



# Financing the Bioeconomy

A contribution to G20 Initiative on Bioeconomy

September | 2024

## CONTEXT

On September 12th, G20 Initiative on Bioeconomy (GIB) negotiators, multilateral banks, the financial sector and third sector organisations gathered in Rio de Janeiro for a full-day event. It was organised by a group of organisations that have been working together since early 2023 to support the GIB and the bioeconomy agenda.

The event took place one day after the GIB approved 10 high-level principles on the bioeconomy, a key element in the just and sustainable transition towards a climate-resilient economy that benefits nature and people.

Altogether, 20 panelists, including GIB coordinators (such as representatives from the ministries of foreign affairs, finance, environment, science and technology and industry and trade), discussed challenges and opportunities of the bioeconomy and how to finance it.

One highlight was the launch of the study *Financing a Sustainable Global Bioeconomy*,

a study by NatureFinance and the [World Bioeconomy Forum](#) and supported by 20 organisations. It builds on two key pieces of work contributed to G20 Initiative on Bioeconomy: The Global Bioeconomy (1) and the final document of the Task Force on Nature Markets' (2), launched in Belem in 2023.

The G20 is a crucial decision-making forum – it brings together countries responsible for 87% of the world's GDP and 80% of greenhouse gas emissions. The Brazilian G20 Presidency will last until November 2024. South Africa will succeed Brazil as its president in 2025.

The [G20 Initiative on Bioeconomy](#) was launched by Brazil at the head of the G20 and this September it achieved a historic feat: for the first time the bioeconomy has been the subject of a multilaterally agreed document devoted to this topic. The [High Level Principles](#) will serve as the basis for future discussions on the bioeconomy around the world. South Africa is committed to continuing the discussions.

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(1) <https://www.naturefinance.net/resources-tools/global-bioeconomy-g20-stocktake/>  
(2) <https://www.naturefinance.net/resources-tools/making-nature-markets-work/>

Alongside the G20, Brazil will take up this agenda at upcoming United Nations conferences, including the Biodiversity Conference (CBD COP16) and Climate Change Conferences (UNFCCC COP29 in Azerbaijan; COP30 in Belém - the 1st to be held in the Amazon).

Below is a summary of the discussions from the event and of the report (a webinar on the event is available [here](#)).



# THE PANELS

## 1 Opening ceremony

**Sérgio Besserman Vianna**, President, the Botanical Garden Research Institute of Rio de Janeiro  
**Karen Oliveira**, Director of Public Policy and Government Relations at The Nature Conservancy

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**Key points:** The emphasis is on the importance of the bioeconomy and environmental restoration, which needs a joint effort to move forward; the highlight is the approval of the bioeconomy principles by the GIB, the first time the bioeconomy has been the subject of a multilaterally approved document devoted to this topic.

## 2 The Global Bioeconomy - What is It and How to Finance It?

**Jukka Kantola**, Founder and CEO at the World BioEconomy Forum and Chair at the World Bioeconomy Association;

**Simon Zadek**, Co-CEO at NatureFinance.

**Moderator: Maria Netto**, Executive Director at the Institute for Climate and Society (iCS)

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**Key points:** The bioeconomy needs to have an adequate balance between bioresources, biotechnologies and bioecology in order to be successfully implemented internationally. Its principles must be based on and approved by the nations involved in the bioeconomy, with strategies worldwide designed for funding bioeconomy and enhancing its ecosystem.

