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In 2024, the city of Rio de Janeiro served as the G20 Capital, hosting a series of official and unofficial gatherings that drew thousands of stakeholders committed to addressing today's pressing global challenges. These events consistently focused on rethinking finance and the economy, both of which lie at the heart of necessary change. Located in Rio's metropolitan area, our bioregion, the Recôncavo da Guanabara, played an active role in these discussions, allowing us to participate in and convene the Eight Dialogues and TEDxRio Countdown at the Museum of Tomorrow.

From January to October 2024, Sinal do Vale, in collaboration with Movimento Viva Água and numerous other organizations featured in our report, organized the SINAL G20 Dialogues to advocate for regenerative models. This initiative engaged 700 participants, representing a wide array of multi-sectoral organizations, with a focus on those from our bioregion. The Recôncavo da Guanabara, long overlooked despite its rich cultural, historical, and ecological landscape, is finally being acknowledged for its social, economic, and environmental potential.

This endeavor was further supported by key international institutions. The United Nations, through the UN Decade on Ecosystem Restoration, and the German International Cooperation via the Global Gateway/Euroclima, helped connect our work to G20 policy dialogues. Our insights contributed to one of the G20 Think Tank Forum's policy briefings on the Life Economy, emphasizing the alignment of the Recôncavo da Guanabara bioregion's goals with broader regenerative principles.

Our efforts were bolstered by the State and Municipal Government of Rio de Janeiro, particularly the Secretariat of Environment and Sustainability, which not only attended various Dialogues but also provided us the necessary space and legitimacy to engage the government sector. The Museum of Tomorrow, through IDG (Instituto de Gestão), generously hosted two pivotal gatherings: the T20 meeting and TEDx Countdown Rio.

We extend heartfelt gratitude to Sinal do Vale's team, especially Katie Weintraub and Johanna Barba for their support along the SINAL G20 Dialogues as well as long-term partners, including the Boticário Group Foundation for Nature Protection, Beyonders Collective, BMW Foundation Responsible Leaders Network, Network of Human Development (REDEH), ABOCA, ESADE, Quilombo do Bongaba, as well as local allies like REGUA, El Nagual, and Guardiões do Mar. Their support, whether in funding, credibility, participant mobilization, facilitation, or dissemination, was instrumental in advancing this year-long journey.

These dialogues culminated into this report that offers a practical pathway to a regenerative bioeconomy. Together, we hope these collective efforts will influence decision-making across all levels, attracting attention and resources toward overlooked bioregions like the Recôncavo da Guanabara, setting the stage for them to become exemplars of a new collaborative field for regenerative bioeconomy.

Thais Corral
Founder of Biohub Sinal do Vale
and Co-Chair of the Board
of the UN Decade for
Ecosystems Restoration

Thiago Valente Boticário Group Foundation, movimento Viva Água Steward.





### EXECUTIVE SUMMARY

In light of the urgent environmental crisis marked by severe land degradation and the surpassing of planetary boundaries, there is a global call for a radical shift toward regenerative practices that honor local ecosystems and communities. The Recôncavo da Guanabara bioregion exemplifies a "glocal" community dedicated to forging regenerative development models that respect nature and cultural heritage while promoting ecosystem restoration. Since 2019, local initiatives have aimed to inspire new generations of change agents through collaborative efforts at international forums, including the UN Conference on Environment and Development.

Despite progress through frameworks like the Millennium Development Goals, systemic change remains slow, with significant disparities in investment between harmful industries and regenerative practices. The UN Decade on Ecosystem Restoration aims to restore 350 million hectares by 2030, prompting the need for a decentralized bioregional model built on five key enablers: bioregional boundaries, relational frameworks, new financial mechanisms, capacity building, and Biohubs.

Our Theory of Change emphasizes collaboration among local leaders and communities through Biohubs, which act as catalysts for innovative, nature-based solutions that promote food sovereignty, water security, and resilience to climate change. We identified five enabling conditions that must be met to foster lasting change:

#### Scope Initiatives at the Bioregional Level:

Engage deeply with local natural, cultural, and ecological dynamics.

#### **Create Bioregional Funds:**

Establish flexible funding mechanisms to support local regenerative projects.

#### Leverage Biohubs:

Utilize Biohubs to facilitate knowledge sharing and capacity building, preparing change agents for bioregional development.

#### **Relational Frameworks:**

Build inclusive collaborations that draw on diverse perspectives for complementary actions.

#### **Co-create Regenerative Business Models:**

Develop equitable business practices that benefit all value chain participants.

By implementing these conditions, the Recôncavo da Guanabara can transition towards a regenerative bioeconomy, honoring interconnectedness while empowering communities. This ambitious and achievable vision encourages collaborative efforts to reshape our relationship with nature and ensure a flourishing future for all. The call to action is clear: to seize the moment and reimagine our path forward in harmony with the planet and its diverse life forms.



## OUR THEORY OF CHANGE



The framework for Place-based Bioregional Strategies for the Regenerative Bioeconomy consists of four main elements: the bioregion (scale), the Biohub (catalyzer), regenerative business models (engine), and the bioeconomy (vision).

The bioregion serves as the foundational level of intervention in creating a regenerative bioeconomy. It is the socio-ecological context where regenerative systems act upon, the scale and scope of the wider environment. More explicitly, it is defined as a geographical area that has a common ecosystem, typically a watershed system.

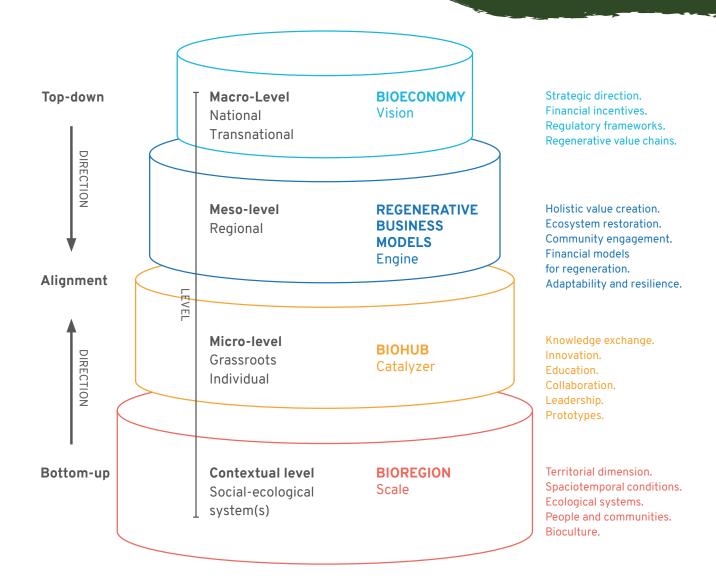
To evolve, the bioregion needs a catalyzer to take action and make changes within it – that is where the essential role of the Biohub comes in. Biohubs are key enablers for a multitude of regenerative initiatives: they restore cultural landscapes, promote agroecological practices, strengthen food sovereignty and water security, establish resilient socioeconomic communities, rehabilitate eroded

landscapes, improve biodiversity, mitigate climate change, and more. Biohubs foster transdisciplinary, multi-level cooperation between actors, stimulating new businesses, improving youth employment, and developing regenerative business models. They also foster knowledge sharing through experiential educational learning journeys, eco-literacy development, and leadership building, preparing future change agents for the expanding field of bioregional development across the globe.

