

Ontario Agri-Food Innovation Alliance

Special Initiatives Research Program Call for Expressions of Interest – Climate Change and Food Security September 2022

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SPECIAL INITITIAVES RESEARCH PROGRAM OVERVIEW

Program Overview

The priority-driven Ontario Agri-Food Innovation Alliance Research Program supports leading research aligned to support strong rural communities, keep our food safe, and develop a prosperous, environmentally sustainable agri-food sector in Ontario.

This Special Initiatives Research Program call is seeking Expressions of Interest (EOIs) for projects focused on **climate change and food security**.

Climate change is among the most significant factors influencing changes to human, animal, plant and environmental systems. One Health aims to understand the synergies between human, animal, plant and environmental priorities and looks to find proactive and timely solutions. A One Health approach focussed on climate change is expected to lead to solutions that include more resilient and biodiverse systems, reduced numbers and severity of plant, animal and zoonotic infectious disease outbreaks, improved food safety and security, and to support a growing global population more sustainably.

This call will support one or more large, collaborative project(s) that will bring a One Health approach to explore climate change impacts, opportunities and solutions related to human, animal, plant and environmental systems. Projects are expected to be transdisciplinary and lead to multi-sector outcomes.

This Special Initiatives program is administered using a **two-stage call** – Expressions of Interest and Full Proposals (by invitation only).

- Project budget: up to \$1 million
- Project length: up to 3 years
- Expressions of Interest: due November 22, 2022

Research Questions

Applications must address one of the following research questions:

- What are the effects of climate change on agricultural and natural systems that create risks and mitigations for food security, food safety and/or animal/plant disease and how are they interconnected? (RIB ID: 2022.008. Research Priority Area: Sustainable Production Systems. Research Focus Area: Climate Change Resiliency)
- What are the cascade effects of climate change driven events on biodiversity within agroecosystems: what are the risks, opportunities and solutions for the agri-food, food safety and health systems? (RIB ID 2022.028. Research Priority Area: Sustainable Production Systems. Research Focus Area: Climate Change Resiliency)

If you have any questions about the focus of this research call please contact Nicole Rabe, Senior Research Advisor, Research and Innovation Branch, OMAFRA at <u>nicole.rabe@ontario.ca</u>.

Project Scope

Projects are expected to:

- Build on past and current research, and leverage existing resources and data sources such as sentinel surveillance systems wherever possible
- Be highly collaborative and trans-disciplinary including, but not limited to, involvement from researchers in environmental science, veterinary science, agricultural science, and/or social science (policy, economics etc.)
- Be scoped to focus on multi-system responses to the intersection of multiple shocks/disasters, as they relate to climate change
- Focus on communities or populations with poor social determinants for health (including but not limited to geography, and/or poverty)
- Incorporate a community-driven solution
- Include aspects of the following topics: flooding, heat, drought, pollinators, recreation, connection to nature, green infrastructure, economics and provisions, wildlife health, food security, water quality/quantity, ecosystem services including protection from diseases (applicable to Research Question #2)

Project Outcomes

The desired outcome of this targeted research call is to understand and address the impacts of climate change on agricultural/natural systems or biodiversity within agroecosystems that directly impact food security, food safety and plant/animal disease.

The call is designed to support larger scale projects that incorporate multi/transdisciplinary approaches and solutions. The proposed work should clearly demonstrate the complex interconnectedness of the elements within the system (e.g., plant/animal disease, environmental health, food safety and food security) in response to climate change. Ultimately, proposed projects should facilitate the development of multi-faceted solutions to a complex climate change problem with consideration of One Health outcomes, applications, methodologies, collaborations and solutions.

Various Knowledge Translation and Transfer (KTT) products could be developed and shared that are intended for a non-academic audience (e.g., multi-media communications, white papers, extensive report(s) and/or PowerPoint presentation(s) that could inform government and/or industry/sector associations). The outcomes of this work could also support further refinement of best management practices, funding programs, policy development and legislation.

Equity, Diversity and Inclusion

The Alliance is committed to the principles of equity, diversity and inclusion (EDI). All applicants to Alliance funding programs are encouraged to review the <u>EDI Resource Document for Researchers</u> developed by the U of G Office of Research Services.

HOW TO APPLY

Online Application System – Research Management System (RMS)

All Alliance programming is administered in the RMS. Log in to the RMS through the <u>OMAFRA RMS</u> <u>homepage</u>. Please contact <u>rescoord@uoguelph.ca</u> if you experience any difficulties logging in.

To open an application, select the 'Alliance - Special Initiatives - 2022/2023 - Climate Change' call under 'Invited Calls' and click on 'Determine Eligibility'. Confirm your eligibility to apply for funding to access an application.

Lead Applicant and Co-Applicant Eligibility

The <u>Lead Applicant</u> is the primary award holder and is accountable for project management and compliance with any reporting requirements, including management of project funding and financial reporting.

A <u>Co-Applicant</u> (optional) is a researcher that plays an important and ongoing role in the development and implementation of the project. Co-Applicants are identified and invited from the Invitations tab in RMS. There can only be one Co-Applicant. Co-Applicants have the same editing capabilities on applications and reports as the Lead Applicant.

