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(Instituto Escolhas)

The new gold rush in the Amazon:

Where illegal gold
diggers, financial
institutions, and
flawed monitoring
come together and
invade the forest



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Organized by: **Instituto Escolhas**

Research and Text:

Marta Salomon

Editorial Coordinator:

Saete Cangussu and Sergio Leitão

Text Editor:

Saete Cangussu and Sergio Leitão

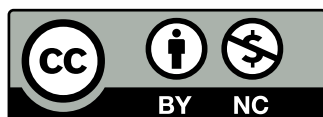
Translate by **Plataform Cipó**

Art Editor: **Brazz Design**

Cover Photo: **Felipe Werneck/Ibama**

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sustainable development.

Cover: Ibama's Specialized Inspection Group (GEF)
conducts an operation against illegal gold digging in the
Kayapó Indigenous Land in the state of Pará, Brazil





Photo caption: Ibama's Specialized Inspection Group (GEF) deactivates illegal gold mines in protected areas in the state of Pará.

Photo: Felipe Werneck/Ibama

José Antônio Pereira dos Santos describes himself as a “son of God” in his Facebook profile. He was granted his first licence for small-scale gold digging (PLG) in the municipality of Itaituba, in the state of Pará, in February of this year, and he already ranks as one of the country's top collectors of the Financial Compensation for Mineral Exploration (CFEM)¹ royalty levied on gold. In the National Mining Agency (ANM)'s ranking, which is topped by giant gold mining companies such as Canada's Kinross and South Africa's AngloGold Ashanti, as well as by financial market institutions, Santos is the first private individual on the list, ranked 42nd in the overall standings in 2020. At 64 years old, of which 50 were spent in the Tapajós gold digging region in the southwest of Pará state, he views the monthly produc-

tion of nearly five kilos through his first licence as just the beginning of a new age.

“The price of gold went up, whereas the price of fuel went down. And thanks to the help the government has provided to the gold diggers, we are going to produce a lot more,” he says. Santos is one of the main characters in what is deemed a new gold boom, fed not only by the pursuit of ‘safe haven’ assets in times of financial crisis caused by the novel coronavirus pandemic, but also by a drive to legalize gold digging and to loosen gold-digging-related environmental monitoring. The epicentre of this particular landscape is in the Amazon.

Gold digging², the subject matter of this paper, accounts for nearly 20% of the overall gold produced in Brazil since the 1990s, according to data gathered by

experts in the field. There are no accurate figures on illegal gold production, since only part of it is accounted for in official records. Officially, during the last two years, Brazil produced 85 tons of gold (1). In the first four months of 2020, export figures grew 14.9% compared to the same period in 2019, an increase prompted by the rise in metal prices. According to foreign trade data compiled in May, 28.95 tons of gold (2) were exported.

¹ The CFEM is the tax collected on mineral resource profits, which make up part of the Union's assets. Tax rates depend on the mineral that is extracted. Currently, a 1.5% tax rate is levied on gold.

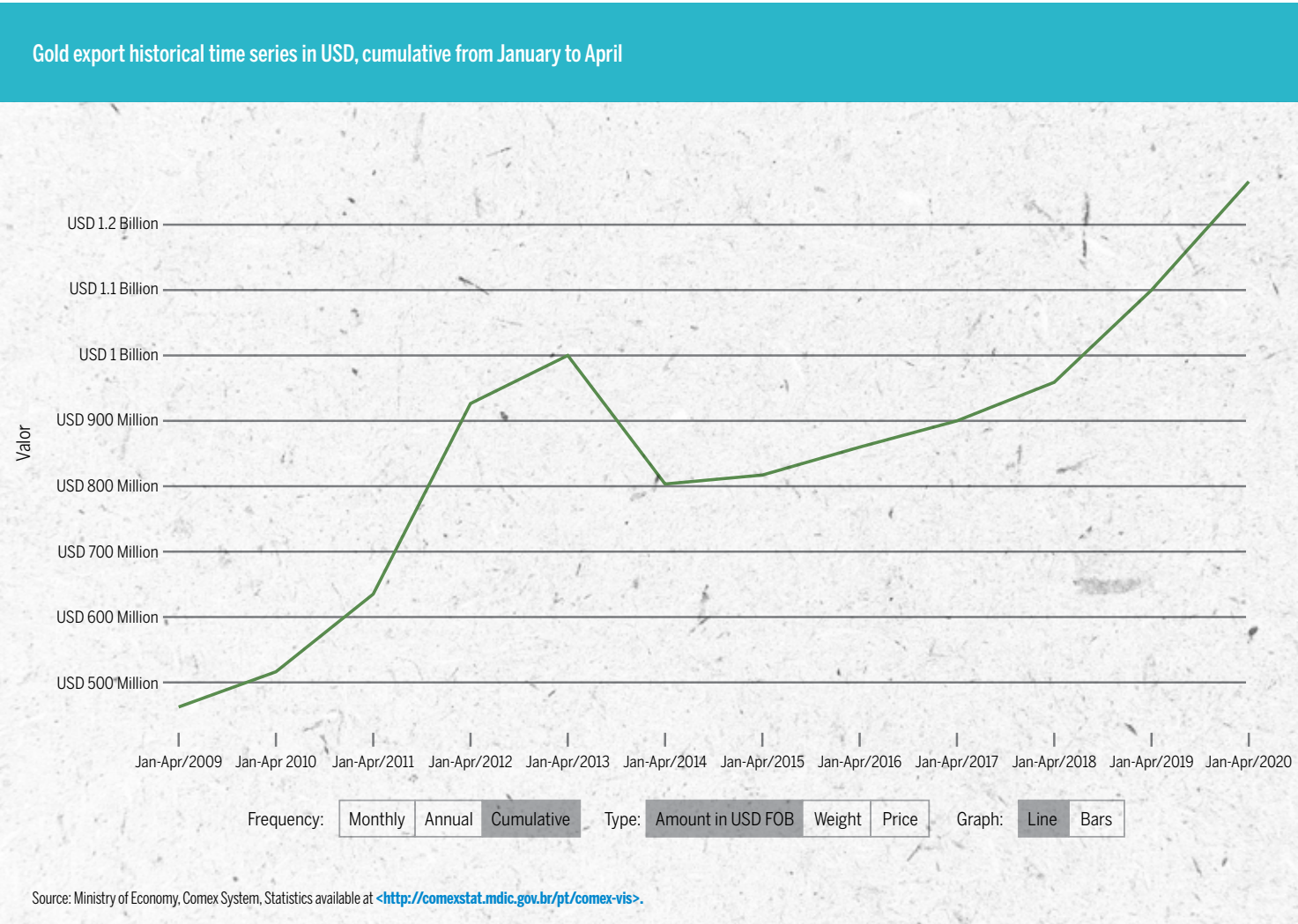
² The main difference between gold digging and industrial production is in the scale of these activities. Gold digging sites already rely on heavy machinery, although they are referred to as artisanal. Nevertheless, they cannot use explosives or carry out underground gold extraction, according to the draft version of the Small-Scale Gold-Digging Licence regulatory act submitted to the ANM for public comments, which also requires that gold diggers rehabilitate their sites.