Biohubs play many roles as regenerative catalyzers within the bioregion, but one of the overarching goals is to stimulate and launch regenerative business models. Regenerative business models are the financial engines that help to actualize the larger national/transnational vision of a truly sustainable bioeconomy. Through this framework, we can better strategize multidimensional and impactful change, from our communities to the world.



## Place-based bioregional strategies for the regenerative bioeconomy



Note: The elaboration of this graphic framework was led by Juan Pablo Casadiego G., Ph.D. candidate in business sustainability at Esade Business School, Barcelona. It was developed under the supervision and collaboration of Thais Corral during his doctoral visit at Sinal do Vale and Universidade Federal do Rio de Janeiro, Brazil between January and April 2024. All rights reserved.

The framework for Place-based Bioregional Strategies presents a multi-level approach to regenerative development within the bioeconomy. The bioregion incorporates the territorial scale, encompassing social-ecological systems and cultural values of a specific area. At the micro-level, biohubs act as catalysts for community-led innovation and knowledge exchange, connecting stakeholders and fostering collaboration. Moving to the meso-level, Regenerative Business Models serve as engines for holistic value creation while at the macro-level, bioeconomy strategies provide policy mechanisms and financial incentives that align with national and global sustainable development goals.

## THE G20 AS AN OPPORTUNITY TO INFLUENCE CHANGE

From January to October 2024, Sinal do Vale, in collaboration with Movimento Viva Água and numerous other organizations listed in our report, organized the SINAL G20 Dialogues to champion regenerative frameworks and models. This initiative engaged 700 participants from a diverse array of multi-sectoral organizations, with a particular focus on those from our bioregion. The Recôncavo da Guanabara, long overlooked despite its rich cultural, historical, and ecological landscape, is now gaining visibility for its significant social, economic, and environmental potential.

The G20, or Group of 20, is an international forum that unites the world's 19 largest economies, along with the European Union, to coordinate global economic policies. Formed in 1999, the group was established to address global financial and economic crises by promoting sustainable and stable economic growth worldwide, bridging both developed and developing nations.

Representing around 85% of global GDP, the G20's impact is immense, with member countries including economic giants like the United States, China, Japan, Germany, Brazil, and the European Union as a bloc. Together, they account for roughly 75% of global trade and around 60% of the world's population, underscoring the G20's influence on global economic policies and their impact on the world economy.

The G20's agenda focuses on two main areas: the Finance Track, which deals with economic and financial matters such as monetary policy, financial stability, and market regulation, and the Sherpa Track, which is defined by the presiding government. Brazil selected Bioeconomy as its 2024 Sherpa Track, working toward a unified vision of bioeconomy that advances sustainable

development, social inclusion, and dignified employment while fostering biotechnological innovation and biodiversity conservation. Given Brazil's vast natural resources, the bioeconomy of socio-biodiversity has been a central theme, articulated in a high-level official document that outlines ten principles of bioeconomy.

While the Brazilian government has placed considerable emphasis on the socio-biodiversity bioeconomy, current investment patterns continue to favor agribusiness and monocultures. According to a recent Climate Policy Initiative report, 74% of investments are still channeled into traditional sectors, such as biofuel production and planted forests. Only 9% of investments go toward biodiversity products, 6% toward native forests, and 8% toward family farming. Our Theory of Change proposes a new model to shift this balance, ensuring that financial resources and capacities are directed to local initiatives organized at the bioregional level, helping to create a regenerative and equitable economic future.

There is a difference between a bioeconomy and a SOCIO--bioeconomy! It is important to distinguish between different contexts to enable the change we truly want to see. There is a need for capacity building from an educational and training perspective to shift the values paradigm." - Benno Pokorny, GIZ

# SINAL G20 DIALOGUES: A CALL FOR BUILDING REGENERATIVE AND SUSTAINABLE MODELS

The goal of the SINAL G20 Dialogue series was to share our bioregional framework to foster collaboration for the regenerative bioeconomy. Promoted by Sinal do Vale in partnership with a group of organizations, the objective was to enrich our framework with the perspectives of a diverse group of change agents from the public and business sectors, foundations, NGOs, and community leaders. In addition to creating new connections among these actors and strengthening a regional network in favor of the regenerative bioeconomy, the dialogues also aimed to generate recommendations and strategies to leverage ecosystem restoration and expand the activate new business models, specifically in the region of the Recôncavo da Guanabara as part of the larger bioma of Mata Atlântica.

Eight dialogues were held between January and October 2024, seizing the momentum and opportunity of the G20 in Rio de Janeiro to consolidate and disseminate our theory of change. Here are some of the central guiding questions that guided our discussions: What financial and regulatory mechanisms are necessary for the bioeconomy to incorporate and promote nature-

based solutions? What enabling structures are needed for peripheral communities to become entrepreneurial agents in this new Bioeconomy? What lessons have we learned from Indigenous peoples about living in harmony with nature? What tools can help marginalized and stigmatized territories, such as Baixada Fluminense, to stand out as a new reference for community-based tourism? How to improve infrastructures that are at the same time nature-friendly and resilient to climate?

The SINAL G20 Dialogues and events involved more than 700 stakeholders from companies, state and local governments, media, public ministry, and community organizations such as Quilombos (a rural settlement founded by escaped enslaved people, serving as a community that preserves African cultural traditions and resistance against colonial rule), women's grassroots organizations, farmers' cooperatives, and activists. Each dialogue featured different institutional partners to bring a diversity of opinions and perspectives, enriching our vision and theory of change.



#### Dialogue 1

Inclusion of Periphery Community in partnership with the National Conference of Favelas and Heinrich Boll Stiftung Foundation.

#### Dialogue 2

Women for Climate Leadership in partnership with REDEH and She Changes Climate.

#### Dialogue 3

Indigenous Peoples' Knowledge and Inspiration Ecosystem Regeneration in partnership with Cuidemos Paraísos Foundation Chile.

#### Dialogue 4

Incentives and Challenges for Financing the Regenerative Bioeconomy in partnership with Boticário Group Foundation and BMW Foundation.

