

BIODIVERSITY: THE OPPORTUNITIES IN ITS ECONOMIC AND SUSTAINABLE USE

- *Brazil holds the greatest biological diversity in the world – it accounts for about 20% of all land and water species on the planet.*
- *The challenge is to convert this potential wealth into actual wealth through innovative and environmentally sustainable solutions.*
- *To increase investment in biodiversity in Brazil, there are three interrelated axes around which policies, strategies and actions should be pursued: innovation ecosystems, value adding, and legal and operational certainty.*

Brazil is a megadiverse country. This represents a potential wealth to be explored by industry that can have a positive impact on Brazil's economic and social growth. It is a comparative advantage that needs to be harnessed in order to become a competitive advantage.

Since the Convention on Biological Diversity, signed during the Rio 92 summit, biodiversity has been treated as "heritage" which constitutes a conceptual shift with economic, social, and legal implications.

After years with a regulatory framework involving transaction costs considered high by most stakeholders and with low legal certainty, Brazil adopted Law 13,123 in 2015. The new regulatory framework covers access to the genetic heritage and associated traditional knowledge, including its use for commercial purposes, and the sharing of benefits arising from such access.

Promoting sustainable use of biodiversity is one of the most relevant fronts of bioeconomics. Its value for industry can be assessed from two perspectives:

- The perspective of the known biodiversity, which constitutes the economic base of several sectors, such as of the agro-industrial sector and of segments of the pharmaceutical and cosmetics industry; and

- The perspective of the new use of biodiversity, which will provide the basis for new business models.

This document addresses the second perspective: that of turning potential wealth into productive wealth. Developing biodiversity-related goods and services of potential value is a frontier that Brazil should explore.

This is a natural path for a country with the greatest biodiversity in the world, harboring about 20% of all land and water species on the planet.

Regardless of any differences, just like mineral resources constitute territorial wealth, biodiversity is now seen as such under Brazil's new legal framework.

The last years were dedicated to building a legal framework in Brazil. The next step is to define policies to ensure the sustainable use of biodiversity under this framework, which is complemented by international regulations such as the Nagoya Protocol.

The absence of policies and strategies in place to ensure the sustainable use of biodiversity means to neglect opportunities for generating and appropriating highly valuable assets. New bio-based products will emerge, whether specialty products - often with associated services such as pharmaceuticals, cosmetics and chemicals – or new commodities.

SUMMARY OF CRITICAL FACTORS RAISED BY COMPANIES FOR INVESTING IN BIODIVERSITY

Regulatory Factors	Economic Factors	Systemic Factors
<ul style="list-style-type: none"> • Alignment of public and private stakeholders • Training of stakeholders in regard to the regulatory framework • Bridge gaps in the regulatory framework • Alignment with the international framework (Nagoya) 	<ul style="list-style-type: none"> • Suitable financing framework (credit, risk, subsidies) • Taxation model • Favorable relative prices for Brazilian biodiversity supplies • Organization of value chains 	<ul style="list-style-type: none"> • Innovation ecosystem • Accessible valuation methods • Database on Brazilian biodiversity and traditional knowledge

Source: CNI.

The time is right. There is strong evidence that industrial companies operating in a wide range of sectors are becoming increasingly interested in stepping up investment in biodiversity.

Industry's recommendations for promoting investment in biodiversity are based on three axes, which should be developed simultaneously:

- **Innovation ecosystems:** production of knowledge and of conditions for using this knowledge for developing bio-based goods.
- **Value-adding and appropriation:** productive development, by industries, of biodiversity-based goods in segments such as those of food, pharmaceuticals, cosmetics, home care, and energy among others.
- **Legal and operational certainty:** improvement of the legal and infralegal framework with the aim of offering favorable conditions for productive investment.

Main recommendations

1 Financing lines and instrument should be developed and foster venture capital for projects that promote the sustainable use of biodiversity.

2 R&D should be fostered at the various stages of development of new goods and services based on biodiversity resources.

3 The Brazilian Biodiversity brand should be created and strengthened.

4 Standardization and guiding documents should be prepared for companies and Scientific and Technological Research Institutions (STRIs) aiming to disseminate guidelines for investment in research and innovation and in productive development.

5 Inspection agencies and users of biodiversity resources (companies, ICTs and international users) should be trained and aligned in regard to the implementation of the legal framework.

6 Methodologies and criteria for recognizing Associated Traditional Knowledge (CTA, in the Brazilian acronym) should be established.

7 Biodiversity valuation methods should be disseminated with the aim of facilitating the economic measurement of biodiversity resources to support investment decisions.

8 Domestic and international regulatory framework should be aligned with each other, particularly the Nagoya Protocol, that provides for rules for the access of biodiversity resources among countries, and improve communication channels between stakeholders.

The full version of the document can be accessed through the QR code on the side or at: <http://www.cni.com.br/eleicoes2018/downloads/> This summary is part of the series Proposals of Industry for the 2018 Elections comprising 43 documents. The series, which is based on the *2018-2022 Strategy Map for Industry* is a CNI contribution to the new federal administration and presents analyses and proposals of priorities to increase Brazil's competitiveness. Any part of this publication may be copied, provided that the source is acknowledged. Brasília-DF, July 2018.

