

International Research Symposium on Agricultural Greenhouse Gas Mitigation

From Research to Implementation

21 – 23 October 2024
(with side-events on 24.10.2024)

Conference Centre Mauerstraße
Berlin, Germany



Dear readers,

Agriculture worldwide is severely affected by climate change, and at the same time, greenhouse gas emissions are still increasing globally, including from the agricultural sector. Therefore, we need to cooperate in order to find sustainable solutions to reduce emissions in all areas of the farming sector across the world, while at the same time not threatening food security.

Behind this background innovations, technology advancements and suitable policy designs, taking regional specificities into account, are of utter importance. For this we as policy makers rely on input by experts and scientists to provide ideas and the evidence basis for implementable measures and policy instruments. Germany is one of the 21 founding members of the Global Research Alliance on Agricultural Greenhouse Gases (GRA) and has been carrying out intensive agricultural climate change mitigation research for many years. We also closely cooperate and support the Consultative Group on International Agricultural Research (CGIAR).

This symposium builds on the very successful joint scientific conference and high-level stakeholder event organised in 2018 in Berlin when Germany took over the GRA Council Chair. The output results of the conference are still relevant today and I am confident that this year's "International Research Symposium on Agricultural Greenhouse Gas Mitigation – from Research to Implementation" will have a similar impact and contribute to the continuous cross-border collaboration.

With this event, Germany wants to highlight the importance of scientific exchange and networking for climate change mitigation in agriculture. In order to further intensify international exchange, to discuss the state of current research highlights, and to work on common solutions we are delighted to welcome participants from all continents to the AgriGHG-2024 symposium in Berlin.

I cordially welcome you in Berlin and I am very much looking forward to a lively, constructive and productive discussion in the coming days.



Luisa Rölke
Head of Division Climate Change and Water
German Federal Ministry of Food and Agriculture

Committees

Core Steering Group

Harry Clark, Louis Verchot, Claudia Heidecke

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Andy Reisinger (GRA)

Claudia Heidecke (Thünen Institute)

Claudia Ringler (IFPRI, CGIAR)

Harry Clark (GRA)

Louis Verchot (Alliance of Bioversity and CIAT, CGIAR)

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Management Team

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Federal Ministry
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and Agriculture

Federal Ministry of Food and Agriculture (BMEL)



ON AGRICULTURAL GREENHOUSE GASES

Global Research Alliance on Agricultural Greenhouse
Gases (GRA)



Consultative Group on International Agricultural
Research (CGIAR)



Thünen Institute

Contact

Thünen Institute, Coordination Unit Climate, Soil, Biodiversity
E-Mail: agrighg-2024@thuenen.de



Claudia Heidecke



Tania Runge



Nina Grassnick

– Short overview of the programme –

Monday, 21st October 2024		
Time	Agenda Point	Presenter and Session Names
13:00-14:00	Registration	Light Lunch
	Moderation:	Julia Wolf, FAO
14:00-14:45	Welcome	Welcome notes by Luisa Röлке , Federal Ministry of Food and Agriculture, BMEL (Head of Division Climate Change and Water) Harry Clark (GRA Special Representative) Louis Verchot (CGIAR, Lead on Research for Low-Emission Food Systems) Heinz Flessa (Thünen Institute, Head of Thünen Institute of Climate-Smart Agriculture)
14:45-15:45	Keynotes	Sinead Leahy , New Zealand, Principal Scientist, NZAGRC, Co-authored presentation by all research group chairs of the Global Research Alliance on AgriGHG Title: <i>The potential of new technologies to reduce greenhouse gas emissions from agriculture</i> Tek Sapkota , Mexico, Climate Change Lead, Sustainable Agrifood System (SAS), International Maize and Wheat Improvement Center (CIMMYT) Title: <i>Costs and benefits for farmers to implement climate change mitigation measures</i>
15:45-16:30	Panel Discussion	Moderated Panel with keynote speakers and speakers of the welcome notes with questions and answers
16:30-17:00	Coffee Break	
17:00-18:30	Parallel Sessions	1: Meeting 2050 targets and supporting net zero-emission pathways 2: Innovations and technology options for methane reduction through feed and manure management 3: Innovations and technology options for nitrous oxide emissions reductions 4: Potentials for SOC and peatland rewetting
18:30-20:00	Welcome Dinner	