MUNICIPALITIES WITH THE HIGHEST GOLD PRODUCTION, ACCORDING TO THE CFEM

| | | Total operation amount | CFEM collected |
|----|----------------------------------|------------------------|----------------|
| 1 | PARACATU - MG | 1.173.404.540,18 | 17.601.068,11 |
| 2 | ITAITUBA - PA | 826.055.723,89 | 12.890.507,67 |
| 3 | SABARÁ - MG | 527.589.448,35 | 7.929.652,29 |
| 4 | JACOBINA - BA | 399.058.499,44 | 5.985.877,49 |
| 5 | SANTA BÁRBARA - MG | 305.606.731,77 | 4.585.957,90 |
| 6 | GODOFREDO VIANA - MA | 305.578.006,53 | 4.583.670,10 |
| 7 | CRIXÁS - GO | 260.620.422,51 | 3.927.078,71 |
| 8 | PEDRA BRANCA DO AMAPARI - AP | 257.319.865,80 | 3.859.797,99 |
| 9 | PEIXOTO DE AZEVEDO - MT | 193.962.465,17 | 2.924.036,73 |
| 10 | BARROCAS - BA | 155.954.475,15 | 2.340.660,39 |
| 11 | POCONÉ - MT | 124.138.273,64 | 1.877.367,26 |
| 12 | NOSSA SENHORA DO LIVRAMENTO - MT | 101.511.343,11 | 1.564.319,87 |
| 13 | PONTES E LACERDA - MT | 100.046.243,53 | 1.541.328,16 |
| 14 | MATUPÁ - MT | 92.877.503,55 | 1.399.196,23 |
| 15 | RIACHO DOS MACHADOS - MG | 83.248.086,42 | 1.248.721,30 |
| 16 | CONCEIÇÃO DO PARÁ - MG | 81.054.632,54 | 1.215.819,49 |
| 17 | NOVO PROGRESSO - PA | 62.607.376,73 | 943.163,53 |
| 18 | PILAR DE GOIÁS - GO | 61.417.025,66 | 921.255,39 |
| 19 | NOVA XAVANTINA - MT | 55.798.213,95 | 1.063.785,16 |
| 20 | PORTEIRINHA - MG | 49.153.553,34 | 737.303,30 |



Source: ANM, compiled on May 5. Available at https://sistemas.anm.gov.br/arrecadacao/extra/relatorios/cfem/maiores_arrecadadores.aspx



José Antônio Pereira dos Santos wants to purchase more machines for a 500-hectare plot at the São João gold mine, which is located along a branch of the Transgarimpeira Highway³ amid several conservation units established in the Tapajós region in an attempt to curb deforestation after another highway, BR-163, which connects Cuiabá (in the state of Mato Grosso) to Santarém (in the state of Pará), was paved. Santos claims that he has owned the plot since 1989; it was split up into ten parts in order to meet land restrictions imposed by the Small-Scale Gold-Digging Licence. He built a landing and take-off strip, something very common in the region. By February



Photo caption:
José Antônio Pereira dos Santos
WhatsApp profile picture
taken on May 2, 2020

2020, however, he still had not managed to obtain a licence to start digging for gold. He has 236 additional small-scale gold-digging licence requests still pending approval. In his plans to expand gold digging, he praises President Jair Bolsonaro. “I voted [for President] on the husband of that woman who works on TV,” he says, referring to former Democratic Labor Party (PDT) presidential nominee Ciro Gomes. “I regretted it. Bolsonaro has

³ At 193 kilometres-long long, the “Transgarimpeira” interstate highway was built in the last years of Brazil’s military dictatorship (1964-1985), with the aim of facilitating gold diggers’ access to the gold digging area in southeast Pará state. It connects the town of Moraes Almeida, on the banks of highway BR-163, to the town of Creporizão, both of them located in the municipality of Itaituba, in the state of Pará.

helped a lot. His father was a gold digger, he knows what it's about, he is with the people. He knows that gold digging creates a lot of jobs, keeps people away from crime," he believes.

Santos is mistaken about the President's father: Percy Geraldo Bolsonaro was actually an informal dentist. However, long before taking office as President, supporting gold diggers against what he deems excessively harsh environmental policies, and drafting a bill to regulate mineral resources in indigenous lands, Bolsonaro made a foray into gold digging, as stated in the biography written by Luiz Maklouf Carvalho, *O cadete e o capitão: A vida de Jair Bolsonaro no*

quartel ("The cadet and the captain: The life of Jair Bolsonaro in the barracks"). Maklouf writes that, in 1983, while on leave from the Army, the then-soldier travelled to a gold-digging region in the state of Bahia. He was 28 years old, and the trip earned him written negative remarks by his senior officials: "He displayed signs of immaturity in being enticed to venture into gold digging activities... he showed excessive ambition."

José Antônio Pereira dos Santos was granted his first land title for ten of the 246 plots of land he has been bidding for during the past three decades--amid a push by the government to expedite small-scale gold-digging licences,

thereby satisfying increasing demands from gold diggers. Shortly after President Bolsonaro took office, agents from the Brazilian Institute of the Environment and Renewable Natural Resources (Ibama) taking part in an operation against illegal gold mining in the Tapajós region set fire to machinery in two federal conservation units. While complaining about "massive losses" caused to illegal gold diggers and calling for the first-ever protest against Ibama operations, in March 2020, Portal Giro website, a news site from Itaituba, estimated there were approximately 2,700 illegal gold mining sites, with some 27,000 unregulated workers in the Tapajós region (3).



Photo caption: Ibama's Specialized Inspection Group (GEF) deactivates illegal gold digging machinery in the Munduruku Indigenous Land, in the state of Pará
Photo: Vinícius Mendonça/Ibama

Destruction of heavy machinery is allowed under a 2008 decree (4) that regulates the Environmental Crimes Law, whenever it is impossible to remove that equipment from the forest. It is a way of curbing illegal gold-digging operations, since machinery that is seized and placed under custody ends up being re-deployed. In 2019, the Brazilian Institute of Environment and Renewable Natural Resources (Ibama) estimated that 72 machines used by illegal gold diggers and loggers were destroyed, a figure signifi-

especially in the Tapajós region.

The work plan was a response to a question posed by the agency itself the previous month in a technical note addressed to the President's Office of the Chief of Staff, which coordinated negotiations with illegal gold diggers' representatives: "Does the country wish to continue pursuing this wealth, considering that today this activity is undertaken mainly by means that are illegal, technically flawed, with significant waste and serious implications to workers' health and safety, in

"Does the country wish to continue pursuing this wealth, while taking into consideration the fact that said pursuit, today, occurs mainly by means that are illegal, technically flawed, with significant waste and serious implications to workers' health and safety, in addition to causing serious setbacks to the environment?"

cantly lower than the 201 machines that were registered in 2015 during inspection operations in protected areas.