#### Dialogue 5

Regenerative Tourism in partnership with The Long Run.

#### Dialogue 6

T20 Mid-term Conference - Regenerative and Inclusive Bioeconomy: Nature-Based Solutions in Guanabara Bay in partnership with Euroclima (GIZ).

#### Dialogue 7

Financial Models for the Atlantic Forest Flagship in partnership with the United Nations Decade on Ecosystem Restoration.

#### Dialogue 8

International Pioneers Meeting - Creating Pathways for a Regenerative Bioeconomy, culminating in a TedX Rio de Janeiro on Nature-Based Solutions in partnership with Euroclima (GIZ) and Beyonders Collective.









### HIGHLIGHTS FROM THE DIALOGUES

### Dialogue 1: Inclusion of Periphery Community

in partnership with the National Conference of Favelas and Heinrich Boll Stiftung Foundation

The National Conference of Favelas represents a national platform that promotes the leadership of Brazil's peripheral communities, bringing to the forefront the perspectives and demands of leaders from these communities and offering insight into the challenges and solutions experienced in these areas. Some recommendations:



The need to implement specific reparative actions for peripheral areas, which have historically been damaged and neglected, aiming both at damage recovery and sustainable development.

The need to recognize and address historical injustices suffered by peripheral communities. This creates a solid foundation for social and environmental justice in the present and future.

The need for Climate Adaptation and Bioeconomy Funds, promoting the bioeconomy using strategies to increase the resilience of vulnerable communities. The inclusion of peripheral communities can be achieved through entrepreneurship, which provides economic opportunities and strengthens local sustainability.

### Dialogue 2: Women for Climate Leadership

in partnership with REDEH and She Changes Climate

REDEH is nationally and internationally recognized for its work in women's inclusion and support for vulnerable communities, with a particular focus on racial justice. She Changes Climate is an international network committed to ensuring that women are active participants in climate leadership and policy-making processes. Some recommendations:

The importance of decentralized, simplified financial mechanisms with accessible language, aligned with the local realities and needs of women leading climate actions in their territories.

The importance of bringing data on the inequalities faced by women, especially those in climate vulnerability, to the forefront of public policy discussions.

Formal socio-environmental education is the most solid path to engaging local communities in bioeconomy initiatives in the medium and long term.

"The bioeconomy is a great opportunity for creating new forms of employment and income that benefit both people and nature. But we must prepare the youth and women to meet this challenge. Today, we have a high representation of women entrepreneurs in the region. However, they need support and strengthening to manage their businesses... to be remunerated for these businesses. And with women, it's much more than just economic and technological. When you benefit a woman, you benefit an entire family. So yes, we must ensure that these women entrepreneurs can manage their businesses and grow."



#### Margarth Kelly,

Regional Coordinator for SEBRAE (Brazilian Service for the Support of Micro and Small Enterprises)



"Since the Earth Summit in 1992, we have insisted on the agenda that the work of caring for life in all its forms, carried out by women, be accounted for in the GDP and that this contribution be part of the nation's wealth. Despite the many studies conducted over the years, public policies continue to fail in consistently and consequentially considering women's contributions. Without this change in approach, the goals of the Sustainable Development Goals (SDGs) and the reduction of social inequalities will not be achieved."

#### Schuma Schumacher,

Executive Coordinator, REDEH (women's rights activist and leader since the 1970s)

#### Dialogue 3: Indigenous Peoples' Knowledge and Inspiration Ecosystem Regeneration

in partnership with with Cuidemos Paraísos Foundation Chile

Fundación Cuidemos Paraísos, representing guardians of the Sacred Mapuche Lands in Southern Chile, presented their work in ecological and cultural preservation and regeneration in the Andean region. This dialogue fostered a rich exchange of experiences between the Andean bioregion and the Atlantic Forest, involving traditional communities from Guanabara Bay, including Quilombola groups and artisanal fishers. Representatives from the Association of Crab Fishers and Friends of the Mangroves of Magé (ACAMM) and the Rede Nós da Guanabara shared how they, artisanal fishers of Guanabara Bay, use traditional techniques to restore mangroves and preserve the biodiversity of mangrove ecosystems. Some recommendations:

We must create bridges between Ancestry and Science, as this combination enriches ecological regeneration strategies, promoting innovative and sustainable solutions.

Understanding nature is essential for learning how to care for it. By tapping into deeply situated ancestral knowledge, we better educate ourselves and learn how to approach nature in diverse ways- incorporating the dimensions of the emotional, spiritual, scientific, and practical.

The event highlighted the importance of showcasing practical examples in which traditional practices have successfully been used to restore ecosystems, such as the restoration practices of Indigenous communities in Chile and the recovery of mangroves in Guanabara Bay. These case studies demonstrate how traditional methods can overcome challenges that conventional institutions once deemed unsolvable.



"We are now going through a healing process of our historical memory as a species, healing ourselves internally, awakening, inhabiting our territories with awareness, and also regenerating trust among us as brothers and sisters. In Quechua, in all our languages, there exists the word friend, family, legal, hei curai, panay, ñañay, everything is family: Mother Earth, Pachamama, Taita, Inti, Father Sun, Taitanina, Father Fire — everything is family with all the realms of nature and among all of us. And we are remembering this because it will help us to see trust again, to understand that what keeps us apart is mistrust, the fear of being hurt, of being betrayed."

Coral Herencia, Fundación Cuidemos Paraísos "Community-based tourism, one of the aspects of the bioeconomy that is growing in our region around the Guanabara Bay, also offers an opportunity for a historical redemption of the long-invisible Afro-descendant population. Quilombos can become a reference for culture and knowledge exchange on how to take care of our ecosystems. In our quilombo, we are a lineage of women who have been caring for this land. Telling this story makes us stronger."

#### Valdirene Couto,

women leader for the Feital Quilombo in Magé, Rio de Janeiro

#### Dialogue 4: Incentives and Challenges for Financing the Regenerative Bioeconomy

in partnership with Boticário Group Foundation

This dialogue aimed to generate recommendations and strategies to leverage financial and regulatory incentives in support of ecosystem restoration and the expansion of the regenerative bioeconomy, specifically in the Atlantic Forest biome. The event included the participation of leaders from the BMW Foundation's Responsible Leadership Network, a global community with over 2,300 leaders in 117 countries, committed to a peaceful, just, and regenerative future. Some recommendations: leadership and policy-making processes. Some recommendations:

The carbon credit market must adapt to the reality of small producers and forest protectors so that it truly becomes a support mechanism for socio-biodiversity and a pillar for the expansion of the bioeconomy. The example of Sinal do Vale's Forests of Tomorrow project proves that small properties can increase forest planting and conservation, generating carbon credits that will benefit the forest's continuity. To achieve this, it is necessary to reconsider the monopoly of international certifiers and, as a recommendation, to develop national certifying agencies with methodologies aligned with the Brazilian reality of family farming and small properties.