Tuesday, 22nd October 2024		
Time	Agenda Point	Presenters and Session names
8:00-9:00	Coffee	Welcome back
	Moderation:	Claudia Heidecke, Thünen Institute
9:00-10:00	Keynotes	<p>George Wamukoya, Kenya, team leader of AGNES, and lead negotiator on agriculture for G77 (on mitigation pathways for Africa) Title: <i>Resilient and low emission development pathways in low-income countries: interactions between food security, greenhouse gas mitigation and adaptation</i></p> <p>Guillaume Gruère, Paris, OECD, Head of Agriculture and Resource Policies Division Title: <i>Policy progress towards a low emitting AFOLU sector: Insights from OECD work</i></p>
10:00-10:30	Discussion	Questions and answers
10:30-11:00	Coffee Break	
11:00-12:30	Parallel Sessions	<p>5: National policy analysis for climate</p> <p>6: Evaluating costs of mitigation and options for implementation</p> <p>7: Innovations and technology options for methane reduction in rice production</p> <p>8: Just transitions towards low-emission and resilient agriculture and food systems</p> <p>9: GHG modelling approaches and tools</p>
12:30-14:00	Lunch	
	Moderation:	Tania Runge, Thünen Institute
14:00-15:30	Round Tables	Splitting up into smaller groups for “mini workshops” on specific topics / selected aspects
15:30-16:00	Coffee Break	
16:00-17:00	Meeting	Meeting of the GRA science-policy group (S9)
16:00-18:00	Poster Session	Poster exhibition with poster pitches (organised in exhibition hall in the basement)
18:00-19:30	Buffet Dinner / Evening to organise as you wish	

Wednesday, 23rd October 2024		
Time	Agenda Point	Presenters and Session names
8:30-9:00	Coffee	Welcome back
	Moderation:	Nina Grassnick, Thünen Institute
9:00-10:00	Keynotes	<p>Eva Lini Wollenberg, USA, Policy and Institutions Leader, Climate Action, Alliance of Biodiversity and CIAT; Research Professor, Gund Institute for Environment, University of Vermont Title: <i>Opportunities and challenges for (voluntary) carbon markets and payment incentives in agriculture</i></p> <p>Florian Humpenöder, Berlin, Potsdam Institute for Climate Impact Research Title: <i>Food matters: Dietary shifts increase the feasibility of 1.5 °C pathways</i></p>
10:00-10:30	Discussion	Questions and answers
10:30-11:00	Coffee Break	
11:00-12:30	Panel Discussion	<p>Panel A: <i>Food systems and emissions along the value chain – What is the role of the private sector?</i></p> <p>Panel B: <i>Transforming agricultural production systems</i></p>
12:30-14:00	Lunch	
14:00-15:30	Parallel Sessions	<p>10: Integrated assessment of food systems including the role of carbon markets</p> <p>11: Agroecology, Agroforestry and other ecosystem services</p> <p>12: Novel approaches for MRV and potential for remote sensing and AI modelling</p> <p>13: Farm level implementation and managing synergies and trade-offs of mitigation</p>
15:30-16:00	Wrap up	Thünen Institute, CGIAR and GRA
	Closing Remarks	Federal Ministry of Food and Agriculture (BMEL)
From 16:00	Networking and Farewell Snack	

– Panels on Wednesday, 23rd October 2024 10:30 am –

1.1 Panel A: Food systems and emissions along the value chain – What is the role of the private sector?

Pressure on addressing scope 3 emissions is increasing rapidly. What is the role of the private sector? Are there options for aligning national GHG reporting in the UNFCCC framework with Greenhouse Gas Protocol? Are tools capable for consistent, transparent, complete, and accurate carbon accounting? How to boost food security with alternative diets and climate-friendly food consumption?

