

FONTAGRO and the New Zealand Government

# Call for proposals 2024

Innovations to improve the sustainability and resilience of productive systems to the impact of climate change in Latin America and the Caribbean without increasing greenhouse gas emissions.

Terms of Reference - Closing May 3rd 2024 – Single Phase



Ministry for Primary Industries  
Manatū Ahu Matua



Terms of Reference Extraordinary Call 2024.

## Innovations to improve the sustainability and resilience of farms to the impact of climate change in Latin America and the Caribbean without increasing greenhouse gas emissions.

### SECTION I. BACKGROUND

**1.1 Global challenges of agri-food systems and the sustainable management of natural resources in the context of climate change to 2050**<sup>1,2,3</sup>. Looking ahead to the coming decades, one of the greatest challenges facing humanity is how to meet the food needs of a growing global population and, at the same time, ensure the sustainability of natural resources and resilience to climate change without increasing greenhouse gas emissions. It is estimated that by 2050 the world population will exceed 9 billion people, with the middle class making up more than half of that total. This will require an estimated 50-60% increase in global food production to meet the new demands. At the same time, and in many regions, competition for the use of water, energy, and arable land will become more acute as a consequence of climate change. Agri-food systems will face extreme events such as heat waves, droughts, and floods, which will impact production potential, distribution and the generation of even more food waste, currently estimated at 30 to 50% of what is produced. The FAO estimates that climate change will be one of the constant challenges for the agricultural sector, which will require transformation towards more resilient and sustainable farming systems, including better management of greenhouse gas emissions and early intervention in supply chains to reduce losses. While the Green Revolution focused on increasing agricultural productivity to strengthen food security, looking to the future the challenge lies not only in maintaining and

enhancing these production levels but also in focusing on nutritional improvement of the population's diet and their well-being. The pressures on the agri-food system will continue to increase, creating new, more complex, and interconnected challenges, which in turn will require a paradigm shift in the way we grow food.

**1.2 Challenges for 2025, productivity, sustainability and resilience of farms in the face of climate change**<sup>4,5,6,7,8</sup>. In many Latin American and Caribbean (LAC) regions, there are still large productivity gains to be made in agricultural and agri-food systems. At the same time, there is a need to address international initiatives directed toward reducing greenhouse gas (GHG) emissions and improving on-farm adaptation to climate change. There is also a need to consider the important contribution local knowledge and practices make in efforts to address climate change and in maintaining a protected and productive natural environment, essential to ensuring food security. In this context, in the coming years knowledge and innovation will be required to facilitate the technological change needed on farms at all scales. To achieve this, a systemic approach and the cooperation of local institutions (Universities, private sector, and non-governmental organizations) will be necessary to facilitate these changes. FONTAGRO, New Zealand's Latin American and Caribbean program, and the Global Research Alliance on Agricultural Greenhouse Gases (GRA) will support the co-financing of technologies and initiatives that promote increased productivity and profitability of farms in a sustainable manner and without increasing greenhouse gas emissions. A focus will be placed on proposals appropriate to the scale, social, and economic characteristics of the region<sup>5</sup> and include effective extension and transfer processes to improve adoption rate<sup>6</sup>. Likewise, productive diversification will be encouraged, focusing on the consumption of balanced diets<sup>7,8</sup>.

**1.3 Article 13 of the Paris Agreement** establishes the Enhanced Transparency Framework (ETF), which obliges countries to provide crucial information to track progress and compliance with NDCs (Nationally Determined Contributions). Meanwhile, Article 6 of the Paris Agreement seeks to enhance climate ambitions

1 FAO. The State of Food and Agriculture. Climate change, agriculture and food security. 2016. FAO, Roma.

2 Reardon, T., Echeverria, R., Berdegue, J., Minten, B., Liverpool-Tasie, S., Tschirley, D., y Zilberman, D. (2019). Rapid transformation of food systems in developing regions: highlighting the role of agricultural research & innovations.

3 Falcon, W. P., Naylor, R. L., & Shankar, N. D. (2022). Rethinking global food demand for 2050. *Population and Development Review*, 48(4), 921-957

4 Zilberman, D., Zhao, J., y Heiman, A. (2012). Adoption versus adaptation, with emphasis on climate change. *Annu. Rev. Resour. Econ.*, 4(1), 27-53.