Gold diggers' complaints were endorsed by the President of the Republic and garnered support from government offices in Brasília, particularly after protestors blocked highway BR-163 during the first two weeks of September. In November 2019, an ordinance issued by ANM (5) introduced a work plan that would entail a "swift" solution to the "serious issue of gold digging sites in Brazil",

in addition to causing serious setbacks to the environment?" (6)

After the ordinance with the new work plan included was issued, the ANM expedited assessments of applications for small-scale gold-digging licences and cleared areas for new applications, dismissing part of the requirements. In spite of the remote working imposed in March due to the Covid-19 pandemic, in April 2020 alone the ANM granted five additional licences for the *Cooperativa dos Garimpeiros de Moraes Almeida e*

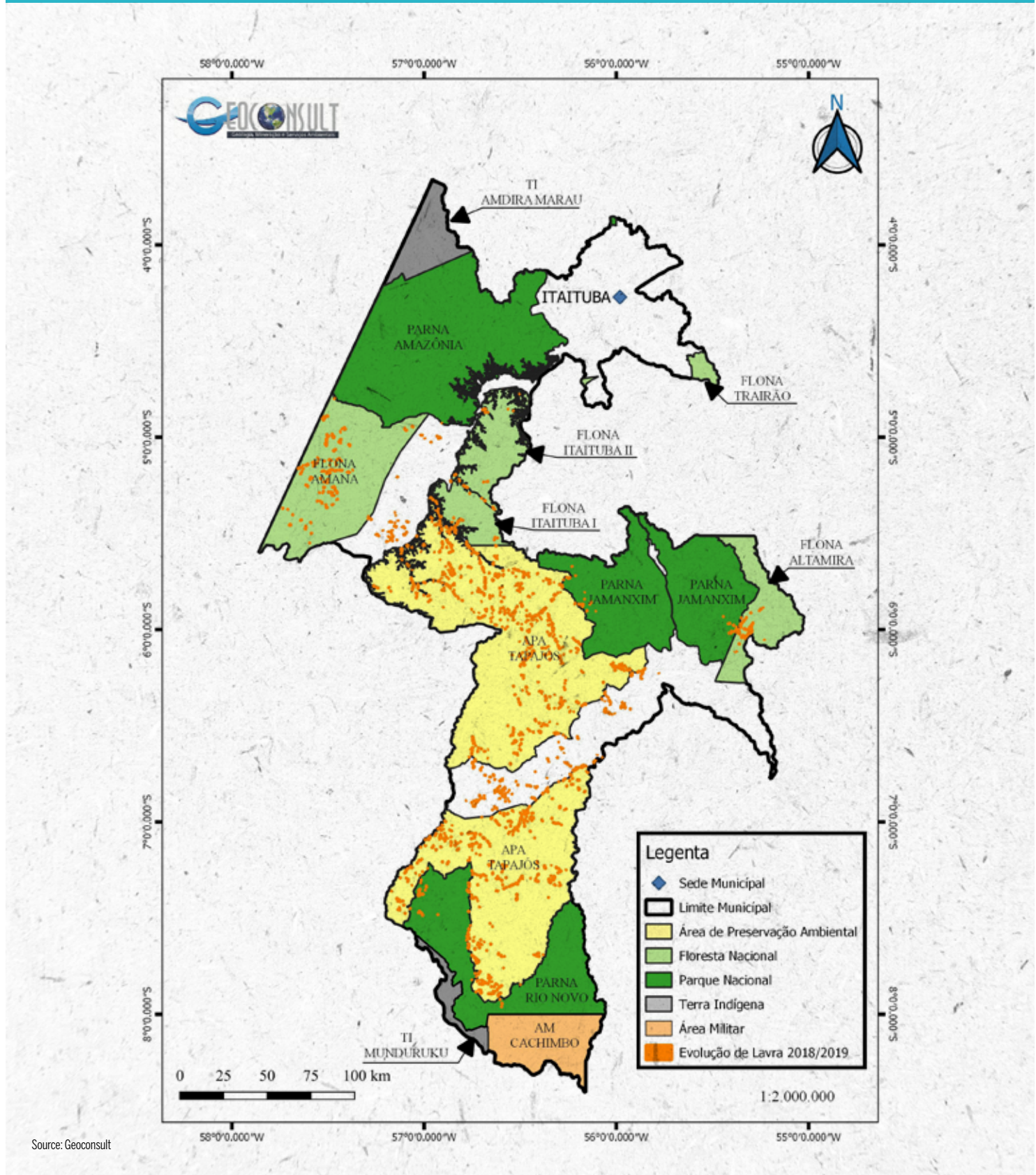
Transgarimpeira (Moraes Almeida and Transgarimpeira Highway Gold Diggers' Cooperative, freely translated) to dig for gold in a total area of 2,100 hectares, corresponding to 21 square kilometers in Itaituba, in the Tapajós region. In one of these sites, cassiterite extraction will also be allowed. Data on the licences was collected through the Access to Information Law (LAI).

Guilherme Aggens, a forestry engineer at the Geoconsult company (Geology, Mining and Environmental Services) who works in the clearing of gold digging sites for operation in Itaituba, likes to distinguish illegal gold digging, in integral protection conservation units or in indigenous lands, from irregular gold digging, which is carried out without authorization. "Gold will come out, we have to know whether it comes out legally or illegally. Some people arrive in planes, with money, and take the gold away. It is impossible to know exactly how much of it is legal and how much is not. Actually, there is no way of knowing."

Geoconsult tracked active gold mines from August 2018 to August 2019 in the municipality of Itaituba. The map below shows legal, irregular, and illegal gold digging sites. These three types of digging sites accounted for an overall area of little more than 6,000 hectares. An equivalent to 0.1% of the total area of the municipality is taken up with this kind of activity, which dominates the region's economy. Although the scale of the gold digging sites has been used as an argument in favor of this activity, the map clearly shows that gold diggers have been operating inside integral protection

⁴ Law No. 9.985/2000, which established the National System of Conservation Units (SNUC), determined two types of conservation units: integral protection conservation units, where gold digging is forbidden, and sustainable use units. In the latter type, gold digging is still prohibited in Extractive Reserves and in Private National Heritage Reserves, and restricted in conservation units established after the SNUC law was drafted, in accordance with both the ANM and the General Attorney's Office (AGU). National parks comprise the first group, while national forests are included in the second.