Facilitator and moderator: [Claudia Ringler, IFPRI](#)

- **Ivo Rzegotta**, Senior Public Affairs Manager Germany, The Good Food Institute Europe
- **Koen Deconinck**, OECD
- **Brian Lindsay**, Global Dairy Platform
- **Birgit Weyand**, Product Development Manager Sustainable Solutions, Yara

1.2 Panel B: Transforming agricultural production systems towards climate neutrality?

How to stay within the limits of the 1.5-degree target while safeguarding food security? Is the reduction of GHG intensive inputs an option? What is the potential for sustainable intensification and the role of organic farming? How to get funding on the ground?

Facilitator and moderator: [Claudia Heidecke, Thünen Institute](#)

- **Janet Maro**, Sustainable Agriculture Tanzania
- **Jean-Francois Soussana**, INRAE, GRA IRG Chair
- **Christine Chemnitz**, Agora Agriculture
- **Julia Wolf**, Office of Climate Change, Biodiversity and Environment, FAO

Detailed programme of the Parallel Sessions

Session 1: Meeting 2050 targets and supporting net zero-emission pathways

Room P2
Time 17:00-18:30
Monday 21th October

Session Chair: Claudia Heidecke

1.1	Alexander Lotsch	Recipe for a Livable Planet: Achieving Net Zero Emissions in the Agrifood System
1.2	Sandra Guisela Durango Morales	Protocol for Deforestation Reduction and Emissions Control in the Agricultural Sector
1.3	Mohammad Mohammadrezaei	Beyond the 'new tradition' in developing bottom-up policy
1.4	Caeli Richardson	Development of sustainability indexes in plant and animal breeding
1.5	Frances Siobhán Ryan	Research to Investment: Ensuring climate finance can support the LMIC livestock sector

Session 2: Innovations and technology options for methane reduction with feed and manure management

Room P3
Time 17:00-18:30
Monday 21th October

Session Chair: Harry Clark

2.1	Adam Cieslak	Camelina sativa L. cake Mitigate Enteric Methane and Ammonia Emission in dairy heifers
2.2	Sören Petersen	Low-dose acidification: Farm-scale evaluation of a promising methane mitigation strategy
2.3	Patricia Ricci	Soybean by-products reduce enteric methane emissions from dairy heifers
2.4	Suzanne Rowe	Accelerating change : combining biological proxies to reduce biogenic methane emissions
2.5	Claudia Arndt	Environmental and Food Security Implications of Livestock Abortions and Calf Mortality: A Case Study in Kenya and Tanzania

Session 3: Innovations and technology options for nitrous oxide emissions reductions

Room S9+S10
Time 17:00-18:30
Monday 21th October

Session Chair: Andreas Pacholski

3.1	Jorge Chalco Vera	Carbon-scaled N ₂ O emissions for a better assessment of impacts of land use systems
3.2	Stephanie Gerin	Barley monoculture vs. Barley with undersown species: impact of diversity on GHG exchange
3.3	Kathryn Grant	Breeding more sustainable plant varieties
3.4	Til Feike	Climate change induced heat and drought stress hamper climate change mitigation in German cereal production
3.5	Dima Sabboura	Assessing Carbon Footprint Variability in Lupin Cultivation: Implications for Climate Change
3.6	Reinhard Well	Mitigation measures of crop cultivation to reduce emissions from denitrification

Session 4: Potentials for SOC and peatland rewetting

Room S11
Time 17:00-18:30
Monday 21th October

Session Chair: Axel Don

4.1	Adnan Arshad	Climate-smart legume grass species can reduce greenhouse gas emissions and net SOC
4.2	Stefan Frank	Implementation of the German peatland monitoring programme for climate protection – Open Land
4.3	Valeh Khaledi	Exploring the role of water, carbon, and nitrogen dynamics in wet grasslands for greenhouse gas emissions
4.4	Petra Manninen	The impact of functional groups of forage species on the grassland GHG exchange
4.5	Christopher Poeplau	Changes in organic carbon stocks of German agricultural soils in the past decade
4.6	Samuel Sogbesan	Lifecycle assessment of restorative strategies of peatland in the United Kingdom

