

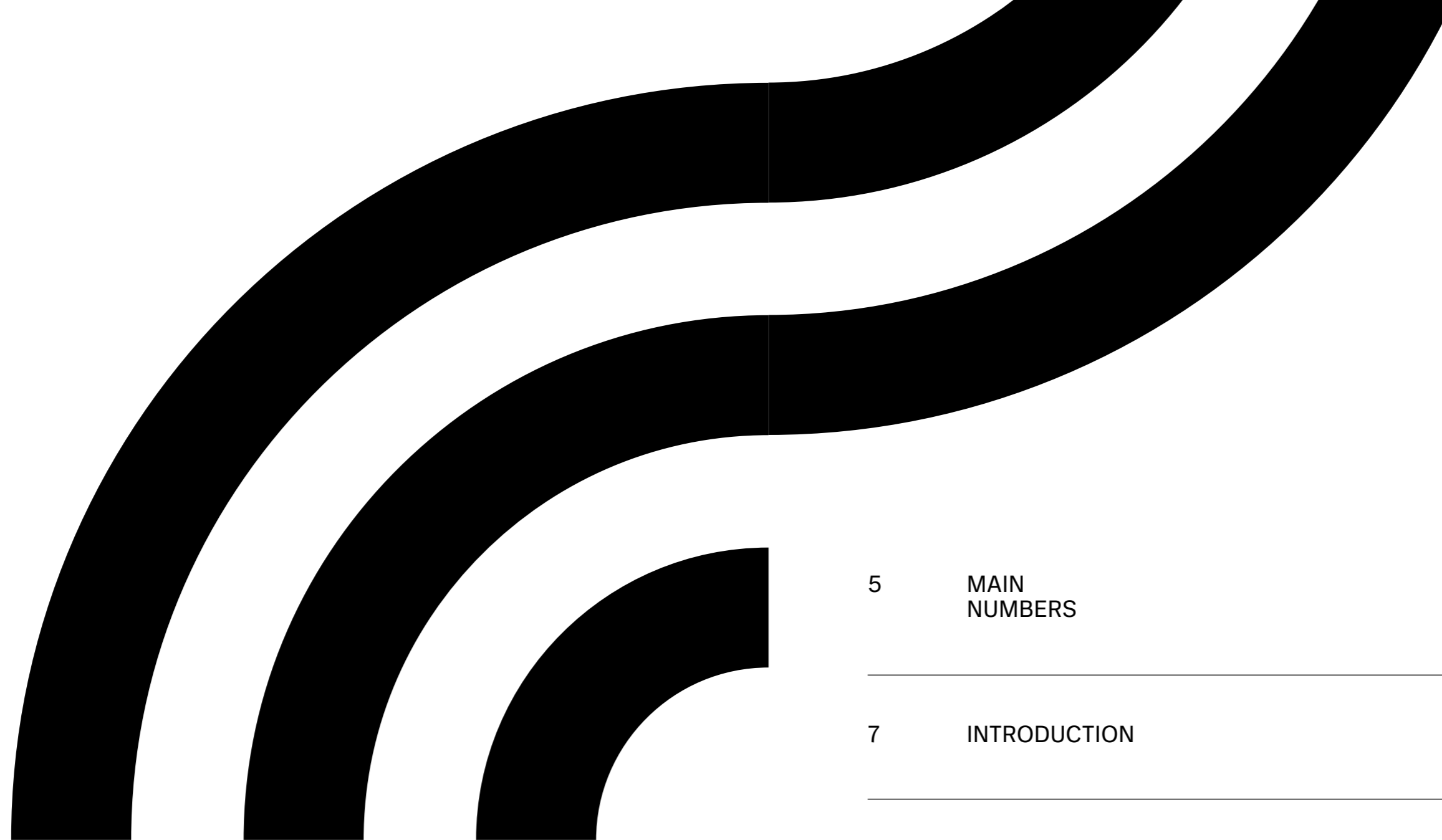


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# Are there any public resources for the bioeconomy in the Amazon?

INSTITUTO  
ESCOLHAS





Are there any public resources for the bioeconomy in the Amazon?

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# 1. Main numbers

US\$

## CONSTITUTIONAL FUND FOR THE NORTHEAST (FNE)

19 BI

IN ASSETS AT THE END OF 2020

5 BI

in financing in 2020

513.8 MI

in financing in Maranhão

28%



of this total went to the livestock sector.

## CONSTITUTIONAL FUND FOR THE NORTH (FNO)

6.6 BI

IN ASSETS IN 2020

2 BI

in financing in 2020

810.2MI

in financing in Pará

41,2%



of this total went to the agricultural sector. Pará did not receive funds from FNO Pronaf ABC+\* in 2020

## AMAZON DEVELOPMENT FUND (FDA/BASA)

928.8 MI

AVAILABLE AT THE END OF 2020. AMOUNT FINANCED NOT SPECIFIED.



Finances mainly projects from the energy sector.

## NORTHEAST DEVELOPMENT FUND (FDNE)

810.2 MI

AVAILABLE AT THE END OF 2020.

64.8 MI

in financing in 2020.

Maranhão did not receive funds in 2020.

## FOREGONE TAX REVENUE MARANHÃO

AN ESTIMATED

375.4 BI

IN FORGONE REVENUE IN MARANHÃO.



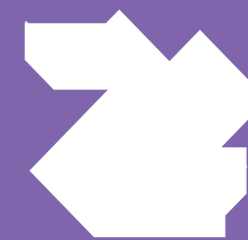
Amounts not broken down by sector.

