Food and Agriculture Organization of the United Nations

Global Forum on Food Security and Nutrition • FSN Forum

TEMPLATE FOR SUBMISSIONS

29.05.2023 – 23.06.2023

↗ https://www.fao.org/fsnforum/call-submissions/agrifood-system-technologies-and-innovations-climate-action

CALL FOR SUBMISSIONS:
Case studies of agrifood system technologies and innovations for climate action: Call for proposals for the FAO Science and Innovation Forum 2023

Template for submissions (maximum 2000 words in total)

In the context of the upcoming FAO Science and Innovation Forum 2023, the FAO Chief Scientist Office invites you to share illustrative country level case studies of agrifood system technologies and innovations for climate action.

Please use this submission template to share your experience. You can upload the completed submission form online, or, alternatively, send it to fsn-moderator@fao.org.

The Call for Submissions is open until 23 June 2023.

Template for submissions

Proponent (name/institution)

Syngenta Group
The Nature Conservancy

Title for the case study presented

Reverte: Restoring Productivity to Degraded Cropland and Pastures

Country location

Brazil

Context and background

The Reverte program provides an integrated solution to recover degraded pastureland. The project involves regenerative agricultural practices, financial solutions, and input-use protocols that make available fertilizers, seeds, machinery and pesticides appropriate for growing soy and other intercropped harvests.

It is currently focused on the Cerrado in Brazil, a vast tropical biome crucial for biodiversity and freshwater. In the Cerrado there is approximately 18.5 million ha of already-cleared land suitable for crops of which 7 million ha have some degree of soil degradation (TNC 2020).

The goal of Reverte is to restore 1 million hectares of degraded pastureland into productive cropland by 2030, whilst pursuing the conservation of 100,000 hectares of native vegetation.

Key problem(s) addressed

Mission: We believe that one of the most impactful transformations to reduce CO_2 emissions from global agriculture while preserving biodiversity and enhancing farmers' livelihoods is reclaiming degraded pastureland to accommodate the projected expansion of farming, avoiding additional conversion of native vegetation. The goal: 1 million hectares of degraded pastureland restored by 2030 and an ambition to conserve 100,000 hectares of native vegetation.

Impact: Reverte contributes to emissions reduction by providing the mechanism for existing degraded pastureland to be restored through regenerative practices and avoiding additional conversion of native vegetation. The target restoration of 1 million ha of degraded land is estimated to sequester 3.8 million tons of CO_2e in 10 years. The potential for positive impact grows when adding the aspiration of avoiding additional native vegetation conversion on farms and the opportunity to expand the area of native vegetation by adopting restoration practices.

Resilience: Land recovery is expected to bring further benefits for carbon sequestration, soil health and water efficiency.

Technological or innovative solutions employed

Restoring degraded land is expensive. The Reverte program seeks to develop attractive long-term financing mechanisms to make available about USD $1.8 billion needed to restore the 1 million hectares by 2030.

The Reverte program offers an integrated approach, combining regenerative agricultural practices, financial solutions, and tailored input-use protocols for sustainable crop growth. Notably, this

distinctive approach goes beyond traditional corporate social responsibility, incorporating a business mindset to generate economic and environmental value.

This is where Reverte is different: it uses a business approach that aims to simultaneously generate economic value for the companies involved and create environmental value for society and goes beyond traditional corporate social responsibility and one-off philanthropic efforts or compliance with regulations. It involves a strategic and long-term commitment to creating sustainable positive impacts while pursuing business growth and profitability.

This is achieved through innovative products that delivers benefits for all actors involved, meaning it can be scaled. Producers increase their output, Syngenta sell inputs, commercial banks earn interest-based returns and fulfil their impact goals and, TNC delivers conservation projects aligned with its core mission. The Reverte program has the potential to be replicated to other countries around the world, and we are looking to champion this project to help scale it as a global solution.

Key outcomes and measurable impacts achieved

We currently have 180 farms across 38 growers enrolled in the program, covering 128,000 hectares. The second phase of the project is about to launch for the 2023-2025 period and aims to leverage $460m to restore 255,000 additional hectares.

Our objective is to increase productivity on restored lands by 30% by 2025 (for land that has been enrolled in the programme for 3-4 years).

The Reverte program has the potential to be replicated to other countries around the world, and we are currently scoping out with TNC other regions that this solution could be taken to.

Land recovering is expected to bring further benefits for carbon sequestration, soil health and water efficiency.

Key actors and stakeholders involved in the development and implementation (please also describe to what extent a multi-stakeholder and participatory approach has been adopted)

The initiative works in close collaboration with different stakeholders.

Public: EMBRAPA is responsible for developing the guideline for Recovery of Degraded Land in Cerrado in partnership with TNC. EMBRAPA is also acting as a consultant on Soil Health Assessment and Improvement.

Non-profit: The Nature Conservancy (TNC) has been responsible for developing the eligibility and monitoring criteria of the program and helping structure financial solutions needed

Private: Itaú BBA bank has been part of this first phase as the financial institution providing financing for producers to restore the land.

Private: Syngenta provides technology packages adapted to local conditions, digital tools allowing growers to control and monitor their improvements in soil health and develop the financial solutions needed to make the program attractive, as well as monitoring the social and environmental conditions to comply with the program.

Challenges encountered (any types of trade-offs, and how these were managed) and/or efficiencies gained (e.g. win-win situations)

Develop a financial mechanism attractive enough for the grower embark in the program.

Factors for success

Communicate efficiently the value proposition of the program to the growers, investors, government and society

Have access to the growers – this requires a private agriculture partnership.

Lessons learned (both positive and negative) and whether these could be applicable in other contexts with similar characteristics

Develop a robust and sustainable financing mechanism and demonstrate a track record success of the program to attract additional investors and growers to the program

In a bid to expand the reach and impact of the program, by demonstrating a track record of success the program can attract additional investors and growers, setting the stage for long-term growth and scalability.

Creating financing mechanisms that are both resilient and sustainable is paramount to the program's continued success. This involves exploring various avenues such as public-private partnerships, impact investment funds, and innovative financial instruments tailored to the unique requirements of the agricultural sector. As the program continues to evolve, it is vital to continuously refine the financing mechanism based on feedback and lessons learned. Flexibility and adaptability are key attributes that will allow the program to respond to changing market dynamics, emerging trends, and evolving needs of investors and growers.

In addition to financial returns, stakeholders are increasingly interested in the social and environmental impact of their investments. Therefore, emphasizing the program's positive contribution to sustainable agriculture, resource conservation, and rural development will help attract socially conscious investors and growers who align with the program's goals and values.

Collaboration with financial institutions, development organizations, and government agencies is crucial in developing a financing mechanism that meets the needs of all stakeholders. Engaging in dialogues and partnerships with key players in the financial sector will facilitate the exploration of innovative funding models and ensure alignment with broader national and global sustainability goals.

Contact information for further inquiries

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Links and additional materials

Reverte Program Institutional Video https://www.youtube.com/watch?v=Wd1iDkqzqO0

Farmer's perspectives: Reverte in the Brazilian Cerrado https://youtu.be/JBPhhWB62AI

https://www.nature.org/en-us/about-us/where-we-work/latin-america/brazil/stories-in-brazil/restoring-degraded-landscapes-in-the-cerrado/

https://www.syngentagroup.com/en/our-stories/conservation-program-brazil-could-lead-more-profitable-farms-and-ranches