




Bioeconomy Pathways

Contributing to the G20 Initiative

May | 2024

SUMMARY

- As part of Brazil's G20 presidency, the nation created the **G20 Initiative on Bioeconomy (GIB)** to spearhead the global bioeconomy agenda. Brazil sees this theme as an **opportunity for inclusive and sustainable development, allowing to create jobs, increase biological productivity and enhance the conservation and restoration of biomes.**
- The **G20 Initiative on Bioeconomy** aspires to anchor aligned high-level principles on the bioeconomy globally.
- The Initiative **is supported by 19 organisations** that promoted the launch event of the study **"The Global Bioeconomy – Preliminary Stocktake of G20 Strategies and Practices: a contribution to the Brazilian G20 Presidency's Global Initiative on Bioeconomy"**.
- The bioeconomy is also part of other G20 initiatives, such as the **Task Force for the Global Mobilization Against Climate Change** and the **Sustainable Finance Working Group**, highlighting the urgent need to include nature and climate topics in global, financial discussions.
- Advancing the bioeconomy requires G20 member countries to **harmonize international legislation, promote technological development, and implement fiscal, tax, and private investment incentives.**
- Perceptions and concepts of the bioeconomy are diverse and vary by country. While **convergence is necessary**, the bioeconomy needs to be implemented in a way that it is **impacting the climate, nature and people positively.**
- **Societies must actively participate** in building solutions. This requires transparent and participatory public policies as well as investment in research, development and capacity building.
- **Equity is essential** — between wealthy countries and those rich in nature but facing structural and budgetary challenges; and at the intranational or subnational level, engaging local communities. Considering the different realities and capabilities of nations, **it is necessary to create rules and incentives** that ensure a fair redistribution of resources



and benefits, especially for traditional peoples, quilombolas (*Afro-Brazilian communities*), indigenous communities and small-scale producers.

- **Specific and practical metrics need to be developed** to assess quality and equity in the global bioeconomy. It is necessary to integrate regulation and standards in the bioeconomy to move forward the climate finance agenda.

- Importantly, not all bioeconomy practices are positive for sustainable growth. As global populations grow and natural resources become increasingly scarce, equity must be an integral part of sustainable development.

This includes access and opportunities, inclusion, a fair distribution of benefits and environmental and social justice. Without equity, the expansion of the bioeconomy risks benefiting some populations at the expense of others, reinforcing conventional economic growth patterns and existing inequalities and leading to biodiversity loss. Therefore, it is crucial to reward the guardians of nature, and especially indigenous and traditional communities.

- **Effective financing** of the bioeconomy is crucial for sustainable development. This requires financial innovation and cooperation among various sectors (industry, services, academia and markets).
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NEXT STEPS

The **Biodiversity COP (COP16)**, to be held in Cali (Colombia) in October, and **other international meetings** are opportunities to integrate the bioeconomy with the climate and biodiversity conservation agendas, and to align financial markets accordingly. The bioeconomy theme will be part of COP30 in Belém (Brazil) in 2025.

High-Level Principles (HLP): It is important to seek to establish engaging high-level principles to guide the global bioeconomy agenda. The HLP should include promoting economic activities that are positive for nature, climate, and people, and guiding countries in the development of action plans. Possible themes to be included are the measurement of the bioeconomy, the role of the bioeconomy in the transition to a sustainable economy, climate-related economic activities (adaptation, mitigation, and low carbon), and the circular economy.

Bioeconomy financing: In **September**, ahead of the fourth meeting of the G20 Initiative on Bioeconomy, civil society organisations will launch a study on how to finance the bioeconomy.

FIGURES

**US\$
4 trillion**

Estimated total value of
the bioeconomy¹



**US\$
30 trillion**

Potential value of the
bioeconomy by 2050²



**19
civil society
organisations,**
including those from the
private sector, academia and
NGOs, are supporting the G20
Initiative on Bioeconomy



1. State of the Global Bioeconomy" do Fórum Mundial de Bioeconomia
2. Henderson Institute (BHI), do Boston Consulting Group

STUDY HIGHLIGHTS G20 COUNTRIES' BIOECONOMY APPROACHES

19 Organisations Back Report Launch at Event in Brazil

The study “The Global Bioeconomy – Preliminary Stocktake of G20 Strategies and Practices” was launched during an event in Brazil on May 6. At the event, 87 people gathered in person and 54 others remotely, representing governments, academia, civil society organisations and financial institutions.