## FOREGONE TAX REVENUE PARÁ

AN ESTIMATED

124.1 MI

IN FORGONE REVENUE IN PARÁ IN 2021



41.4 MI



in estimated forgone revenue from the livestock industry and beef supply chain.

\* The Climate Change Adaptation and Low Carbon Emission Program financed sustainable production technologies for family farming, promoting a reduction in the environmental impacts of the agricultural sector. For ways of accessing credit click [here](#).

## 2. Introduction

How can we unlock the potential of the bioeconomy in the Amazon? This question has guided a series of studies developed by Instituto Escolhas over the past few years. The lack of an effective legal framework and limited investment in capacity building, infrastructure, technical assistance, and science and technology are just some of the “bottlenecks” preventing the realization of the full economic potential of the bioeconomy in the region. There is one common barrier to overcoming these challenges: lack of financial support.

<sup>1</sup> For further information on the amount of public resources received by the sector, see our study [“From pasture to plate: subsidies and the environmental footprint of the beef industry in Brazil”](#).

Against this backdrop, public policies should focus on stimulating the bioeconomy using a suite of instruments, including financing, preferential tax treatment, and interest rate or price subsidies.

This already happens in Brazil’s Agricultural sector for example: the consolidation of the country’s position as a leading producer of agricultural commodities was only possible thanks to decades of public investment in structuring and maintaining the sector, which continues to this day<sup>1</sup>.

When will the bioeconomy in the Amazon receive the same treatment from the Brazilian government? When will stimulating sustainable development in the region be made a real priority for the country?

In this study, we carried out an assessment of the financial resources made available by federal and state policies that may potentially be used to advance the bioeconomy in the Amazon, taking as an example the states of Pará and Maranhão. We opted to analyze public policies involving significant flows of funds<sup>2</sup>.

Our findings reveal that the sources of financial resources assessed by this study largely support agriculture, one of the main drivers of deforestation in the Amazon. In 2020, 62% of CO<sub>2</sub>e emissions in Maranhão and 85% in Pará came from land-use change (mostly deforestation in the Amazon and the Cerrado<sup>3</sup>). Between 2000 and 2020, 3.7 million and 10.5 million hectares of native vegetation were cleared in Maranhão and Pará, respectively<sup>4</sup>, to make way for agriculture. Despite this, financing was approved for agricultural operations without applying clear rules regarding compliance with environmental requirements and results monitoring.

The infrastructure sector, especially the energy sector, as expected, also received a large share of overall funds. However, it is important to remember that the Amazon region still suffers from poor access to electricity, dependence on fossil fuels, and inadequate basic infrastructure, such as transport and sanitation. In other words, public investment in infrastructure has not been directed towards improving the living standards of the local population.

In addition, publicly funded mega projects produce disastrous social and environmental impacts that public planning and risk assessment fail to take into account. What would happen if this investment were directed at the infrastructure necessary for the development of the bioeconomy, which in turn requires decentralized logistics anchored in more sustainable, innovative and inclusive commodity chains?

<sup>2</sup> The breakdown of the data depended on the way in which it was made available by the relevant government agencies. In a number of cases, it was not possible to identify policy beneficiaries, breakdowns did not contain possible impacts, and different criteria were adopted when detailing the distribution of resources by company size or economic sector. In addition, standardized terms were not used when presenting data: in some cases the data contains information on disbursements while in others it refers to loan contracts, for example.

<sup>3</sup> Data from Plataforma SEEG, available [here](#).

<sup>4</sup> Projeto MapBiomass. col. 7.0 from the annual series of land cover/use maps of Brazil. Available [here](#).

## WHAT DOES BIOECONOMY MEAN?

In this publication, the term bioeconomy refers to all economic activities encompassing biodiversity-based value chains and guided by traditional knowledge, science and the pursuit of innovation in the use of biological and renewable resources to generate circular, regenerative, sustainable, inclusive economic activity with collective and local benefits.

### Examples of bioeconomy activities include:



**Sustainable forest management** for the commercial exploitation of products such as nuts, fruits, rubber, oils, timber, fish, natural fibers and medicinal plants;



**the processing of these products** (foods, drinks, cosmetics, drugs, clothing, construction materials); agriculture, aquaculture, sustainable tourism, and environmental services; and research and education for the development of the bioeconomy.

Hectares of native  
vegetation cleared for  
agriculture between  
1990 and 2021

**5 million** in Maranhão

**15,9 million** in Pará

### 3. Where the resources are?



## I. Constitutional financing funds

Constitutional financing funds are a major, secure, and stable source of financial resources for the Amazon, receiving 3% of the revenue collected from income tax and tax on industrial products. Sixty per cent of these funds are allocated to the Constitutional Financing Fund for the Northeast (FNE), 20% to the Constitutional Financing Fund for the North (FNO), and 20% to the Constitutional Financing Fund for the Midwest (FCO). In 2020, government transfers to these funds amounted to roughly US\$ 2.5 billion.

These funds have significant assets made up of positive cash balances from previous years that may be allocated according to the financing priorities set out in the annual plan of each fund. Bioeconomy activities could benefit from these funds if they were also made financing priorities. An analysis of the FNO and FNE is presented below.

