### Mainstreaming environmental sustainability in the Brazilian financial sector

FEBRABAN

Brazilian Federation of Banks

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#### **FEBRABAN - Brazilian Federation of Banks**

#### **Our mission**

To contribute to the sustainable development of Brazil, acting on behalf of our associates, and seeking continuous improvement of the financial system and its relations with society

#### Representativeness

#### 118 members

99% of total assets (R\$ 7,4 trillions) and 97% of the net equity (R\$ 613 billions) of the Brazilian Banking sector (June 2018)



#### Brazilian legal framework for environmental protection



#### Source: Internal development

#### Brazil's Central Bank regulation on environmental issues

2008	2009	2010	2011	2014	2015	2017
Resolution 3. Environmenta for financing Amazon Regio	Resolution 3.813 Rural Financing - ugar Cane expansion 545- al criteria in the on	Resolution 3.896 Rural Financing - Low Carbon Agriculture	<u>Resol</u> Financing Change ada <u>Clr</u> Internal rev For Capit	Resolution 4.327 Guidelines for Social and Environmental Responsibility Policies of Financial Institutions Aution 4.008 g for Climate aptation and mitigation rcular 3.547 view process cal Adequacy (ICAAP)	<u>Resolutio</u> Updating Financing Guideline	the Rural Resolution 4.557 Risk and Capital requirements management

#### Voluntary environmental commitments



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#### Central Bank Resolution Nº4327/2014

#### Requires banks to establish and implement a Social and Environmental Responsability Policy (PRSA)

#### The PRSA shall abide by two principles

- **Relevance:** the degree of exposure to environmental risk of the bank's activities and operations
- **Proportionality:** the compatibility of PRSA with the nature, size and complexity of the bank's activities, financial services and products

## All financial institutions should establish their PRSA according to their profiles and business strategies

#### **FEBRABAN self-regulation**

#### Banking self-regulation standards (SARB N° 14/2014)

Establishes procedures and operational requirements that demonstrate the commitment and due diligence of the financial institution in assessing the environmental impacts of its operations and activities

Introduces basic common procedures and requirements to ensure a level playing field

Contributes to strengthening socio-environmental risk management

Helps to reduce legal uncertainties

# Brazil's NDC: 37% reduction by 2025 and 43% by 2030 of the 2005 greenhouse gas emissions' level

Land use (AFOLU)\*

End of illegal deforestation

Integrate 5 million hectares of forest, livestock and agriculture activities

Recover 15 million hectares of degraded areas

#### \*AFOLU (Agriculture, Forest and Other Land Use)

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#### Energy

Reach 45% participation of renewable energy in the energy matrix

Reach 18% participation of bioenergy (ethanol/biodiesel) in the energy matrix

Reach between 28% and 33% the use of renewable energy sources other than hydro power in the eletricity matrix

### Energy supply in Brazil

**Energy Matrix** 



#### Source: MME/EPE - BEN 2018 - Balanço Energético Nacional (2017 data).

### Energy supply in Brazil



#### Source: Ministry of Mines and Energy (MME)/EPE - December 2018

#### The use of land in Brazil

Land cover



Source: MAPBIOMAS (2017) http://mapbiomas.org/ and Censo IBGE Agro (2017) https://censos.ibge.gov.br/agro/2017.

#### **GHG** emissions in Brazil

#### Greenhouse Gas emissions in Brazil by sector



### World top emitters: 1° China - 23.7% 2° US - 12.9% 3° European Union - 7.4% 4º India - 6.5% 5° Indonesia - 5.1% 6° Russian Federation - 4.2% 7° Brazil - 3.4% 8° Japan - 2.7% 9° Canada - 1.8% 10° Germany - 1.7%

Emissions per capita in Brazil (2016): 8,5t/person
Word average: 7,5t/person

Source: SEEG (2018). Estimation of Greenhouse Gas Emissions in Brazil (2017). <u>http://seeg.eco.br/</u>

#### How we address sustainability issues



#### Some of the topics that are in the banking sector agenda

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- Credit flows to the Green Economy
- Environmental rural registry (CAR)
- Management of deforestation-related risks
- $\circ~$  Solutions for financing forest restoration
- Solutions for financing solar energy projects
- $\circ~$  Impacts of carbon pricing
- **o** Green Bond market
- Recommendations of the Task Force on Climaterelated Financial Disclosures TCFD/FSB

#### Bank lending flows to the Green Economy



In 2017, total bank credit to corporate clients of the 15 participating banks reached US\$ 469 bi<sup>1</sup>, which represents 86.8% of the total corporate credit offered to companies by the Banking Sector in Brazil (US\$ 539 bi<sup>1</sup>)

27.6% of this amount was lent to the sectors of the Green Economy

Source: <sup>1</sup> Data from the Brazilian Central Bank (IF.data).