2018-2019 ITAITUBA SMALL-SCALE GOLD DIGGING RECORDS, INCLUDING
UNREGULATED AND ILLEGAL GOLD DIGGING SITES



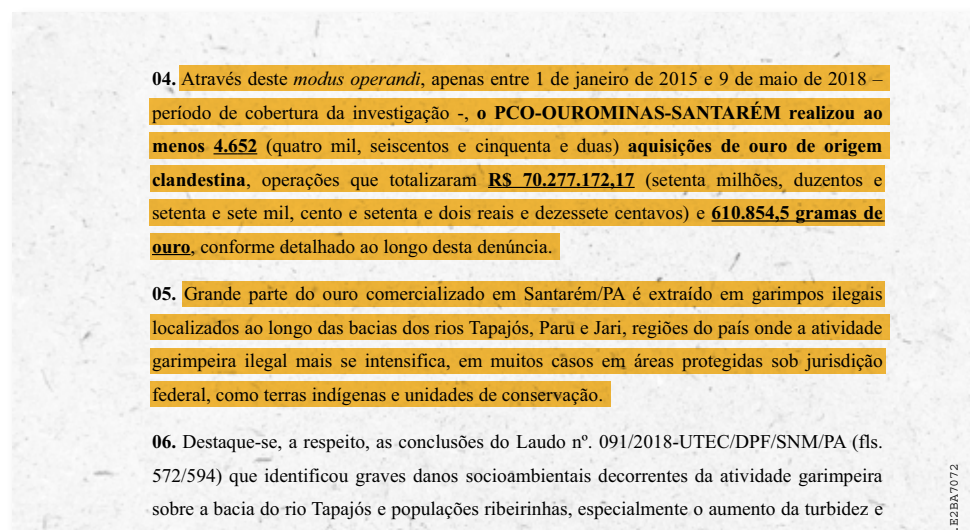
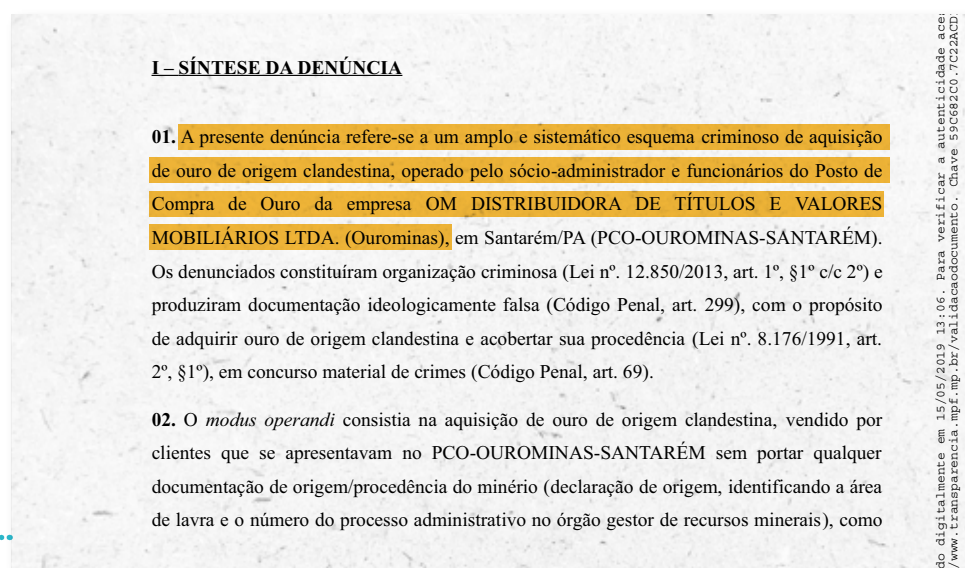
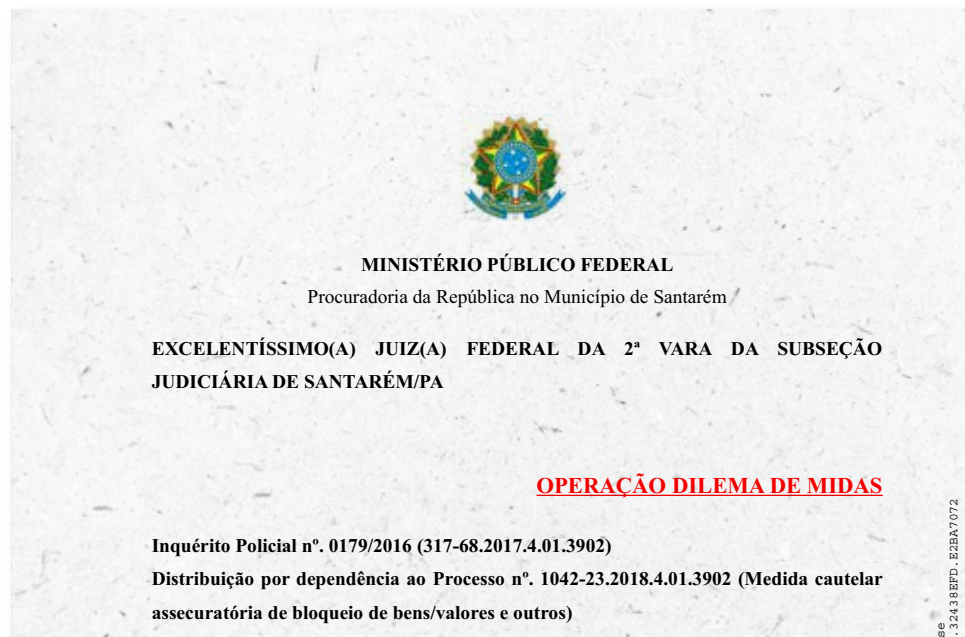
conservation areas, where such activities are forbidden,⁴ as well as in National Forests (Flonas), where mining is also not permitted. Whether or not to clear gold digging activities in sustainable use conservation units is one of the issues being debated by the government.

When legally and illegally sourced gold are melded and enter the financial market

Small-scale gold-digging licences (PLG) issued by the ANM permit mineral exploitation. Nevertheless, they can both endorse the legitimacy of a gold digging site's operations or help launder illegally extracted gold from indigenous lands and conservation units. This is described in detail as a "broad and continuous criminal enterprise" for purchasing illegally extracted gold in a complaint filed by the Public Prosecutor's Office in Santarém, in the state of Pará, in May 2019.

The complaint results from a joint operation carried out by the Public Prosecutor's Office and the Federal Police (PF) and baptized "Midas' Dilemma". From January 2015 to May 2018, investigations tracked a near 611-tonne purchase of illegally sourced gold exceeding

(7)



R\$ 70 million. According to prosecutor Luís de Camões Boaventura, the operation--one of the biggest investigations on gold digging--shed light on the lack of control over the economic chain of illegally mined gold.

The complaint shows that, since extracting minerals without the respective PLG licence is a crime, introducing illegally sourced gold into the legal market with the aim of using it as a financial asset in the future is done through a licence that is unrelated to the digging area. The investi-

gations revealed that the true origin of the gold traded in Santarém was the Pirarara Digging Site, located in the buffer zone of the Indigenous Land of the Zo'é (a recently contacted indigenous people), in the municipalities of Óbidos and Oriximiná.

The lawsuit proposed by the Public Prosecutor's Office to Brazil's Federal Courts reports the managing partner and employees of a gold-buying post in Santarém belonging to the securities distributor company OM Distribuidora de Títulos e Valores Mobiliários (DVTM), a financial institution also known as Ourominas. One year after the complaint was filed, not only is OM DVTM still operating, it also ranks tenth among CFEM collectors, which has been growing throughout this decade. By the end of April 2020, it had collected R\$ 186.9 million in gold royalties. Ourominas claims that franchisee RN Participações is responsible for the illegally sourced gold.