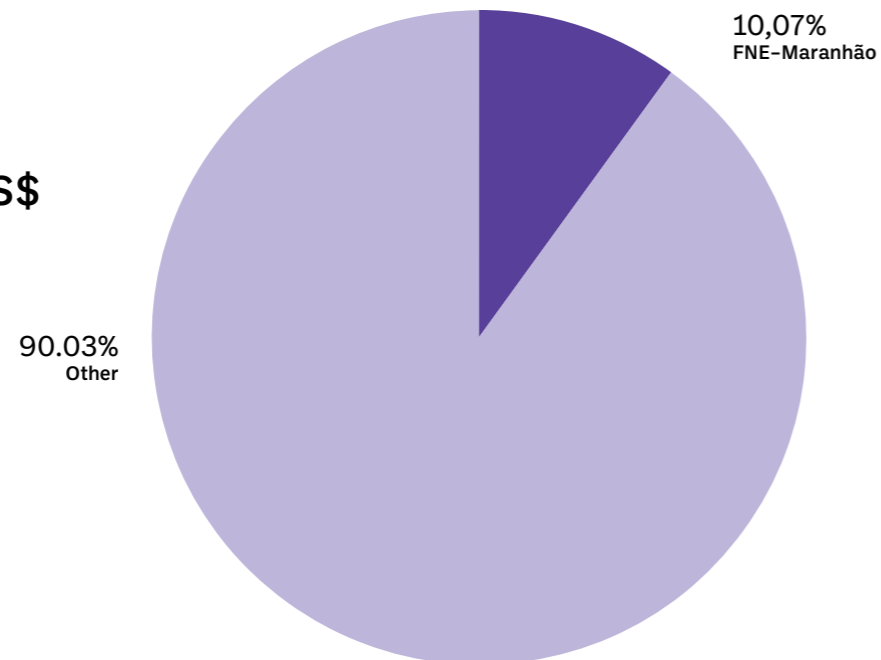
## FNE

Operated by the *Banco do Nordeste do Brasil* (BNB), the FNE is geared towards northeastern states and portions of the states of Minas Gerais and Espírito Santo. The fund provided US\$ 130.6 billion to operations in 2020: US\$ 3.7 billion to standard programs and US\$1.3 to billion infrastructure.

According to BNB's financial statements, the FNE's total assets amounted to US\$ 19 billion at the end of FY 2020.

Of a total of US\$ 988 million financed by the FNE, the state of Maranhão received US\$ 2.7 million in 2020.

Of a total of US\$ 988 million financed by the FNE, the state of Maranhão received US\$ 2.7 million in 2020.



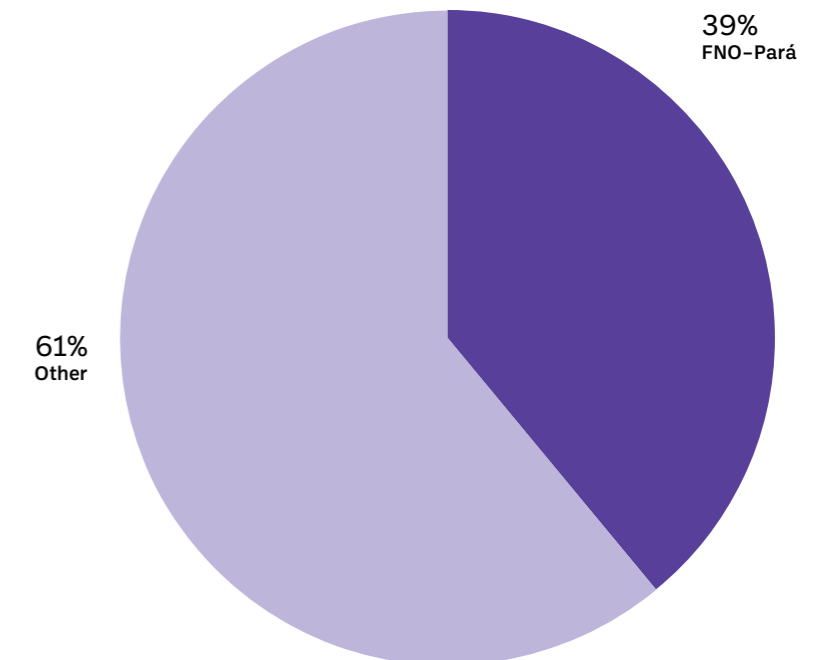
## FNO

Operated by the *Banco da Amazônia S.A.* (BASA), the FNO is geared towards northern states.

In 2020 the FNO prioritized low- and middle-income municipalities, which received US\$1.5 billion of a total of US\$ 2 billion in financing, and municipalities located on the regional boundary, which received US\$ 533.5 million. The states of Amapá and Roraima were also considered priority regions, but received only 7.9% of total funds. Pará received US\$ 810.2 million, 39% of the total, which is proportional to the state's share of the North region's GDP (41.6% in 2018).

According to BASA's financial statements, the FNO's total assets amounted to US\$ 6.6 billion at the end of FY 2020.

Of a total of US\$ 2 billion financed by the FNO, the state of Pará received US\$ 810 million.



## WHERE DOES THE MONEY GO IN THE STATE OF MARANHÃO?

**TABLE 1**  
**CONTRACTS RECEIVING  
FUNDS FROM THE FNE BY  
PROGRAM IN 2020**  
(US\$ million)

I Programa de Financiamento às Microempresas, Empresas de Pequeno Porte e ao Empreendedor Individual.  
II Programa Nacional de Fortalecimento da Agricultura Familiar.  
III Programa de Financiamento à Infraestrutura Complementar da Região Nordeste.  
IV Programa Nacional de Microcrédito Produtivo Orientado.  
V Programa de Financiamento à sustentabilidade ambiental.  
VI Programa de Financiamento para Comercialização, Beneficiamento ou Industrialização de Produtos de Origem Agropecuária.  
VII Programa de Apoio ao Turismo Regional.  
VIII Programa de Apoio ao Desenvolvimento da Aquicultura e Pesca.