Existing financial mechanisms need to be transformed or evolved to reach small producers and local organizations, ensuring that resources are applied within the bioregion rather than predominantly in intermediary organizations responsible for governance and project implementation. This requires training or capacity-building for local actors (for example, in management, cash flow, and monitoring), so that resources are not retained in monitoring and control activities by third parties who are not part of the territory or bioregion where the resources are allocated.

It is essential to increase the connectivity between funders, Biohubs, and local actors in the territory. Innovating in terms of system governance and creating new mechanisms for responsible participation of all directly involved actors is also important for educational purposes.



"Local restoration actions connected through this Biohub structure allow for setting a positive example in large-scale restoration. There is always much discussion about the scale of restoration; however, initiatives begin very locally. Generating these social indicators is very important because restoration is often discussed only in terms of the environmental and biodiversity aspects. Linked to it is the bioeconomy, which is reflected in the number of workers and the income generated from managing these areas – from seed production and collection to nursery production. Regions like this have the potential to look beyond Rio de Janeiro's tourism, urban areas, and beaches, bringing attention to the restoration of the Atlantic Forest and the economic and social potential of restoration."

#### Telmo Borges,

Superintendent Mudança Climáticas, Secretary of Estado do Rio de Janeiro

"Jaime Lerner often speaks about the concept of urban acupuncture, where you need to activate a part of a territory and catalyze transformation from that point. Sinal do Vale and the other Biohubs we see are inspired by this experience to form other points of territorial acupuncture across the state of Rio. This is amazing because we can see that healing begins to happen from these points. Many of them acting in resonance can create the transformation we want to see in the world."



#### Taciana Abreu.

Director of Sustainability, Riachuelo

#### Dialogue 5: Regenerative Tourism

in partnership with The Long Run

This dialogue, in partnership with The Long Run, explored the role of the tourism industry in creating a strong market that supports regenerative development. The Long Run is a global sustainable tourism network that connects nature-based businesses committed to the 4Cs model: Conservation, Community, Culture, and Commerce. Some recommendations:



Global connectivity, similar cultures, and shared time zones can help members of The Long Run deepen the exchange of knowledge, lessons learned, and best practices among hotel teams. This facilitates collaboration and the implementation of effective strategies, allowing them to refine and expand their sustainability efforts more efficiently and in a coordinated manner.

The Latin American region possesses immense biodiversity across its biomes, standing out as a true natural treasure. Biodiversity credits emerge as a unique differentiator with great potential, offering an opportunity to promote biodiversity conservation and appreciation while generating economic and environmental value.

Linking individual tourism efforts to a regional strategy is crucial to strengthen and expand tourism in biomes that are less recognized internationally. This integrated approach helps promote emerging destinations, diversifying tourism options and contributing to a more balanced and sustainable development of the sector.

Joining international public mechanisms, such as the United Nations Decade on Restoration, is essential to highlight the significant role of the private sector in restoration goals and efforts. This engagement demonstrates how private companies can lead in promoting sustainability and ecosystem restoration, aligning their business objectives with global environmental conservation agendas.



"With an eye on our local community, tourism is one solution that reaches for an equilibrium between ecosystem and the bioeconomy. REGUA has been restoring and enhancing natural environments through habitat restoration and wildlife conservation. This benefits the ecosystem, creates employment in local communities, reaches to water security and reinforces the local economy adding value to Natural Capital. Regenerative tourism therefore promotes collaboration between local stakeholders, in an innovative integrated approach with science underpinning REGUA's protection of the Guapiacu watershed. After two decades of continual work, the project attracts visitors from around the world, of all ages to share in its success, fostering a deeper connection with nature and encouraging responsible behavior."

Nicholas Locke, REGUA

#### Dialogue 6: T20 Mid-term Conference Regenerative and Inclusive Bioeconomy: Nature-Based Solutions in Guanabara Bay

in partnership with the Euroclima/GIZ and Museum of Tomorrow

The T20 is a Think Tank Forum that maintains a permanent interaction and dialogue with the G20, offering alternative ideas through policy briefings and suggestions for governmental implementation mechanisms. More than 150 people participated in the official T20 mid-term conference, which took place during the July 2024 G20. The conference included leaders from the bioregion communities, representatives from the state government, businesses, and schools. The program was structured into three panels with speakers from the first five dialogues, facilitated by the teams from Sinal do Vale and Boticário Group Foundation:

Panel 1: Examples of Nature-Based Solutions for Guanabara Bay: This panel highlighted ecosystem restoration and recovery projects in the region, such as REGUA, Guardiões do Mar, and the Caminho do Recôncavo da Guanabara.

Panel 2: Landscape, Culture, and History as Key Enablers of the Regenerative Bioeconomy: In this panel, we reflected upon how analyzing the past can guide our future actions. It features Dr. Philippe Moreira (Pontifícia Universidade Católica), the Secretary of Environment of Magé, Carlos Rios; the manager of Barão de Mauá Park, Arthur Nóbrega; and Vitoria Holz, scientific development analyst at IDG.



**Panel 3:** The Importance of Knowledge: This panel drew upon situated knowledge from those who inhabit the territory of the Recôncavo da Guanabara, focusing on traditional people, marginalized communities, women, and youth groups — emphasizing the importance of local knowledge and lived experiences. With Val Quilombo (Quilombo do Feital), Lennon Medeiros (Visão Coop), Denise Tarin (Public Ministry), Rafael Santos (ACAAM), and Margareth (SEBRAE).

#### Dialogue 7: Financial Models for the Atlantic Forest Flagship

with the United Nations Decade on Ecosystem Restoration and GIZ

The UN Decade on Ecosystem Restoration has identified 17 flagship initiatives that illustrate the breadth and promise of restoration work already underway. Together, the 17 flagships aim to restore more than 60 million hectares – an area roughly equal to the whole of Madagascar or Ukraine – and create more than 13 million jobs. One of those flagships is the Trinational Atlantic Forest Flagship, in which hundreds of organizations active in the Atlantic Forest Pact and the Trinational Network have restored over 700,000 hectares of forest across Paraguay, Argentina and Brazil.