Session 5: National policy analysis for climate mitigation

Room P2

Time 11:00-12:30

Tuesday 22nd October

Session Chair: Andy Reisinger

5.1	Fahmuddin Agus	Strategies of palm oil emission reduction in Indonesia
5.2	Ngonidzashe Chirinda	A new Africa Carbon Flagship Program: accelerating progress towards achieving NDC targets
5.3	Mokhele Moeletsi	Creating enabling environment for agricultural mitigation in South Africa
5.4	Bernhard Osterburg	Climate protection targets and emissions projections for agriculture and land use in Germany
5.5	Miguel Antonio Romero Sanchez	Capacity building for national greenhouse gas inventories in Colombia
5.6	Nathu Sarker	Policy, challenges, strategies for livestock methane mitigation and adaptation

Session 6: Evaluating costs of mitigation and options for implementation

Room P3

Time 11:00-12:30

Tuesday 22nd October

Session Chair: Nina Grassnick

6.1	Rafael De Oliveira Silva	Optimised marginal cost curves for greenhouse gas mitigation in Brazilian beef systems
6.2	Greta Dobrovich	Assessing cost-effectiveness of public investments in agriculture for climate mitigation
6.3	Zhengzheng Hao	Costs of greenhouse gas mitigation measures applicable to the Swiss agricultural sector
6.4	Thiagarajah Ramilan	Marginal abatement costs of combining GHG mitigation technologies in NZ dairy systems
6.5	Yusuf Karatay	Economic evaluation of accounting subsoil carbon stocks in the context of carbon farming
6.6	Michael MacLeod	How much can we reduce emissions from livestock in the LAC region and what might it cost?

Session 7: Innovations and technology options for methane reduction in rice production

Room S9
Time 11:00-12:30
Tuesday 22nd October

Session Chair: Stefan Frank

7.1	Mirjam Roeder	Sustainable bioenergy for rice growing communities in the Philippines
7.2	Quynh Vu	Low carbon paddy rice cultivation under slow release N fertiliser management in Vietnam
7.3	Trang Vu	FarMoRe, a potential tool for monitoring and reporting GHG mitigation results in rice
7.4	Nnaemeka Success Esiobu	Quantifying the intensity of GHG emissions using inbred and hybrid rice

Session 8: Just transitions towards low-emission and resilient agriculture and food systems

Room S10
Time 11:00-12:30
Tuesday 22nd October

Session Chair: Tania Runge

8.1	Dumisani Chirambo	Climate change Loss and Damage policies for accelerating low emission development pathways
8.2	Thomas Falk	A behaviour change perspective on food system transformation towards climate resilience and emission reduction
8.3	Claudia Ringler	Gender-Just Mitigation in the Agri-food systems Sector: Potential and Pitfalls
8.4	Martin Paul Jr Tabe-Ojong	Farmer advisory systems and climate-smart agriculture in West Africa
8.5	Martha Cristina Vanegas Cubillos	Transforming Food Systems in Colombian Amazon: Towards LEFS Through Participatory Research

Session 9: GHG modelling approaches and tools

Room S11
Time 11:00-12:30
Tuesday 22nd October

Session Chair: Roland Fuß

9.1	Shahin Alam	Assessing and developing methane emission prediction models for cattle: A focus on India
9.2	Daniel Bretscher	Opportunities and Limitations of Farm-Level-GHG-Accounting Tools: Experience from practice
9.3	Jonathan Herron	AgNav: A digital sustainability platform for farming systems in Ireland
9.4	Lydia Lanzoni	Quiet Heroes of the Desert: The Camel's Modest Contribution to Global Greenhouse Gas Emission from Livestock
9.5	Giuseppe Tempio	Accounting for the seasonality of livestock derived GHG emissions with GLEAM: a case study
9.6	Kleves Vieira de Almeida	Environmental performance of dairy farms using the Integrated Farm System Model

Session 10: Integrated assessment of food systems including the role of carbon markets

