CALL

Call for Proposals

FONTAGRO Challenge 2027: Innovation, scaling and AI for the future of agri-food systems in Latin America and the Caribbean.



IDB IICA FONTAGRO

SECTION I. FROM GLOBAL TRANSFORMATION TO REGIONAL ACTION: AGRI-FOOD SCIENCE AND INNOVATION IN LATIN AMERICA AND THE CARIBBEAN[1] [2] [3] [4] [5] [6] [7] [8] [9] [10] [11] [12] [13]

1.1 **Humanity faces one of the greatest challenges in its history:** ensuring food security on a planet that will reach nearly 10 billion inhabitants by 2050, with 50 percent belonging to the middle class. Meeting this demand will require increasing food production by approximately 70 percent and reducing hunger, which currently affects more than 735 million people, and food insecurity, which affects millions more. However, this challenge unfolds in a context of climate uncertainty, natural resource degradation, and growing demand for more nutritious, accessible, and sustainable food. Competition for water, energy, and arable land will intensify, and agri-food systems will be exposed to extreme events such as droughts, heat waves, and floods that will affect production, distribution, and food waste, already estimated at between 30 and 50 percent of what is produced. The coming decades will therefore demand more productive, efficient, and resilient agriculture capable of sustaining food security using fewer resources and with a lower environmental footprint.

1.2 **The global agri-food system is also undergoing a profound transformation.** It is no longer only about climate, soils, or water: structural and short-term factors such as geopolitical tensions, trade policies, financial volatility, pandemics, and changes in consumer preferences are shaping agriculture. The COVID-19 pandemic exposed the fragility of global supply chains and the need to strengthen local and regional production. In this uncertain and changing environment, the countries of Latin America and the Caribbean (LAC) must design adaptive strategies that combine sustainability, inclusion, and international competitiveness, also integrating ancestral knowledge to reinforce resilience and the conservation of strategic ecosystems. Emerging trends in genetics, biotechnology, digitalization, robotics, artificial intelligence, and traceability will not only shape the future direction of agricultural research, development, and innovation (R&D&I) globally but also define opportunities and risks for the region. Digitalization and automation make it possible to optimize inputs and anticipate climate risks and plant and animal health risks; biotechnology and genetic improvement facilitate the development of crop varieties resistant to extreme conditions; and traceability, supported by blockchain and digital platforms, ensures transparency and opens access to more demanding markets. However, their effective adoption requires addressing bottlenecks in rural connectivity, technical training, financing, and regulation.

1.3 **Unprecedented risks**. Climate uncertainty introduces unprecedented risks for agriculture. Droughts, floods, pests, and emerging weeds alter productive geography and reduce production stability. In this context, R&D&I systems are the first line of action to increase productivity and resilience and to mitigate losses. Advances in biotechnology, digital agriculture, remote sensing, predictive modeling, gene editing, artificial intelligence, and precision agriculture are transforming the efficient use of water and nutrients. It is therefore urgent for LAC to invest in infrastructure, human capital, and governance to drive these technological advances.

1.4 **Latin America and the Caribbean have unique strategic challenges and assets**: 28 percent of the world's arable land, 34 percent of renewable water resources, and up to 60 percent of terrestrial biodiversity. According to the OECD-FAO Agricultural Outlook 2025–2034, the region will remain

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[2] IPCC (2022). Sixth Assessment Report, Climate Change 2022: Impacts, Adaptation and Vulnerability, the Working Group II contribution. https://www.ipcc.ch/report/sixth-assessment-report-working-group-ii/

[3] FAO, IFAD, UNICEF, WFP, and WHO (2022). *The State of Food Security and Nutrition in the World 2022. Repurposing food and agricultural policies to make healthy diets more affordable*. FAO, Rome. https://doi.org/10.4060/cc0639en

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

[7] 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.

[8] Jones, A. D., Shrinivas, A., and 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.