5 Sunding, D., y Zilberman, D. (2001). The agricultural innovation process: research and technology adoption in a changing agricultural sector. *Handbooks in Economics*, 18(1A), 207-262.

6 Aker, J. C. (2011). Dial "A" for agriculture: a review of information and communication technologies for agricultural extension in developing countries. *Agricultural economics*, 42(6), 631-647.

7 Jones, A. D., Shrinivas, A., y Bezner-Kerr, R. (2014). Farm production diversity is associated with greater household dietary diversity in Malawi: findings from nationally representative data. *Food Policy*, 46, 1-12.

8 Sibhatu, K. T., y Qaim, M. (2018). Meta-analysis of the association between production diversity, diets, and nutrition in smallholder farm households. *Food Policy*, 77, 1-18.

by introducing cooperative approaches and centralized mechanisms to replace the Clean Development Mechanism (CDM), highlighting the importance of collective effort to foster sustainable development through innovative strategies. However, progress toward achieving Latin American countries' agricultural GHG mitigation goals has been slow due to key challenges, including (a) lack of reliable time series data that can demonstrate changes in emissions due to changes in agronomic practices or the implementation of new technologies; (b) lack of a portfolio of GHG mitigation technological options that also support sustainable development, food security and biodiversity conservation; c) lack of systems to increase the adoption of existing sustainable practices that contribute to climate change mitigation and the sustainable development goals.

**1.4 FONTAGRO, the MPI, and the GRA support the creation of Regional Public Goods through the co-financing of innovation platforms.** To this end, this call is being launched to identify the best project proposals whose results generate concrete evidence of “how to promote networked, efficient, sustainable, and resilient farms through knowledge, science, technology, and innovation.” The aim is to co-finance initiatives that, through their potential impacts, demonstrate the improvement in the quality of life of families, while promoting the development of sustainable and resilient regional models, which help adapt and mitigate the effect of climate change. The proposed innovations must be aligned with FONTAGRO's Medium Term Plan (MTP) 2020-2025 and the Sustainable Development Goals (SDGs).

## SECTION II. ABOUT FONTAGRO

2.1 FONTAGRO was created in 1998 with the objective of establishing a sustainable financing mechanism for the development of agricultural technology in LAC and establishing a forum for the discussion of priority topics of technological innovation. The purpose is to promote the increase in the competitiveness of the agri-food sector, ensuring the sustainable management of natural resources and the reduction of poverty in the region. It currently has a membership of 15 countries and has two sponsors, the Inter-American Development Bank (IDB) and the Inter-American Institute for Cooperation on Agriculture (IICA), the former being its legal representative.

2.2 The Medium Term Plan (MTP) 2020-2025 has renewed its philosophy, with a vision to “Transform agri-food systems through knowledge so that they are more inclusive and sustainable with the environment and society” and a mission to “Lead the coordination, cooperation and regional dialogue through the sustainable co-financing of public goods initiatives that contribute to the knowledge and innovation of agri-food systems and the improvement of the quality of life of society”. At the same time, FONTAGRO promotes the values of integrity, solidarity, efficiency, transparency, and respect. This call is framed within the three strategies of the MTP 2020-2025: (I) “Networked, resilient and sustainable farms”; (II) “Productive systems, agroecosystems, and sustainable territories”; and (III) “Food, nutrition and health”, as well as cross-cutting themes, which must be included in all initiatives to be co-financed.

2.3 FONTAGRO co-finances initiatives that generate agricultural Regional Public Goods (RPG) for LAC, in which countries share challenges and opportunities for growth and development that are addressed more efficiently when institutions work collectively, participatively, and cooperatively. In that sense, the regional platforms promoted by FONTAGRO are, in themselves, an RPG, as well as the knowledge and lessons learned that they generate. FONTAGRO co-financing is intended to establish and/or support cooperation platforms, leveraging resources from other agencies and their participating institutions. To date, FONTAGRO has supported 199 projects and initiatives, which represent a total investment of US\$ 142 million, of which US\$ 29 million have been contributed by FONTAGRO, US\$ 20 million by other strategic partners; and US\$ 93 million correspond to counterpart contributions.

2.4 FONTAGRO and the Ministry for Primary Industries (MPI), through the Global Research Alliance, signed an agreement in 2021 to jointly promote collaboration to develop and implement new knowledge, technologies, and innovations for more resilient and sustainable agriculture, and lower GHG emissions.