Room P2
Time 14:00-15:30
Wednesday 23rd October

Session Chair: Til Feike

10.1	Ifeoluwa Abulude	An Assessment of Food Loss Among Arable Crop Farmers in Nigeria
10.2	Luis Gustavo Barioni	Remodelling soil carbon stocks to meet carbon trading requirements
10.3	Andy Reisinger	Using GHG emission metrics to inform mitigation choices: linking science with policy goals
10.4	Vartika Singh	Food Demand as a Driver of Change: India's Low Carbon Development Strategy
10.5	Jiansong Xu	The effect of border carbon adjustment on beef prices and welfare implications

Session 11: Agroecology, Agroforestry and other ecosystem services

Room P3

Time 14:00-15:30

Wednesday 23rd October

Session Chair: Louis Verchot

11.1	Axel Don	Is organic farming sequestering carbon in soils?
11.2	Amahnei George Amenchwi	The impacts of conservation agricultural practices on soil greenhouse gas emission
11.3	Ahmed Kheir	Developing Hi-sAFe-machine learning hybrid approach as a DSS for AF systems
11.4	Kiran Kumara TM	Assessing potential ecosystem services of sustainable agricultural practices in India
11.5	Talent Namatsheve	Assessing the impact of conservation agriculture and biochar application on greenhouse gas
11.6	Mariam Nakintu	Carbon emission avoidance and costs of soil carbon sequestration and agroforestry land-use

Session 12: Novel approaches for MRV and potential for remote sensing and AI modelling

Room S11

Time 14:00-15:30

Wednesday 23rd October

Session Chair: Mareike Söder

12.1	Stefan Erasmi	Remote sensing of agricultural land use for enhanced climate policy implementation
12.2	Thomas Kopp	The effects of digitalization in agricultural production on climate gas emissions
12.3	Xuefei Li	Transparent Horizons: IMEO's Methane Data Empowering Global Action
12.4	Daniel McKay Fletcher	Creating a tool to predict manure methane emissions for farmers and policy makers
12.5	Ben Morrow	Incorporation of Low-Methane Sheep Genetics into the National Greenhouse Gas Inventory

Session 13: Farm level implementation and managing synergies and trade-offs of mitigation

Room S9+S10
Time 14:00-15:30
Wednesday 23rd October

Session Chair: Bernhard Osterburg

13.1	Tobi Akinropo	Mitigation practices for low-carbon livestock in sub-Saharan Africa: A Living Lab approach
13.2	Sheriff Ceesay	Farmers' perception of the efficacy of adaptation and mitigation strategies
13.3	Christian Tegha Kum	Push-pull Technology a reduced GHG emission maize farming practice in Sub-Saharan Africa
13.4	Kibet Walter Kemei	Stakeholders for the co-production of knowledge in a low emission food system living lab
13.5	Jesus Fernando Florez Herrera	Economic and social valuation of climate change mitigation strategies in livestock systems

Poster (Exhibition hall in the basement)

Theme 1: Carbon in soils		(Chair: Florian Schneider)
No	Name	Title of poster
1	Ahmed Attia	Crop rotations for enhanced soil C sequestration – A modelling study in southwestern Germany
2	Juvenal Assou	Evaluate and effectively utilise climate protection potentials of agroforestry
3	Quentin Bell	Cover crop effects on carbon sequestration and yield in varied climate scenarios
4	Abubakar Girei Halilu	Soil organic carbon pools dynamics under long term use of farmyard manure and mineral fertilisers
5	Florian Schneider	Areas available for potential carbon sequestration in European agricultural soils
Theme 2: Emission reduction strategies for peatland, grassland, rice		(Chair: Sandra Loaiza)
6	Daniel Urban	Cost-effectiveness of peatland restoration: A novel approach to construction of MACC
7	Sanni Semberg	The effect of timing of grass renewal on the GHG exchange on a drained organic soil
8	Kolawole Odubote	Holistic planned cattle grazing management system as a mitigating measures to for GHG emissions reduction in Zambia
9	Narasinha Shurpali	Monitoring GHG exchange from dairy grasslands on different soil types in Finland
10	Sandra Loaiza	Rice varieties for mitigation of methane and nitrous oxide emissions in two regions of Colombia