The event was promoted by 19 organisations supporting the G20 Initiative on Bioeconomy. This unprecedented initiative by Brazil during its G20 presidency aims to place the bioeconomy at the centre of the global financial and economic architecture. The country holds the G20 presidency until November when it hands over to South Africa, while transitioning to COP30 in Belém (Brazil).

The survey, conducted by NatureFinance and the Center for Sustainability Studies at the Getulio Vargas Foundation (FGV), gathers various views from G20 member countries on the bioeconomy. It presents ways to promote the bioeconomy under different scenarios, showing examples of how it benefits nature-rich countries and enables the economic valuation of ecosystem services.

It shows that although G20 members have diverse priorities and strategies, there is convergence, in particular, that the bioeconomy should positively impact the climate, nature and people. The preliminary analysis indicates that the G20 countries' approaches are aligned on three themes:

1. Biotechnology (research, development and innovation)
2. Biotechnology (research, development and innovation)
3. Bio-ecology (sustainable development more broadly) .

Five key themes were identified that could serve as the basis for a G20 Initiative on Bioeconomy work programme: :

1. Bioeconomy integration into economic, industrial and green growth plans
2. Livelihoods and equity outcomes and opportunities
3. Bioeconomy-enabling finance
4. Facilitating biotrade
5. Bioeconomy measurement

The full study is available at [NatureFinance](#).

The supporting group for the G20 Initiative on Bioeconomy includes:

Amazon Concertation; Amazon Environmental Research Institute (IPAM); Arapyaú Institute; Brazilian Business Council for Sustainable Development (CEBDS); Brazilian Centre for International Relations (CEBRI); Brazilian Coalition on Climate, Forests and Agriculture; Brazilian Tree Industry (IBÁ); CDP Latin America; Climate Policy Initiative (CPI); Dom Cabral Foundation (FDC); Getulio Vargas Foundation (FGV); Igarapé Institute; Insper Agro Global; Interstate Consortium for the Sustainable Development of the Legal Amazon; Natura & Co; NatureFinance; The Brazilian Federation of Banks (FEBRABAN); The Institute for Climate and Society (ICS); and The Nature Conservancy (TNC).

BELOW FOLLOWS AN EXCERPT WITH COMMENTS BY PANELISTS OF THE EVENT

1 ‘The G20 Initiative on Bioeconomy’

Moderated by André Guimarães, Executive Director of Amazon Environmental Research Institute (IPAM)

Rodrigo Rollemberg, Secretary of Green Economy, Decarbonisation and Bioindustry, Ministry of Development, Industry, Commerce and Services, Brazil

“If we truly want to transform the bioeconomy, we need to think more strategically, involving all stakeholders. We need to lead an initiative that [will become] a binding agreement [to protect] the ecosystem services the forests provide. If deforestation brings global harm, a standing forest offers various ecosystem services, like carbon sequestration — not the largest one — and this should be remunerated. This is a great moment to discuss this [topic] at the G20 Brazilian Presidency and bring it to COP30 in Belém, [Brazil].”

Cristina Reis, Undersecretary of Sustainable Economic Development, Secretary of Economic Policy/Ministry of Finance, Brazil

“The Ministry of Finance has chosen the bioeconomy as one of the axes of the Ecological Transformation Plan, which will guide cultural, financial and technological transformations in the country. [...] In this context, promoting the bioeconomy is an opportunity to create jobs and increase productivity. We need to value economic activities beyond production costs, considering intangible dimensions like conservation and biomes restoration, currently still seen as intangibles.”

Leandro Pedron, Director of Thematic Programmes Department, DEPTE, Ministry of Science, Technology, and Innovation, Brazil

“We can’t understand the bioeconomy solely as economic development. It has to be fair and equitable, adding value and solving local community issues. [...] One of the greatest legacies Brazil can leave for the G20 is how we will work to ensure this truly leads to sustainable development and makes the bioeconomy an opportunity, bringing convergence and synergy among participants.”