Dialogue 7 was held in partnership with the UN Decade on Ecosystem Restoration, and focused on innovative financing pathways for large-scale restoration projects within the Trinational Atlantic Forest Flagship. The event brought together 30 stakeholders associated with the Flagshipincluding business, finance, government, and conservation sectors – to explore the collaboration of private-sector in restoration initiatives. Discussions addressed the shift from traditional donation-based financing models to revenuegenerating nature-based solutions (NBS) for the regenerative bioeconomy, proposing new financing options for long-term sustainable growth. Through a comprehensive review of governance models, financing mechanisms, and forest restoration business strategies, the Dialogue resulted in a pilot agroforestry project in partnership with the agro firm Courageous Land, aimed at supporting the UN Restoration Flagship and providing a replicable methodology for financing and scaling. This pilot serves as a model for other Flagships, addressing critical funding gaps and promoting long-term restoration. Participants in the dialogue included restoration and agroforestry companies such as Re.Green, BelTerra, and Courageous Land, public sector members (BNDES, Brazil Agroforestry Service), and NGOs with decades of experience in Atlantic Forest restoration (APREMAVI, REGUA, Golden Lion Tamarin Association). Some insights and recommendations for the Atlantic Forest Flagship:

#### Partnership Opportunities | Flagship Solutions

The following set of products and services (i.e. market solutions) could be provided by the Flagship to help restoration businesses overcome key market barriers.

#### KEY BARRIERS TO SCALE

#### MARKET SOLUTIONS THAT COULD BE PROVIDED BY THE FLAGSHIP

### EXAMPLES OF PARTNERSHIP OPPORTUNITIES

Shortage of skilled labour required to deliver restoration activities, especially in remote locations.

Access to a restoration labour force who work across the Flagship's NGO network and have experience delivering restoration projects all over Brazil.

Delivery of training courses and provision of technical training materials to upskill the current and future labour force and promote high-quality restoration methods.

A restoration business contracts the Flagship's NGOs to implement restoration projects on its behalf.

The Flagship establishes restoration schools with a restoration business to develop a long-term supply of labour.

Difficulty accessing land for restoration due to the highly fragmented land ownership of the Atlantic Forest.

Access to a network of landowners who own small to medium areas of degraded land across the Atlantic Forest and are interested in restoration opportunities.

Knowledge of local communities and their socioeconomic needs which can be help to ensure restoration outcomes are sustained in the long-term.

The Flagship engages local landowners on behalf of a restoration business to identify restoration sites.

The Flagship acts as an advisor for a restoration business to ensure project designs align with community needs

Limited supply of native seeds and seedlings to implement agroforestry systems and complete reforastion activities. Provision of seeds and access to nurseries across Brazil which could be used to supply native seeds and seedlings to implement carbon and agroforestry projects.

Support conducting research and development to enhance the productivity and resilience of native species with the Flagship's academic partners. A restoration business signs offtake agreements with the Flagship's nurseries to suppy native seeds and seedings.

A restoration business funds a Flagship research project focused on improving native seedling resilience.





"Having the Atlantic Forest as a flagship of the United Nations Decade on Ecosystem Restoration presents three opportunities. The first is that we can reclaim the leadership role of this crucial biome for South America, addressing the challenge of protecting what remains and restoring what needs to be recovered. The second is that it allows us to exchange experiences with Argentina and Paraguay, enabling them to advance their agendas as well. Finally, creating a trinational governance model can serve as a valuable example for international restoration initiatives in different parts of the world."

Beto Mesquita,

Diretor de Florestas e Políticas Públicas na BVRio

#### Dialogue 8: Creating Pathways for a Regenerative Bioeconomy,

in partnership with Global Solution Strategy Euroclima-GIZ

Dialogue 8 brought together a group of leaders in the field of regeneration. Participants were from Latin America — Peru, Chile, Brazil, Argentina — and from other regions of the world, including England, Germany, the USA, and Italy. Participants shared their direct experiences in catalyzing bioregional regeneration projects, presenting also the journeys of Biohubs at different stages of development, providing valuable insights for a local approach to contributing to regenerative bioeconomy. The first day of the event was dedicated to case studies of Biohubs in Latin America, covering regions from the Andes to Patagonia to the Atlantic Forest.

The second day focused on enabling conditions — financial mechanisms and leadership — for the transition to a regenerative bioeconomy. Various funding structures and models were presented

and discussed, such as blended finance and bioregional funds. The third day concentrated on the bioeconomy itself, with academic and business perspectives as well as case studies. The event was promoted and facilitated by SINAL and the Beyonders Collective, with spiritual support from Coral Herencia of Cuidemos Paraísos. It included participation from Biohubs such as FAI, Accion Andina, Cuidaremos Paraísos, Refugio Glaciare, Santuario do Maipu; as well as other institutions such as Boticário Group Foundation, Presencing Institute, BMW Foundation Responsible Leaders Network, GIZ, Carter Center, RITA, Sistema B, Dinamo, FAMA funding, o Outro Company, and ABOCA.

The event culminated in an event in which we all participated, the TEDx Rio Countdown with the theme of The Economy of Nature Based Solutions at the Museum of Tomorrow, sponsored by Boticario Group and Instituto de Gestão (IDG).



#### Enabling Conditions: Funding Structures

- Blended Finance: Blended finance is a resilient financing strategy that accesses capital from different natures, such as public capital and philanthropy, which combined can attract commercial capital from investors. Using philanthropic dollars as a catalyst to de-risk funding opportunities and innovative business models offers needed support to scale and expand projects to become self-sustaining business models that enable community selfreliance.
- Funding Archetypes: Existing structures for philanthropic funding are outdated and don't prioritize community needs, emergence, or evolving timelines, which is why they are not suited for place-based regeneration. Patient catalytic capital is required that can move at the speed of trust, and be flexible to projects that evolve as needs arise and as timelines change which is inevitable when working on community land use projects. Some models include "flow funds" that trust communities and project owners to allocate the funds as they determine necessary without restrictive reporting requirements, and venture catalyst funding that invests in innovative solutions that are not yet proven.
- Balance in Integration: Careful thought and sensitivity is required to strike a balance between how the private sector and local communities operate at different scales.
   Community and place-based projects require building trust slowly over time, while investors and commercial entities are under pressure from business incentives and structures based on short-term return-on-investment expectations with quarterly reporting. The involvement of the private sector in the field of the bioeconomy requires control and existing mechanisms will need to adapt.
- Economic Resources and Flow of Money: At a
  philosophical level, enabling the bioeconomy
  encourages a mindset shift from viewing
  funding as scarce to understanding it as a
  renewable resource and perceiving financial
  resources as a flow rather than an end goal.



"In order to drive real change, we need to create Bioregional Financial Facilities with efficient governance structures that are truly inclusive to local communities for decision making, and that limit bureaucracy, in order to channel the available funding into local projects. The goal of this funding shoul be self-sustaining, regenerative business models and supply chains."