Theme 3: Climate policies and national analysis (Chair: Jacek Walczak)		
11	Karen Arcia	Reviewing implementation and effectiveness of climate-cattle policies in Germany
12	Felipe Crespo	Exploring Alternative Economies of Coca Leaf for a Just and Peaceful Transition in Colombia
13	Philipp Löw	What drives recent trends of nitrogen use efficiency and fertiliser consumption in Germany
14	Jonas Vandicke	The Flemish Center of Expertise for Agriculture and Climate (ELK)
15	Claudia Faverin	Cross-Continental Comparison: Sustainability Indicators in Mixed Crop-Livestock Systems
16	Jacek Walczak	The effect of the implementation of the Polish RDP/ CAP for mitigation GHG
Theme 4: Climate friendly innovation and technologies (Chair: Karen Camilo)		
17	Jones Athai	Hermetic structures for safe and sustainable grain storage
18	Cyrill Zosso	How do we get the farm-level touchdown of reduction pathways right?
19	Boris Ouattara	A Stacked Ensemble Model Approach for Deriving Crops Phenology and Daily Agricultural Management
20	Maksud Bekchanov	How does irrigation system transition impact on energy use and greenhouse gas emissions?
21	Franziska Mathias	Feasibility of a climate-friendly diet in everyday life – a qualitative analysis
22	Karen Camilo	Early-stage researcher mobility: Gender barriers and opportunities in capacity building

Theme 5: Livestock emissions (Chair: Julia Gickel)		
23	Dominik Wisser	Revised Tier 2 Protocol for Enteric Methane Emissions from African Small Ruminants
24	Lydia Lanzoni	Tier 2 Protocol for Enteric Methane Emissions from African Cattle
25	Daniel Petrič	Effect of nano-ZnO and ZnO on ruminal fermentation and methane production in sheep
26	Georgette Pyoos	The effect of breed composition on methane efficiency in beef bulls
27	Michiel Scholtz	Farmgate methane intensity of beef can be reduced by changes in cow-calf efficiency traits
28	Julia Gickel	Potential of healthy pig using the example of vaccination against Lawsonia intracellularis
Theme 6: Feed alternatives as mitigation measure (Chair: Alexandra Bombárová)		
29	Olegario Hernández	Whole cottonseed as an alternative to mitigate In vitro methane emissions
30	Etchu Kingsley Agbor	Seasonal variation in the nutritional content of livestock feeds in Cameroon, in the face of climate change
31	Pola Sidoruk	Rugosa rose pulp in vitro modulation of basic ruminal parameters in dairy cows
32	Jesús Fernando Flórez Herrera	Economic analysis of hay supplementation with <i>Canavalia brasiliensis</i> CIAT 17009
33	Dirk von Soosten	Investigations on the relationship between locomotion score and methane emissions of cows
34	Carlos Gomez	Agro-industrial subproducts for livestock feeding that contribute to reducing methane emissions
35	Alexandra Bombárová	The environmental aspect of zinc nanoparticles used in sheep nutrition

Theme 7: Modelling and data mining		(Chair: Ronnal Ortiz Cuadros)
36	Elena Beuerle	Modelling climate resilience in land use systems
37	Tom Broeg	Using local ensemble models and Landsat bare soil composites for large-scale soil organic
38	Rene Dechow	Modelling the effects of nitrogen fertilisation and ley-rotations on soil organic stocks
39	Maximilian Forchert	Adapting the DSSAT-CROPGRO model for narrow-leaved lupin (<i>Lupinus angustifolius</i>)
40	Javier Muro	Monitoring of hedgerows at national scale with deep learning and planet satellites
41	Ronnal Ortiz Cuadros	Predictive machine approaches to estimate nitrogen excretion in dairy cows in Latin America
Theme 8: N₂O emissions and arable crops		(Chair: Guangyong Zhao)
42	Jerry Dlamini	Converting ungrazed pasture to maize cropping: consequences on soil N ₂ O emissions
43	Donghui Ma	Breeding progress reduces carbon footprints of the five major cereal crops in Germany over the past four decades
44	Nan Ha	Environmental and economic assessment of German oat milk value chain using an integrated LCA-LCC approach
45	Fadhline Suhaimi	Greenhouse gas emissions from soilless crops in urban agriculture in tropical climate
46	Monika Skowrońska	GHG emissions under the use of fertilisers and inhibitors in a maize agroecosystem
47	Gunda Schulte auf'm Erley	Nitrification inhibitors as climate mitigation measure in German crop production?
48	Andreas Pacholski	Knowns and unknowns of the use of nitrogen transformation inhibitors
49	Guangyong Zhao	Taurine inhibits the nitrous oxide formation in soil through modifying bacterial community