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Notes: a) Corporate credit loans takes into account data from the banks that participated in the survey. b) Amounts converted from BRL to USD based on the average exchange rate of each year.

#### Issuances of securities to finance the Green Economy



Source: Data provided by ANBIMA - Brazilian Financial and Capital Markets Association Note: Amounts converted from BRL to USD based on the average exchange rate of each year.

### **Rural Environmental Registry**

#### Objectives

- Expedite the implementation of CAR with quality
- Bank loans to Agriculture requires CAR registry as of January 2019
- Quantify environmental liabilities
- Spatialize the potential for reforestation
- Facilitate the preparation of strategies for the exploitation of rural areas

<u>Scope</u>: 4,069 municipalities in the Atlantic Rain Forest and Cerrado biomes

Implementing institution:



Participants: Environmental Ministry and Embrapa



\* Amount converted at the average US dollar exchange rate - US\$ 1/R\$ 3,70

#### **Deforestation Risk Management**



(1) Practices of companies based on their responses to the Forest CDP Program 2016 (analysis of 70 companies)

### Funding for forest recovery

88 simulations were performed measuring financial viability of bank loans to finance reforestation by large and medium-sized properties in SP, MT and PR, where the main activity is the production of soybeans, sugar cane and livestock.



#### Key Findings

There are viable models: in more than 70% of the simulations, financing would compromisse, at most, 10% of rural property's profitability.

Among the cases evaluated, the **best results were** found for **producers of soy** and sugar cane and short term financing.

#### Key factors for success

Development of a local value chain for exploiting forest products Incentive for increasing productivity in the core activity Technical assistance

Structure a "basket" of financing resources (private + climate funds) and new colateral models

**Enforcement of the Forestry Code** 

#### Photovoltaic Solar Energy - new analysis model

### For transactions over US\$ 270,000

### To assess the photovoltaic solar energy project risk Payback + Technical and financial guarantees = project risk



To assess the operation's total risk

Project risk 🕂 Customer risk



NOTE: Amount converted at the average US dollar exchange rate - US\$ 1/R\$ 3,70

#### Impacts of carbon pricing

#### As banks and businesses are preparing for the carbon pricing



Responses from 71 Brazilian companies to the **CDP Climate Change Program** and a subsample of 20 companies which published inventory of greenhouse gas emissions over the last three years

Analysis of practices adopted by leading international banks on the topics. Research was conducted through interviews. Simulated impacts of carbon pricing on the most sensitive sectors that are present in the portfolio of Banks corporate loans in 2015.

### Green Bonds emission in Brazil - US\$ 4 billion

#### Publication: Guidelines for issuing Green Bonds in Brazil

#### Main references

- Green Bond Principles 2016
- Climate Bonds Initiative (CBI)
- World Bank
- International Finance Corporation (IFC)

**Target audience:** potential issuers, financial institutions, investors, second opinion and certification providers



### Actions to promote the Green Bonds market in Brazil - international initiatives



- Development of the ISO 14030 standard on Green Bonds
- The Brazilian Federation of Banks is actively involved and participates as a Brazilian expert member
- $\circ$  Standard publication expected for July-2020







Creating Markets, Creating Opportunities

- Brazil (Central Bank and FEBRABAN) is a member of the initiative
- FEBRABAN is a member of the <u>Green Bond Working Group</u>, launched to support members in their efforts to develop green bond markets and facilitate increased flow of international and domestic investment to achieve national sustainable development goals.
- Report "Creating Green Bond Markets" Insights, Innovation and Tools for Emerging Markets" will be published in October 2018

### Actions to promote the Green Bonds market in Brazil - national initiatives

#### Laboratory of Financial Innovation

- Initiative of the Brazilian Securities and Exchange Commission (CVM), Brazilian Association of Development Banks (ABDE) and the Inter American Development Bank (BID)
- FEBRABAN participates in the LAB's Green Bonds and Green Finance Working Groups









<u>Brazilian Ministry of Finance established a Working Group on Capital Markets</u> with the aim of studying measures to increase long term savings, financial intermediation and private investment efficiency, reducing the costs of capital in Brazil.