## SECTION III. ABOUT THE NEW ZEALAND CLIMATE-SMART AGRICULTURE PROGRAMME

3.1 New Zealand shares several commonalities with Latin America and the Caribbean, including a commitment to multilateralism and a firm view that addressing climate change requires partnerships and sustained action. The Latin America and the Caribbean: Climate-Smart Agriculture program (LAC program) aims to help strengthen these partnerships concerning agriculture, investing in areas of common interest and values, and sharing expertise, technical knowledge, and experience. In particular, the program seeks partnerships that lead to sustainable outcomes and mutual benefits where the farming environments and challenges are similar.

3.2 The LAC program focuses on the interconnected themes of climate change mitigation (reducing, measuring, monitoring, reporting, and verifying greenhouse gas emissions), and adaptation (building resilience to the effects of climate change and increasing food security). This includes investing in initiatives to mitigate climate change that can demonstrate co-benefits to adaptation, such as increased crop and livestock yields, improved soil quality and fertility, and reduced production costs. The LAC program will also invest in initiatives that support the well-established networks of the Global Research Alliance on Agricultural Greenhouse Gases (GRA).

## SECTION IV. ABOUT THE GRA

4.1. The activities of the GRA are increasingly relevant in both global and national contexts as greater importance is placed on reducing agricultural emissions and increasing the resilience and productivity of agricultural systems. The GRA is a collaborative arrangement for member countries to contribute jointly to delivering work addressing common priorities, delivering outputs that apply

to all contributors, creating synergies in research and development efforts, and maximizing efficiencies of the research investments from all contributors. The GRA provides its member countries with a forum for the exchange of ideas between scientists, technicians, and decision-makers and a means to synthesize information about agricultural emissions presented in the literature and interpret this information.

4.2 Improving the quantification of agricultural GHG emissions under different management scenarios is key to understanding best practices. Many countries already have research underway to better understand, measure, and manage agricultural GHG emissions. By linking these efforts through the GRA, we can make faster progress toward the solutions needed to improve agricultural productivity and reduce greenhouse gas emissions.

## SECTION V. OBJECTIVE OF THE CALL

**5.1 Objective.** The objective of the call is to identify those regional project proposals that demonstrate **concrete evidence of how to promote networked, efficient, sustainable, and resilient productive systems through knowledge, science, technology, and innovation that result in reduced GHG emissions.**

**5.2 Description.** This call is aligned with strategy I of the MTP 2020-2025, which aims to increase the number of technologies and innovations with high potential for adoption and impact on the resilience and sustainability of agricultural systems and agroecosystems. The initiatives must be based on prior scientific knowledge and must promote innovations or validate existing, promising, or successful ones, to fulfill the objective of the call. Considering what was stated in the previous paragraphs and the interests of the member countries of FONTAGRO, the GRA, and potential co-financing agencies, some examples of initiatives consistent with this call, which present complementarity or combination of technological, organizational, and institutional innovations, are the following:

**i. Emissions reduction**<sup>9</sup>: Mitigation of climate change: innovations, technologies, and/or management and agricultural practices that provide realistic options for on-farm emissions reductions that result in improvements in productivity or cost savings, or both.

**ii. Carbon Sequestration.** Initiatives that improve our understanding of soil processes associated with carbon sequestration: investigate, test, and demonstrate the scientific and technical feasibility of practices that result in increasing or maintaining soil organic carbon stock (SOC) or reducing the rate of SOC loss in agricultural holdings.

**iii. Quantification of GHG emissions/removals:** research projects that generate evidence, data, and methodologies to assist national governments in improving Monitoring, Reporting, and Verification capabilities for GHG emissions and removals, as well as mitigation commitments outlined in the NDCs under the Paris Agreement.

**iv. Mitigation and adaptation synergies:** projects that investigate the role of climate change mitigation for agriculture, particularly in the Caribbean, where on-farm mitigation activities are more likely to generate benefits for producers as they adapt to climate change and assist national governments in assessing the role of mitigation in policy development, planning, and adaptation action.

**v. Sustainable intensification of productive systems, agroecosystems, and management of local natural resources:** innovations that sustainably increase productivity, promoting the improvement of income and quality of life of producers, integrated management of networked farms, strategic diversification of production, new mixed and complementary production models, the implementation of agroecological practices, the intelligent management of fertility, water and soil use, sustainable management of the ecosystem and biodiversity, and that demonstrate the greatest and best resilience of productive systems.

