

Information on two Belmont Forum Collaborative Research Actions (CRAs)

Food systems and climate

Sustainability of soils and groundwater

French National Research Agency (ANR)

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The Belmont Forum is a group of international funding agencies interested in advancing deliver knowledge needed for action to mitigate and adapt to detrimental environmental change including extreme hazardous events. To achieve this goal Belmont Forum aligns and mobilizes international resources, and supports interdisciplinary and transdisciplinary approaches.

The French National Research Agency (ANR) is a member of the Belmont Forum, and is currently leading the development of two Collaborative Research Actions (CRAs) on themes of interest of Belmont Forum members:

- Food systems and climate (change) – phase of call text preparation
- Towards sustainability of soils and groundwater for societal benefit – scoping phase (co-led by the French Alliance for Environmental Research - AllEnvi)

Food systems and climate (change)

Supporting document available: draft call text.

Objective

The world today faces one of the biggest challenges of the 21st century: how to feed 9 to 10 billion people in 2050. For example, the African population is expected to double in the same period of time and Indian population will increased by 50%. Current patterns of food consumption and production will increase pressure on already scarce natural resources. Climate change represents an additional threat, already undermining agriculture and food systems in many regions, making it more difficult to achieve food security and nutritional goals and reduce poverty. Food is essential for all human beings. Global peace and stability are largely underpinned by the ability to provide healthy diets for all.

Projects will aim at developing climate-resilient and sustainable value chains for food systems. In particular projects might assess risks and vulnerabilities of food

systems faced with climate change, including expected changes on supply chains, thereby offering low carbon footprint solutions (technological and/or non-technological) to increase resilience and sustainability. Climate change will impact food systems globally and is a major issue for all countries. However, impacts on countries from the Global South are anticipated to be particularly strong. Specific focus will be put on the socio-economic impacts of climate change on different food chains, price volatility and the territorial dimension on access to accessible and nutritious foodstuffs.

Features

This CRA is a collaborative initiative between the Belmont Forum, the EU Joint Programme Initiative (JPI) [FACCE](#) and the European Research Area Network (ERA-NET) [LEAP Agri](#). This collaboration has led to the engagement of funding agencies from the environment sector and the agriculture sectors. It has also led to a stronger representation of funding agencies from Africa. The IAI became a member of the Belmont Forum in October 2018 and started to work with ANR to explore the interest of Latin America and the Caribbean (LAC) countries in joining this CRA on Food Systems and Climate due to the importance of the issues to this region recognizing the opportunity for the IAI Parties and non-Parties in the region to join. Discussions with the IAI Directorate led to the engagement of funding agencies from LAC, which have not been involved in previous Belmont Forum CRAs.

This CRA aims at addressing the theme of food systems and climate with a focus on regional food systems to promote cooperation and strengthen regional capabilities. The ERA-NET LEAP Agri brings partners from Africa.

An additional opportunity with this CRA – for some African and LAC countries – has been the opportunity for ANR to lead an application to an European funding instrument, ERA-NET, which provides additional funding support to eligible European and EU associated countries. This proposal was selected in May 2019, and the partners involved in this ERA-NET are working on the preparation of the grant agreement.

As of today, there are 31 ERA-NET partners including 2 from LAC (Honduras and Guatemala), 7 from Africa, 20 from Europe (representing 11 EU countries). Honduras and Guatemala will be in a position to receive top-up funding from the EU. We are currently working on possibilities to include more LAC partners:

- the IAI Directorate, which would co-lead the ERA-NET work package on Coordination;
- The IAI Directorate has received Expressions of Interest from Panama, Chile and Ecuador and is currently following up on initial conversations with St Lucia.

This initiative represents a unique opportunity for IAI participating organizations to:

- Develop, collaborate & implement research projects focusing on regional priorities and issues related to the agricultural & food sectors in an inter- and transdisciplinary manner;
- Receive matching funds from the European Commission for research funded by Latin American & Caribbean agencies

In addition to the ERA-NET partners, participation in the CRA is open to any other Belmont Forum partner or funding agency interested, and can join the development of the CRA without participating in the ERA-NET. FAPESP will be joining as such, and we are exploring participation of IDRC (Canada). These partners can join any time until the launch of the call.