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

[10] FAO (2021). Climate-Smart Agriculture Sourcebook - Second Edition. Food and Agriculture Organization of the United Nations, Rome. https://www.fao.org/climate-smart-agriculture-sourcebook/en/

[11] Rosenzweig, C., et al. (2020). "Climate change responses benefit from a global food system approach". Nature Food, 1, 94–97. https://www.nature.com/articles/s43016-020-0031-z

[12] CGIAR (2024). Breakthrough agenda report. Agriculture. Accelerating sector transitions through stronger international collaboration. https://www.cgiar.org/2024-breakthrough-agenda-report-agriculture/

[13] FAO (2023). The State of Food and Agriculture 2023. Revealing the true cost of food to transform agrifood systems. https://doi.org/10.4060/cc7724en

key to global supply, particularly of soybeans and corn, and of animal proteins, while maintaining its leadership in sugar, bananas, and pineapples, among others, consolidating its position as a net global supplier of raw materials and food. Beyond volume, LAC is diversifying diets and offering greater added value: fruits, vegetables, grains, meats, fish, bioproducts, organic products, and differentiated foods, to name a few. The real potential lies in transforming comparative advantages into competitive ones through technological, organizational, and institutional innovation, and in consolidating more productive, resilient, and low-emission agricultural, agri-food, and agro-bio-industrial systems. LAC needs to increase food supply in a sustained, competitive, and profitable way, with a lower environmental footprint. This challenge is not only about withstanding climate variability but about increasing productivity per hectare and per unit of input, stabilizing yields, and improving producers' incomes. The priority is to innovate and adopt proven solutions at scale: genetics and accelerated breeding, high-performance soil and water management, precision and digital agriculture, remote sensing and predictive models for real-time decision-making, bio-inputs and regenerative practices that raise productivity, and efficient nutrient management. The main bottleneck is adoption and scaling, which require extension services, advisory support, capacity building, financing, insurance that reduces investment risk, simple and verifiable data and metrics to measure productivity, costs, and margins, and governance that brings together public-private consortia to take solutions from pilot testing to the field. The most vulnerable areas (arid and semi-arid zones and territories where small-scale agriculture predominates) need adapted technology packages and business models that facilitate producer organization and improve access to inputs, services, and markets.

1.5 **Agricultural productivity and profitability in LAC: innovation to close gaps, reduce the environmental footprint, and improve competitiveness** [14] [15] [16] [17] [18] [19]**.** In LAC, global dynamics combine with structural challenges that limit the development of agricultural and agri-food systems. The region needs to substantially increase its productivity and efficiency while strengthening farm profitability and advancing toward sustainable competitiveness, reducing its environmental footprint and increasing resilience to climate uncertainty. Achieving this transformation requires generating and applying new knowledge, accelerating innovation, and facilitating processes of technological change at all levels of production. This demands a systemic approach and close coordination among universities, research centers, the private sector, and technical organizations, so that environmental sustainability becomes a driver of greater profitability and economic competitiveness. Territorial heterogeneity and wide productivity gaps represent a key challenge. According to ECLAC and FAO (2024), agricultural productivity in LAC could increase by up to 40 percent with the adoption of technological innovations and better management practices. However, historically low investment in agricultural R&D and weaknesses in extension systems have limited this potential. Overcoming these constraints requires strengthening regional cooperation and coordinating efforts among academic institutions, research centers, producers, and the private sector, so that innovations are relevant, accessible, and scalable, thus helping to close gaps, increase profitability, and consolidate a more globally competitive agriculture.

1.6 **Key role of science and technology in transforming agri-food systems to make them more productive, efficient, and resilient, with a lower environmental footprint.** Adaptation and resilience in the agricultural sector are strategic priorities to ensure productive sustainability with a lower environmental footprint. To this end, new technologies must focus on developing more resilient agricultural systems capable of coping with the effects of climate uncertainty while reducing environmental impacts. The most urgent innovations include crop varieties resistant to drought, heat, and flooding; improvements in water and soil management; and the incorporation of precision agriculture and digitalization tools that make it possible to optimize resource use through monitoring and data analysis technologies. In this framework, early warning systems are essential, as they provide timely information to anticipate extreme events and reduce potential losses. Innovation in agricultural practices also plays a key role in the resilience of the sector. Crop diversification offers flexibility in the face of adverse conditions and contributes to the sustainability of production systems. At the same time, approaches such as agroecology and regenerative agriculture make it possible to restore ecosystems, improve soil health, and increase adaptive capacity. Biotechnology, for its part, plays a crucial role in developing improved or genetically modified varieties