**vi. Sustainable regions:** innovations that demonstrate improved sustainability and resilience of agroecosystems, the restoration of forests, and landscapes, and the maintenance of natural capital, that increase the efficiency of water resource use and conservation, improve the conservation of biodiversity while exploring opportunities for the development of new markets, increase value addition, generate inclusive agribusiness and business management models, traceability, blockchain, bioeconomy and circular economy strategies, disaster risk management and comprehensively promote territorial development and planning.

**vii. Extension and traditional knowledge:** In addition to research funding, resources may include shared experience on practices including extension, the use of traditional knowledge and methods of learning and leadership, including the development of leadership capacity and equal opportunities for women.

## SECTION VI. FINANCING

**6.1 Amount of the Call.** This call will be carried out with FONTAGRO's resources and those of the New Zealand Government's Ministry for Primary Industries (MPI). The total amount of the call amounts to US\$2,000,000. FONTAGRO will co-finance up to four proposals for a maximum amount of US\$200,000 each and the MPI will co-finance up to four proposals for a maximum amount of US\$300,000 each.

**6.2** MPI prioritizes financing of proposals that demonstrate links with the work of the Groups and/or Networks of the Global Research Alliance on Agricultural Greenhouse Gases, and/or have considered participation from New Zealand public and/or private institutions.

**6.3 Counterpart.** The institutions participating in the platforms must, individually or in association, co-finance the proposal by providing counterpart funds in cash or in kind, or a combination of both. The minimum counterpart amount must be twice the amount requested from FONTAGRO or MPI.

9. These issues are a special priority for the Ministry for Primary Industries and the Global Research Alliance.

**6.4 Policies and Conditions.** This call is subject to the provisions detailed in the current FONTAGRO Operations Manual Section II, IDB policies, these Terms of Reference, and any other decision of the Board of Directors issued via Minutes.

**6.5 Additional sources of financing.** This call may have additional sources of financing if, at the time of the final selection of projects, there were other agencies interested in co-financing them, in accordance with their regional priorities and/or another special condition.

## SECTION VII. ESTABLISHMENT OF A REGIONAL INNOVATION PLATFORM

**7.1 Regional Innovation Platform (RIP).** Existing or new Regional Innovation Platforms (RIP) will be co-financed, provided they are made up of public agents or public-private alliances that meet to design and implement a regional technical cooperation project in compliance with the terms of reference of this call.

**7.2 RIP Participants.** The RIPs must promote practices and/or institutional arrangements that promote the public and/or public-private entrepreneurial ecosystem and link producers and science and technology actors. The latter must be identified and included from the initial moment of the presentation of the project profile. The RIPs must link the different actors with the final users or beneficiaries. To do this, they must be made up of a) at least one public or private scientific research center, b) the direct beneficiaries who must be included in the testing or validation process, c) an entrepreneur or entrepreneurial team (optional), d) other associated organizations (optional), and e) on this occasion, there is a desire to interact with public or private organizations in New Zealand.

**7.3 Administrative role of the participants.** From the point of view of the administrative implementation of the project, only one of the institutions must act as the executing agency and, therefore, it must be legally authorized to act as such and manage funds in United States dollars on behalf of the rest of the

participants of the platform, who will act as co-executing organizations (if they receive funds from FONTAGRO) and optionally as associated organizations (if they participate with their own funds). For more details on the requirements, consult the FONTAGRO Operations Manual Section II.

**7.4 Technical role of the participants.** RIP participants must be multi- and interdisciplinary and demonstrate a multidimensional approach (productive-agronomic, social, economic, technological, environmental, value-added, among others) consistent with the technology or innovation that is proposed to be validated. From the point of view of the complementarity of technical functions, the participants can be public, private, national, regional, and/or international institutions.

**7.5 General Aspects of Regionality.** This call prioritizes the establishment of platforms made up of partners from different regions and with diverse capabilities and strengths in technical disciplines to complement each other. The following regions are recognized: (1) Southern Cone, (2) Andean Region, (3) Central America, (4) Caribbean Region, and (5) extra-LAC region. It is noted that FONTAGRO may only support platforms established by member countries, while other donors may choose to support initiatives composed of countries that are members or not of FONTAGRO but are always members of the IDB.