– Round Tables on Tuesday, 22nd October 2024 14:00-15:30 –

No. 1: Carbon pricing of agricultural emissions – Claudia Heidecke, Thünen Institute

1. Is it technically feasible to establish a comprehensive and fair sound carbon pricing system given the diffuse and variable emissions coming from the agricultural sector?
2. Is it economically and politically feasible to introduce carbon pricing for the agricultural sector at the national level? Is a global system realistic?
3. What are the main options available for implementing agricultural carbon pricing? What are their advantages/disadvantages.

No. 2: Role of metrics in agricultural mitigation – Andy Reisinger, GRA

1. What do we need GHG metrics for to support decision making in agriculture and climate change?
2. How different are results from different metrics, and are they answering the same questions?
3. Is it possible to give better guidance on what metric to use in what context?

No. 3: Climate friendly wheat– mitigation through improved nutrient efficiency – Tania Runge and Philipp Löw, Thünen Institute

1. Is more efficient nitrogen fertilisation in wheat/other cereals currently discussed as a mitigation option in your country?
2. What are innovative measures by farmers to adjust amount, type, application method, and spatial and temporal distribution of fertiliser?
3. Are policy options or marketing options, such as labelling, of climate friendly wheat being discussed in your country?

No. 4: How to reduce leakage effects from mitigation measures? – Mareike Söder, Thünen Institute

1. Are leakage effects from mitigation policies in agriculture and food systems discussed in your country? If yes, what interventions are being considered to reduce leakage effects?
2. Would you prefer a carbon border adjustment mechanism or direct support to mitigation action abroad to reduce leakage effects?
3. What are major challenges and practical solutions to create a level playing field for producers with respect to their emission intensity?

**No. 5: Challenges and barriers for the transformation of land use
– Bernhard Osterburg, Thünen Institute**

1. How can we improve land use pattern in line with the PA targets?
2. Is there enough land available for afforestation and peatland rewetting?
3. What are supportive policies and institutions and what are barriers for land use transformation?

No.6: Climate change mitigation through reduced GHG-emissions per unit land vs. per unit product – Til Feike, Julius Kühn Institute

1. To mitigate climate change effectively is it better to reduce emissions per unit cropland or per unit crop product? Why?
2. Are there discussions in your country regarding the choice of (these) functional units for mitigation strategies on science, private sector and policy level?
3. What is the level of awareness regarding carbon opportunity costs, land use efficiency and leakage?
4. What types of innovations are implemented / required to minimize trade-offs and maximise mitigation effects?

**No. 7: Reducing enteric methane emissions from grazing animals where daily feeding of supplements/inhibitory compounds is not possible: what is the potential and how close are solutions?
– Harry Clark, NZAGRC**

1. What are the methods being researched/developed in your country?
2. Which ones have the greatest potential and what evidence is available to support this?
3. When will they be available, will they be cost effective and will they be safe.

**No. 8: Climate mitigation and nutrition: Are they linked?
– Claudia Ringler and Vartika Singh, IFPRI**

1. How does climate mitigation affect diets and nutrition; and how do diets and nutrition affect climate change with a focus on low- and middle-income countries (LMICs)?
2. Which mitigation measures affect diets and nutrition most and how can negative impacts be addressed?
3. Which dietary trends and recommendations affect climate change most and what can be done about it?