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[15] Fuglie, K., & Rada, N. (2023). *International Agricultural Productivity*. United States Department of Agriculture (USDA), Economic Research Service.
[16] Pardey, P., Chan-Kang, C., Dehmer, S. et al. Agricultural R&D is on the move. Nature 537, 301–303 (2016). https://doi.org/10.1038/537301a
[17] Pray, C., & Fuglie, K. (2015). *Agricultural Research by the Private Sector*. Annual Review of Resource Economics, 7(1), 399–424.
[18] World Bank. (2022). *Harvesting Prosperity: Technology and Productivity Growth in Agriculture*. Washington, DC: World Bank.
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with greater tolerance to climate stress factors, thus consolidating a technological foundation to address new production challenges. The adoption of integrated approaches that combine adaptation and mitigation is essential. Nature-based solutions, such as the restoration of degraded ecosystems and the protection of watersheds, offer benefits in terms of both sustainability and risk reduction. However, these measures need to be supported by public policies that promote climate-smart innovation, along with regulatory frameworks that facilitate the implementation of adaptive technologies and practices at the local and regional levels. Technology transfer among countries and territories is fundamental to ensure solutions suited to each production context. Finally, international cooperation and public-private partnerships are essential pillars for accelerating the adoption of innovative technologies, while access to climate finance is decisive for farmers to invest in the tools they need to strengthen their resilience and ensure the long-term sustainability of production.

1.7 **FONTAGRO and the 2025–2030 Flagship Programs: strategic framework for the call**. In view of the magnitude of regional and global challenges, FONTAGRO has designed its 2025–2030 Medium-Term Plan (MTP), structured into **Flagship Programs**, which constitute the institution's new strategic architecture. These programs respond to the need to focus efforts on priority areas, integrate science and public policy, and steer international cooperation toward high-impact solutions. Within this framework, FONTAGRO promotes the creation of **Regional Public Goods** through the co-financing of regional research, development, and innovation (R&D&I) consortia and the launch of calls that seek to identify high-quality projects with high potential for adoption and scaling with the public and private sectors. Projects are expected to generate concrete evidence of how to promote technologies and innovations with a strong on-the-ground impact, helping to improve the productivity, efficiency, and resilience of agri-food systems while reducing their environmental footprint. Accordingly, submitted projects must align with at least one of the Flagship Programs of the 2025–2030 MTP.

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 technologies in LAC, and a forum to discuss priority issues of technological innovation. Its purpose is to promote greater competitiveness in the agri-food sector, ensure the sustainable management of natural resources, and reduce poverty in the region. It currently comprises 15 countries and has two sponsors: the Inter-American Development Bank (IDB), which also serves as its legal representative, and the Inter-American Institute for Cooperation on Agriculture (IICA), which acts as FONTAGRO's co-administrator. Its 2025–2030 Medium-Term Plan (MTP) reaffirms its vision: ***"To transform agri-food systems through knowledge so that they become more inclusive and sustainable for both the environment and society."*** Its mission: ***"To lead regional coordination, cooperation, and dialogue through the sustainable cofinancing of public good initiatives that contribute to knowledge and innovation in agri-food systems and to improving people's quality of life."*** Within this framework, FONTAGRO's actions are guided by essential values that underpin regional cooperation: integrity, solidarity, effectiveness, transparency, and respect.

2.2 FONTAGRO co-finances initiatives that generate agricultural Regional Public Goods. Co-financing is aimed at creating and/or strengthening regional R&D&I consortia, leveraging resources from other agencies and participating institutions. The consortia promoted by FONTAGRO are themselves a Regional Public Good, as are the knowledge and lessons learned that they generate. To date, FONTAGRO has supported 227 projects and initiatives totaling US$168.4 million: US$36 million from FONTAGRO, US$23.1 million from other strategic partners, and US$109.2 million in counterpart contributions.