CFEM gold royalty collection

| | |
|-------|----------------|
| 2010 | 32.097.234,35 |
| 2011 | 37.795.108,29 |
| 2012 | 49.918.345,17 |
| 2013 | 55.520.166,89 |
| 2014 | 55.531.365,51 |
| 2015 | 70.358.329,37 |
| 2016 | 81.709.808,78 |
| 2017 | 65.382.281,34 |
| 2018 | 142.100.721,80 |
| 2019 | 201.225.539,32 |
| 2020* | 86.121.867,15 |

Source: ANM, compiled on May 9 – https://sistemas.anm.gov.br/arrecadacao/extra/relatorios/arrecadacao_cfem_substancia.aspx

Ranking of Brazil's top CFEM gold royalty collectors

| | | | |
|----|-----------------------------------------------------------------|------------------|---------------|
| 1 | Kinross Brasil Mineração S A | 1.173.404.540,18 | 17.601.068,11 |
| 2 | Anglogold Ashanti Córrego do Sítio Mineração S.a. | 727.700.398,29 | 10.932.539,91 |
| 3 | F. D'GOLD - DISTRIBUIDORA DE TÍTULOS E VALORES MOBILIÁRIOS LTDA | 490.506.162,49 | 7.398.337,74 |
| 4 | Jacobina Mineração e Comércio Ltda | 399.058.499,44 | 5.985.877,49 |
| 5 | Mineração Aurizona S.a. | 305.578.006,53 | 4.583.670,10 |
| 6 | Mineração Serra Grande S.a. | 260.620.422,51 | 3.917.129,99 |
| 7 | MINA TUCANO LTDA. | 257.319.865,80 | 3.859.797,99 |
| 8 | CONFIANCA COM. DE METAIS E REP. LTDA | 192.677.647,82 | 3.261.334,39 |
| 9 | Mineração Serras do Oeste Eireli | 191.067.226,31 | 2.866.913,35 |
| 10 | O.M Distribuidora de Títulos e Valores Mobiliários Ltda | 186.951.007,81 | 2.809.693,44 |
| 11 | carol dtvm ltda | 171.526.259,53 | 2.585.608,75 |
| 12 | Fazenda Brasileiro Desenvolvimento Mineral Ltda. | 155.954.475,15 | 2.340.660,39 |
| 13 | Mineração Riacho dos Machados Ltda. | 132.401.639,76 | 1.986.024,60 |
| 14 | Mineração Apoená S A | 121.110.280,87 | 1.904.830,08 |
| 15 | PARMETAL DVTM LTDA | 105.290.505,38 | 1.586.759,27 |
| 16 | coluna sa distribuidora de titulos e valores mobiliarios | 98.342.566,51 | 1.475.200,84 |
| 17 | Serabi Mineração S.a. | 77.684.793,01 | 1.201.167,07 |
| 18 | Pilar de Goias Desenvolvimento Mineral S.a. | 63.805.108,94 | 957.076,65 |
| 19 | Salinas Gold Mineração Ltda | 62.490.012,45 | 982.706,23 |
| 20 | NX GOLD S A | 55.798.213,95 | 1.063.785,16 |
| 21 | RBM RECUPERADORA BRASILEIRA DE METAIS LTDA | 41.979.180,21 | 638.712,56 |
| 22 | Cooperativa de Garimpeiros de Ourilandia e Regiao | 40.017.422,93 | 612.614,33 |
| 23 | Mineração Tabiporã Ltda | 39.198.377,57 | 627.621,92 |
| 24 | Fides Gold Mineradora S.A. | 33.801.359,19 | 508.414,85 |
| 25 | JAAY CONSULTORIA E METAIS EIRELI ME | 28.817.791,25 | 432.641,47 |
| 26 | RBM - RECUPERADORA BRASILEIRA DE METAIS S.A | 23.749.442,96 | 356.954,14 |
| 27 | Coluna S/A Distribuidora de Títulos e Valores Mobiliários | 23.301.477,81 | 349.522,22 |

| | | | |
|----|-------------------------------------------------------------------------|---------------|------------|
| 28 | CONFIANCA COM DE METAIS E REP LTDA | 19.305.622,62 | 349.572,10 |
| 29 | Carol DTVM Ltda | 15.271.314,14 | 229.639,47 |
| 30 | Euromaquinas Mineração Ltda | 15.234.811,23 | 228.522,17 |
| 31 | Avb Mineração Ltda. | 13.621.105,00 | 207.071,82 |
| 32 | REAL BRASIL METAIS LTDA | 12.301.655,50 | 186.710,05 |
| 33 | COMERCIO DE METAIS PRECIOSOS OURO BRASIL LTDA | 11.441.290,38 | 210.511,08 |
| 34 | J. P. DA SILVA DTVM | 10.295.786,42 | 154.436,80 |
| 35 | FNX COMÉRCIO DE METAIS LTDA | 10.275.097,05 | 167.041,03 |
| 36 | RBM RECUPERADORA BRASILEIRA DE METAIS SA | 9.681.491,42 | 160.766,25 |
| 37 | J V UCHOA EIRELI | 6.413.300,97 | 96.199,52 |
| 38 | carol dtvm Ltda | 3.168.305,40 | 47.619,63 |
| 39 | Cooperativa de Mineração dos Garimpeiros do Lourenço Ltda | 3.053.807,31 | 60.344,90 |
| 40 | Santa Luz Desenvolvimento Mineral Ltda | 2.807.015,15 | 49.344,75 |
| 41 | Cooperativa de Mineração dos Garimpeiros de Pontes e Lacerda | 2.300.001,24 | 34.496,57 |
| 42 | José Antônio Pereira dos Santos | 2.280.186,18 | 34.202,80 |
| 43 | PENA E MELLO COMERCIO E EXPORTAÇÃO LTDA | 2.122.356,54 | 31.905,38 |
| 44 | Cooperativa dos Garimpeiros Mineradores e Produtores de Ouro do Tapajós | 2.005.968,83 | 30.303,17 |
| 45 | G. GABRIEL PEREIRA DE FARIAS | 1.745.774,18 | 26.372,54 |
| 46 | Marcos José Martins Fernandes | 1.087.957,30 | 16.333,24 |
| 47 | ADÃO AFONSO RODUÍ | 801.617,29 | 12.150,51 |
| 48 | ATRESS EXPORTADORA LTDA | 653.644,36 | 9.813,66 |
| 49 | Cooperativa dos Garimpeiros do Vale do Rio Peixoto COOGAVEPE | 607.038,24 | 9.107,75 |
| 50 | PENNA & MELLO COMERCIO E EXPORTAÇÃO | 592.939,49 | 8.894,09 |

Source: ANM, compiled on May 9 - https://sistemas.anm.gov.br/arrecadacao/extra/relatorios/cfem/maiores_arrecadadores.aspx

The criminal lawsuit is still pending trial, one year after the complaint was filed by the Public Prosecutor's Office (MPF). However, OM DTVM terminated its association with the National Gold Association (Anoro) "six months ago," according to the President of the organization, Dirceu Santos Frederico Sobrinho, who nevertheless did not discuss the content of the complaint. Anoro's main members are Central Bank-accredited institutions that trade gold as a financial asset, such as Securities Distributor companies (DTVMs). Most recently, it started accepting gold diggers as members and began targeting Ibama inspectors. They share more than just common goals.