- **Proposal on Green Bonds** suggests the prioritization of infrastructure projects with proven environmental and/or social benefits so they can be eligible to reduced income tax rates associated with infrastructure "debentures" (bonds).
- Sectors/projects to be prioritized: a) urban mobility (subways, rail, light rail vehicles); b) renewable energy: solar, wind, small hydro; c) basic sanitation facilities: water, sewerage, drainage and urban solid waste.

<u>Proposals on Green Bonds finalized - Draft Decree ready to be sent to the President by the</u> <u>Ministry of Economy.</u> Examples of relevant projects and industries with potential for Green Bonds issuances

- **Renewable energy:** Wind, Solar, Bioenergy, Biofuels, energy efficiency and distribution
- **Forestry:** conservation, restoration, timber, pulp & paper
- Agriculture and livestock: low carbon agriculture, restoration of degraded areas
- **Real Estate:** Green buildings, green residential condos
- Transport: Railway, waterway, subway and Bus Rapid Transit (BRT) infrastructure, electric and hybrid vehicles
- Sanitation facilities: water, sewerage, urban waste management
- **Financial sector:** to finance/refinance portfolios of green projects

### Climate-related financial disclosures How should banks in Brazil implement the TCFD recommendations?

#### Project scope



Outcome: Roadmap with recommendations to be implemented by banks and by FEBRABAN

#### Alignment of existing frameworks with the TCFD recommendations



### Review of practices currently adopted by banks and companies

- Questionnaire with 28 banks in Brazil, responsible for 80% of the Brazilian corporate credit market
  - 64% of respondents are already aware of TCFD recommendations
- Interviews with selected banks
- Benchmarking analysis with companies (+200) and financial institutions
  - Sources of information:
  - CDP Climate Change (2017)
  - $\circ$  VigeoEiris
  - Companies' and third party reports



#### Roadmap with clear actions taking into account:

- The associated pillar: Governance, Strategy, Risk Management, Metrics & Targets
- Who should implement: banks or sectoral approach (FEBRABAN)
- $_{\odot}\,$  Minimal requirements, level of complexity and urgency for implementation
- $\circ~$  Suggested time period for implementation

# Thank you!

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## Annexes

#### National Green Bonds issuances

lssuer	lssuance year	Amount issued BRL (million)	Amount issued US\$ (million)	Proceeds
CPFL Renováveis	2016	200	57	Wind energy
Suzano Papel & Celulose	2016	1,000	286	Forestry
Ômega Energia	2017	42	13	Wind energy
Rio Energy	2017	112	35	Wind energy
Ômega Energia	2017	220	69	Wind energy
PEC Energia	2017	48	15	Wind energy
Enel Green Power	2017	22	7	Wind energy
ISA CTEEP	2018	621	172.5	Energy distribution
	Total	2,265	654.5	

Note: Amounts converted from BRL to USD based on the average exchange rate of each year. 2016/3,49 - 2017/3,19 - 2018/3,60. Source: Central Bank of Brazil.

### International Green Bonds issuances by companies in Brazil

lssuer	Issuance year	Amount issued (US\$ million)	Proceeds	
BRF	2016	US\$ 545 (EUR 500)	<b>Mixed use:</b> Energy efficiency, renewables, water and waste management, material usage and packaging efficiency and forestry	
Suzano Papel & Celulose	2016 2017	500 200	Mixed use: <u>Forestry</u> , conservation, water management, energy efficiency and renewable energy	
Fibria	2017	750	<b>Mixed use:</b> <u>Forestry</u> , conservation, waste and water management and renewable energy	
BNDES	2017	1,000	Wind and Solar	
Klabin	2017	500	Mixed use: energy, energy efficiency, forestry, agriculture, transport and adaptation	
Faro Energy	2018	confidential	Solar	
	Total	3,495		