Source Banco do Nordeste do Brasil (BNB). Results and Impacts Report FY 2020.

Programs	FNEtotal	%	FNEMaranhão	%	% Maranhão (proportion of total)
FNEVerdeInfrastructure	950	18,6	-	0	0
FNEMPE <sup>I</sup>	811	15,9	77,1	14,8	9,5
FNEComércioeServiços	745	14,6	76,7	14,7	10,3
FNERural	704	13,8	137	26,3	19,5
Pronaf <sup>II</sup>	687	13,5	77,5	14,9	11,3
Proinfra <sup>III</sup>	362	7,1	114,8	22,1	31,7
FNEIndustrial	238	4,7	8,9	1,7	3,8
FNEPNMPO <sup>IV</sup>	207	4,1	20,1	3,9	9,7
FNEIrrigation	87	1,7	-	0,0	0,0
FNEVerde <sup>V</sup>	87	1,7	5,3	1,0	6,1
FNEAgrin <sup>VI</sup>	79	1,5	0,1	0,0	0,1
FNEInnovation	79	1,5	0,6	0,1	0,7
FNEProatur <sup>VII</sup>	62	1,2	1,7	0,3	2,8
FNEAquipesca <sup>VIII</sup>	5,9	0,1	0,7	0,1	11,7
Fies	2,1	0,0	0,1	0,0	6,4
<b>Total</b>	<b>5.107</b>	<b>100</b>	<b>521</b>	<b>100</b>	<b>10.2</b>

**TABLE 2**  
**CONTRACTS  
RECEIVING FUNDS  
FROM THE FNE BY  
SECTOR IN 2020**  
(US\$ million)

Source Banco do Nordeste do Brasil (BNB). Sustainability Report 2020.

Sector	FNE Total (US\$)	%	FNE Maranhão (US\$)	%	% Maranhão (proportion of total)
Rural	1.516	29,7	217	41,9	14,3
• Agriculture	671	13,1	72	13,9	10,7
• Livestock	845	16,5	145	28,0	17,2
Trade and services	1.655	32,4	169	32,5	10,2
Industry	406	7,9	14	2,7	3,5
Tourism	105	2,1	3	0,6	3,0
Agroindustry	89	1,7	0,40	0,1	0,5
Infrastructure	1.312	25,7	115	22,2	8,8
Individuals*	25	0,5	0,14	0,0	0,6
<b>Total</b>	<b>5.107</b>	<b>100</b>	<b>518</b>	<b>100</b>	<b>10,2</b>

\*Student loans and small-scale solar power projects.



# Where does the money go in Pará?

Pará is usually the state most benefited by the FNO. The largest beneficiaries are agriculture, infrastructure, and trade and services.

**TABLE 3**  
**CONTRACTS**  
**RECEIVING FUNDS**  
**FROM THE FNO IN**  
**2020**  
(US\$ million)

Source Banco da Amazônia, Annual Report 2020. Available [here](#)

	total FNO	%	total FNO Pará	%
<b>RURAL</b>	<b>948</b>	<b>45,7</b>	<b>329</b>	<b>41,2</b>
FNO Pronaf	563	2,7	25	3,1
FNO Amazônia Sustentável	889	42,9	305	38,1
• Agriculture	887	42,8	304	37,9
• Other	2	0,1	1	0,2
FNO ABC Biodiversidade	3	0,1	-	0
<b>NON-RURAL</b>	<b>1.124</b>	<b>54,3</b>	<b>471</b>	<b>58,8</b>
FNO Amazônia Sustentável	272	13,1	109	13,6
• Trade and services	203	9,8	83	10,3
• Other	70	3,4	27	3,3
FNO MPE/EI	157	7,6	47	5,9
FNO FIES	0,20	0	-	0
FNO Infra	694	33,5	315	39,3
<b>TOTAL</b>	<b>2.072</b>	<b>100</b>	<b>801</b>	<b>100</b>

## THE WEIGHT OF AGRO IN THE FNE AND FNO

US\$197.7 million of a total of US\$513.8 million (41.9%) financed by the FNE no Maranhão went to agriculture. Funds are concentrated in the FNE Rural and Pronaf programs. This percentage is much higher than the share of overall funds that went to agriculture across the region as a whole (29.7%). The list of FNE beneficiaries in 2020 includes three soybean producers (in Chapadinha, Afonso Cunha and São Domingos do Azeitão), who received between 2.1 and US\$ 4 million, and an animal feed producer (in Sambaíba) who received US\$6 million.

The same pattern can be seen in the FNO. Although the information provided by the BASA was less detailed than that of the BNB, the data show that, of a total of US\$ 2 billion, the largest share (US\$948.7 million) went to the agricultural sector (FNO Pronaf and *Amazônia Sustentável*), followed by infrastructure (US\$ 691.7 million) and trade and services (US\$ 355.7 million). In Pará, the agricultural sector received US\$336 million, representing 41% of FNO financing in the state. In contrast, FNO ABC Pronaf, aimed at supporting low-carbon agriculture, financed only US\$ 3 million in 2020. Pará did not receive funds from this program in 2020.

The agricultural sector received

FROM THE FNE IN MARANHÃO

US\$ 197.7 mi

FROM THE FNO IN PARÁ

US\$ 336 mi

## OPPORTUNITIES FOR SMALL BUSINESSES

Bioeconomy entrepreneurs are more likely to be small-scale and have little or no knowledge of the credit market. Technically, this should not be a problem for accessing credit from constitutional funds as they support small-scale enterprises. Data from 2020 show that, of US\$3.7 billion in financing provided by the FNE, US\$928 million went to 257,000 small borrowers receiving credit for the first time. In contrast, of the US\$2 billion provided by the FNO, only US\$909 million went to small borrowers (micro, mini, small, and small to medium), with US\$256 million going to first-time borrowers. A total of US\$316 million in financing went to Pará.