**Dirk Van Onsem** 

#### Enabling Conditions: Bioeconomy Business Models

A fundamental aspect of the regenerative bioeconomy is the introduction of viable business models that honor principles of regeneration and reciprocity while engaging with the mainstream economy to unlock funding flows. It is important to be mindful of how the bioeconomy is defined. Many industry stakeholders are positioning themselves as part of the bioeconomy even when their value chains and operations continue harmful business-as-usual practices in the agricultural, pharmaceutical, and even tourism sectors. A bioeconomy approach understands the interconnectedness of the bioregion and its inhabitants and recognizes that actions affect all within the bioregion, emphasizing the importance of a collaborative and inclusive approach.

"We are developing tools to increase the visibility of bioeconomy business plans that the investors need to feel safe to deploy capital."

Fred Campos



Even with blended financing to derisk investment and patient and generous funding archetypes that allow for emergence, it is necessary to demonstrate how the project will grow into a self-sustaining business model. Part of defining a business model is demonstrating the inherent value proposition.

"The critical point is that we need to demonstrate that a bioeconomy is the best solution at all levels, beyond social & environmental layers, comprehensively."

Massimo Mercati



#### Enabling Conditions: Governance & Policy

"There is no way to scale without the power of policy-making."

Marcel Fukayama

Setting the enabling conditions for the bioeconomy includes identifying policies, physical infrastructure, and other elements necessary for successful collaboration and conservation efforts. Current economic systems and policies often erase cultural histories and practices, sometimes leading to superficial greenwashing. Although policies around bioeconomy and sustainability may be well-written, they need to be implemented at multiple levels (government, community, business) to have a real impact and explore how they can support the activation of leadership in various territories.

#### Key takeaways:

- Consider the regional disparities that arise if policies designed for densely populated urban areas are applied to the very different realities of rural and wilderness regions.
- Trade is critical to stimulate the bioeconomy. Investigate and transform international trade policies.
- Capacity building is necessary for effective policy-making and implementation. Companies only respond to regulations and need clear guidance as well as enforcement mechanisms for lasting success.

Photo: Suzana Tierie

#### RECOMMENDATIONS AND TAKEAWAYS

The eight SINAL G20 Dialogues summarized in this report consulted over 700 people, including the two events, T20 Forum and TEDX Rio Countdown, integrating learnings from multiple bioregional projects around the globe, alongside insights from government, institutional, and academic experts. Based on these dialogues, we believe our Theory of Change provides an ambitious, yet feasible, pathway to a regenerative bioeconomy.

Biohubs act as collaborative spaces where local leaders and communities cultivate nature-based solutions, fostering innovation and ecological engagement. Grounded in specific bioregions, these hubs emphasize the importance of understanding local natural, cultural, and socioeconomic dynamics, playing a vital role in advancing the regenerative bioeconomy by addressing climate change and resource scarcity while prioritizing local values.

We identified five enabling conditions that, when fulfilled, significantly enhance the potential for meaningful and lasting change. These recommendations target policymakers, project leaders, Biohub stakeholders, and anyone committed to fostering a regenerative bioeconomy to tackle the challenges facing our planet today.

- The bioregional level is an ideal scope for launching regenerative initiatives, harnessing its sufficient size and scale, while simultaneously engaging with its natural boundaries, cultural identities, and ecological dynamics.
- Build inclusive relational frameworks that foster collaborations based on trust. To coordinate action at the bioregional level, we need to implement relational frameworks that embrace diverse worldviews and leverage varied knowledge and experiences for

- complementary action. By collaboratively defining the landscape and regeneration vision with all key stakeholders, we can efficiently articulate, secure, and allocate resources. This will be achieved through proactive facilitation of multisectoral dialogues that foster shared understanding and collaboration.
- 3. Create bioregional funds with supporting Financing Facilities. To drive impactful change, it is essential to establish financing mechanisms that unlock significant financial resources for local projects in a coordinated, efficient, and transparent manner. We urge the creation of bioregional funds equipped with clear yet flexible governance and reporting structures. These funds will attract a diverse array of local and global funders through a blended finance model, empowering bioregional governance structures to deploy resources effectively and in alignment with the bioregional regeneration vision.
- 4. Co-create regenerative business models that benefit the whole value chain. Local communities and supporting actors must leverage deep local insights to create business models that are planet-friendly and equitable for all participants in the value chain. The emphasis should be on developing products that align with restoration, preservation, or regeneration efforts. By integrating carbon credits, biodiversity credits, and revenue from product sales, these models can achieve profitability that supports sustainable





5. Leverage Biohubs as catalysts for regeneration and resource allocation. Stakeholders are encouraged to support the establishment and enhancement of Biohubs as key enablers of regenerative agroecological practices. These hubs should focus on restoring cultural landscapes to strengthen food sovereignty, water security, and resilience against climate change, while promoting innovative business initiatives and job creation in the bioeconomy. Additionally, facilitating knowledge sharing and biolearning through diverse educational programs - ranging from eco-literacy journeys to leadership immersion – will prepare change agents for the evolving field of bioregional development globally.

margins throughout the value chain.

#### In conclusion

Together, we stand on the brink of a transformative movement that redefines our relationship with the planet and each other. By activating these five enabling conditions, we can forge a regenerative bioeconomy that not only addresses the pressing challenges of our time but also uplifts communities and celebrates the rich tapestry of diverse cultures and ecosystems. Let us inspire collaboration, ignite innovation, and nurture a shared vision of resilience and prosperity – a vision where every individual and community has a role in stewarding our natural heritage. As we unite in this endeavor, we can create a thriving future that honors the interconnectedness of life, empowers all voices, and ensures that we not only coexist with nature but become its most dedicated allies. The time for action is now, and together, we can shape a world where both people and the planet flourish harmoniously.

#### KEY BIOREGIONAL PLAYERS

This year's efforts resulting in this report, were undertaken by key bioregional players at the Recôncavo da Guanabara: Sinal do Vale, Movimento Viva Água, GIZ, SEAS and Beyonders Collective.

The UN Decade on Ecosystem Restoration serves as a key platform that validates and supports our Theory of Change. This global initiative, focused on preventing, halting, and reversing ecosystem degradation, aligns closely with our commitment to regenerative models and provides a framework that reinforces our approach to fostering resilient, place-based economies. Through this alignment, our work gains additional legitimacy and visibility, highlighting the essential role of bioregional efforts in achieving the UN's broader goals for ecological restoration and sustainable development.

Movimento Viva Água: Catalyzing the Regenerative Bioeconomy in Guanabara Bay

Despite its socio-environmental challenges, Guanabara Bay holds latent potential to become a model of regenerative bioeconomy. Its rich biodiversity and vibrant culture, along with the presence of traditional communities and innovative entrepreneurs, create the ideal setting for the emergence of a new economic model—one that is fairer and more in harmony with nature. Within this context, the Movimento Viva Água Baía de connecting stakeholders and driving solutions to address the region's challenges.