SECTION III. OBJECTIVE OF THE CALL

3.1 **Objective.** The objective of this call is to identify regional research, development, and innovation (R&D&I) projects that promote **increased productivity, profitability, and competitiveness with a lower environmental footprint in the agri-food systems of LAC**. Priority will be given to projects that generate technologies and innovations with high potential for adoption and scaling, capable of demonstrating concrete impacts on the ground and consolidating more efficient, sustainable, and competitive production models at the national and regional levels. In doing so, progress will be made toward building a pathway for transforming the region's agri-food systems, making them more competitive and sustainable in the long term.

3.2 **2025–2030 Flagship Programs.** Each program includes specific action areas, with outcome and impact indicators, detailed in the 2025–2030 MTP document. For this call, the following five of FONTAGRO's six Flagship Programs will be considered:

Flagship Program 1. Transformation of resilient and carbon-neutral crop systems.

Flagship Program 2. Transformation of livestock and animal protein systems: productive efficiency with a lower environmental footprint.

Flagship Program 3. Impact 2030: effective scaling of R&D&I through new models of extension, technology transfer, and public-private partnerships.

Flagship Program 4. Digital revolution in agriculture: robotics and AI for regional innovation.

Flagship Program 5. The Future Food Basket: diversification and biodiversity use for sustainable nutrition.

SECTION IV. FINANCING

4.1 **Amounts.** The total amount of the call is **US$1,250,000**, from FONTAGRO's own resources. Up to five projects will be co-financed, **one per Flagship Program**, with a maximum individual contribution of up to **US$250,000**. If there is no competitive proposal for any of the Flagship Programs, the Board of Directors (BD) may reallocate funds to competitive projects under other Flagship Programs.

4.2 **Counterpart.** The organizations participating in the consortia must jointly contribute counterpart funds, in cash and/or in kind, amounting to at least **twice the amount requested from FONTAGRO**.

4.3 **Policies and conditions.** This call is subject to the provisions set out in these Terms of Reference, FONTAGRO's Operations Manual (OM) Section II, the policies of the IDB and IICA, and any other decision of the BD recorded in its Minutes.

4.4 **Additional sources of financing.** This call may include additional sources of financing if, at the time of the final selection of projects, there are agencies interested in co-financing them.

SECTION V. ESTABLISHMENT OF A REGIONAL RESEARCH, DEVELOPMENT, AND INNOVATION CONSORTIUM

5.1 **Regional Research, Development, and Innovation (R&D&I) Consortia.** Any **consortium made up of co-executing organizations from at least two FONTAGRO member countries, one of which will act as technical leader**, will be eligible for co-financing. This means that the technical activities of the project must be implemented in at least those two member countries. At least one of the organizations must be a public research institution. It is recommended that the consortium have no more than four organizations, always from at least two FONTAGRO member countries. In addition, a consortium may include **associated organizations** from any IDB member country, financed with other sources of funds.

5.2 Each consortium must include, as **direct beneficiaries** of the project, producer organizations that may act as co-executing or associated organizations and that ensure the validation and adoption of results. Consortia are expected to promote the public-public and/or public-private entrepreneurial ecosystem and connect producers with science and technology actors.

5.3 **Technical role of the members.** Consortia will be valued positively if their members are complementary, multidisciplinary, and interdisciplinary, with a multidimensional approach (scientific, productive-agronomic, social, economic, technological, environmental, value-added, among others) consistent with the technology or innovation proposed for validation.

5.4 **Regionality.** As indicated in Section 5.1, the consortium must be formed by a public-public or public-private alliance of distinct organizations from at least two FONTAGRO member countries. This means that the technical activities of the project must be implemented in those two member countries. Consortia formed by organizations from different LAC subregions (Southern Cone, Andean Region, Central America) and the Dominican Republic, and from regions outside LAC, where possible and provided they are IDB members, will be viewed favorably.

