T20 Policy Brief

G20 BRASIL 2024

T20 Brasil 2024 Let's rethink the world

Task Force 04

TRADE AND INVESTMENT FOR SUSTAINABLE AND INCLUSIVE GROWTH

# Climate Finance Towards Greener Agriculture: A Win-Win Strategy


**Michelle Márcia Viana Martins**, Professor, Federal University of Viçosa (UFV) (Brazil); Research fellow, Institute for Applied Economic Research (IPEA) (Brazil)

**Scarlett Queen Almeida Bispo**, Master Student, University of Brasilia (Brazil); Research fellow, Institute for Applied Economic Research (IPEA) (Brazil)

**Fernanda Aparecida Silva**, Professor, Federal University of Viçosa (UFV); Research fellow, Institute for Applied Economic Research (IPEA) (Brazil)

**Heloisa Lee Burnquist**, Professor, University of São Paulo (Brazil)

**Angel Manuel Benitez Rodriguez**, Professor, Nacional University of Asunción (Paraguay)

**Hanifi Otgun**, PhD candidate, University of Nebraska (United States)

**S. Kwaku Afesorgbor**, Professor, University of Guelph (Canada)


TF04

## Abstract

International agreements, like the Paris Agreement, obligate developed countries to financially support developing countries (DCs) in mitigating greenhouse gas (GHG) emissions and adapting to climate change. However, these investments have fallen short and lack effective allocation.

While developing countries play a critical role in ensuring global food security, their agricultural practices, particularly deforestation, significantly contribute to greenhouse gas (GHG) emissions. Countries with vast agricultural production and forest reserves, like Brazil and Indonesia, are major contributors to these emissions.

We recommend strengthening the management of climate finance to ensure that developing countries achieve ambitious goals for reducing GHG and adapting to climate change. This can be achieved by prioritizing agri-food production projects that utilize sustainable agricultural methods, boosting food security without deforestation and increasing carbon sequestration.

Funding initiatives should prioritize restoring degraded areas, establishing integrated crop-livestock-forestry systems, developing high-vigor pastures, and leveraging nature-based solutions. This holistic approach emphasizes restoring and conserving ecosystems for sustainable and equitable growth. Specific projects can be financed through a mechanism called SUSTAIN (Sustainable Financing in Specific Territories for Reforestation, Recovering and Nature).

To incentivize financial investments, projects that reduce emissions can generate carbon credits under the Clean Development Mechanism. These credits are then offset in the financing country's emissions. Unlike traditional carbon purchases, these credits arise from investments, creating a win-win situation for both parties and contributing to their

Nationally Determined Contributions (NDCs).

A portion of the financing should be allocated to elaborate emissions inventories, ensuring transparency in credit conversion processes, and verifying compliance with climate regulations through certification systems in the financed countries. This ensures producers adhere to sustainable agricultural practices, facilitating their access to international markets and promoting long-term income security.

Due to its critical role in regulating global climate and its high susceptibility to land-use changes, we propose launching a pilot project in the Amazon.

**Keywords:** climate finance administration, developing countries, greenhouse gas emissions, agricultural practices, sustainable practices.

## Diagnosis of the Issue

Current agricultural, pasture and forest management practices are, for the most part, not sustainable. Deforestation practices, intensive monoculture, use of chemicals and high irrigation contribute significantly to GHG emissions, reducing the ability of sinks to absorb carbon, contributing to 22% of global GHG emissions being attributed to Land Use, Land-Use Change and Forestry (LULUCF) (IPPC, 2023). On the other hand, most of the world's poor and hungry population reside in rural areas and depend on agriculture for their livelihood. Around 1.2 billion individuals live in extreme poverty, with 900 million residing in rural regions. Of these, around 750 million are engaged in agricultural activities, typically as smallholder family farmers (FAO, 2016).