#### **Collaborative Governance:** The Driving Force of Change

Recognizing that the complexity of socioenvironmental challenges requires integrated and participatory solutions, MVAG adopts collaborative governance as one of its pillars. This approach brings together various stakeholders — from local communities and civil society organizations to companies, government agencies, and research institutions – in a space for dialogue and joint action, aiming to:

- Build Inclusive Public Policies: MVAG works. together with the public sector to influence the creation of public policies that promote the regenerative bioeconomy, such as specific lines of credit, clear regulatory frameworks, and programs to foster innovation and entrepreneurship.
- → Strengthen Sustainable Value Chains: By connecting different links in the value chains, MVAG promotes the development of innovative and sustainable businesses. An example is the strengthening of community-based tourism, which values local culture, generates income for traditional communities, and contributes to biodiversity conservation.
- MVAG fosters scientific research, the exchange of traditional knowledge, and the creation of innovative solutions through research and development projects involving universities, companies, and communities.





Concrete Results and Scaled Impact

Through its collaborative efforts, MVAG has achieved significant results:

- Creation of the Viva Água Philanthropic Fund: An innovative financial mechanism that raises and allocates resources for environmental restoration and conservation projects, driving the regenerative bioeconomy forward.
- Strengthening of Biohubs: MVAG supports the development of Biohubs in the region, such as Sinal do Vale, which serve as centers for innovation, education, and stakeholder collaboration in support of the bioeconomy.
- Engagement in Global Networks: MVAG
   collaborates with international organizations
   and initiatives, such as the UN Decade on
   Ecosystem Restoration and the G20, to
   strengthen the regenerative bioeconomy and
   promote knowledge exchange and international
   cooperation.

Looking to the Future: Scaling and Replicability

MVAG recognizes that building a regenerative future for Guanabara Bay depends on our ability to scale solutions and replicate the collaborative governance model in other regions. Active participation in global networks, seeking new investments, and ongoing dialogue with diverse stakeholders are essential for making the regenerative bioeconomy a large-scale reality.

Located in the Guanabara Bay bioregion within the endangered Atlantic Forest, just 50 km from the heart of Rio de Janeiro, Sinal do Vale has pioneered over the last 13 years a place-based model for building a sustainable future for people and nature. By purchasing and regenerating 200 hectares of land, SINAL has created a Bio-hub that prototypes and develops practical solutions aimed at regenerating both social and natural ecosystems. SINAL tests and teaches solutions around regenerative agriculture, forest restoration. local gastronomy, art, culture, bio construction, and resilient infrastructure. As an integral learning center, SINAL trains and builds the capacity for young leaders from around the world and across Brazil to be agents of change.

Through local examples, SINAL sparks global change by offering immersive experiences, hosting events, and organizing educational programs for individuals and organizations from around the world on their path to transformation. Sinal do Vale's mission is to regenerate natural ecosystems, build resilient communities, revive cultural landscapes, and empower people to activate their agency and capacity to contribute to a more sustainable world. Sinal do Vale has been recognized as an Advanced Biosphere Post by UNESCO, a Global Ecosphere Retreat from the Long Run, part of the Mata Atlantica Flagship of the UN Decade for Ecosystem Restoration, and a council member of a nearby protected area, the stategoverned Wildlife Refuge Serra da Estrela.

#### History

Thais Corral, a visionary social innovator and ecological activist, has dedicated nearly four decades to advancing sustainable development, women's leadership, and climate action across Brazil and internationally, pioneering models in which ecosystems and the livelihoods of people are at the center.

As a key figure at the Earth Summit of 1992, she co-founded the Women's Environment and Development Organization (WEDO) with Nobel laureate Wangari Maathai and U.S. Congresswoman Bella Abzug and many other pioneers, establishing one of the most successful global advocacy organizations focused on women's sustainable livelihoods and ecosystem restoration.

In 2011, after twenty-five years of international advocacy and developing national initiatives across Brazil, Thais realized that achieving global sustainability goals, such as the UN's Sustainable Development Goals (SDGs) and the restoration of 2 billion hectares of degraded ecosystems by 2030, required a localized, place-based approach in which the relationship and people's agency was at the core. This led her to establish Sinal do Vale, in which she and like-minded partners began buying land in the endangered Atlantic Forest to protect and restore nature. Believing in the importance of hands-on learning for the next generation of leaders in sustainable development, Thais made Sinal do Vale a space where young people could gain practical experience and grow into change agents committed to sustainability in their communities. What started as a small agroecological farm and living laboratory of experiments has grown into a 200-hectare Atlantic Forest reserve, a learning campus for climate action change agents, and a bio-hub that incubates and scales regenerative enterprises for the bioeconomy. SINAL has consolidated the following principal initiatives:

Change Agents: With regeneration through learning at the heart of its methodology and its core mission, SINAL is a campus for change agents where emerging leaders and young entrepreneurs learn through practical experiences how to expand their capacity for transformation in their communities. With a core curriculum of responsible leadership and experiential learning through SINAL's prototypes and local projects, the portfolio of services includes customized learning journeys, internships, a resident inhouse program, and specific courses.

<u>Forests of Tomorrow</u>: restoration of native Atlantic forest on SINAL's property; planting over 50,000 trees using various restoration techniques.

Madre Frutos: a social impact, women-led business that processes and commercializes green jackfruit, extracted from the Atlantic Forest, as a sustainable meat substitute. Madre Frutos provides employment and professional training for 10 local women and young men as jackfruit collectors, processors, and business managers. Many of the women hired by Madre Frutos are single mothers. The project generates income for local farmers, promotes food security for low-income communities, and increases knowledge around sustainable plant-based nutrition through jackfruit processing and culinary practices.

Guanabara Bay Trail: Since 2022, SINAL has begun to expand its actions outside of its 200 hectares of property and co-create solutions with other local actors throughout its bioregion with its flagship project, the Guanabara Bay Trail (Caminho do Recôncavo da Guanabara). A 110 km community-based agro-ecotourism trail has become its principal strategy for catalysing bioeconomic development in the region, starting by getting to know the needs and opportunities of the bioregion and building relationships with local communities, governments and key players. The trail connects three restoration hubs (Sinal do Vale, REGUA, El Nagual), passes through five municipalities and eleven protected areas and seeks to foster



inclusive forest landscape restoration, local food security, productive supply chains, and community-based entrepreneurship for sustainable economic development across the region. Beyond spectacular natural beauty, the trail is rich in cultural and historical heritage, as the region (known as the Recôncavo in the 18th and 19th centuries) was once a place of economic and social dynamism, with abundant navigation and ports in the region's rivers.



#### **EUROCLIMA-GIZ**

Euroclima is the regional cooperation programme that fosters the strategic partnership between the European Union and Latin America and the Caribbean, based on shared values and a commitment to jointly address climate change and biodiversity loss. It is a platform for the exchange of ideas and experiences between countries in the region and with the European Union.

