



GRA CAPABILITY PROGRAMMES

Building the capability and capacity
towards growing more food without growing
greenhouse gas emissions



Global Research Alliance on Agricultural Greenhouse Gases

The Global Research Alliance on Agricultural Greenhouse Gases (GRA) is an international organisation that aims to grow more food without growing GHG emissions.

Over 3000 scientists involved the GRA's activities worldwide.

4 Research Groups



All of the work of the GRA is done under the four research groups: Livestock, Croplands, Paddy Rice, & Integrative Research Group.

30 partner organisations

The GRA partners with global and regional organisations to reduce GHG emissions as well as improve food security and overall economic objectives.



68

Member
Countries

The GRA enhances **Leadership, Research,** and **Capability** globally

7 GRA Flagship Projects

17 Science Networks

51 technical
training workshops

66 technical guidelines,
resource materials &
databases produced

228 fellowships awarded to
recipients from 49 countries

141 international collaborative
projects supporting the GRA

GLOBAL RESEARCH ALLIANCE

ON AGRICULTURAL
GREENHOUSE GASES

Our Goal

Building capacity through the sharing of knowledge and research experiences between countries and organisations is an important way of strengthening international links and increasing cooperation and collaboration.

Several GRA member countries have made available various fellowships and award schemes to international participants as a contribution to this effort. This brochure provides summary information on these schemes and links to find out more.



Our programmes & resources at a glance:



CLIFF-GRADS

NZ GRADS

GRA-GRG

Scholarships



GRAIT

Training



Online Courses



Publications



Webinars



CLIFF-GRADS

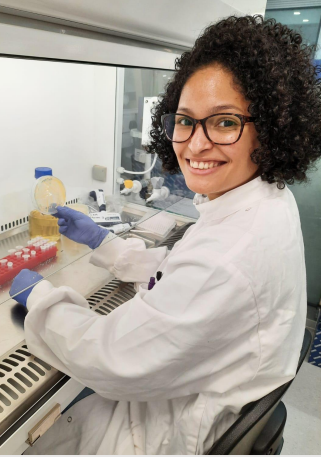
Climate, Food and Farming, Global Research Alliance Development Scholarships Programme (CLIFFGRADS) is a joint initiative of the GRA and CGIAR's Initiative on Low-Emission Food Systems (Mitigate+)

The CLIFF-GRADS programme builds capability of early career scientists from developing countries to conduct applied research in agricultural greenhouse gas emission qualification and climate change mitigation.

This programme offers a grant for the recipient's short research visit of 4 to 6 months at a partnering university or research institute around the world. Students are provided with technical training and opportunities to learn from global experts while conducting research in a different country. The grant covers travel expenses and living costs while on the research stay.

Research projects focus on measurement, modelling and mitigation of GHG emissions, or the enhancement of carbon storage in agricultural systems.

CLIFF-GRADS has awarded grants to students from over 30 countries and they have been hosted in 50 research institutes from across the GRA's membership.



Name: Rayane Viana Costa
Host University: Queen's University Belfast, UK.
Project: "Assessing the growth of pure bacterial culture."



Name: Beatriz Elisa Bizzuti
Host institute: INTA Manfredi, Argentina.
Project: Measuring enteric methane by SF6 technique in alfalfa pasture.



Name: Susan Nguku
Host University: INIA Remehue, Chile
Project: "Collecting nitrous oxide gas from the field experiment."

CLIFF-GRADS

CLIFF-GRADS continues to provide its alumni with opportunities to share research and experiences with each other once they have completed their research visit. The GRA and Mitigate+ organise webinars, workshops and other activities for capacity building. These opportunities provide professional experience, and serve as networking and communication platforms for CLIFF-GRADS students.

CLIFF-GRADS Alumni Workshop, Indonesia, 2019



“The experience I gained managed to land me a part-time job as an experiment manager where I train postgraduate students and field technicians on GHG sampling, analysis and data processing. ”

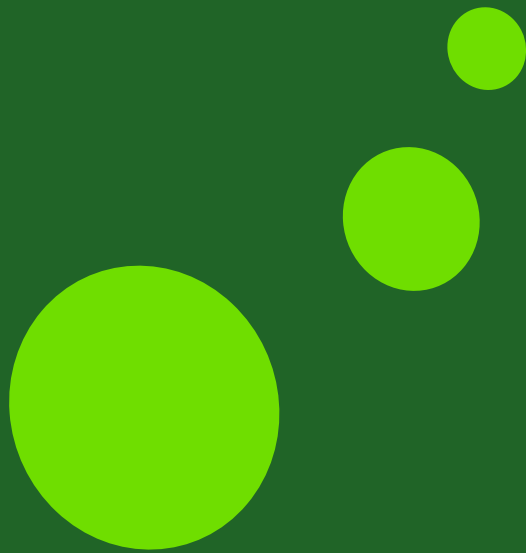
“I didn't know I was lacking in data management skills, but the scholarship program helped me fill that gap. introduced me to new technology, lab equipment, and work cultures, all of which were helpful. Additionally aided in my understanding of the value of cooperating and exchanging ideas to improve our world and way of life. ”

NZ-GRADS

The New Zealand Global Research Alliance Doctoral Scholarship (NZ-GRADS) programme is a 3-year fully funded scholarship offered to science students from developing countries to complete their PhD at a New Zealand university.

Recipients are connected with a research institute in New Zealand to conduct research on agricultural greenhouse gas mitigation. The PhD research topics are related to greenhouse gas emissions from agricultural systems including livestock mitigation, the development of new technologies or innovative applications of existing technologies.

