

## The 18<sup>th</sup> RUFORUM ANNUAL GENERAL MEETING 2022

### Research and Innovations in Agricultural Greenhouse Gases

A Collaboration between the Regional Universities Forum for Capacity Building in Agriculture and the Global Research Alliance on Agricultural Greenhouse Gases

Dates: 15<sup>th</sup> December 2022

Time: 0800-1300

Registration link: <https://bit.ly/3ASpBYN>

**Venue:** Lecturer Room G5, University of Zimbabwe

### Concept Note

#### Background

The Global Research Alliance Graduate Research Grants (GRA-GRG) are a joint initiative of the Regional Universities Forum for Capacity Building in Agriculture (RUFORUM) and the Global Research Alliance on Agricultural Greenhouse Gases (GRA), supported by New Zealand's Ministry for Primary Industries (MPI). The initiative aims at building the capability of graduate and post-graduate level students in Africa to conduct applied research on agriculture greenhouse gases. The GRA-GRG are offered in line with the RUFORUM Competitive Grants System with the common goal of supporting the development of capability in RUFORUM member universities to support Africa to respond to the goals established by the Paris Agreement on Climate Change, the 2030 Agenda for Sustainable Development, as well as national and regional priorities of African States.

Under the GRA-GRG initiative, eight research grants have been funded to build the capability of graduate and post-graduate level students in Africa to conduct applied research on agricultural greenhouse gases. The grants have been supporting eight Principal Investigators (individual senior lecturers from RUFORUM member universities) and 24 Master students (14 females and 10 males) from African Universities to study GHG emissions in pastoral livestock production systems over the last two years.

Building science capability of beneficiary students and key stakeholders is instrumental not only to the success of this initiative but also to reducing agricultural greenhouse gases in the context of improving farm productivity and contributing to global food security.

#### CO-ORGANISERS:



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|                   | <p>The Global Research Alliance on Agricultural Greenhouse Gases (GRA) is primarily a network of governments interested in agricultural GHG emissions and their effect on climate change and food security. It aims at (i) developing networks of researchers who work in this area, and (ii) collaborating and sharing information and technologies out to the farmers. The Alliance is focused on research, development and extension of technologies and practices that will help deliver ways to grow more food (and more climate-resilient food systems) without growing GHG emissions. The Alliance promotes an active exchange of data, people, and research to help improve agricultural GHG research and enhance participating countries' scientific capability.</p> <p>The RUFORUM is a network of 160 African universities with the mission of strengthening the capacities of universities to foster innovations responsive to the demands of small-holder farmers. This is done through the training of high-quality researchers, the output of impact-oriented research, and the maintenance of collaborative working relations among researchers, farmers, national agricultural research institutions, and governments.</p> |
|                   | <p>RUFORUM will be hosting the 18th RUFORUM Annual General Meeting, 12-16 December 2022 in Harare, Zimbabwe. A number of AGM side events have been arranged. RUFORUM, in partnership with the GRA, will convene an AGM side event on 15<sup>th</sup> December, 2022 at the University of Zimbabwe to showcase the achievements and lessons learnt under the GRA-GRG. The event will provide an opportunity for PIs and students to share information on the objectives and activities of their projects; discuss achievements, challenges and lessons arising from conducting their research. The side event will attract experts from higher agricultural education institutions, agricultural organisations, and development partners engaged in financing or technically supporting agricultural research in Africa.</p>   |
| <b>Objectives</b> | <ol style="list-style-type: none"> <li>1. Share experience in conducting research and applying the results and models for agricultural GHG research projects</li> <li>2. Reflect and extract the lesson learned: what went well and what should be improved, what were the key factors of success and/or failure, what else is needed</li> <li>3. Provide inputs to the future of the RUFORUM-GRA Graduate Research Grants post 2022</li> <li>4. Raise awareness among RUFORUM members of the research being undertaken and the opportunities for collaboration on agricultural GHG emissions research.</li> </ol>  |
| <b>Outputs</b>    | <ol style="list-style-type: none"> <li>1. Review of progress and outcome of the initiative</li> <li>2. Lessons and best practices shared and captured</li> <li>3. Networking among students, partners and stakeholder strengthened</li> </ol>   |

