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A Shared Commitment to Our Planet

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The Role of Brazilian Federal Protected Areas in Advancing Inclusive Ecological Restoration

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Alexandre Bonesso Sampaio

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Concept Note

I. Background

Large-scale ecological restoration is widely recognized as a global challenge. It is incorporated into international conventions and supported by Brazilian legislation, as well as by the commitments undertaken by the country. During the 13th Conference of the Parties to the Convention on Biological Diversity, held in 2016, Brazil joined the Bonn Challenge, committing to restore, reforest, and induce the natural regeneration of 12 million hectares of forests by 2030, with multiple uses. Additionally, the country set a target to implement 5 million hectares of integrated agricultural systems and recover, by 2020, another 5 million hectares of degraded pastures. Ecological restoration is a nature based solution to combat the intertwined climate and biodiversity crises by facilitating the large-scale recovery of degraded ecosystems. This strategy aims to reinstate ecological integrity and stability, acknowledging that full replication of historical ecosystems is often unattainable but emphasizing the restoration of biological viability and resilience.

The urgency of this commitment is reinforced by the data presented in the Global Assessment Report on Biodiversity and Ecosystem Services, published in 2019 by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. The document gathers evidence that global biodiversity continues in sharp decline, caused by human pressures that alter ecosystems on an unprecedented scale. It is estimated that about 25% of evaluated species are threatened with extinction, which is equivalent to approximately one million species at risk in the coming decades. This scenario could worsen unless effective actions are taken to reduce the causes of biodiversity loss.

The Kunming-Montreal Global Biodiversity Framework was conceived as a response to the alarming scenario of global biodiversity loss. Based on the Strategic Plan for Biodiversity 2011–2020, the new Framework proposes a profound transformation in societies' relationship with biodiversity by 2030, in line with the 2030 Agenda and its Sustainable Development Goals. Its long-term objective is to ensure that, by 2050, the shared vision of living in harmony with nature is achieved. For this, 23 global targets were defined, with immediate commencement and scheduled completion by 2030, whose results should enable the realization of the objectives established for 2050. In this context, the effective implementation of these targets demands coordinated actions, aligned with the Convention on Biological Diversity and its Protocols, as well as with other international obligations, respecting the priorities and socioeconomic conditions of each country. This project directly aligns with Targets 2 and 4 of the Global Framework: Target 2 deals with the effective restoration of 30% of degraded areas, aiming at improving biodiversity and ecosystem services; Target 4 foresees urgent actions to halt species extinction and promote intraspecific and interspecific genetic diversity.

It is also highlighted that the preliminary version of the new Strategy and Action Plan for Biodiversity assigns ICMBio the leadership in formulating a national rewilding program, focusing on pollinator and seed-dispersing species, in conjunction with IBAMA and MMA.

Brazilian targets for ecological restoration and climate change mitigation are primarily based on the environmental liability existing in rural properties, as established by Law No. 12,651, of May 25, 2012 — known as the Native Vegetation Protection Law. However, there are also vast degraded areas under public domain. Federal Protected Areas (FPA), which host the largest remnants of native vegetation in all Brazilian biomes, have significantly degraded portions within their boundaries. Although they represent a relatively small percentage — about 1.6% of the total area of FPA under public domain — these areas total over 900,000 hectares.

Many of these areas were already degraded at the time of the creation of the FPA, incorporated with the explicit purpose of being restored. Others, however, were impacted by illegal anthropogenic activities, such as selective logging, mining, deforestation, and fires. Given this reality, the National Plan for the Recovery of Native Vegetation includes, among its four implementation arrangements, the restoration of public areas, with specific strategies aimed at these territories.

In the field of biological conservation, two classic approaches stand out: the protection of natural spaces and the conservation of species. Both reflect a compositionalist view. While some species are protected throughout their entire range, all of them, in theory, are covered in specially protected natural areas. The first approach operates at the population level; the second focuses on preserving the species composition within protected territories. Although these strategies are fundamental to preventing extinctions, alone they are not sufficient to meet the need to also restore ecological interactions and functional processes of ecosystems.

