Strategic Plan 2026-2030

For the Global Research Alliance on Agricultural Greenhouse Gases

launched on 18 March 2026

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Background and Rationale

Agriculture plays a vital role in achieving food security and nutrition, poverty reduction and sustainable development especially of rural areas. Like most other economic sectors, agriculture and land use can emit greenhouse gases (GHGs) such as methane, nitrous oxide and carbon which contribute to global warming. The sector itself is also particularly vulnerable to the impacts of climate change and faces great challenges in meeting a significant increase in global food demand while reducing its contribution to global GHG emissions. Agriculture, forestry, and other land use (AFOLU) contribute an estimated 13-21 percent of global net anthropogenic GHG emissions, including both CO_2 — mainly from activities such as deforestation and peatland degradation—and non-CO_2 gases such as methane from livestock and rice cultivation, and nitrous oxide from fertiliser use (IPCC, 2022: AR6 WGIII- Chapter 7). Without intervention, these are likely to increase by about 30–40 percent by 2050, due to increasing demand based on population and income growth and dietary change (IPCC, 2019: SRCCL- Chapter 5).

There is thus an urgent need to strengthen research cooperation and increase investment in mitigation practices and technologies. This requires robust, science-based approaches to the development of new mitigation technologies and practices, enhancing soil carbon sinks and exploiting where possible synergies between mitigation and adaptation, particularly at the farm level.

Enhanced research and data sharing can support governments in developing effective climate strategies and evidence-based policies, including the accurate estimation and transparent reporting of agricultural emissions and removals from agriculture in line with their Nationally Determined Contributions (NDCs). With the next round of NDCs expected in 2025 and described by the UNFCCC as a potentially final opportunity to keep the 1.5C goal within reach, action in agriculture and land use must be both ambitious and immediate. A greater understanding of suitable on farm mitigation and adaptation actions that countries can promote to farmers and industry is essential to accelerate the transformation to low emission food systems, while promoting food security, resilience, and sustainable development in line with the SDGs and Paris Agreement.

In this context, the Global Research Alliance on Agricultural Greenhouse Gases (GRA) plays a critical role in accelerating collaborative research and innovation to meet the urgent challenges of agricultural GHG mitigation. Established in 2011, the GRA, provides a framework for voluntary action to increase cooperation and investment in research activities related to reducing GHG emissions intensity in agricultural production systems, increasing their potential for soil carbon sequestration, and improving their efficiency, productivity, resilience, and adaptive capacity, thereby contributing in a sustainable way to overall mitigation efforts while still helping meet food security objectives. The GRA Charter outlines its objectives and principles, providing the foundation for its collective work.

The Strategic Plan for 2026-2030 will be a non-binding document that tracks the GRA's continued effectiveness and ensures progress towards the implementation of the GRA Charter. The Strategic Plan will serve as a bridge between the day-to-day work of the GRA Council, and its Research Groups, Special Representative, Secretariat and Partners.

Our Vision

The GRA will be the leading global initiative advancing research to reduce agricultural GHG emissions as part of a sustainable, climate-resilient global agri-food system.

Our Strategic Priorities

1 Advance Science and Innovation

3 Build Effective Collaboration and Partnerships

Our Mission

To develop, advance, coordinate and disseminate international research to contribute to emissions reductions and increase agricultural carbon sequestration and storage from agriculture, without compromising other aspects of environmental sustainability, while maintaining or improving productivity, resilience, and food security.

2 Strengthen Capacity and Knowledge Sharing

4 Leverage Financial and Other Resources

Key Actions

1 Advance Science and Innovation

Goal: develop and advance impactful research that reduces agricultural GHG emissions through global collaboration.

- The GRA will develop and advance scientific research on mitigation of agricultural GHGs and agricultural carbon sequestration and storage.
- This will be achieved through broad global participation in research cooperation and investments to accelerate the development of relevant practices and technologies.
- The GRA will develop a Strategic Research Agenda.