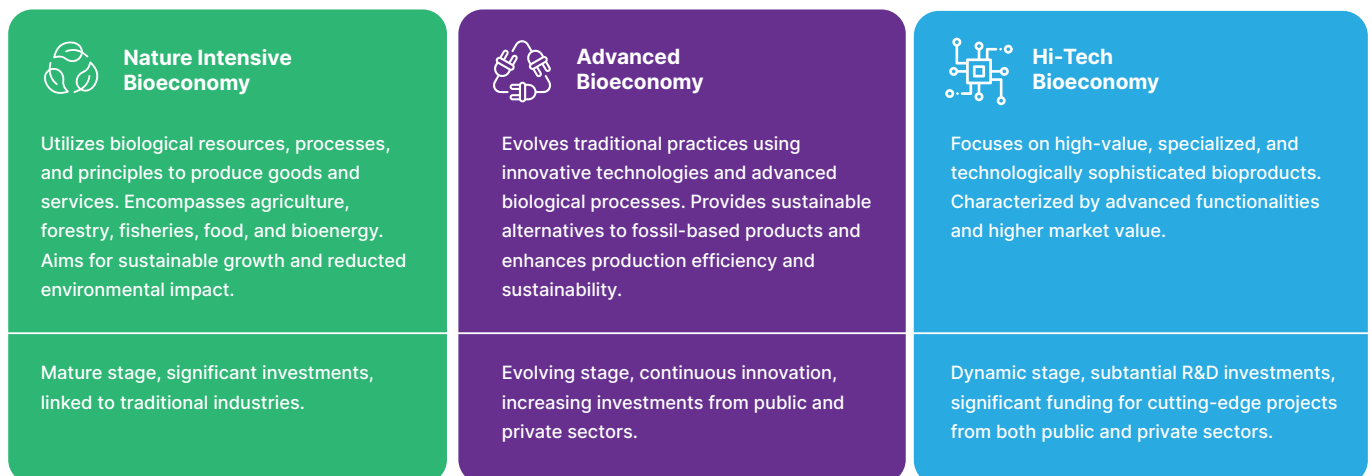
Sustainable finance has been developed since the 1970s and focuses today on climate change mitigation and biodiversity. In recent years, US\$6 trillion has been invested in climate change issues, according to the World BioEconomy Forum

Why is international collaboration necessary? To scale up positive impact, mitigate risks, develop standardisation and metrics, improve financing mechanisms, establish international rules, build knowledge and capacities and coordinate global policies.

The global bioeconomy is key in the transition to a more equitable, low-carbon, climate-resilient and nature-positive economy. It should be collectively imagined, developed, funded and also has a collective governance.

The panel presented the report *Financing a Sustainable Global Bioeconomy* and highlighted:




Three approaches for the bioeconomy



Source: *Financing a Sustainable Global Bioeconomy*

Each approach has its challenges. For example, farmers in the Amazon and pharmaceutical companies cannot be financed in the same way as they are based on different forms of the bioeconomy. Nature should be priced without depleting resources.

The financing challenges were mapped according to the bioeconomy approaches:

	 <b>Nature Intensive Bioeconomy</b>	 <b>Advanced Bioeconomy</b>	 <b>Hi-Tech Bioeconomy</b>
<b>High R&amp;D costs</b>	Low	Moderate/high	High
<b>Scalability</b>	Easy	Long lasting	Moderate
<b>Market volatility</b>	Moderate/high	Moderate/high	Moderate
<b>Consumer acceptance</b>	Low	High	High
<b>Regulatory uncertainty</b>	Moderate	Moderate/high	Biosafety/Biosecurity related challenge
<b>Compliance costs</b>	Moderate	Moderate/high	Low
<b>High Initial Investment</b>	Depends on application	Often	Moderate
<b>Long Payback Periods</b>	Moderate	High	High
<b>Access to Capital</b>	Moderate	High	High
<b>Loan quarantees</b>	Moderate	High	High
<b>Insurance</b>	Moderate to high	High	High, but spezillised
<b>Feedstock availability</b>	Regional	Regional	Low
<b>Logistic and infrastructure</b>	Being well-established	Developing	Advanced and specizilised
<b>Biodiversity impact</b>	Moderate	Low to moderate	Low
<b>Equity and inclusion</b>	Moderate	High	High
<b>Return on investment</b>	Steady	High	High but variable
<b>Performance metrics</b>	Clear	Clear but evolving	Advanced and specific

Source: *Financing a Sustainable Global Bioeconomy*

Innovative mechanisms already exist in the bioeconomy chain, and its financing requires adaptation to its needs rather than reinventing instruments.

Among the sustainable financing instruments that already exist and can be used are venture capital; private and public capital; green bonds; loans linked to sustainability; public-private partnerships; subsidies and grants; carbon and biodiversity credits; as well as accelerator instruments such as nature-based solution funds; circular economy financing platforms; climate funds and others.

