

# MONITOR

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REPÓRTER  
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## THE “GREEN” FUEL THAT DRIVES DEFORESTATION

How the production of biodiesel with beef fat, despite being favoured by climate change mitigation policies, uses raw materials that contribute to the problem

# MONITOR #14

## STAFF

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### EDITION

André Campos

### RESEARCH AND TEXT

Isabel Harari e Naira Hofmeister

### PHOTOS

Alex Azabache - Pexels (cover)

Victor Moriyama - Greenpeace (p. 4, 9)

Bruno Kelly - Greenpeace (p. 5, 11, 16)

Marizilda Cruppe - Greenpeace (p. 6)

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Bruno Cecim - Agência Pará (p. 15)

João Laet (p. 17)

### INFOGRAPHICS

Julia Lima

### GRAPHICS DESIGN AND LAYOUT

Débora De Maio | Estúdio AVOA

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## REPÓRTER BRASIL

ORGANIZATION OF COMMUNICATION  
AND SOCIAL PROJECTS

### GENERAL COORDINATOR

Leonardo Sakamoto

### EXECUTIVE SECRETARY

Marcel Gomes

### FINANCIAL COORDINATOR

Marta Santana

### ASSISTANT COORDINATOR

Victória Perino Rosa

---

### ADDRESS

Rua Amália de Noronha, 151  
Conj. 605 - São Paulo - SP  
Brasil CEP 05410-010

### CONTACTS

✉ [contato@reporterbrasil.org.br](mailto:contato@reporterbrasil.org.br)

f **ONGReporterBrasil**

t **@reporterb**

(55 11) **2506-6570**

(55 11) **2506-6562**

(55 11) **2506-6576**

(55 11) **2506-6574**



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# PLANTING ENERGY

With the declared purpose of fighting climate change, Brazil and several other countries began to adopt public policies to encourage the production of biofuels, a type of energy made of agricultural raw materials. The current Brazilian rules establish that the gasoline sold by petrol stations in the country must contain 25% of ethanol in its composition. Diesel fuel, on the other hand, must include a mandatory mixture of 10% biodiesel to fossil oil.

The local incentive to the production of biofuels occurs mainly through the National Programme for Biodiesel Production and Use (PNPB) and the RenovaBio.

The PNPB,<sup>1</sup> created in 2004, aims to strengthen the supply chain of biodiesel through incentives to agricultural production and the diversification of raw materials. Manufacturers of renewable fuels that meet the programme's criteria receive tax incentives and have access

to a market reserve to commercialise the product.<sup>2</sup>

In 2017, as part of the efforts to achieve the goals of the Paris Agreement,<sup>3</sup> the Brazilian government instituted RenovaBio. The policy aims to decarbonise the national transport sector, an important source of greenhouse gas emissions.

The programme has established a carbon market.<sup>4</sup> Biofuel manufacturers are allowed to issue Decarbonisation Credits (CBios) in proportion to the carbon savings their products represent relative to their fossil fuel counterparts. Fuel distributors, in turn, are now obliged to buy these credits to offset the CO<sub>2</sub> emissions from the fossil fuels they sell.

Through annual emissions reduction targets for fossil fuel distributors, RenovaBio estimates to have avoided the emission of 40 million tons of greenhouse gases. The perspective, according to

the federal government, is that by 2030 this level will reach 620 million tons in total.

In April 2020 the CBios began to be sold on the Brazilian stock exchange.<sup>5</sup> That year alone the credits traded generated a financial volume of R\$ 650 million<sup>6</sup> – around US\$ 126 million according to the average conversion rate over 2020.

The European Union (EU) also has its own programme to encourage renewable energy production, the Renewable Energy Directive.<sup>7</sup> The programme sets rules for the EU to have at least 32% of its energy consumption coming from so-called renewable sources by 2030, as part of the efforts to reduce in 55% its greenhouse gas emissions (compared to 1990 levels).