**CO-ORGANISERS:**



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| <b>Approach and Methodology</b>    | The side event will be organised as a series of presentations from experts and students. The side event will be both virtual and face-to-face.   |   |
| <b>Participants</b>                | Participants will include development partners, policy actors, scientists, and students from universities in and outside Africa  |   |
| <b>Dates and registration link</b> | The session will be held on Thursday 15 <sup>th</sup> December 2022.<br>Registration Link: <a href="https://bit.ly/3ASPbYN">https://bit.ly/3ASPbYN</a>   |   |
| <b>Organizers</b>                  | The event is organized jointly by the GRA and RUFORUM, with support from the New Zealand Agricultural Greenhouse Gas Research Centre, funded by the Ministry of Primary Industries, New Zealand. |   |
| <b>Contacts</b>                    | Ackim Mwape<br><a href="mailto:Ackim.Mwape@nzagrc.org.nz">Ackim.Mwape@nzagrc.org.nz</a>  | Runyararo J Rukarwa<br><a href="mailto:r.rukarwa@ruforum.org">r.rukarwa@ruforum.org</a> |

**CO-ORGANISERS:**



## Programme

| Delivering Research and Innovations in Agricultural Greenhouse Gases               |  |   |
|--|--|---|
| Registration Link: <a href="https://bit.ly/3ASPBvYN">https://bit.ly/3ASPBvYN</a>   |  |   |
| Time   |  | Responsible   |
| Chair: Runyararo Jolyn Rukarwa   |  |   |
| Registration   |  | Artur Fernando  |
| <b>Session I: Opening Session</b>  |  |   |
| 8:00-8:10  | Remarks by Chair   | Runyararo Jolyn Rukarwa   |
|  | Remarks from RUFORUM   | Alice Mweetwa, Deputy Executive Secretary, RUFORUM                                    |
|  | Remarks from GRA   | GRA Representative  |
| 8:15-8:35  | <b>Keynote address I: The potential future career pathways/opportunities after completing studies (MSc/PhD), including through the GRA</b>   | <b>Dr Kofi Konadu Boateng</b>   |
| 8:35-8:45  | <b>Discussion</b>  | All participants  |
| <b>Session II: Experiences on agricultural GHG training and research in Africa</b> |  |   |
| 8:50-9:20  | <b>Keynote address II: The future direction for Agricultural Research in Africa.</b>   | <b>Dr Fatunbi Oluwale, Lead Specialist: Innovation Systems and Partnerships, FARA</b> |
| 9:20-9:35  | <b>Discussion</b>  | All participants  |
| 9:35-10:20   | <b>GRA-RUFORUM Projects Updates by Students</b> <ul style="list-style-type: none"> <li>i. <b>Daniel Sibabalwe</b>-University of Free State</li> <li>ii. <b>Anyait Ritah</b>- Makerere University</li> <li>iii. <b>Vincent Wabwire</b>- Makerere University</li> <li>iv. <b>KAMBOU Hinmanhala</b>- University of Abomey Calavi</li> </ul> | Students  |
| 10:20 – 10:30  | <b>Discussion</b>  |   |
| 10:30-11:00  | <b>BREAK</b>   |   |
| 11:00-11:45  | <ul style="list-style-type: none"> <li>i. <b>Brenda Kipkorir Jepkemoi</b>- Maseno University</li> <li>ii. <b>Evet Naturinda</b>- Makerere University</li> <li>iii. <b>Wilhelminah Juma</b>- University of Eldoret</li> <li>iv. <b>Mwanga Mwanga</b>- Evangelical University in Africa</li> </ul>   |   |
| 11:45-12:05  | <b>Discussion</b>  |   |
| <b>Session III: Improving quantification of agricultural GHGs</b>                  |  |   |

## CO-ORGANISERS:



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| 12:05-12:15                | Machine Learning for Estimating Sources and Sinks: Developing Cloud Computing-Based, Artificial Intelligent Algorithms to Quantify Livestock and Biomass for Management of GHGs Emissions | Dr Anthony Gidudu       |
| 12:15- 12:30               |   |                         |
| 12:30-12:50                | Discussion  |                         |
| <b>Session IV: Closing</b> |   |                         |
| 12:50 – 13:00              | Wrap up from RUFORUM  | Runyararo Jolyn Rukarwa |
| 13:00-13:10                | Wrap up from GRA  | Ackim Mwape             |

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