GLOBAL RESEARCH ALLIANCE

ON AGRICULTURAL GREENHOUSE GASES

12 October 2018

SECRETARIAT UPDATE



GLOBAL RESEARCH ALLIANCE

AT A GLANCE

ON AGRICULTURAL GREENHOUSE GASES







Livestock Research



Croplands Research Group



Integrative Research Group



Science Networks



Over **3000** scientists involved in activities of the GRA



87 fellowships awarded to recipients from **33** countries





32 technical training workshops held



21 technical guidelines, resource materials and databases produced

















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- Germany took on role of Chair.
- Indonesia confirmed as vice-Chair.
- Senegal confirmed as third co-Chair of the PRRG.
- Request for 2 new countries to be LRG Co-Chairs.
- Flagship and Research Group leadership/governance to be reviewed.
- New Flagship on Circular Food Systems.
- New Flagship on Nitrogen.
- UNFCCC KJWA.















- International Conference on Agricultural GHG emissions and Food Security: Connecting research to policy and practice.
- Jointly organised by GRA and FACCE-JPI, in partnership with CCAFS, and hosted by the Thünen Institute.
- Science Conference (10-11 September)
- Stakeholder Conference (11-12 September)
 - Communicating research outcomes of the GRA, FACCE-JPI and CCAFS to policy makers, research coordinators, NGOs, industry and farmer organisations.
- https://www.agrighg-2018.org/program/output-of-the-conference/

2019 COUNCIL MEETING

- The 9th GRA Council meeting will be held in Bali, Indonesia - October 10-12, 2019.
- The meeting will be alongside the 5th Global Science Conference on Climate Smart Agriculture: Transforming agriculture under climate change. 8-9 October 2019.





2018 RG Co-Chairs with Chair



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Co-Chairs

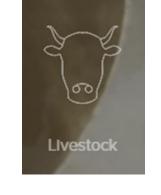
- Harry Clark, NZAGRC, New Zealand
- Martin Scholten, Wageningen UR, the Netherlands

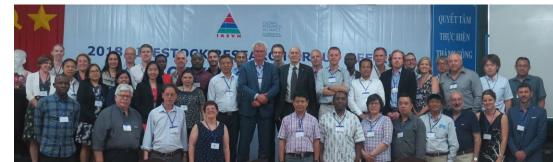
Group Activities

- Major LRG work on rumen microbial genomics (Hungate 1000) published in Nature
- Feed & Nutrition Network project published three review papers
- Regional networks in Latin America/Caribbean (sustainable intensification) and South/South East Asia (inventories)
- Successful East Africa engagement workshop on low emissions livestock development (GRA, FAO, WB, CCAFS, ILRI, UNECA)
- Joint projects with CCAFS on MRV capabilities

Next Meeting

August 2019 in Iguaçu Falls, Brazil





Co-Chairs

- Jean-François Soussana, INRA, France
- Pamela Joosse, Agriculture and Agri-Food Canada
- Richard Eckard, University of Melbourne/ACIAR, Australia

Group Activities

- Soil carbon: Planning for systematic review of tropical agriculture on soil C sequestration
- Field Integration: Testing models and their limitations for ability to model published mitigation options
- Farm-Region: Soil Organic Carbon management for climate change mitigation survey.

Next Meeting

 Week of 4-8 Feb 2019, CIAT, Colombia





Co-Chairs

- Rosa Mosquera, USC, Spain
- Mark Liebig, USDA-ARS, USA
- Ladislau Martin, EMBRAPA, Brazil

Group Activities

- Peatland management, Workshop held in Norway
- Nutrient Management, fact sheet in progress (10 countries)
- Conservation Agriculture Network, special session at SSSA International Soils Conference, San Diego, January 6-9, 2019.
- N2O measurement workshop, Canada in July 2019
- Merging the Agroforestry Network with the Integrated Crop & Livestock Systems Network (crops-livestock-trees)

Next Meeting

 November 2019, San Antonio, Texas. Alongside the US ASA/CSSA/SSSA conference.





Development of **solutions**

- N management: rate, source, timing & placement
- Develop and implement N inhibitors
- Crop rotation, cover crops, perennials, biomass management and conservation tillage
- Water management (irrigated or paddy systems)
- The interdepedence between N and C
- Role of soil microbiome

Improved **quantification** of N2O emissions and mitigation

Emissions factors – direct, indirect and yield scaled

- Cropland/pastureland Tier
 2 and Tier 3
- Improved activity data

<u>Implementation</u> of mitigation solutions

- Identification of locally appropriate mitigation actions
- Capacity building
 - Farmers / producers
 - MRV practitioners
 - For Tier 3 modelling
 - Students/interns
- Scientific exchange
 - Conferences
 - Innovation networks



Components of the Flagship:

- Describing and understanding the existing concepts of circular agrofood systems, their impact on each scale and the possible benefits (create an economy on by-products);
- Assessing the feasibility and potential of decrease GHG emissions;
- 3. Identifying the gaps within research and involve partners to transfer the new knowledge to stakeholders;
- 4. Develop a strategy to accelerate the transition including identifying enablers and barriers.
- 5. From the concept to the practice: identify and develop showcase; monitor showcases as learning cases (data collection).

- A joint scholarship of CCAFS and the GRA Climate Food and Farming Network (CLIFF) and the GRA Development Scholarships (GRADS).
- The CLIFF-GRADS programme is open to students from developing countries currently enrolled in PhD programs for short-term scientific training and research stays on topics related to measurement and management of greenhouse gas emissions and carbon storage in agricultural systems.
- First call December 2017
 - 9 scholarships awarded to recipients from Nigeria, Tunisia, Ethiopia, Mexico, and Argentina.
 - Hosted at CGIAR centres (CIAT, CYMMIT) and GRA member country research institutes (Netherlands, Chile, UK).
- Second call recently closed (30 September)
 - 37 projects offered by GRA members and partners











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FOR MORE INFORMATION

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