The agricultural sector plays a dual role in climate change, acting as both a source of greenhouse gas emissions and a victim of its effects. Investing in sustainable practices cannot only mitigate negative impacts on the environment, but also generate long-term economic and social benefits, particularly for small producers. Therefore, sustainable agriculture must be seen as part of a solution to tackle global issues such as climate change and global food security and, therefore, requires international cooperation for its implementation.

In combating climate change, the Paris Agreement is the main international legal instrument to establish ambitious goals to restrict the increase in global temperature. This agreement not only sets clear objectives to reduce GHG emissions, but also promotes global cooperation through financial instruments such as the Green Climate Fund (GCF) and the Climate Investment Funds (CIF).

The resources granted under the Paris Agreement did not achieve effective results in terms of improving production processes in agriculture. Consequently, LULUCF

emissions have risen in recent years, driven by global demand for food and resource-intensive goods. Current financial flows for climate change in the LULUCF sector amount to US$20 billion annually – less than 4% of total climate financing (DÍAZ-BONILLA, RUBEN, 2023). A low value that continues to fall compared to global climate financial flows (FAO, 2023).

DC's scarcity of financial and technological resources compromises its ability to address climate impacts as extreme weather makes growing seasons less predictable. Equitable access to climate finance is essential for climate justice and food security. Intelligent management of funds must enable projects and initiatives that develop and disseminate productive capabilities for mitigation, adaptation to climate catastrophes and strengthen the resilience of agricultural communities. This highlights the need to improve fund management, which can be done by G20 countries.

Co-financing climate mitigation and adaptation projects in DCs should be a priority on the G20 agenda, which has great representation in the global economy and the formulation of international policies. Furthermore, some G20 DCs, which export agri-food goods, have predominantly agricultural economies and are particularly vulnerable to the impacts of climate change on food production - as is the case in Brazil, India, Indonesia, South Africa and Mexico. Additionally, the highest-income countries in the G20 are the largest importers of these goods. Given that they have started to demand the trade of agricultural goods based on more sustainable practices, such as the current European Union Anti-Deforestation Law, it is necessary to provide conditions for DCs to make their production more sustainable.

G20 countries, as signatories to the Paris Agreement, must collaborate with the private sector and civil society to stimulate financing for climate adaptation and mitigation projects. The aim is to encourage the transition to a low-carbon economy and create

sustainable economic and social opportunities for current and future generations. To achieve this, climate financing must be improved for specific projects that aim for measurable results in reducing emissions in agriculture, transfer of technology and knowledge, enabling vulnerable communities to adopt production methods that are more adaptable to climate change. Therefore, it represents a solution to reduce the disparity in resources available for actions to mitigate emissions and climate change between lower-income countries and more developed ones.

This Policy Paper proposes to improve the management of climate finance to achieve effective mitigation and adaptation goals in DCs. The need for more effective management of available resources to promote sustainable agricultural practices, ensure food security and reduce GHG emissions, especially those arising from deforestation, is highlighted. We suggest launching a new credit line for projects financed by climate funds called SUSTAIN - Sustainable Financing in Specific Territories for Reforestation, Recovering and Nature, to be carried out on an experimental basis in the Amazon region, considering its importance in climate regulation under the risk of deforestation, one of the main threats to the integrity of this ecosystem, due to agricultural expansion.

## Recommendations

G20 is a stakeholder in improving the management of climate funds and must take the forefront of financing decisions. Does G20 recognize that land use change and agriculture constitute primary contributors to GHG emissions in developing countries. In line with international agreements such as the Paris Agreement, we recommend to the G20 the proposition that climate fund resources such as the GCF are directed to lines of credit designed to promote the transition to more sustainable low-carbon agri-food production practices for climate change mitigation and adaptation.