Anoro's President, who owns F D'Gold DVTM--the third largest CFEM gold royalty collector in the first four months of 2020 nationwide--heads the main lobby aimed at legalizing gold digging, an activity he is familiar with since the 1980s. Shortly after establishing the Tapajós Gold Mining Reserve,⁵ in 1983, Dirceu started buying gold in the region. Shortly thereafter, he purchased his first gold digging site in Itaituba, a municipality where he served two terms as the Environment Secretary.

Illegally extracted gold traded in the financial market is a fact, the President of Anoro acknowledges. "There will always be risk exposure. There is no way of fully monitoring the origin [of gold]. Law [12.844, issued in 2013] requires gold to be sold at the place closest to its source. We have no way of knowing if it does come from there or not", he says, arguing that a national registry of gold diggers must be established in order to ensure operational transparency.

⁵ The Tapajós Gold Digging Reserve was established through decree number 882, which was drafted by former Minister of Mines and Energy César Cals on July 23, 1983. Gold digging sites started operating in the region in the late 1950s.



Photo Caption: The President of Anoro, Dirceu Santos Frederico Sobrinho
Source: YouTube frame capture – House of Representatives' Mine and Energy Commission video (November 1, 2019)

In a videoconference call from his São Paulo office, the President of Anoro endorsed criticisms levied at how environmental inspectors operate. “Instead of setting fire to machinery in gold digging sites, it would be smarter for Ibama and National Force helicopters to fly over there and take brochures, as opposed to machine guns. Employees would thus be able to encourage gold diggers to operate in regulated markets. I can assure you, as a champion of gold digging activities, that 70% of them would comply. This is the ideal moment. The government is making an effort. It is not an easy fight, but this is the most suitable time,” he affirms.

For the gold digging lobby, the activity must take place first in protected areas, then in indigenous lands

The President of Anoro has been a regular at government offices in Brasília since the second semester of 2017, according to the “Anoro Book”, a document published in

website Garimpo 4.0, although it still offers restricted access and requires a password. Hearings held in the federal capital intensified starting in the second quarter of 2019, after President Bolsonaro took office. In addition to meetings with the President of the ANM, Victor Bicca, the book’s chapter “Esforço concentrado” (“Concentrated Effort”) lists meetings at the Presidency’s Office of the Chief of Staff, as well as with Mines and Energy Minister Bento Albuquerque and Environment Ministry Ricardo Salles. The lobby did not work remotely. On the eve of May 1, 2020, with the coronavirus pandemic in full swing, Dirceu Santos met in Brasília with members of the Amazon Council, chaired since February by Vice President Hamilton Mourão, with whom he had already met.

The “Anoro Book” (8) describes the organization’s main proposal in detail: to establish a national registry of gold diggers, which would be in charge of undertaking a census of gold diggers and, above all, of ensuring transparency for Brazil’s obscure gold market. Through a technical cooperation agreement signed with the regulatory agency in 2017, Anoro commits to paying for the costs of the registry, which would enhance monitoring of both the source and destination of gold, while sharing information with the Central Bank and the Federal Revenue Service. For the time being, the idea of creating a registry is still pending a decision, and there is still no timeframe for the drafting of the proposal.

Before delving into the idea of the registry, however, Anoro’s publication dedicates a great deal of space to an issue that is very dear to the organization: the conflict between conservation units established in the 2000s, and the boundaries of the Tapajós Gold Digging Reserve’s 28,700 square kilometre grounds, as seen in the map below, produced by Anoro. The document describes what it deems “conservation

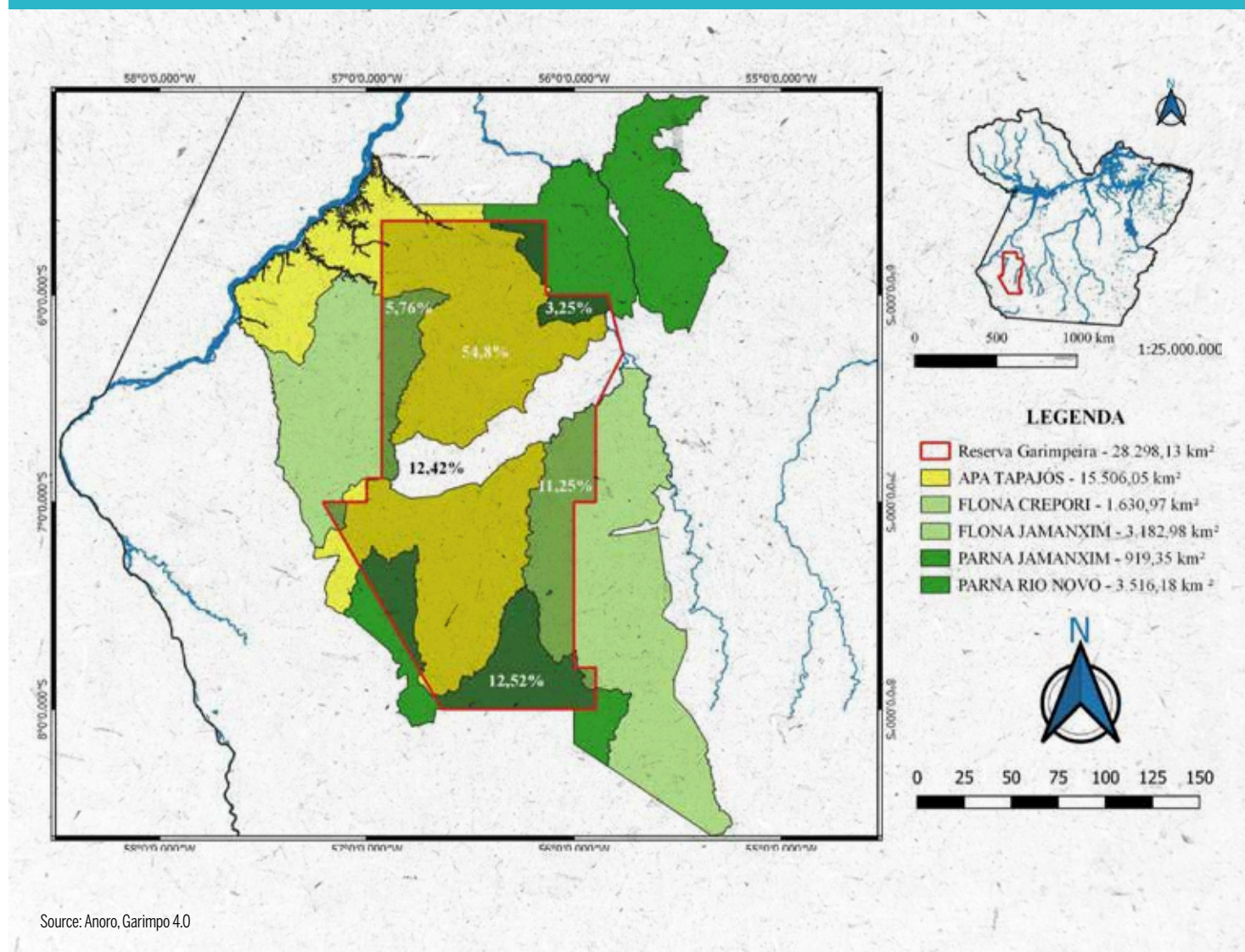
efforts invading gold digging reserves.” The document makes it clear that gold digging would be prioritized over environmental protection.