## INFRASTRUCTURE

Of the US\$1.3 billion in financing provided by the FNE for infrastructure, US\$948 million came from the FNE Green Infrastructure Program and US\$355 million was provided by Proinfra (Financing Program for Complementary Infrastructure in the Northeast Region). A large share of this total went to wind power generation and solar energy projects (US\$691 and US\$237 million, respectively), with smaller amounts being allocated to the mobile phone and electricity (generation, transmission and distribution) sectors (US\$148 and US\$166 million, respectively). Basic sanitation received only US\$44 million. Maranhão received only US\$114.8 million from Proinfra in 2020, corresponding to 8.8% of the US\$ 1.3 billion in financing provided for infrastructure across all states. This figure represents less than 10.7% of the total amount (US\$3.7 billion) received by the state from the other programs. The two largest beneficiaries were mobile phone companies in São Luís and Alcântara, which received US\$44.6 and US\$32.4 million, respectively.

Financing for infrastructure provided by the FNO is included in the figures for other operations. The FNO *Amazônia Sustentável* (non-rural) provided US\$7.3 million to green energy projects, probably solar energy. The data show that US\$316 million of the US\$691 million provided by FNO Infra went to Pará, but fail to show what type of projects were benefitted or mention environmental impacts.

FNE numbers

Wind energy

US\$ 691 mi

SOLAR ENERGY

US\$ 237 mi

Amount of financing going to small borrowers (US\$ million)



## II. Regional development funds

**Another potential source of finance to boost the bioeconomy in the Amazon are regional development funds. Unlike constitutional funds, regional development funds depend on expenditure allocations in the annual federal budget, meaning that the amounts earmarked for operations are much smaller and unstable.**

## RESOURCES FOR MAJOR ENERGY PROJECTS

The assets of the Northeast Development Fund (FDNE) amounted to US\$820 million at the end of FY 2020. In the same year, the Fund provided US\$64.5 million in financing to two energy companies in the state of Rio Grande do Norte: US\$27.8 million for the company Vila Piauí 1 e 2 Empreendimentos e Participações S.A; and US\$36.9 million to Ventos de São Fernando IV Energia S.A.

According to the BASA, the Amazon Development Fund (FDA) ended FY 2020 with US\$928 million in assets. The activities supported by the Fund were predominantly in the energy sector, with US\$296 million going to transmission, US\$197 million to hydroelectric projects and US\$180.4 million to thermoelectric power projects in 2020 and 2021.

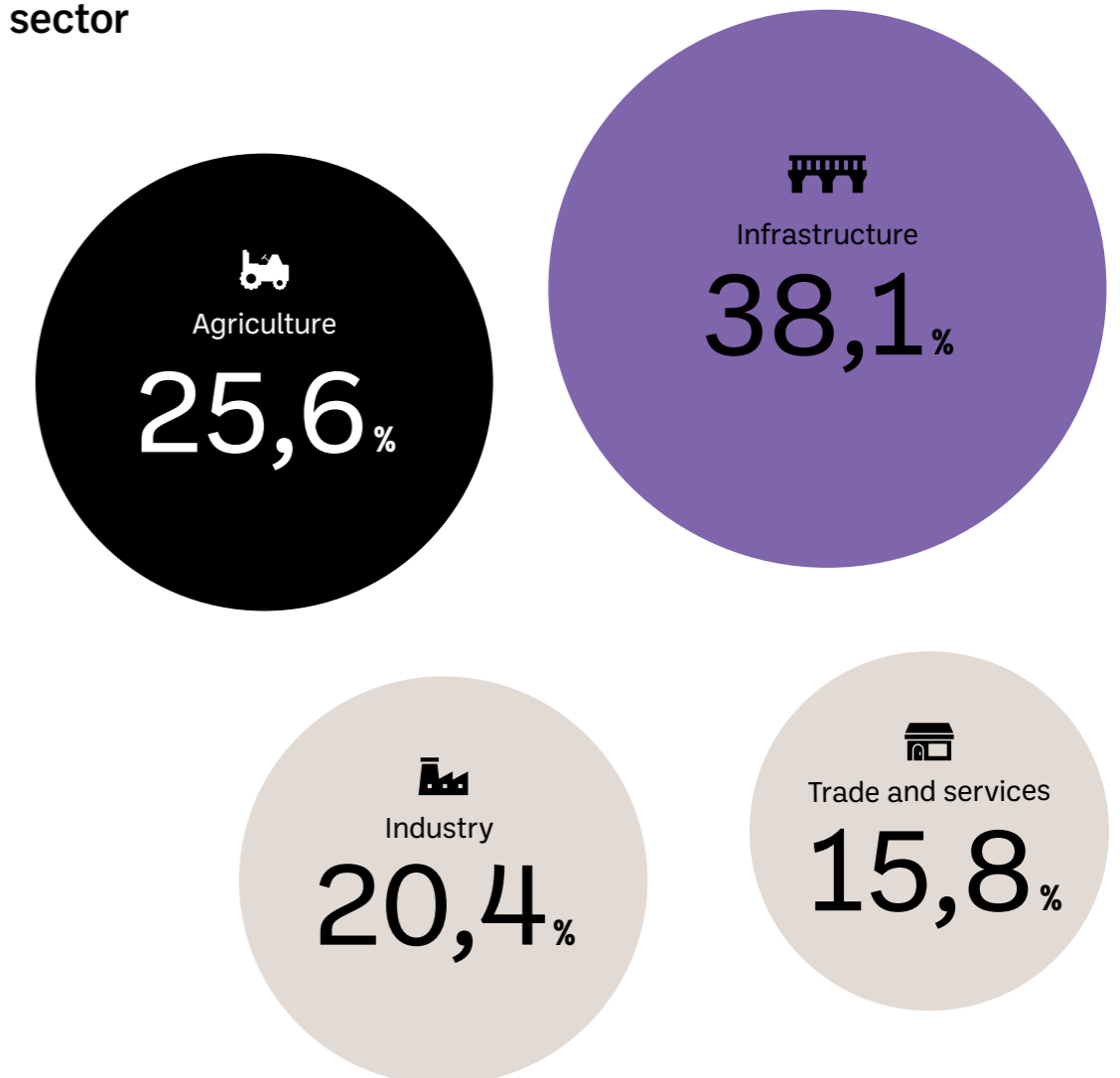
The FDA resource management report published by the Banco do Brasil shows that Equatorial Energia S.A had US\$123.9 million of available credit, US\$72 million of which were freed up in 2020. This amount actually refers to two different companies with the same purpose, involving transmission lines in the state of Pará.