As an initial step, the G20 would establish within the climate fund, a project financing modality SUSTAIN, aimed at solving problems related to agriculture and land use change. We recommend that the criteria for selecting funded projects include those that:

- It must be a developing country that demonstrate an interest in joining international trade in agricultural products or that already exports these goods, as long as they are committed to sustainable production chains. Priority will be given to countries that commit to implementing climate change mitigation and adaptation policies and strategies, through specific national plans or goals;
- Undertake projects that promote low-carbon agricultural practices. Including the reduction or recovery of degraded pastures; implementation and improvement of organic agricultural production systems; adoption of direct planting systems; implementation of crop-livestock-forest integration systems; commercial forest management; forest landscape restoration; adequacy or regularization of rural properties following environmental legislation; waste management systems from animal and energy production; the use of biological nitrogen fixation and plant growth-promoting microorganisms, bio-inputs and bio-fertilizers production.

- Develop procedures to monitor, evaluate, measure and report the impacts of proposed agricultural practices, including GHG emissions reductions and resulting environmental benefits. To establish a peer review mechanism where G20 members bear the costs and assess each other's progress and elaborate a standardized reporting framework to track progress towards targets, ensuring transparency and fostering accountability;
- Identify ways to encourage the adoption of international agricultural sustainability standards and guidelines, like the voluntary sustainability standards (VSS) schemes, ensuring that projects are aligned with globally recognized best practices;
- Commitment to social inclusion and gender equity, ensuring that the benefits are distributed fairly, with equal opportunities for participation for all parties.

The G20 must play a critical role as a co-financier for these projects, combining resources from the fund itself (e.g. GFC) with other sources of investment in the context of expanding climate funds. Furthermore, must catalyze technologies, aiming to maximize the impact and effectiveness of projects and programs financed by climate funds. Co-financing can take many forms, including: expanding the reach of projects to benefit a greater number of people and communities; encouraging public-private partnerships, in which the private sector contributes financial resources, technical expertise or innovative technologies to projects financed by the fund.

We propose that the operation of SUSTAIN be organized as follows:

- Appointment of a commission (from G20) responsible for evaluating the initiative: the number of projects included and the results in terms of sustainability over

time. The commission may propose new requirements for projects, when necessary, to ensure a greater number of beneficiaries and equal access.

- Resources will be directed according to inclusive criteria that take into account the specific needs and vulnerabilities of countries about climate change based on Consensus and Scientific Basis.
- Designation of a bank in each DC, to evaluate the project based on pre-established requirements and grant lines of credit to approved projects. Interest will be differentiated according to the size of the producer: small and medium producers will have greater credit benefits than large producers. Properties managed by women or traditional communities will have additional benefits.
- Integrate public and private rural extension companies, subsidized by the G20, to provide consultancy to producers who need technical and human support to develop their projects. Technical assistance from the G20 would strengthen this collaboration, offering, in addition to financial resources, expertise to ensure the effectiveness of rural extension activities.
- Prioritize projects that demonstrate integrated approaches to sustainability, covering environmental conservation, climate resilience, and economic viability. This includes the adoption of innovative agricultural technologies, sustainable value chain integration, and practices that enhance biodiversity and ecosystem services.
- Inclusive governance and compliance to ensure projects adhere to international environmental and social standards, involving all relevant stakeholders in planning and implementation. This encompasses compliance with global sustainability guidelines, active participation of local communities, private sector, NGOs, civil society, to support social inclusion, gender equity, and fair distribution of project benefits.

- Hiring internationally recognized certification companies, designated by the G20, to carry out the following activities:
    - Audit the actions proposed in the project and ensure the appropriate use of the credit line;
    - Grant sustainable labels, recognized on the world market, such as VSS, to producers that comply with sustainable practices;
    - Prepare carbon inventory, based on the assessment and monitoring of GHG emissions associated with producers' activities, based on the IPCC methodology.

Create a green cashback mechanism involving carbon credit, when the investing country selects SUSTAIN modality projects. This mechanism works in this way: emission reductions resulting from projects are converted into carbon credits, calculated by the certified company, which can be offset against the annual emissions of SUSTAIN investing countries.

We suggest that an experimental SUSTAIN project be launched in the Amazon region given the problems related to deforestation due to the expansion of agriculture and its imposing role in global climate regulation. It is a region that is home to small producers and traditional people, therefore, it has social relevance. It is a cross-border region, and would benefit more than one country. Furthermore, some bottom-up strategies should be considered, since there is a local bioeconomy already structured in the region and there are possibilities to generate income from nature-based solutions. Improving it could be a good starting point.