Current University of Guelph faculty members (UFGA Unit 1 or 2) are eligible to be the Lead Applicant and/or a Co-Applicant on any Ontario Agri-Food Innovation Alliance Research Program project. Retired faculty members holding Professor Emeritus status are eligible to be the Lead Applicant or a Co-Applicant, as long as they are eligible to hold research funding at the University of Guelph. Adjunct faculty members may also apply as a Lead Applicant or Co-Applicant if all of the following conditions are met:

- They are eligible to hold research funding at the University of Guelph. This status is verified by the Chair/Director and Dean through the approval of the OR-5 form;
- They are not employed by or have a financial interest in any of the collaborating organizations or cofunders; and
- Their adjunct position permits them to engage in research-related activities that are not under the direction of another individual.

Non-faculty team members are not eligible to be either a Lead or Co-Applicant.

Prior to a new proposal being reviewed in any Alliance Research Program, the Lead Applicant and the Co-Applicant must be in "good standing" for all existing projects under the Alliance Research Programs, including being fully compliant with all reporting requirements within 30 days of EOI submission.

EXPRESSION OF INTEREST TEMPLATE

The EOI application consists of three sections that are navigated via tabs across the top of the on-line application in the RMS. All tabs must be completed. The majority of the application instructions are provided in the RMS, but some additional guidance is provided below.

A validation process will take place upon submission to ensure all mandatory fields are complete.

General Tab

This tab encompasses general project information as well as a project description.

Identify the specific <u>research question</u> your proposal will address and select the Research Priority and Research Focus Area associated with that question from the drop-down lists in the RMS.

Team Tab

Research Team

Team members and Highly Qualified Personnel are identified in their respective tables in the Team tab in the RMS. Given the importance of collaboration for this Special Initiatives call the participation of all key team members needs to be confirmed at the EOI stage. There is also a comment box to provide additional information about the research team.

The **research team member invitation process** is described in the application template. The Co-Applicant (optional), and all Collaborators should confirm their participation in the project and be registered in the RMS by the EOI submission date.

There is no limitation placed on the team composition, but all team members should play an active role as collaborators in the implementation of the project (advisory, researcher or knowledge broker). The team may include individuals from academia, business and industry, non-governmental organizations and/or government.

The project team composition should ensure that research expertise from all relevant disciplines and broad perspectives are brought to bear on the research objective(s) to be addressed. Where applicable, team members responsible for KTT should be identified in the team table.

The involvement of all team members (including their FTE contributions to the project) will be reported on in annual and final reports.

Highly Qualified Personnel (HQP)

In the text box provided indicate the number of HQP are students (undergraduate, graduate, or diploma) and post-doctoral fellows anticipated to be trained through the proposed research, regardless of funding source.

Proposal Details Tab

The text fields in the Proposal Details tab should provide a clear depiction of the research to be conducted and should clearly demonstrate how the proposed project will address the selected research question and use a transdisciplinary, One Health approach.

Fit with Priorities

Describe how the project will address one of the specific research questions identified for this call.

Rationale and Benefits

Provide a rationale for the project and describe the anticipated benefits of the research for user groups.

Objectives

Describe, in a bulleted list, the major outcomes expected from the research.

Approach

A fully developed methodology and experimental plan will be required in the Full Proposal. For the EOI, briefly outline how the project will be scoped achieve project objectives, demonstrating a transdisciplinary, One Health approach.

Deliverables

Deliverables should be tangible and measurable and, when completed, will demonstrate that project objectives have been achieved.

Budget

Projects can be up to 36 months (3 years) with a maximum request of \$1 million. The duration of the proposed project and the size of the budget request must be commensurate with the nature of the research proposed.

A fully costed budget is not required for the EOI. An estimate of the total project funding requested, and an estimated breakdown by major funding category is required (salaries, operating costs/supplies, travel etc.). A fully costed budget will be required for the Full Proposal.

Leverage / Partner Funding

Funding partners are individuals or organizations that contribute cash and/or in-kind support to the project. Leverage and partner support is encouraged and can be identified in the Full Proposal.

OR-5 Form

No OR-5 Form is needed at the EOI stage.

REVIEW PROCESS AND NEXT STEPS

The EOI will be reviewed by a review committee consisting of subject matter experts from academia and government. Proposals will be reviewed against established criteria including:

- Fit with priorities. Projects must clearly demonstrate how the project addresses one of the specific research questions identified for this call
- Strength of the project lead(s) and research team projects are expected to be transdisciplinary and highly collaborative
- Benefits to client groups and contribution to Ontario's agri-food sector and rural communities. End users should be engaged early on wherever possible
- Demonstration of the development of multi-faceted solutions to complex climate change problems with consideration of One Health outcomes, applications, methodologies, collaborations and solutions
- Objectives and deliverables that are clear, tangible, measurable and achievable

Applications that most closely align with program expectations will be invited to submit a Full Proposal. The EOI review process may result in recommendations or expectations that will need to be considered in the Full Proposal submission. If opportunities for enhanced collaboration are identified during the EOI review process, UofG and/or OMAFRA may request meeting(s) to explore combined Full Proposal submissions. EOI notification is anticipated December 2022 or early January 2023.

The submission of a Full Proposal does not guarantee funding. Full Proposals will be reviewed by peer and panel reviewers. Notification is anticipated by April 2022 with projects starting on or after May 1, 2023.

The review committee will make funding recommendations to the Ontario Agri-Food Innovation Alliance Research Program Management Committee. Final funding decisions are at the discretion of OMAFRA.