**No. 9: Stored product protection in times of climate change
– Christina Müller-Blenkle, Julius Kühn Institute**

1. What new challenges are expected in stores product protection as a result of climate change?
2. What can be done to improve stored product protection/storage security?
3. What are the knowledge gaps that need to be addressed?

No. 10: CGIAR's NEW Science Program on Climate Action: New research on agri-food system mitigation – Tek Sapkota, CIMMYT

1. Are the proposed 2025-2030 CGIAR low-emission strategies in food, land and water systems strategic enough to contribute towards Paris targets? What is missing?
2. Would you be interested to collaborate with CGIAR on this research? If yes, in which regions/countries/research areas?
3. How can equity for marginalised groups be ensured in the shift to low-emission food systems while minimising negative impacts?
4. How can we make carbon market work for smallholder producers?

No. 11: Co-creating socio-technical innovations to support low-emission food systems – Thomas Falk, IFPRI

1. Why are co-creation and/or participatory approaches important for climate change mitigation?
2. What are the potentials of the Living Lab approach to support transformative social-technical innovations that contribute towards mitigation?
3. How does a Living Lab approach address (or not) power issues in innovation processes?

– Side Events –

Thursday, 24rd October 2024		
Name of event	Time	Room
2024 LRG Annual Meeting Agenda – Mitigation in Action	9:00-17:00	P2
Inventory and NDC (INDC) network meeting	8:45-12:30	P3
Animal Health and Climate Meeting	13:30-17:00	P3
Shaping the research and policy agenda for advancing circular food systems	9:00-12:30	S9+S10
Soil Carbon Sequestration Network Meeting	11:00-12:30	S11
Global Research Alliance – Integrative Research Group meeting	14:00-16:00	S11

If you have registered for a side event on 24th October you will receive further details about the content from the side event organisers.

A lunch is foreseen at 12:30 and the afternoon activities are foreseen to end no later than 17:00.

Please note that registration for side events is closed.

Please find all updated information regarding the Side Events and contact details of side event organisers on our website:

<https://www.agrighg-2024.de/programme/side-events>

General information

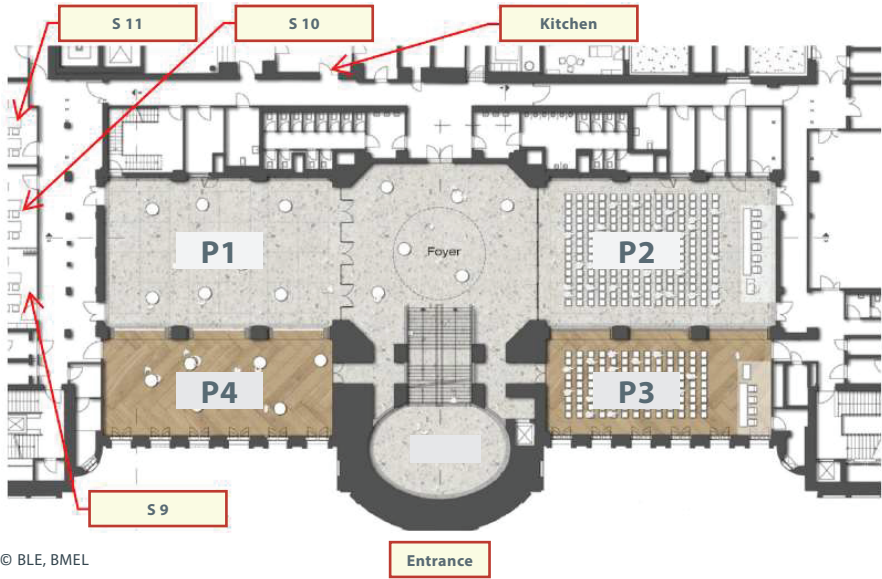
The Venue

The venue is the Conference Center (Konferenzzentrum) Mauerstrasse in Berlin:

Adress:
Mauerstraße 27
10117, Berlin – Germany



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