A preparatory meeting is scheduled on 24-25 June 2019 in Paris, France. The first day is an experts' meeting aiming at providing recommendations to the funding agencies on the scope and research priorities of the call text, and the second day is dedicated to funding agencies to finalise the detailed topic(s) of the call and to discuss organisation, features and calendar for this call (there will also be discussions on the work under the ERA-NET).

Another aspect, which could be a great asset to IAI Parties and their research communities, is a role for the IAI Directorate to support the communication towards- and mobilisation of the research community to respond to the call (once launched). It would also support the building of international consortia to have a stronger and good value response to the call.

Towards sustainability of soils and groundwater for societal benefit

The scoping phase of this CRA is co-lead by AllEnvi (group of French research organisation working on the environment, and Belmont Forum member) and ANR.

This scoping phase is supported by an international Steering Committee including the National Science Foundation (NSF), USA, the Sao Paulo Research Foundation (FAPESP), Brazil, and the **Qatar National Research Fund (QNRF)**.

Objective

Human impact on the biosphere is such that humanity has entered the "Anthropocene", a new geological period in which human activities are the main driver of global environmental changes. At a local scale, changes in land management and cover, and urbanization exert an increasing and unprecedented pressure on terrestrial ecosystems and related resources. Terrestrial ecosystems, above and below ground biodiversity, soils, rocks, and water are natural resources that interact to provide sustainable life support systems and essential benefits to societies such as food production and water quality and quantity. At the heart of the dynamics of these socio-ecological systems are decisions and actions taken by a multitude of socio-economic actors. Rather than being

independent, all these human and non-human components interact constantly along trajectories that remain to be characterized, especially when accounting for conflicts, synergies and trade-offs.

This CRA will focus on the socio-ecological system, also called Critical Zone, being the zone from the top of the lower atmosphere to the bottom of the fresh bedrock in which freely circulating groundwater is found. The goal of this CRA is to produce the necessary knowledge and propose solutions to maintain this well-functioning socio-ecological system, or rehabilitate it where degraded, through:

- 1) Better understanding of the dynamics and functions of the Critical Zone, impacts from societal (including economics) decisions, management practices, public policies, and how these systems have been transformed; and,
- 2) Providing avenues, pathways, and narratives toward transformation of management practices of the Critical Zone through a fundamental shift of socio-economic actors' practices and related-decisions making processes.

Scoping phase

As this theme was of the interest of several Belmont Forum members in October 2018, it entered in a scoping phase aiming at better defining the context, research priorities and features of a potential CRA. A first scoping workshop was organised on 5-7 April 2019 in Vienna, Austria, and hosted by the Austrian Environment Agency. Participants in the workshop (experts and funding agencies, including IAI) developed a draft concept note, which will be updated based on the continued scoping consultation (document available).

As of today, 16 funding agencies are participating in this scoping phase (not all of them have been present at the first scoping workshop) and 7 additional countries are interested but barriers exist for their engagement.

We are particularly aiming at further engaging Social Sciences and Humanities (under represented in Vienna), stakeholders (under represented in Vienna) and encompassing regional perspectives (Africa, Asia and LAC).

IAI being a great partner to engage LAC communities (at the level of the research communities as well as at the countries level), we are proposing to organise consultation webinars to get the visions, perspectives, and research priorities from the region on the draft concept note.

The scoping phase will last until September 2019 and the final concept note will be presented to Belmont Forum members on 23-25 October during the annual plenary meeting. The call is expected to be launched on end 2019 or early 2020.

IAI Directorate and ANR would like to

- Explore the interest of the IAI Parties in this research area
- Invite the IAI Parties to nominate experts to participate in this consultation
- Invite the IAI Parties or their national research funding partners to participate in the scoping phase of this CRA.