It is in this context that rewilding emerges as a complementary approach to ecological restoration. Known internationally as rewilding, this strategy originated with a focus on the

reintroduction of large vertebrates absent from current ecosystems or, in cases of extinction, the introduction of ecologically analogous species. Ideas such as the restoration of ecosystems with Pleistocene characteristics generated debates about their ecological and ethical viability. With conceptual maturation, however, rewilding began to prioritize the recomposition of lost ecological functions — with emphasis on processes such as predation, herbivory, and seed dispersal — affected by factors such as habitat fragmentation and defaunation. Thus, the focus shifts from mere species composition to the restoration of processes that ensure the functioning and resilience of ecosystems.

FPA offers a strategic opportunity to boost the results of ecological restoration. Being legally protected and institutionally managed territories, these areas present favorable conditions for the reestablishment of native vegetation. Degraded portions inserted in conserved matrices tend to have a greater capacity for natural regeneration. Furthermore, the continuity of public management and the institutional commitment to territorial integrity ensure the stability and persistence of restorative actions. Initiatives in FPA can also play a pedagogical and demonstrative role, serving as a reference for good regional practices. When integrated with social and productive strategies, these actions can promote social inclusion, strengthen socio-biodiversity chains, generate sustainable income, value traditional knowledge, and foster articulation between territories, institutions, and people. This articulated and multifunctional approach is what we call inclusive restoration.

II. Objectives

This event will showcase ICMBio's work on the ecological restoration agenda as a strategy for climate change mitigation and adaptation, considering the promotion of multiple environmental, social, and economic benefits, based on the National Plan for Native Vegetation Recovery. We will present our strategies and proposals to scale up ecological restoration within federal conservation units and in critical habitats for species conservation. ICMBio's efforts through ecological restoration actions aim to integrate strategies and achieve the goals of the National Policy on Climate Change and the National Strategy and Action Plans for Biodiversity. Coupled with biodiversity conservation, we will present an inclusive ecological restoration strategy that promotes societal engagement and sustainable income generation through the socio-productive chain of restoration.

III. Programme/Schedules of Events/Speakers

Proposed Panel schedule

Lectures, 20 minutes each:

- *Success stories in ecological restoration in federal Conservation Units – Ronald Martins CBC/ICMBio*
- *Social inclusion through the engagement of traditional peoples and communities and indigenous peoples – Mário Neto CBC/ICMBio*
- *Degraded areas database, regulatory framework, and financing strategies – Alexandre Sampaio CBC/ICMBio*
- *Forest restoration and fauna conservation: connections, potential, and challenges – Leandro Jerusalinsky CPB/ICMBio*

A 40-minute debate ensued, with attendees present.

IV. Expected main messages

- *Investing in restoration within Protected Areas, as a nature-based solution for climate change mitigation and adaptation, maximizes co-benefits such as enhanced biodiversity, improved ecosystem services, and increased carbon sequestration, simultaneously addressing multiple environmental challenges. The strategic importance of Protected Areas for ecological restoration is further amplified by their role as refugia for endangered species, offering critical nuclei for population recovery and genetic exchange within fragmented landscapes.*
- *Beyond their direct ecological benefits, Protected Areas also serve as vital laboratories for refining restoration techniques and understanding long-term ecological processes, thereby informing broader conservation strategies.*
- *Local communities engagement improves the success of restoration initiatives by ensuring that projects are culturally appropriate, economically viable, and sustainably managed over the long term, thereby fostering local stewardship and reducing potential conflicts.*

V. Focal Point/Contact

Alexandre Bonesso Sampaio, Coordinator, Centro Nacional de Pesquisa e Conservação em Biodiversidade e Restauração Ecológica/Instituto Chico Mendes de Conservação da Biodiversidade.

Cellphone: +55-61-996669411

E-mail: alexandre.sampaio@icmbio.gov.br