The protection areas that the gold market representatives complain about were established within the context of the Regional Sustainable Development Plan for the BR-163 Cuiabá-Santarém Highway Area of Influence, also known as the Sustainable BR-163 Plan. In order to curb deforestation along the banks of the highway, 4.9 million hectares of sustainable use conservation units were marked off. In addition to the Tapajós Environmental Protection Area, where gold digger José Antônio Pereira dos Santos and many others were granted licences to carry out gold-digging activities, there are the Amana, Jamanxin, Crepori, and Trairão National Forests (Flonas). These areas are located between conservation units where gold digging was not permitted at the time that said conservation units were built. To clear these lands for gold digging, Anoro presses the Attorney General’s Office to revise its position on the matter.

Expert opinion report no. 21, issued in 2014, argues that mineral exploitation is prohibited in National Forests (Flonas), even in those established before 2000, if the activity is not clearly included at the time the conservation unit was established (9).

Additionally, the Sustainable BR-163 Plan set apart 1.9 million hectares of integral protection conservation units, which do not permit economic activities. The Amazônia National Park was expanded, and the Jamanxim and Rio Novo National Parks, in addition to the Nascentes da Serra do Cachimbo Biological Reserve, were created. All gold digging deeds are currently embargoed in park and national forest areas.

Conservation units within the perimeters of the Tapajós Gold Digging Reserve



"This Plan came about ignoring the fact that the main economic activity along the 1,000 km-long highway is gold digging. The world's navel is located in the Tapajós region, which was home to the world's oldest volcano and is rich in minerals," Dirceu Santos argues. The President of Anoro believes that "geodiversity comes before biodiversity: you can move a forest, but you can't move a gold mine or a reservoir," he concludes.

Gold digging in the Tapajós region, according to the Sustainable BR-163

"Geodiversity comes before biodiversity: you can move a forest, but you can't move a gold mine or a reservoir".

Dirceu Santos,
President of Anoro

Plan, was a decadent activity that could be replaced by forest-based options, even though a two million-hectare land was set aside for mineral extraction (10). About Dirceu Santos' remark, even though forests can be planted, there are no known accounts of forests being successfully "moved."

The government previously consulted with Anoro prior to Bill no. 191⁶/ 2020, which regulates mineral exploration in indigenous lands, and which was sent to the National Congress in early February of this year. The association finds that, although gold digging in indigenous lands "is a reality," the activity must be suspended until a new law with exploration guidelines is passed so as to prevent illegally extracted gold from indigenous lands from entering the market. "It is an actual risk. We defend that legalization is the best option, because everyone wins. However, we should first regulate within the conservation units," argues Dirceu Santos.

Government plans on fighting deforestation without destroying gold diggers' machinery

With Amazon deforestation rates suggesting new record levels may be set in the 2020s, the federal government plans to curb forest destruction without using legally available resources to tackle one of its main driving forces, illegal gold digging.

From May 11 to June 10, a new decree to Guarantee of Law and Order (GLO) is in effect to prevent and crack down on environmental crimes committed in bor-

der regions, on indigenous lands, and in Legal Amazon conservation units, which make up 61% of Brazil's territory. Decree no. 10.341/2020, which authorizes the GLO, was issued on May 6 and signed by Minister of the Environment Ricardo Salles and by the Head of the Institutional Security Office (GSI), Augusto Heleno. For all practical purposes, it places environmental inspection duties under the control of the Army, which is unprecedented. Above all, it strips Ibama of its

dent Hamilton Mourão replied, through his Press Office, that the GSI would henceforth be in charge of running operations against environmental crimes.

During a May 11 interview about the operation, General Augusto Heleno (GSI) stated that authorities would not accept being "smeared as environmental villains." Minister Salles, in turn, maintained that machinery seized from gold diggers should, instead of being destroyed, be confiscated and handed over

In undermining a legal instrument provided by law to fight environmental crimes, the government downplays the fact that gold digging is one of the main driving forces behind the Amazon's deforestation.

autonomy to destroy machinery used in gold digging, something that had bothered President Bolsonaro and Minister Salles since they first took office, and that had already prompted the firing of three government officials in charge of environmental inspections (11) in April, after heavy lobbying by gold diggers and gold market financial institutions.

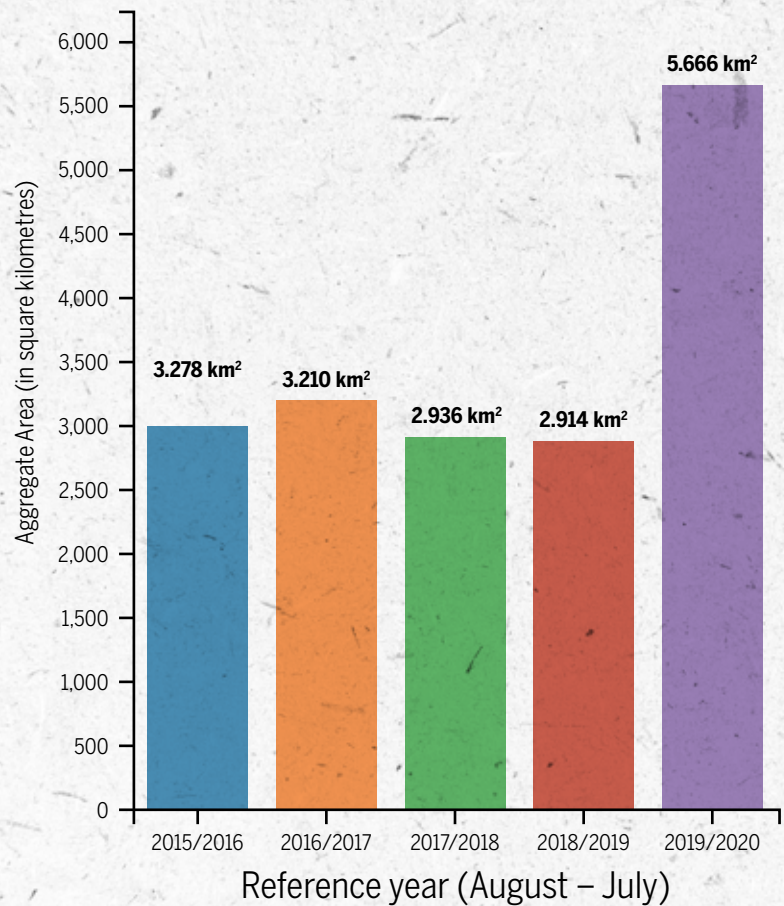
Operation Green Brazil 2, whose cost has been estimated at R\$ 60 million and deploying 4,200 soldiers and police officers, was put together by the Amazon Council, which is tasked with coordinating and implementing Legal Amazon public policies, and, since February, by the Office of the Vice President of the Republic. In April, when questioned about the increase in deforestation alerts that had been piling up since August 2019 and that would be reflected in the next official deforestation rates, Vice Presi-

to states and municipalities.