Financing the bioeconomy requires an integrated approach and action, and its acceleration involves:

- Adopting the G20 High Level Principles on the bioeconomy as a way to align public policies and sustainable bioeconomy;
- Including nature-related risks in business decisions through reporting standards;
- Aligning green finance taxonomies to shape investment behavior;
- Adopting policies that incentivize and/or impose penalties on bioeconomy products according to their impact on biodiversity;
- Reversing perverse fossil and environmental subsidies and redirecting them to businesses with a positive impact.

### 3 Financing a Diverse Bioeconomy: A Holistic Vision for Climate, Nature, and People

**João Vítor Pankararu**, Technical Consultant for the APIB Fund and SHANDIA Focal Point for Brazil  
**Fabiana Alves**, CEO Brazil at Rabobank;  
**Svetlana Klimenko**, Global Lead for Sustainable Finance at the World Bank;  
**Moderator: Marcello Brito**, Executive Secretary of the Legal Amazon Consortium

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**Key points:** This discussion focused on experiences regarding financing the bioeconomy.

Indigenous peoples and traditional communities understand that bioeconomy is already on their practices. As one of the results of Articulation of Indigenous Peoples of Brazil (APIB, in Portuguese), funds have been created to finance territorial management, a sustainable economy, institutional strengthening and training projects. Their goal is to support communities in the development of the bioeconomy, and currently nine funds are being implemented.

Concerning structure of agribusiness production and how to reach a financing models that incorporates environmental issues the discussion involved the need for financial sector to transition from the current risk-return binomial to incorporate sustainability. This challenge also relates to issues such as supply and demand, the risk of environmental crimes, creating a taxonomy and ways of measuring results.

When discussing the role of multilateral banks, bioeconomy financing is a new topic - definitions, project structures and success metrics are still being discussed. Development banks are crucial in conducting responsible investments, especially as they have a mandate to explore new sectors and tackle complex challenges. The World Bank representative exemplified the role of these institutions, highlighting the Memorandum of Understanding signed between the World Bank and the Inter-American Development Bank (IDB). The memorandum has a focus on the Amazon and the bioeconomy. It's aim is to better defining structure of projects and facilitating access to funds, without compromising standards and safeguards, especially in relation to indigenous peoples and local communities.

## 4 Financing the Bioeconomy at the G20 and beyond: Challenges and Opportunities for building a nature positive and equitable bioeconomy

**André Corrêa do Lago**, Secretary for Climate, Energy and Environment at the Ministry of Foreign Affairs, Brazil

**Cristina Reis**, Deputy Secretary of Sustainable Economic Development at the Ministry of Finance, Brazil

**Carina Pimenta**, National Secretary for Bioeconomy at the Ministry of Environment and Climate Change, Brazil

**Rodrigo Rollemberg**, Secretary for Green Economy, Decarbonization and Bioindustry at the Ministry for Development, Industry, Trade and Services, Brazil

**Leandro Pedron**, Director of Thematic Programmes Department at the Ministry of Science, Technology and Innovation, Brazil

**Ben Durham**, Chief Director of Bio-innovation at the Department of Science and Innovation of the Republic of South Africa

**Dame Amelia Fawcett**, Co-chair of the International Advisory Panel on Biodiversity Credits

**Moderator: Marcelo Furtado**, Principal at NatureFinance and Head of Sustainability at Itaúsa

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**Key points:** The panel, including six negotiators of the GIB, highlighted the importance of approving the High-Level Principles (HLP) to advance the global bioeconomy.

### Achievements of the GIB:

**Ministry of Environment and Climate Change:** The bioeconomy strategy needs to clearly outline, nationally and internationally, how to develop the economy from the perspective of the production system; the use of biodiversity; the role of ecosystem services; and as a comprehensive approach, which permeates various sectors. Such discussions were initiated at the G20, and the document on the High-Level Principles (HLP) describes the development pathway of the bioeconomy.

**Ministry of Development, Industry, Trade and Services:** The HLPs need to help intensify international trade and remove trade barriers. The bioeconomy is indispensable for the planet's food, energy and climate security, and due to that, it is important to intensify cooperation and essential to move away from competition to cooperation.

**Ministry of Science, Technology and Innovation:** The continuity of the agenda beyond the science and technology perspective needs to be understood, and is a must that discussions are taken to other forums and ministries. The legacy is the translation of science into approved principles. The first step towards continuity is scientific cooperation, as bottlenecks are the same. Converging in an international forum is a breakthrough as well as sharing the same challenges that need to be overcome in partnership.