## III. Brazilian Development Bank (BNDES)

One of the world's leading development banks, the BNDES is a potentially major source of support for bioeconomy activities. The BNDES has a significant amount of stable funds guaranteed by the Federal Constitution, with 28% of its resources provided by revenues from the Social Integration Program (PIS) and Public Servant Asset Formation Program (Pasep), both of which are federal taxes. The bank also has a number of other funding sources.

The Bank approved US\$ 12.8 billion in lending in Brazil in 2020.

### Lending by the BNDES in 2020 by sector



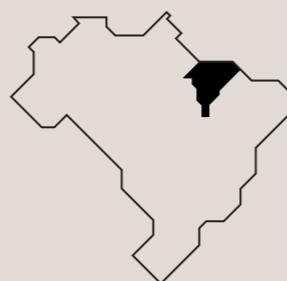
	SECTOR/ACTIVITY	AMOUNT	%
<b>TABLE 4</b> <b>LENDING BY THE BNDES IN 2020</b> <b>(US\$ MILLION)</b>	<b>AGRICULTURE</b>	<b>3.285</b>	<b>25,6</b>
	<b>INDUSTRY</b>	<b>2.621</b>	<b>20,4</b>
	• Transport material	<b>1.176</b>	<b>9,2</b>
	• Food and beverages	<b>289</b>	<b>2,3</b>
	• Chemicals and petrochemicals	<b>275</b>	<b>2,1</b>
	• Cellulose and paper	<b>226</b>	<b>1,8</b>
	• Others	<b>226</b>	<b>1,8</b>
	• Mechanics	<b>139</b>	<b>1,1</b>
	• Extraction	<b>116</b>	<b>0,9</b>
	• Smelting and products	<b>89</b>	<b>0,7</b>
	• Textiles and clothing	<b>82</b>	<b>0,6</b>
	<b>INFRASTRUCTURE</b>	<b>4.894</b>	<b>38,1</b>
	• Electricity	<b>2.929</b>	<b>22,8</b>
	• Road transport	<b>868</b>	<b>6,8</b>
	• Utilities	<b>344</b>	<b>2,7</b>
	• Rail transport	<b>291</b>	<b>2,3</b>
	• Auxiliary transport activities	<b>248</b>	<b>1,9</b>
	• Other types of transport	<b>113</b>	<b>0,9</b>
	• Construction	<b>73</b>	<b>0,6</b>
	• Telecommunications	<b>26</b>	<b>0,2</b>
	• Other	<b>1,581</b>	<b>0</b>
<b>TRADE AND SERVICES</b>	<b>2.030</b>	<b>15,8</b>	
<b>TOTAL</b>	<b>12.830</b>	<b>100</b>	

Source BNDES.  
Press releases, 2021.  
Available [here](#)

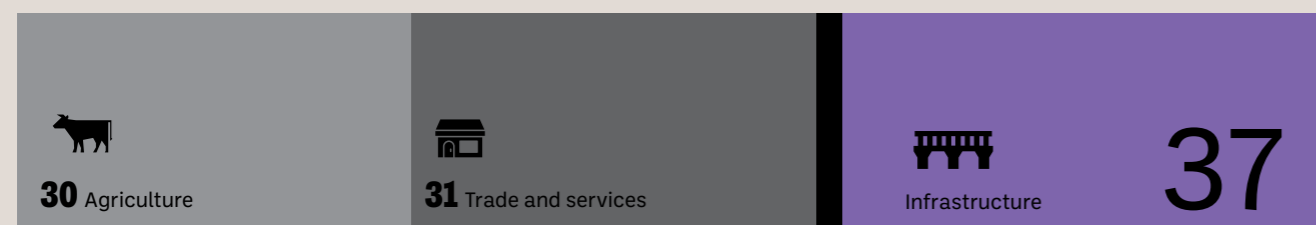
Data from 2020

# Projects supported by the BNDES in Pará and Maranhão?

Table 5. Lending by the BNDES to Maranhão in 2020 (US\$ million)