It is co-funded by the European Union and the German Federal Government through the Federal Ministry for Economic Cooperation and Development (BMZ). It seeks to contribute to sustainable, resilient and inclusive transition through climate mitigation and adaptation efforts, including protection, restoration, biodiversity conservation and the promotion of the circular economy.

Euroclima is part of the renewed Agenda for Relations between the EU and Latin America and the Caribbean and is part of the Global Gateway strategy that promotes investments and financing in relevant sectors, as well as the use of other instruments of the EU and its Member States to achieve more sustainable, just and interconnected societies.

It is implemented under the spirit of Team Europe, through the synergic work of eight agencies: Spanish Agency for International Development Cooperation (AECID), AFD Group: Agence Française de Développement (AFD)/Expertise France (EF), Economic Commission for Latin America and the Caribbean (ECLAC), Fundación Internacional y para Iberoamérica de Administración y Políticas Públicas (FIIAPP), Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, the UN Environment Programme (UNEP) and the United Nations Development Programme (UNDP).

#### **BEYONDERS COLLECTIVE**

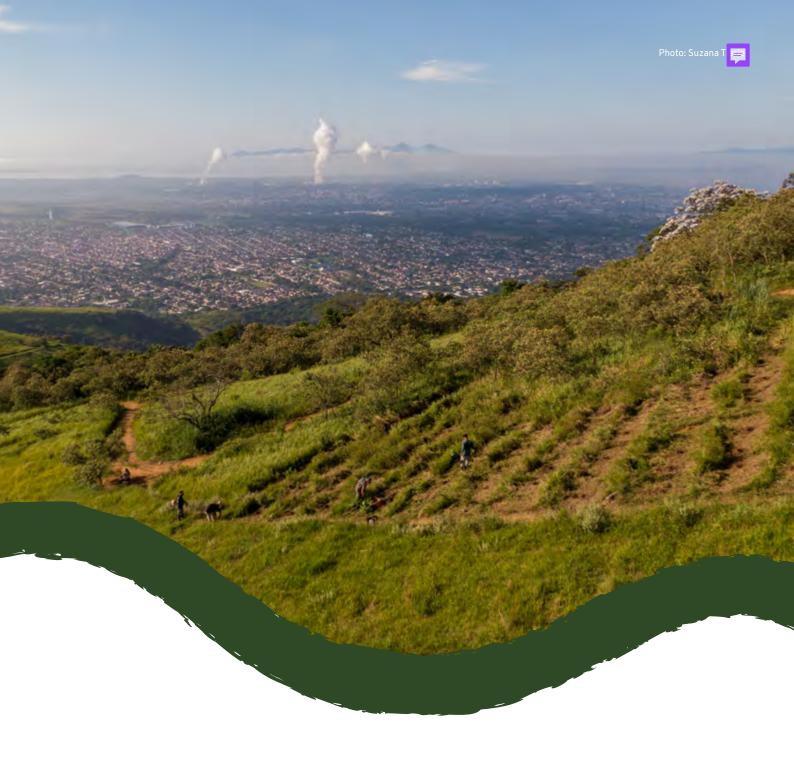
As a Catalyst for Regeneration, Beyonders
Collective is partnering with Biohubs and other
regeneration projects to drive impactful change.
Their focus includes Leadership Coaching, Visioning
and Strategy development, and transforming
initiatives into Regenerative Business Models. They
also assist in establishing bioregional financing
funds and facilitate regenerative gatherings,
fostering a movement toward a more beautiful
world our hearts know is possible. Through these
efforts, Beyonders Collective enhances local
resources and capacity, while nurturing a learning
community that amplifies the effectiveness of
Biohubs and similar projects.

In these dialogues, Beyonders Collective played a crucial role in supporting Sinal do Vale during the initial design phase of their year-long journey. They helped define meeting themes and topics, facilitated the 8th dialogue at Sinal do Vale, and contributed to the synthesis and creation of this report.

# LIST OF INSTITUTIONS THAT PARTICIPATED IN THE 8 DIALOGUES

- Aboca
- A Boscov Consultoria
- Action Shop
- Águas do Rio
- AMB Baixada
- Associação de Caranguejeiros e Amigos do Mangue de Magé (ACAMM)
- ASA (Instituto de Ação Socio Ambiental)
- Balloon Latam
- Beyonders Collective
- BNDES
- Boticário Group Foundation
- Caiman Ecological Refuge
- Caminho do Recôncavo da Guanabara
- Carter Center
- Euroclima GIZ
- Fazenda dos Cordeiros
- Courageous Land
- Cristalino Lodge
- Design Educação/PUC-Rio
- Din4mo
- Ecovila El Nagual
- Elos Consultoria
- Estancia Pampa Grande
- ESADE Business School
- Grupo SOMA
- FIRJAN
- Fundo FAMAGaia Sociobioeconomia
- FUNBIO
- Fundación Agroecológica Iguazú
- Fundación Cuidemos Paraísos
- Fundação Grupo Boticário
- Fundo Elas
- Glocal Minds
- Global Forest Generation
- Grupo Nossas
- Guardiões do Mar
- Huilo Huilo Reserva Biológica
- Ibiti Projeto
- IDG (Instituto de Gestão)
- IIS (Instituto Internacional de Sustentabilidade)
- Instituto Clima e Sociedade
- Instituto Equit + Rebrip + G20
- Instituto EVA
- Instituto Rio Verde
- Invok People and Purpose

- La Fawê Negócio de Impacto
- Lutando pela vida
- Mão na Jaca
- Manguezal Fluminense
- Ministério Público
- Movimento da Economia Solidária
- NATIVA
- O Canto Group (Pousada Trijunção)
- Orion
- Outro Company
- Planeta PontoCom
- Presencing Institute
- Pro Mudas
- LABE/PUC
- Pousada Trijunção
- Quilombo do Bongaba/Ilê Ase Ogun Alakoro
- Quilombo do Feital
- REDEH (Rede de Desenvolvimento Humano)
- Refúgio de Glaciares
- Reserva Ecológica de Guapiaçu
- Santuario del Maipo
- SEAS (Secretaria de Meio Ambiente e Sustentabilidade do Rio de Janeiro)
- SEBRAE
- Secretaria Municipal de Saúde Cachoeiras de Macacu
- Secretaria Municipal de Meio Ambiente de Magé
- Secretaria Municipal de Turismo de Magé
- Senderos
- Sistema B
- Siringual
- She Changes Climate
- Technoarte
- The Long Run
- TRE Investimentos
- UFRJ
- We Are Nature
- Visão Coop
- Wilson Sons
- WWF
- Zebu



#### Realização



