Below are other recommendations that could corroborate our proposal:

- Financing Mechanisms:
    - Set ambitious, science-based emission reduction and adaptation targets, considering national circumstances.
    - Increase contributions to existing climate funds like the GCF, leveraging public and private partnerships;
    - Explore new instruments like green bonds, carbon pricing schemes, and blended finance that combine public and private resources;
    - Consider debt relief for Climate Action or swaps for developing nations, conditional on directing funds towards climate projects.
- Knowledge Sharing and South-South Cooperation:
    - Create platforms for knowledge sharing and technology transfer, facilitating the spread of best practices. Encourage cooperation between G20 members, allowing developing nations to learn from each other's experiences.
- Political Will and Leadership:
    - Appoint high-level champions of the initiative within the G20 to spearhead climate action efforts and maintain momentum;
    - Encourage member nations to align domestic policies with international climate goals;
    - Promote public awareness and education on climate change, fostering public pressure for climate action.
- Considerations:
    - Navigating the diverse economic realities and political priorities within the G20 is not trivial;

- Ensuring all members contribute fairly and no country free rides on the efforts;
- Maintaining transparency in the use of funds and holding members accountable for achieving targets.

The figure below summarizes the Policy Brief idea.

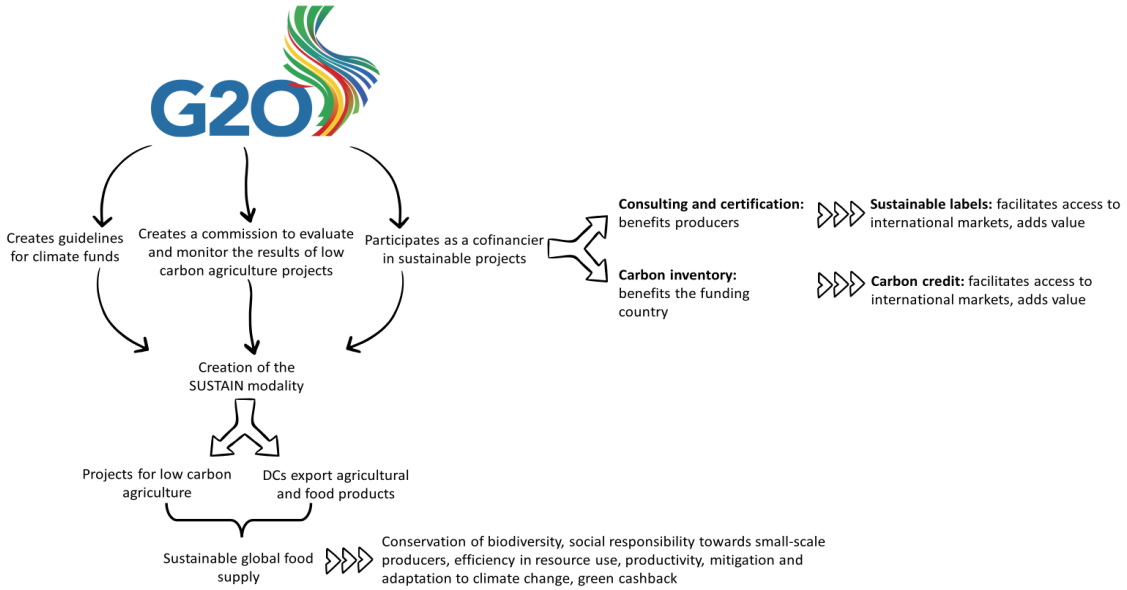


FIGURE 1. SUSTAIN mechanism.

Source: Own elaboration.

