additional information you can contact
Seyda.Ozkan@fao.org

Leading the way for future investigation on the topic



Venue: ILRI Kenya

Date: xx February 2024 (TBC)

GRA funding available for selected participants

Follow up on a proposal

Would you like to participate or co-host?

Flagship idea

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Leading the way for future investigation on the topic

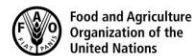
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<https://www.fao.org/documents/card/fr/c/cc0431en/>

Good practices

Data

Models/methods

Reporting

Guidelines globally relevant

Trainings, capacity development events

Synergies and trade-offs (FNN, MMN, INDC)

30% funding from partners

COST Action Proposal

(European Cooperation in Science & Technology)

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To promote dialogues among the actors across the livestock sector

Governments
Researchers (interdisciplinary)
Private sector
NGOs
International organizations

Data sources

Existing parameters, models, methods

Existing policies

What are the gaps?

Roadmap

New project

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**Estimating the effect of diseases on cattle productivity
and GHG emission in smallholder dairy systems of
low and middle-income countries**

Investigating the links between mortality, feed intake, productivity losses, and management decisions e.g. voluntary culling, discarded milk and GHG emissions

Collaborating: EDF, ILRI, AHN



VOL. 2 • DECEMBER 2022

ANIMAL HEALTH NETWORK

Quarterly Newsletter

ROLE OF ANIMAL HEALTH IN REDUCING GHG EMISSIONS

Climate change causes detrimental effects on animal health, and this leads to the appearance of diseases. Consequently, livestock decrease their productive and reproductive performance. The low-laying productions and penurious animals yields bring a greater emission intensity of greenhouse gases. Additionally, it strikes relevant economic loss for the farmer. Therefore, it should be crucial to focus efforts on mitigating the impacts that global warming may have on animal health and welfare. Improvements in the management and control of diseases (as vaccination campaigns) along with excellent management practices and animal feeding can help moderate and prevent the appearance of some infections. However, the adverse effects that climate changes bring are constant and changing. Hence designing action plans, as well as mechanisms and tools that help prevent and control the outbreak of some diseases in farm animals is a considerable labour. It is essential recall that livestock is the fundamental pillar of human nutrition, and food security also depends on it. In addition, millions of people in the world pending on this activity for their livelihood.



AHN

The Animal Health and Greenhouse Gas (GHG) Emissions Intensity Network (AHN) is an international network focusing on the interplay between animal health and GHG emissions from a systemic perspective. The network aims study the interrelation of diseases in animals with feeding, breeding, immune response, and the resulting impacts on GHG emissions on farms, both in terms of intensity and absolute emissions.

[AHN website](#)
[@AHN_GRA](#)



PAGE 01

AHN Newsletter

VOL. 3 • APRIL 2023

ANIMAL HEALTH & GREENHOUSE GAS EMISSIONS INTENSITY NETWORK

INSIDE THIS NEWSLETTER

- What we have been up to in these months? (pag. 1-3)
- Participating at events
- Building opportunities for the future
- Writing projects (updates on the "COST ACTION")
- Organising workshops
- Meet the AHN members: the new communication coordinator
- Keep informed: the AHN library updates (pag. 4)
- Save the date: the AHN calendar (pag. 5)



Credit: Şeyda Özkan



Credit: Lydia Lanzoni

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THE ANIMAL HEALTH AND GREENHOUSE GAS EMISSIONS INTENSITY NETWORK IS PART OF THE LIVESTOCK RESEARCH GROUP OF THE GLOBAL RESEARCH ALLIANCE ON AGRICULTURAL GREENHOUSE GASES



[@AHN_GRA](#)

Network leaders:

Şeyda Özkan (Şeyda.Ozkan@fao.org)
Nick Wheelhouse (N.Wheelhouse@napier.ac.uk)

Network communications coordinator (New!):
Lydia Lanzoni (llanzoni@unite.it)



We have a communications coordinator

Meet the AHN members

Lydia Lanzoni: The new AHN's communication coordinator!



Credit: Lydia Lanzoni

Lydia is a veterinarian and a PhD student at the University of Teramo (Italy).

During her PhD she gained experience in Life Cycle Assessment, modelling and validation of non-invasive enteric methane measurement techniques (LMD). Her research project mainly focuses on

1. quantifying the environmental mitigation potential of improved animal welfare on sheep farms;
2. analysing the challenges of integrating animal welfare indicators in life cycle assessment and,
3. developing a European framework for assessing the environmental, economic and social sustainability of the sector within the LIFE Green Sheep project.

She will be coordinating the communication side of the AHN (e.g., newsletter, workshops and activities, updating the list of publications..) so feel free to drop an email if you know of a publication or an event relevant to the AHN, or if you would like to discuss ideas around the webinars and workshops planned.

Contact

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Co-leads

seyda.ozkan@fao.org and n.wheelhouse@napier.ac.uk

Newsletter, new publications, events

llanzoni@unite.it

Follow us on Twitter
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