% PER SECTOR

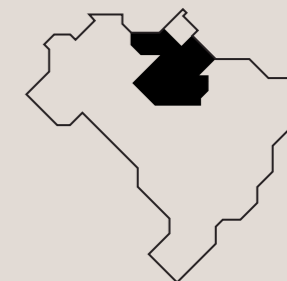


Sector/activity	Amount	%
<b>Agriculture</b>	<b>52,33</b>	<b>30</b>
<b>Trade and services</b>	<b>53,40</b>	<b>31</b>
<b>Industry</b>	<b>3,05</b>	<b>2</b>
Food and beverages	2,31	1
Extraction	0,06	0
Transport material	0,04	0
Mechanics	0,04	0
Smelting and products	0,02	0
Others	0,36	0
Chemicals and petrochemicals	0,1	0
Textiles and clothing	0,1	0
<b>Infrastructure</b>	<b>64,16</b>	<b>37</b>
Auxiliary transport activities	0,06	0
Electricity	59,15	34
Other	0,06	0
Other types of transport	0,002	0
Utilities	0,05	0
Telecommunications	0,08	0
Road transport	4,76	3
<b>Total</b>	<b>172,95</b>	<b>100</b>

Source BNDES. Press releases, 2021. Available here

Of total lending (US\$12.8 billion), US\$612 million were allocated to the North and US\$1.3 billion to the Northeast. The states of Pará and Maranhão received US\$296 million and US\$172 million, respectively.

Table 6. Lending by the BNDES to Pará in 2020 (US\$ million)



% PER SECTOR



Sector/activity	Amount	%
<b>Agriculture</b>	<b>47,4</b>	<b>16</b>
<b>Trade and services</b>	<b>36,2</b>	<b>12</b>
<b>Industry</b>	<b>6,8</b>	<b>2</b>
Food and beverages	2,8	1
Extraction	0,5	0
Smelting and products	0,1	0
Others	3,5	1
Chemicals and petrochemicals	0,0	0
<b>Infrastructure</b>	<b>214,8</b>	<b>70</b>
Auxiliary transport activities	0,1	0
Construction	0,0	0
Electricity	204,8	67
Other	0,2	0
Other types of transport	0,3	0
Utilities	0,6	0
Telecommunications	0,4	0
Road transport	8,3	3
<b>Total</b>	<b>305,2</b>	<b>100</b>

## INFRASTRUCTURE

The sector that received most funds was infrastructure, more specifically the electricity sector, both in Pará and Maranhão (34% and 67% of lending respectively).

A total of 1,225 operations were financed in Maranhão in 2020. Five of the seven largest loans (over US\$3.4 million) were for electricity distribution and transmission operations and two were in the trade and services sector. The Bank financed 1,590 operations in 2020, three of which involved especially large amounts: US\$115 million for an electricity transmission operation and US\$43.4 million each for two electricity distribution operations in Belém.

## THE WEIGHT OF AGRO IN THE BNDES

As can be seen, 25.6% of the funds made available by the BNDES in 2020 went to agriculture. It is worth noting that financing in this sector is not accounted for by subsector, even in more detailed breakdowns of the data, making it more difficult to assess impacts.

Thirty percent of the funds provided by the BNDES in Maranhão (US\$ 52.2 million) went to the agricultural sector. Programa Moderfrota, which finances the acquisition of machinery such as tractors, harvesters and sprayers, accounted for 74% (US\$38.7 million) of the funds.

Sixteen percent of the funds received from the BNDES in Pará (US\$47.4 million) went to the agricultural sector, with Programa Moderfrota and Programa ABC accounting for 52% (US\$24.6 million) and 16% (US\$7.6 million) of lending, respectively.



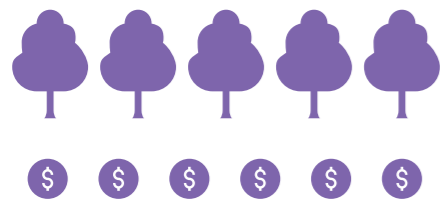
## PROGRAMA ABC

Only a small proportion of total financing made available to the agricultural sector by the BNDES was granted via the ABC program (11% in Maranhão and 16% in Pará).

## BNDES ENVIRONMENTAL PROGRAMS

The BNDES has also adopted a set of programs and initiatives geared specifically towards supporting sustainable projects committed to reducing greenhouse gas emissions, forest conservation and climate change adaptation. However, these programs and initiatives mobilize only a small share of the huge amount of funds managed by the Bank.

During the 26th UN Climate Change Conference (COP26), held in November 2021, the BNDES presented four new programs aimed at projects with environmental commitments: Floresta Viva, to support forest restoration; Energy Efficiency Credit Guarantee Program (FGEnergia), for energy efficiency projects developed by micro and small business; Projeto Carbono, for the purchase of certified carbon credits; and a partnership with the Brazilian Industrial Research and Innovation Company (Embrapii) to promote technological development in sectors such as the bioeconomy, circular economy and new fuels.



### GREEN BONDS

#### How it works

Green bonds are issued on the national and international market, based on project selection criteria, including targets and evaluation of environmental outcomes.

#### Donations in 2020

US\$197.7 million of green bonds (Letra Financeira Verde) issued on the domestic market for wind and solar power projects.

### AMAZON FUND

#### How it works

Created to raise donations for non-reimbursable investments in efforts to prevent, monitor and combat deforestation, as well as to promote the preservation and sustainable use in the Brazilian Amazon.

#### Donations in 2020

New donations have been paralyzed since 2019 due to a misunderstanding between the Brazilian government and donors. A total of 93.8% of the resourced managed by the Fund since 2008 were donated by the Norwegian government.

### GREEN CLIMATE FUND

#### How it works

Financing for climate change adaptation and mitigation projects.

#### Donations in 2020

US\$99.5 million<sup>5</sup>.