**Ministry of Finance:** Important steps forward were to make the bioeconomy, a previously disregarded topic in the G20, a relevant theme within a year, and to establish the 10 principles without summarising them in concepts.

**Ministry of Foreign Affairs:** The negotiation process internally within the Brazilian government was highlighted; civil society organisations and other G20 countries made the bioeconomy a focus theme, culminating in the approval of the HLPs, which will be guidelines for this topic. The next stages will be challenging and strengthen the discussions. Brazil will now work to advance the theme at COP30.

**South Africa's vision:** Highlighted Brazil's positive result in "taking the first step" by bringing a unified approach to the bioeconomy. From now on, the focus will be on supporting South Africa, which already has a defined bioeconomy strategy and sees it as a great opportunity to develop it. The second point is to develop a platform that can encourage bioeconomy interventions from a more global perspective. South Africa knows that developing a good bioeconomy structure cannot be done without taking risks. Climate issues play a big role. We need to recognise that there is a new paradigm and Africa will continue to include the bioeconomy as a prominent theme in the G20.

Among the challenges raised are the need to bring the bioeconomy to scale, tackling logistical problems and developing business models that include traditional communities and Indigenous peoples (often outside the banking and financial system and without access to the internet). There is also a need to train human resources for the sector and to develop transparent and reliable metrics.

In Brazil's case, ongoing public policies in which the bioeconomy is incorporated were highlighted, including the [Ecological Transformation Plan](#) and the proposal for a [Brazilian Sustainable Taxonomy](#). This proposal is currently before Congress and includes the regulation of the carbon market as well as a proposition by the International Tropical Forest Fund, which suggests the payment of a fixed annual amount for each hectare of standing forest, with a discount on the amount to be received for each deforested or degraded hectare.

**On the global biodiversity credit market:** Panellists advocated for the creation of a high-integrity market to finance the bioeconomy and promote nature conservation. The need to integrate finance and the environment, considering both local needs and global objectives, is crucial for developing these markets. It is important to have clear principles, global standards and market regulation to generate confidence and attract investment from the public and private sectors. The demand for biodiversity credits comes from large companies but is conditional on reliable and transparent markets. Thus, it is important to have rigorous standards, a scientific basis, measurability, independent verification and a fair distribution of benefits to guarantee investors the positive impact of the credits.

## 5 Nature Based Solutions and G20's agenda

**Amanda Brasil**, Senior Program Coordinator at Climate Policy Initiative;

**Ana Yang**, Director at the Environment and Society Centre of Chatham House.

**Moderator: Lucca Rizzo**, Climate Finance Specialist at the Institute for Climate and Society (ICS)

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**Key points:** During the panel, the study *Toolbox on Financing Nature-Based Solutions* was launched by the Climate Policy Initiative (CPI) in partnership with the Institute for Climate and Society (ICS). It included inputs and guidance by the G20 Sustainable Finance Working Group.

*Toolbox on Financing Nature-Based Solutions* report analyses 12 cases of financing nature-based solutions and identifies three tools to increase financing: the creation of enabling environments, the involvement of beneficiaries in financing structures and the use of guarantees as risk reduction agents.

Recommendations for countries in the Global South regarding the financing of nature-based solution initiatives were also discussed.

## 6

# End Plenary: What do we need to make a Climate, Nature, and People Positive Global Bioeconomy?

**Ilona Szabó**, Co-Founder and President at Igarapé Institute;

**Juliana Lopes**, Nature and a Society Director at Brazilian Business Council for Sustainable Development;

**Gustavo Martins**, Senior Associate at NatureFinance

**Andrea Álvares**, Leader of the FamaGaia Sociobioeconomia Fund;

**Joana Oliveira**, Executive Secretary of the Pan-Amazon Network for Bioeconomy

**Moderator: Luana Maia**, Global Brazil Lead at NatureFinance

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The panel aimed at presenting a summary of the discussions which were held simultaneously in five workshops in the afternoon.