3 Build Effective Collaboration and Partnerships

Goal: Build new, and strengthen existing, global partnerships and collaboration to accelerate the development and impact of agricultural GHG research.

- The GRA will be well connected with other initiatives relevant to GRA work and objectives.
- The GRA will develop partnerships and collaborations with organisations and initiatives (e.g. the FAO, CGIAR, World Bank) that provide complementary skills and expertise to identify and close research gaps, better inform policy, facilitate the implementation of practices, and enable the GRA to broaden its impact and increase its geographic reach.
- The GRA will develop collaborations to identify specific areas to enhance the research capabilities of its Members.
- The GRA will foster regional alliances and networks.
- The GRA will hold at least one meeting of its members at Ministerial level during the SP period.

2 Strengthen Capacity and Knowledge Sharing

Goal: Build research and technical capacity in the area of agricultural GHGs and foster knowledge sharing and information exchange.

- The GRA will build global expertise in relevant knowledge and technologies.
- The GRA will support and develop early-career scientists to gain expertise in agricultural greenhouse mitigation and climate change research.
- The GRA will encourage the development of research results that are openly accessible and available.
- The GRA will increase its influence on policy development and practices on agricultural greenhouse gas mitigation through various mediums.
- The GRA will ensure that its outputs are communicated in a timely fashion and are appropriately targeted and meaningful to governments, farmers, agricultural industries and other relevant stakeholders.

4 Leverage Financial and Other Resources

Goal: Leverage financial and other resources to deliever on its research priorities.

- The GRA will have strong and ongoing financial and other resources to support its activities and Research Groups, including through initiatives such as the Enteric Fermentation R&D Accelerator, multilateral development banks and private and philanthropic organisations.
- GRA Members and Partners will voluntarily support research and capability building activities relevant to the GRA mandate, and develop effective mechanisms for resourcing and coordinating collaborative research.

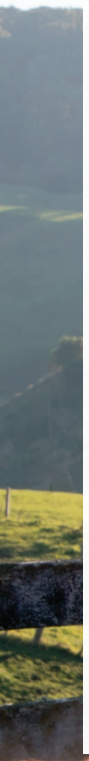
Measures of Success

By the end of 2030, the GRA will have progressed the global science around agricultural GHGs so that their emissions can be reduced, thus contributing to the Paris Climate Agreement ambition of limiting global warming to 1.5°C.

Specific measures of operational success which the Secretariat should track will include:

- Frequency of meetings (in-person, virtual and hybrid) of research groups and networks.
- Preparation of a work plan by research groups
- Report on work plan by research groups.

Specific measures of what success looks like under each of the four key action areas (across the GRA in its entirety) by 2030 will include:



1 Advance Science and Innovation

- Number of peer-reviewed publications and/or conference presentations on GHG mitigation arising from GRA-supported collaborations involving scientists from GRA member countries and partners.
- Number of collaborative research projects initiated or completed annually involving at least 3 GRA member countries.

3 Build Effective Collaboration and Partnerships

- Number of formal partnerships established with international, regional, or sector-specific organisations or initiatives.
- Number of joint initiatives or funding proposals developed with partners.

Implementation, Monitoring and Evaluation

- At its annual meetings, the GRA Council will review the implementation of the Key Actions.
- A Mid-Term Review (2028) can be conducted if deemed necessary by the GRA Council to assess effectiveness of the Plan and whether any adjustments are required.
- An Impact Assessment should be conducted at the end of the Strategic Plan period to determine the level of progress made on the Key Actions.

2 Strengthen Capacity and Knowledge Sharing

- Number of early-career scientists trained, mentored, or involved in GRA programs such as CLIFF-GRADS (annually and cumulatively).
- Number of knowledge-sharing events hosted (e.g., webinars, workshops, symposia).
- Number of policy briefs or guidance documents developed.

4 Leverage Financial and Other Resources

- Number of research projects or activities emanating from the GRA which are funded through leveraged resources.

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