2

'The Global Bioeconomy - Preliminary Stocktake of G20 Strategies and Practices'

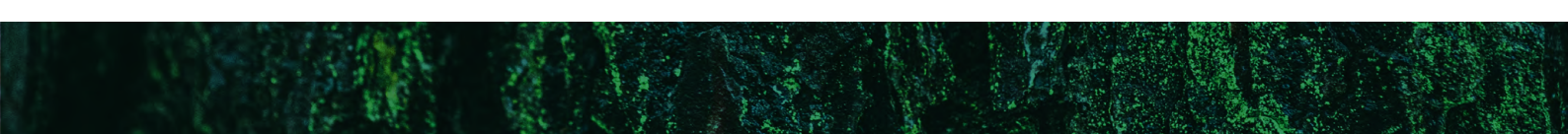
Moderated by Luana Maia, Global Brazil Lead at NatureFinance

Annelise Vendramini, Coordinator of the Sustainable Finance Programme at the Center for Sustainability Studies at the Getulio Vargas Foundation (FGV)

"Generally, the bioeconomy aims to build economic systems, and within those systems, economic subsystems—sustainable product trade, energy product trade, converting biological resources into various materials, chemical, energy. This truly gives an economic dimension to the exploitation of biological and natural resources. The economic importance of natural resources is already clear to many people and regions worldwide. Technologically advanced countries will look at bio-innovation, research and development for biological resources. Nature-rich countries will focus more on bioeconomy knowledge and bring social and cultural challenges to the table. The bioeconomy seeks to organise the economic role of biological and natural resources more cohesively, and the importance of placing people and culture in the way we understand bioeconomy."

Simon Zadek, Co-CEO, NatureFinance

"We need to ensure that all countries, not just Brazil, can think about how the bioeconomy can help solve socio-environmental challenges. [...] The G20 can amplify, accelerate and enforce greater cohesion, less fragmentation, and encourage countries to develop their strategies. We can make progress during Brazil's presidency, but achieving optimal results will take years. It's important that this initiative is led by Brazil, but it is relevant to all countries. It must be relevant to a much larger community."



3 Views on the Bioeconomy'

Moderated by Frederico Machado, Land Use, Food Systems and Sustainable Agriculture Manager, The Institute for Climate and Society (ICS)

Juliana Lopes, Director of Nature and Society, Brazilian Business Council for Sustainable Development (CEBDS)

"If we expect financial institutions to finance the bioeconomy, we need to highlight the risk linked to nature [destruction]. Today, we are focusing on reporting; CEBDS has done extensive work to prepare companies to develop the ability to report on impacts and dependencies related to nature, using the TNFD (Taskforce on Nature-related Financial Disclosures) framework. We have been working to support companies in decision-making and transforming business models to achieve a carbon-neutral economy."

Juliana Simões, Leader of the Bioeconomy Task Force at the Brazilian Coalition on Climate, Forests and Agriculture, and Deputy Manager, Indigenous Peoples and Traditional Communities Strategy at The Nature Conservancy (TNC) Brazil

"We need to build capacity in the Amazon to have more people with master and doctorate degrees focusing on biodiversity. It is important to look at what we already have and create innovation hubs in technology to improve local value chains, local value and knowledge, so that we can have a more equitable economy."

Beatriz Secaf, Sustainability Manager, The Brazilian Federation of Banks (Febraban)

"There is no consensus vision among countries and sectors, no formal definition of the bioeconomy. But when we discuss sustainable development and sustainable finance, and how to direct resources to projects with environmental, climate and social benefits, we necessarily need to talk about the bioeconomy. In general, the topic is cross-cutting a set of policies, one of which is the policy of environmental, climate and social responsibility by [Brazil's] central bank. [And] all financial institutions need to indicate how environmental and climate issues are considered in [their] businesses."