**a. Promoting an Inclusive and Sustainable Bioeconomy:** The aim was to discuss new approaches to accelerate businesses that are compatible with the standing forest, addressing the challenges and opportunities of promoting nature-based solutions in critical regions. **Rapporteur: Ilona Szabó.**

The workshop highlighted the importance of strengthening the resilience of Amazonian territories, facing the challenge of attracting high-integrity businesses and scaling sustainable solutions that benefit local populations and indigenous and traditional communities. To achieve this, it is essential to align local strategies and policies, ensuring that communities actively participate in the process, from planning to implementation. A crucial element is the coordination between entrepreneurs, investors, public authorities and society organizations. It is a must to overcome fragmentation and ensure that resources flow efficiently and sustainably. The challenges of illegality and informality were also addressed, with emphasis on the need to combat these practices through a more robust regulatory environment and incentive policies that promote compliance. Mitigating financial, operational and territorial risks was seen as an essential element in attracting investment, including the use of innovative instruments such as biodiversity credits. It was stressed that these credits should draw on the experiences of voluntary carbon markets to ensure their high integrity. The creation of “islands of prosperity” – areas where governance, institutional security and social inclusion act as pillars for sustainable development – was suggested as a strategy for creating replicable models in other regions of the Amazon.

**b. Building Recommendations for the National Bioeconomy Development Plan:** The aim was to build recommendations for the plan, which will establish actions and measures for implementing the National Bioeconomy Strategy. **Rapporteur: Juliana Lopes.**

After a talk with members of Brazil's National Bioeconomy Secretariat, the group delved deep into the debate along two axes – financial instruments (public and private) and market instruments. Based on the identification of bottlenecks, proposals for the first axis were: encouraging guaranteed purchases (both by the government and the private sector); linking bioeconomy targets to financial institutions; strengthening and implementing Payment for Environmental Services (PES), improving competitiveness; creating specific credit lines for the bioeconomy

and for associations and cooperatives; redistributing financial resources from non-sustainable to sustainable activities; and creating a guarantee fund for the bioeconomy. Proposals for the second axis, market instruments, included: working from the perspective of each territory, strengthening local cooperatives institutionally (technically and administratively), tackling logistical bottlenecks and systematising data on existing activities and the potential of the bioeconomy.

- c. Climate Finance Overview for Bioeconomy:** The aim was to present an overview of climate financing for the bioeconomy. **Rapporteur: Gustavo Martins.**

The discussion focused on the challenges of financing the bioeconomy in Brazil, especially in ensuring that funding reaches small producers and traditional communities, who face lack technical assistance and difficulties with land regularisation. Territorial governance was a recurring theme, with emphasis on the Rural Environmental Registry (CAR), whose inefficient implementation affects access to credit. At the forefront of discussions was also the topic of inequality in financing different sectors of the bioeconomy. Technological sectors, such as biotechnology, have greater access to resources, meanwhile family farming and forest restoration face challenges. As a solution, participants suggested a more integrated approach, with a greater focus on governance and technical support to ensure that funding reaches most needed projects. Another agreement was the importance of creating new financial mechanisms, such as insurance and guarantees, which cater to the specificities of the bioeconomy.

- d. What we need to finance an equitable bioeconomy:** the proposal was to address practical aspects of creating an equitable bioeconomy. **Rapporteur: Andrea Álvares.**

Discussions started with what equity is and the fact that the current situation, regarding climate urgency and an accelerated loss of biodiversity, is the result of structural asymmetries that come from economic, social and political models that have established the conditions for when capital can be accessed. It was suggested to rethink the logic of maximising return and minimising risk. Proposals also included decentralisation and rethinking the current distribution of resources to those at the top.

*This debate will continue at COP16 in Colombia at an event promoted by NatureFinance.*

- e. Paths to Effective Governance and Financing of the SocioBioeconomy in the Pan-Amazon Region:** developing recommendations for mobilising capital and leveraging specific cooperation and financing strategies. **Rapporteur: Joana Oliveira.**

The discussion was about governance, with a focus on how to foster the bioeconomy for local communities and indigenous peoples. Some takeaways were projects on financing training and communication of these communities, in order to leverage their participation in multilateral spaces. Also, it is a need to make these spaces more inclusive, as well as adapting the language used. About impact metrics, the discussion focused on how design them according to communities realities.

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