The intervention deals with the threat of new record-setting deforestation rates in the Amazon, following the decade's previous record, which was set in 2019. During the first nine-month period for which official deforestation rates were computed, from August 2019 to April 2020, forest deforestation alerts increased by 94%, according to the National Institute for Space Research (Inpe). By undermining a legal instrument to fight environmental crimes, the government downplays the fact that gold digging is one of the main driving forces behind deforestation in the Amazon. Rates recorded in 2019 in the conservation units and in indigenous lands rose by 30% and 65%, respectively, compared to the previous year, according to INPE, which will likely disclose in November the official deforestation rates (Prodes) for 2020.

⁶ Bill no. 191/2020 is currently being appraised at the House of Representatives and features several controversial points, such as the possibility, set out under article 14, for the President of the Republic to request approval for business ventures in indigenous lands "against the will of the impacted indigenous communities," as long as justifications are provided. Another controversial point is a plan to expedite mineral resource research and extraction conferred before the indigenous land was officially ratified.

Cumulative deforestation rates from August to April over the past few years



Source: TerraBrasilis. Alert Dashboard. Deter, Legal Amazon, monthly aggregate rates. Available at: <http://terrabrasilis.dpi.inpe.br/app/dashboard/alerts/legal/amazon/aggregated/>.

The Chico Mendes Institute for Biodiversity Conservation (ICMBio) points out that gold digging's responsibility for deforestation in the federal conservation units surged from 17% in 2016 to 33% in 2017. The highest deforestation rates were observed precisely in the Tapajós Environmental Protection Area and in the Jamanxin National Forest, areas in the Tapajós region where activities related to gold digging have been expanding. According to Ibama, in 2019 deforestation related to gold digging hit a new record (13): 10,500 acres, a 23%

increase compared to the previous year. This means that, last year, gold digging destroyed 105 square kilometres in conservation units. And once again, the most affected region was Tapajós.

In response to a request made via the Access to Information Law (LAI) about gold digging in the Yanomani Indigenous Land, in the state of Roraima, the ANM acknowledged that a series of operations carried out during several decades had failed to put an end to gold digging in the territory. Although Operation Ágata, a joint effort by the Army, the Federal Police

and Ibama, was carried out two to three times each year, "it never succeeded in stopping all gold digging activities" in the region, according to the agency.

Last April, another Federal Police operation led to a complaint being filed by the Public Prosecutor's Office against a criminal organization that traded illegally sourced gold. According to an inquiry from Operation Jardim das Hespérides (14), the defendants moved at least 1.2 tons of gold overseas. "In this particular situation, the AN-M-RR contributed with technical data and concluded that this gold was extracted from illegal gold digging sites in the Yanomani Indigenous Land, as well as in gold digging sites run by Brazilians working in Guyana and Venezuela," the agency added. The gold was bound for India, one of the most common destinations for gold produced in Brazil, alongside Canada and the United Kingdom. The lawsuit is under confidential review at the state of Roraima's Court of Federal Justice.

The State's efforts have not sufficed to effectively curb the trade of illegally sourced gold, concludes the public civil action complaint (15) filed by the Public Prosecutor's Office in Santarém, in the state of Pará, in July 2019, which also concerns the National Mining Agency and the Central Bank. According to the complaint, the Tapajós and Jari River Basins are the regions in the country where illegal gold digging activities are expanding most rapidly, and it urges the government to take measures.

Is it possible to talk about environmentally sustainable gold digging?

Advocates of regulating gold digging in protected areas argue that this activity is a reality, and that "everybody" would win if the activity were legalized and if taxes were collected. This win-win mindset, however, fails to take into account

the damage caused to the environment, which is not restricted to deforestation.

Technical Report 091/2018 (16) from the Federal Police's Operation Levigação estimates that seven million tons of sediment have been released into the Tapajós River Basin as a result of gold digging carried out near the river's tributaries. The technical report compares these figures with the estimated 84 million tons of tailings that were released into the Doce River Basin after the Samarco dam collapsed in Mariana, in the state of Minas Gerais, in November 2015.

"In the case at hand, regarding gold digging sites in the Tapajós River Basin, the discharge is estimated at at least seven million tons per year, which would be the same thing as saying that, every 11 years, gold digging sites release the same quantity of solid residues into the Tapajós River that Samarco poured into the Doce River after its tailings dam ruptured. If the figures are converted to volume, this ratio becomes even higher, since the density of Mariana's iron ore tailings is significantly greater than that of the Tapajós River Basin's soil," con-

cludes the 2018 Technical Report.


The Federal Police did not measure mercury contamination in the waters of the Tapajós River, whose colour has turned bluish due to accumulated sediment. A supporter of legalizing gold digging in the region, forestry engineer Guilherme Aggens claims that, due to the fact that mercury is expensive, at "R\$ 1,500 per kilo," gold diggers use it with restraint in "controlled environments."

This is not, however, what studies on mercury contamination in fish and Amazon riverside populations show. The National Inventory of Mercury Emissions and Releases in Artisanal and Small-Scale Gold Digging in Brazil, published in 2018, estimates that the quantity of mercury related to gold digging that was released into the atmosphere in 2016 ranged from 11 to 161 tons. This figure is inaccurate due to the difficulty in estimating the scope of gold digging. The study also finds that gold diggers manage to recover around half of the metallic mercury they use in their activities (17).

The new gold rush in the Amazon, defined by an increase in the demand

for a 'safe haven' asset in times of financial crisis as well as by a political environment that endorses gold digging, is a risky move. A risk for the transparency of the source of the financial asset and, above all, for protected areas in the Amazon, regardless of whether they are indigenous lands or conservation units.

This Discussion Paper has shown how gold that is illegally extracted from protected areas ends up in the regulated market, as recognized by the President of Anoro and owner of one this market's major operating security distributor companies (DTVMs). The study also sheds light on the lobby that brings together gold diggers and institutions in their quest against the destruction of machinery seized in gold digging sites. And, most importantly, it suggests that the frontier of gold digging is increasingly overstepping the boundaries of Conservation Units.

This is not a simple issue to solve. However, by clarifying the interests at stake, the discussions on this issue may move forward. Who benefits from the legalization of gold digging in protected areas? 

Note: In this paper, financial institutions are Central Bank-accredited institutions that trade gold as a financial asset, as is the case with Securities Distributor companies (DVTMs).

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