Camila de Sá, Senior Researcher at the Center for Global Agribusiness, Insper Agro Global

"We have the ability to lead the agenda towards the bioeconomy, articulating it with other countries, so that the opportunity costs make it worthwhile to invest in other productions besides sugarcane and soy. In Mato Grosso, for example, there are already plantations of different types of beans, chickpeas and other legumes demanded by India. Through cooperation, we can address demand and create a plan for technical assistance and knowledge for producers."

4

'Views of Embassy/Country Representatives on the Bioeconomy'

Moderated by Melina Risso, Director of Research, Igarapé Institute

Marcelo Morandi, Head of Advisory Service for International Relations, Embrapa

"The challenge is to build a structure, a framework, and from that negotiations will happen; and we will have a clearer idea of where we will work on fair trade, the just transition, and how not to fall into the trap of the bioeconomy being just a predatory model, where some will get richer and others poorer. If we can build a design first, we can take a giant step."

Tatiana Schor, Unit Chief at Amazon Region, Inter-American Development Bank (IDB)

"We have two challenges [regarding the bioeconomy]: [establishing] high-level principles (HLP) and an agenda that makes sense in all countries around the world, which are very different from each other. It is necessary to go down to different scales; it has to make sense for multilateral banks, subnational governments and NGOs. We have principles that give us the pillars of the agenda: economic activity that is positive for nature, climate and people. We don't need to define each country's agenda, but we need to define that these three things come together—nature, climate and people—and one cross-cutting area, which is the circular economy."

Jukka Kantola, Founder and CEO, World BioEconomy Forum

"An important topic is the circular economy; how to use raw materials and resources not just once; how to make resources circular; and incorporate this into the final high-level principles. We cannot exhaust scarce resources, even though in some areas we have abundant resources. We could be more sophisticated in terms of circularity. We can use cascading, processing raw materials, and make intelligent use of the resources. The other topic would be about metrics, how to measure the bioeconomy, because what is measured is executed."

Laurent Javaudin, Counselor for Climate, Energy, Environment and Health at Delegation of the European Union to Brazil

"To quantify the impact of the bioeconomy, a product life-cycle approach is needed, analysing the scalability of a technology and risks linked to intellectual property, including indigenous community knowledge. There is still the risk of greenwashing and the importance of thinking about the bioeconomy in all its complexity, with the lens of CAPEX (capital expenditures)."

Alka Sharma, Senior Adviser, Department of Biotechnology, Ministry of Science and Technology, Government of India

"Biomufacturing can provide alternatives to enhance equity and opportunities for the entire region. It can also improve the circular economy. Another point is the biofuels sector, which can benefit from the advancement of the bioeconomy and, once consolidated, pave the way for new policies and technological progress."

5

‘Closing Remarks’

Moderated by Marcelo Furtado, Principal, NatureFinance, and Head of Sustainability, Itaúsa

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

“Diversity was once considered a threat to the future in Brazil, but today it is a highly valued asset in the world, which is increasingly looking at the bioeconomy. Moreover, science has shown us that it is no use thinking we will find all the solutions by staying within the limits of the climate convention (United Nations Framework Convention on Climate Change). We can do more because we have realised that the financial issue is central and needs to become mainstream.”

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

“The G20 Initiative on Bioeconomy engages significantly with the transition of the bioeconomy, especially on the issue of payments for ecosystem services. The challenge is not to look at one sector or another, but rather at what and how to do with each of them. We are talking about restoration, conservation and biotechnology applied to different industries. Without a more innovative strategy and the recognition of economic values linked to businesses in these areas, it will be difficult to achieve technological leverage and accurate valuation.”

Tatiana Rosito, Ambassador, Secretary of International Affairs, Ministry of Finance, Brazil, and Coordinator of the G20 Finance Track

“In the context of the Ecological Transformation Plan, we are at a point where we do not intend to have a silver bullet but rather seek consensus and gradually work on building measures in various areas, such as sustainable finance and circular economy. There is also the issue of the just transition and the role of climate regulation, which raises the issue of central banks and the channelling of resources. We are exploring new ways to finance nature-based solutions, studying relevant sectoral cases from countries that can shed light on risk-sharing mechanisms—such as blended finance.”

UMA CONCERTAÇÃO PELA
AMAZÔNIA

