

Global Food Systems Institute

2024 Call for Proposals

The purpose of the award is to *encourage collaborative research with EMBRAPA scientists to address climate change research topics*. The total amount available is \$140,000 for one proposal.

Projects can focus on one or more of the following subtopics. *However, additional ideas will also be considered:*

- 1. Technological solutions** to increase the adaptive capacity of agricultural systems and the development of sustainability indicators, primarily in regions where there is a projected occurrence of severe water deficits and a strong rise in temperature due to climate change.
- 2. Methods, techniques, and tools** for managing national agricultural and climate data and information aimed at improving the scope and representativeness of agricultural systems in line with the Paris Agreement Enhanced Transparency process (tier 2 and 3) in national inventories, considering the TACCC principles (Transparency, Accuracy, Completeness, Comparability and Consistency).
- 3. A plan for mitigating** livestock or crop production systems emissions, or both.
- 4. Development of mathematical growth and carbon balance models** for the quantification of methane, CO₂, and other GHG emissions, contributing to the national inventory, focusing on flooded systems, cattle ranching, and waste management.
- 5. Technologies** aimed at improving soil conditioners, soil health, resilience of the productive system, adaptive capacity and immobilization of organic carbon associated with monitoring techniques and strategies (MRV) compatible with national GHG inventories.
- 6. Improvement of techniques** and tools for agricultural zoning of climate risks and crop and or livestock monitoring.
- 7. Modeling and projecting** agricultural vulnerability scenarios (from global and regionalized CMIP6 climate scenarios) for crops and/or livestock of interest to both parties.
- 8. Analysis of the impact** of climate change on the development and production of coniferous forest systems.

Proposals will be reviewed by climate change subject matter experts for:

- 1) creativity, innovation, and technical quality;
- 2) potential to increase collaboration between UF and EMBRAPA; and
- 3) potential for securing future funding.

Note: Funding will not be provided for travel to, or research in, countries of concern specified in the 2023 Florida bill SB846, including China, Cuba, Iran, North Korea, Russia, Syria, and Venezuela.