5.5 **Organizations from non-IDB member countries.** Organizations from non-IDB member countries may participate as associated organizations, contributing their own funds to the project, provided it is feasible to enter into an agreement with the IDB, or directly with the consortium institutions, and in agreement with the IDB/FONTAGRO in accordance with the policies and regulations of these institutions. The Board of Directors will authorize such participation, where applicable.

SECTION VI. PROJECT APPLICATION AND EVALUATION PROCESS (SINGLE PHASE)

The project submission and evaluation process for this call is organized in **a single phase**. Consortia may begin designing their projects as of the publication of this call.

6.1 **Opening and closing of the call.** The call will be open from **March 2, 2027, until April 30, 2027, at 3:00 PM (Eastern Time, U.S., Washington, D.C.). Projects submitted after the closing date and time will not be accepted.**

6.2 **Online application to the call. One proponent per project** must request a single **username and password** well in advance of the closing date of the call. Once registered in the call's online system, the proponent must complete the registration of the executing, co-executing, and, if applicable, associated organizations. Proponents should request the registration of any new organizations that are not already registered.

6.3 **Preparation of the project.** The project consists of **a Word document and an Excel document**, both of which must be submitted through the call's online system. The project must be submitted in final form, in Spanish, and in compliance with these Terms of Reference, the Operations Manual (OM) Section II, and the applicable instructions. The project cannot be modified after submission. **Projects submitted after the deadline, sent through any means other than the call's online system, or lacking complete Word and Excel documents in all their sections will not be accepted.**

6.4 **Evaluation of the projects.** An external panel will evaluate the projects according to the criteria set out in the Operations Manual (OM) Section II. The panel will recommend to the FONTAGRO BD those projects with a score of 75 points or higher (out of 100 points). The BD will decide on the allocation of co-financing, and its decision will be final and not subject to appeal.

6.5 **Interview.** FONTAGRO may ask the project team to take part in a virtual interview.

6.6 **Notification of selected projects.** The FONTAGRO Technical Administrative Secretariat (TAS) will communicate the co-financing authorization **exclusively** to the selected projects, through an official email communication and publication on the institutional website. Non-selected projects may request their evaluation report within **30 days** from the date of that official publication.

6.7 **Financing authorization.** Projects selected by the BD must incorporate the recommendations of the evaluation panel and make the necessary adjustments within **30 days from the date of the official communication**.

SECTION VII. CALENDAR

Single Phase	Dates
Announcement of the Call	November 2026
Opening for registration of institutions and project submission	March 2, 2027
Deadline for project submission (Single Phase)	April 30, 3:00 PM (Eastern Time, United States, Washington, D.C.)
Project evaluation	April 30 to May 31
Selection of winning projects	July/August

GLOSSARY

FONTAGRO member countries: Argentina, Bolivia, Chile, Colombia, Costa Rica, the Dominican Republic, Ecuador, Honduras, Nicaragua, Panama, Paraguay, Peru, Spain, Uruguay, and Venezuela.

Regional Research, Development, and Innovation (R&D&I) Consortium: A regional R&D&I consortium is defined as a public-public and/or public-private alliance of institutions from at least two FONTAGRO member countries that share objectives, capacities, and technical, financial, and administrative responsibilities for the joint design, execution, and validation of agricultural and agri-food innovation projects of a regional nature.

Project: A project is defined as the set of Word and Excel documents mentioned in Section 6.3. The Word document is the project's descriptive document, while the Excel document contains the budget and results matrix, among other items.

INFORMATION

Technical Administrative Secretariat (TAS) **fontagro@iica.int**

http://www.fontagro.org

SPECIAL NOTE

We thank participating institutions in advance for processing their letters of commitment well ahead of time, taking into account each institution's internal procedures, to ensure they are submitted on time and that the final, complete version of the project proposal can be submitted within the established deadlines. **Use of artificial intelligence (AI) tools.** The project document must indicate the type of AI use in the preparation of the project. The technical leader and the technical leads of each co-executing organization are fully responsible for the content and must be able to defend it in an interview with the evaluation panel.

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