### NATIONAL CLIMATE CHANGE FUND

#### How it works

Part of the National Policy on Climate Change linked to the Environment Ministry. Aimed at financing projects, studies and enterprises that reduce greenhouse gas emissions and enable to the effects of climate change.

#### Donations in 2020

US\$ 47.6 million: US\$46 million in financing and the rest in non-reimbursable project funding and Financial Agent Remuneration<sup>6</sup>.

<sup>5</sup> Green Climate Fund report. Available [here](#).

<sup>6</sup> National Climate Change Fund (FNMC). Annual Report 2020. Available [here](#).

## IV. Tax benefits granted in Pará

Revenues forgone due to tax benefits granted in Pará amounted to **US\$124.1 million in FY 2021**. As required by the country's fiscal responsibility law, this estimate is contained in the state government's annual budget. This amount corresponds to 3.8% of total expected tax revenue in the 2021 budget (US\$ 3.3 billion). This amount may be underestimated insofar as it only refers to benefits introduced between 2017 and 2019, excluding those from previous years. Practically all tax benefits refer to tax on the circulation of goods and services (ICMS) granted through presumed credit, rate reductions, exemptions and other modalities not presented.

## SUBSIDIES FOR AGRO



It is worth highlighting the large amount of revenue forgone due to ICMS related to the beef supply chain: US\$3.1million in presumed credit and US\$988 thousands in reduced rates for the livestock industry, as well as US\$37.3 million from differentiated tax regimes.





## V. Tax benefits granted to Maranhão

Estimated revenue forgone due to tax benefits granted in Maranhão amounted to US\$ 373.5 million in 2021. This figure is not broken down in detail. The annual budget only informs that the amount is forgone ICMS revenue: US\$ 146.2 million in exemptions; US\$ 172.7 million from presumed credit; and US\$ 55.9 million from reduced rates. The sectors benefitted were described in general terms as agriculture, livestock, agroindustry, and industry.

## VI. Tax benefits granted by the federal government

Estimated revenues forgone due to tax benefits granted by the federal government amounted to US\$ 61.3 billion in 2018, the last year with available data. This amount corresponds to 22.7% of federal tax revenues and 4.4% of GDP.

The data is broken down to regional level, meaning it was not possible to discover the amounts relevant to the states of Maranhão and Pará. The region that benefitted most was the Southeast (49% of forgone revenue), followed by the South (15.9%), Northeast (13.5%), North, (12.3%) and Midwest (9.4%). The concentration of benefits in the Southeast is target of criticism, but is proportional to tax revenues in the region.

Only five budget functions account for 78.35% of the total forgone federal tax revenue: trade and services, health, work, agriculture, and industry.



**TABLE 8**  
**ESTIMATE OF REVENUES**  
**FORGONE DUE TO FEDERAL**  
**TAX BENEFITS, 2018**

<b>Tax benefits</b>	<b>US\$ million</b>	<b>Share (%)</b>	<b>Cumulative share (%)</b>
Simples Nacional	14.200	23	23
Agriculture and agroindustry	6.064	10	33
Exempt and non-taxable income – IRPF	6.036	10	43
Not-for-profit entities – exempt	5.445	9	52
Manaus Free Trade Zone and Free Trade Areas	5.211	8	60
IRPF	4.124	7	67
Worker benefits	2.629	4	71
Medicines, pharmaceutical products and medical equipment	2.609	4	75
Payroll tax exemptions	2.443	4	79
Regional development	2.179	4	83
Savings and loans – Real estate sector and agribusiness	1.637	3	86
Information technology and automation	1.208	2	88
Motor industry	1.063	2	89
Vessels and aircraft	847	1	91
Scientific research and technological innovation	835	1	92
Prouni	511	1	93
Individual Microentrepreneur – MEI	506	1	94
Biodiesel	397	1	94
Home loans	357	1	95
Culture and audiovisual	324	1	96
Petrochemicals	264	0	96
Motor vehicles for disabled persons	254	0	96
Constitutional funds	209	0	97
Books	202	0	97
Other	1.809	3	100
<b>Total</b>	<b>61.367</b>	<b>100</b>	

Source Ministry of the Economy (2021b).

## 4. Shifting the direction of investment

**Investment in the bioeconomy accounted for an insignificant portion of the huge amount of public resources devoted to the Amazon. Public funds, development banks, and government budgets and tax benefits need to prioritize the bioeconomy in order to leverage greater investment in the sector.**

It is common to hear public bank executives say that there are no bioeconomy projects worth financing, especially in the Amazon. However, guaranteeing financial resources today is essential for the bioeconomy to represent a more significant portion of lending in the future. By gradually increasing lending to borrowers linked to bioeconomy activities, the banks could make this sector a financing priority, as they already do with other economic activities. The banks' current environmental guidelines and the creation of green programs mobilize scant resources, serving only to keep up appearances.

On the other hand, the figures show that a huge volume of resources is being devoted to activities that are a proven cause of environmental degradation, such as the agricultural sector, especially in the Amazon. The information made available by the funds and banks

do not show to what extent environmental criteria are taken into account when assessing funding requests. There is a lack of transparency with regards to social and environmental risk assessment and even less transparency in relation to government spending and tax benefits. Hence we continue to finance deforestation and environmental degradation using public resources.

We need to shift the direction of investment not only to drive the development of the standing forest economy with local income generation, but also stem financing of deforestation. After all, it is unfair to expect the bioeconomy to stand on its own two feet all by itself, without the heavy investments made in other sectors of the economy over the years. The economic history of Brazil has clearly shown that all sectors, from agribusiness to the motor industry, have needed investment to realize their potential.

Realization



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