## Scenario of outcomes

The implementation of the policies proposed in this Policy Brief involves some scenarios and challenges. The first scenario refers to the benefits for the countries that receive the fund's resources, such as increasing sustainable production in DCs, which consequently increases the supply of sustainable food and agricultural products, meeting the growing demand for these products. There is an improvement in competitiveness in the international market for producers who adopt these sustainable practices, obtaining international certification. From an environmental point of view, the benefits include the conservation of ecosystems, the reduction of GHG emissions and the improvement in soil quality and biodiversity.

The second scenario refers benefits for countries that invest resources in the fund. There is the possibility of fulfilling their international commitments, such as those established in the Paris Agreement, strengthening their position in global climate negotiations. Investing in carbon mitigation projects in other nations helps those countries meet their own GHG emissions reduction targets, with global environmental benefits. Strengthening the international image is an additional benefit, it demonstrates a developed country's commitment to reducing the effects of climate change and supporting the most vulnerable countries.

On the other hand, the challenges that this policy can face are recognized. One of the challenges in implementing climate finance policies is the conflict between environmental sustainability and economic growth. Sustainable solutions require substantial initial investments and can lead to increased operational costs.

Furthermore, creating modalities within the fund can become a complex bureaucratic process, hindering efficiency and agility in resource allocation. The need to carry out public-private partnerships is also a critical point, requiring greater cooperation and

coordination between different sectors. In this sense, the role of the G20 is important to direct, develop guidelines and control the application of the fund's resources.

Additional challenges arise in DCs, such as the need to comply with environmental regulations, which require certification systems and investments in technology and training. The lack of technical capacity and infrastructure poses obstacles, highlighting the need for technical and financial support to strengthen the capabilities of local institutions. The inclusion of small producers requires specific measures to ensure their participation and access to equitable benefits.

These challenges can be mitigated by considering the G20's role in providing consultation to producers, helping to improve technical training in project development.

Defining the direction of the fund's resources is another critical point, requiring a careful approach to ensure that investments are directed to priority areas and in an equitable manner.

Thus, it is essential to involve local communities in the decision-making process and ensure safeguards for traditional communities, promoting a smooth transition to more sustainable and resilient agriculture. Effective monitoring of projects is important to ensure that climate fund resources are used efficiently and that implemented policies achieve their intended objectives. This involves constant supervision of all project phases, from planning to implementation and evaluation of SUSTAIN results.

Faced these challenges, measures must be adopted to facilitate the management and centralization of resources and adapt these policies to different countries with diverse cultures and traditions, requiring flexibility and tailored approaches to meet the specific needs of each context.

## References

Díaz-Bonilla, Eugenio, and Ruben Echeverría. "Climate Finance: Funding Sustainable Food Systems Transformation." In Climate Finance: Funding Sustainable Food Systems Transformation, edited by Eugenio Díaz-Bonilla and Ruben Echeverría, 48-57. Washington, DC: *Inter-American Institute for Cooperation on Agriculture and International Food Policy Research Institute*, 2024. https://ebrary.ifpri.org/utils/getfile/collection/p15738coll2/id/135896/filename/136095.pdf.

FAO. Adapting Agriculture to Climate Change. 2016. Accessed January 2024. http://www.fao.org/3/a-i6398e.pdf

FAO. "Climate Finance for Agrifood Systems in Sharp Downward Trend Despite Their Critical Role in Reaching Climate Goals." December 10, 2023. Accessed March 24, 2024. https://www.fao.org/newsroom/detail/fao-report--climate-finance-for-agrifood-systems-in-sharp-downward-trend-despite-their-critical-role-in-reaching-climate-goals/en.

IPCC. 2023. AR6 Synthesis Report: Climate Change 2023. https://www.ipcc.ch/report/sixth-assessment-report-cycle/

G20 BRASIL 2024
BUILDING A JUST WORLD AND A SUSTAINABLE PLANET

T20 Brasil 2024
Let's rethink the world

# Let's rethink the world

CEBRI Rethink Tank

FUNDAÇÃO ALEXANDRE DE GUSMÃO

ipea
Instituto de Pesquisa Econômica Aplicada