**7.6 Particular Aspects of Regionality.** FONTAGRO will co-finance proposals executed by public institutions or public-private alliances from at least two FONTAGRO member countries. This means that the activities to be carried out in the proposal must be implemented at least in those two member countries. Once this requirement is met, other institutions from countries that are not members of FONTAGRO, but always members of the IDB, and regional and international organizations may participate as associated organizations with a facilitating or complementary role, and with their own resources.

**7.7 Other Aspects of Global Regionality.** Institutions from non-IDB member countries may participate by contributing their own funds to the RIPs, either by entering into an agreement with the IDB, legal representative of FONTAGRO, or directly with the platform institutions and in agreement with the IDB/FONTAGRO in accordance with the policies and regulations of these institutions.

## SECTION VIII. PROCESS OF PROJECT APPLICATION AND EVALUATION

The project submission and evaluation process for this call is organized in a single phase that involves the one-time submission of final project proposals.

**8.1 Opening of the call.** The call will be open from January 1st, 2024 to May 3rd, 2024, at 3:00 PM (Eastern Time in Washington D.C.). Section IX details the relevant dates.

**8.2 Preparation of a project proposal.** The project must be presented as final and in compliance with all aspects regulated in the [Operations Manual Section II](#), the instructions, and the Terms of Reference of this call. The project document must be prepared in a participatory manner among the members of the consortium, in Spanish or English, and following the Instructions of the respective Form. A Word document and an Excel document must be submitted. The project must be prepared in Spanish or English and in accordance with the “FONTAGRO Project Submission Instructions” that are available on the website. The project must be prepared based on the form in Word format and additionally, the tables must be prepared and sent in Excel format.

**8.3 Submission of the Project through the FONTAGRO website.** The Project must be submitted through the same online system and in accordance with the Instructions. The submission will consist of two documents: a) the Project (Word document), and b) the form with complementary information in Excel format. Projects that reach FONTAGRO by other means or formats will not be accepted.

**8.4 Deadline.** Projects will be received until **May 3rd, 2024, at 3:00 PM (Eastern Time, Washington D.C.)**. Once received, projects cannot be modified. No projects will be received after the established closing date and time, or submitted by other means.

**8.5 Evaluation of Projects.** The external panel will evaluate the projects according to the criteria mentioned in the [Operations Manual Section II](#). The panel will recommend funding those projects with a score equal to or greater than 75 points (on a basis of 100 points).

**8.6 Recommendation Report.** The panel will prepare a project recommendation report that will be sent to the FONTAGRO Board of Directors (BD) for co-financing consideration. The BD will approve the co-financing allocation and its decision will be final and unappealable.

**8.7 Interview with finalists.** FONTAGRO may request the finalist projects to be consulted in a virtual or in-person interview to consider the co-financing decision.

**8.8 Communication of selected projects.** The Technical Administrative Secretariat (TAS) of FONTAGRO will notify only the winners of co-financing approval, both via email and on the FONTAGRO website.

**8.9 Financing authorization.** Those projects that receive comments from the external panel must incorporate such recommendations and make the necessary adjustments to the projects in a period no longer than 30 days from the official communication from FONTAGRO regarding their selection.

**8.10 Submission of final adjusted versions.** Proponents must submit the projects in the highest condition of editing and content quality, in accordance with the requirements indicated in the current Operations Manual Section II, and respective instructions.

**8.11 Compliance with the eligibility requirements to be an executing agency.** Those institutions that act as executing agencies must certify that they meet the requirements to manage funds with the Inter-American Development Bank (IDB), legal representative of FONTAGRO. Failure to comply disables them from such a role, and financing for the project could be canceled.

## SECTION IX. CALENDAR

Single Phase	Dates
Announcement of the Call	January, 2024
Opening and registration in the call (8 weeks)	from March 6th to May 3rd
Deadline for submitting projects (Single Phase)	May 3rd, 3:00 p.m. (Eastern time, Washington D.C.)
Evaluation of projects (4 weeks)	May 6th to 31st
Selection of winning projects	July / August

### INFORMATION:

Technical Administrative Secretariat | [fontagro@fontagro.org](mailto:fontagro@fontagro.org) | <http://www.fontagro.org>

Other Resources:

<https://www.fontagro.org/en/corporate-documents/procedures/>

<https://www.fontagro.org/en/corporate-documents/operations-manual-ii/>