Applications are opened every second year.



NZ-GRADS

The GRA offers a wide range of capability building and research programmes through various partners within New Zealand and internationally. NZ-GRADS students are actively supported through various extension and networking events that we host in New Zealand.



NZ-GRADS students presented the outcomes of their research at New Zealand's 2024 annual science meeting

GRA-GRG

The GRA-RUFORUM Graduate Research Grants (GRA-GRG) is a joint initiative of the Global Research Alliance on Agricultural Greenhouse Gases (GRA) and the Regional Universities Forum for Capacity Building in Agriculture (RUFORUM). These grants aim to strengthen the capability of African universities and their graduates to conduct applied research on agricultural greenhouse gases.

Each grant supports a Principal Investigator (senior lecturer at a RUFORUM member university) and two Master of Science students in conducting research and training on topics related to the measurement and management of agricultural greenhouse gas emissions and carbon storage in agricultural systems in Africa over a two-year period.



The awards support university personnel in conducting applied research on agricultural GHG measurement and management, while also providing students with hands-on research experience in a dynamic academic setting. This contributes to the development of low-emission and climate-resilient agri-food systems in Africa.



GRA-GRG

Launch of the GRA-RUFORUM Alumni Network: GRAN-Afrique



In 2023, GRAN-Afrique was launched as the GRA-GRG Alumni Network. GRAN-Afrique supports networking among the Alumni, promoting the development of their professional careers, building their involvement and commitment in GRA and RUFORUM activities and facilitating cooperation in agricultural GHG research and development, including through community projects.

GRAIT

The Global Research Alliance Agricultural Inventory Training Programme (GRAIT) streamlines agricultural inventory capacity building initiatives under the Enhanced Transparency Framework through leveraging the GRA's collaborative ethos across its network of member countries, partner organisations, scientists and policy experts. It is a coordination initiative that aims to accelerate the development of robust agricultural inventory systems in developing countries by;

- Providing readily accessible information on past, present and future agricultural GHG inventory capability building programmes so that new training programmes are built on existing work,
- Encouraging greater funder-funder collaboration when developing and delivering new training initiatives, and
- Providing a platform to identify and promote new funding and training opportunities.

Outcomes:



Developing countries are well informed and can easily access funding and training opportunities.



Increased awareness of the significance of high tiered inventory methodologies.



Enhanced capacity of countries to conduct high tiered agricultural inventories.



Improved dissemination of relevant scientific information to stakeholders by strengthening linkages.



Improved coordination and collaboration among countries in this space, ensuring use of resources and fund.

GRAIT

GRAIT is a “call to action” encouraging collaborative efforts in the agricultural GHG inventory capability building space. This initiative coordinates training efforts by providing one place for people to access information and an area where people can link up.



GRAIT provides:

1. Enhanced information sharing, coordination and collaboration on agricultural inventory training in developing countries.
2. Easier access to information on funding and training opportunities.
3. Acceleration of the development of robust agricultural inventory systems in developing countries leading to:
 - an increased understanding of the importance of higher tiered Inventory methodologies,
 - increased capacity of countries to carry out higher tiered agricultural Inventories and demonstrate mitigation efforts in their NDCs, and
 - efficient identification of agricultural GHG inventory training gaps and needs in developing countries.
4. Strengthen partnerships (existing/new) and coordinate inventory training activities across international funding organisations and countries.

ONLINE COURSES

The GRA has created the Agricultural Greenhouse Gas (GHG) National Inventory training programme, which provides foundational knowledge supporting the development of national GHG Inventories and assessment of GHG emissions from the agriculture sector. It focuses on introducing participants to climate change science, international obligations, and the science behind agricultural GHG Inventories.

The Programme consists of 3 courses, approximately 60 – 90 minutes duration each and can be translated into into Arabic, Chinese (basic), Dutch, English, French, German, Italian, Portuguese, Russian and Spanish.



Course 1 – Introduction to Climate Change Science

An introduction to some basic principles of climate change including the greenhouse effect, how greenhouse gases contribute to climate change and how their contribution is measured. No prior knowledge required.



Course 2 – Introduction to International GHG obligations

This course introduces the United Nations Framework Convention on Climate Change (UNFCCC) and the international agreements and reporting requirements under it.



Course 3 – Introduction to the Science behind Agricultural GHG Inventories

This course introduces the science behind agricultural greenhouse gas (GHG) emissions including where emissions come from, and how to measure and mitigate them. The Intergovernmental Panel on Climate Change (IPCC) methodologies for estimating agricultural GHG emissions are introduced.

You will learn about:

- Climate change science and why it is believed that humans are responsible for climate change
- The role of the United Nations Framework Convention on Climate Change (UNFCCC) and the reporting requirements for countries under the various international agreements.
- The International Panel on Climate Change (IPCC) guidelines for National GHG Inventory reporting
- The science behind agricultural GHG emissions
- The research that is used to measure and reduce agricultural GHG emissions from agriculture.

CONNECT

GRA
Capability
programmes
provide:



Scholarships



Trainings



Online Courses



Publications



Webinars

*For more information on the GRA and its capability programmes,
please scan the QR codes below*



GRA



CLIFF-GRADS



NZ-GRADS



GRA-GRG



GRAIT



All programmes can be found on globalresearchalliance.org



GLOBAL
RESEARCH
ALLIANCE
ON AGRICULTURAL
GREENHOUSE GASES

1.5
TO STAY
ALIVE



**Building capability
is watering the
seed for you to
grow**

**1.5° Target: Global Action Plan—
Enhance Capability, Reduce Ag Emissions**