**THE EU REGULATION STATES THAT THE RAW MATERIALS USED MUST NOT ENCOURAGE THE DESTRUCTION OF LAND RICH IN BIODIVERSITY. BUT BIODIESEL IMPORTED BY THE EU FACES GREAT RISK OF USING RAW MATERIAL COMING FROM RECENTLY DEFORESTED AREAS.**

To achieve these objectives, the expectation is that “harvesting for energy purposes” will increase in the coming years, which translates into greater imports of inputs from third countries. This situation could potentially further intensify the expansion of agricultural activities into forest areas.

The EU regulation, which also applies to imported products, states that the raw materials used must not encourage the destruction of land rich

in biodiversity. But in reality – as this report will show – biodiesel imported by the EU faces great risk of using raw material coming from recently deforested areas.



Cattle in recently deforested area





# CATTLE "RECYCLING"

In Brazil, the most widely used biofuel is ethanol produced from sugarcane. But other sources have been gaining space in the market, especially biodiesel. The volume of raw materials used in the national production of the product has more than doubled in 10 years. It jumped from 2.7 million m<sup>3</sup> in 2011 to 6.5 million m<sup>3</sup> in 2020.<sup>8</sup>

Currently, Brazil is the third largest biodiesel producer in the world,<sup>9</sup> with 13.7% of the total produced in the global market, behind Indonesia (17%) and the United States (14.4%). The main raw material used is soy, which is responsible for 71.4% of the total. Next comes animal fat, with 11.3%.<sup>10</sup>

Beef tallow is a major source of animal fat for this industry. The product is obtained from residues of the cattle's tissues and has a relatively low production cost, since it is extracted from less noble parts of the animal, such as the carcass. An ox provides between 15 and 17 kilos of usable

tallow,<sup>11</sup> but there are estimates of up to 34 kilos of tallow per head.<sup>12</sup>

Its low production cost and high-profit potential regarding the emission of decarbonisation credits makes beef tallow a strategic raw material for the biofuels sector. Today, the price per kilo in the state of Rio Grande do Sul is over R\$ 6.00. In 2007, the same quantity was below R\$ 2.00, according to Sérgio Beltrão, executive secretary of the Brazilian Union of Biodiesel and Biokerosene.<sup>13</sup>

## GOOD FOR THE ENVIRONMENT?

From an environmental point of view, beef tallow is usually seen as a promising product. Classified as a "waste" that could be discarded, its processing is considered, by companies and institutions involved in the business, as "animal recycling"<sup>14</sup>, and a step towards a more circular economy.

But the reuse of beef tallow was not born with RenovaBio or other decarbonisation policies. Before being a raw material for biofuel, it was already found in the manufacture of cleaning and hygiene products, paint, varnish and animal feed. But, unlike what happens in the biofuel market, none of the other uses of beef tallow authorizes meatpackers to generate and sell carbon credits for its production.

Beef tallow is advantageous for maximizing gains in programmes such as RenovaBio, because greenhouse gas emissions are accounted for from its collection at the meatpacking plant or the rendering plant responsible for extracting fat from slaughtered animals. As it is considered a waste by official criteria, the agricultural stage is not included in the calculation of the carbon footprint.

The production of biodiesel from soybean does not have the same advantage. To participate in programmes such as RenovaBio, plants that use the grain need to present evidence, through traceability mechanisms, that the raw material was not produced through the deforestation of native forests.

This means that plants that primarily use tallow have the highest energy-environmental efficiency scores from RenovaBio.<sup>15</sup> The score reflects, according to the programme methodology, the individual contribution of each producer to the mitigation of greenhouse gases in relation to its fossil substitute. The higher the score, the more efficient the industry is at reducing emissions<sup>16</sup> – at least on paper.

#### IN OTHER WORDS:

**by considering the meatpacking plant or the rendering plant as the point of origin of the raw material, the programme disregards emissions in the stages prior to slaughter – from birth to the slaughterhouse. Thus, RenovaBio closes its eyes to the trajectory of the cattle that supply the tallow and fails to consider the potential socio-environmental problems of the supply chain. Deforestation and illegal fires, to name a few examples, are crimes ignored in the final count.**

Livestock is one of the main vectors of forest fires and deforestation. And it is precisely the clearing of native forests the main source of greenhouse gas emissions in Brazil.<sup>17</sup>

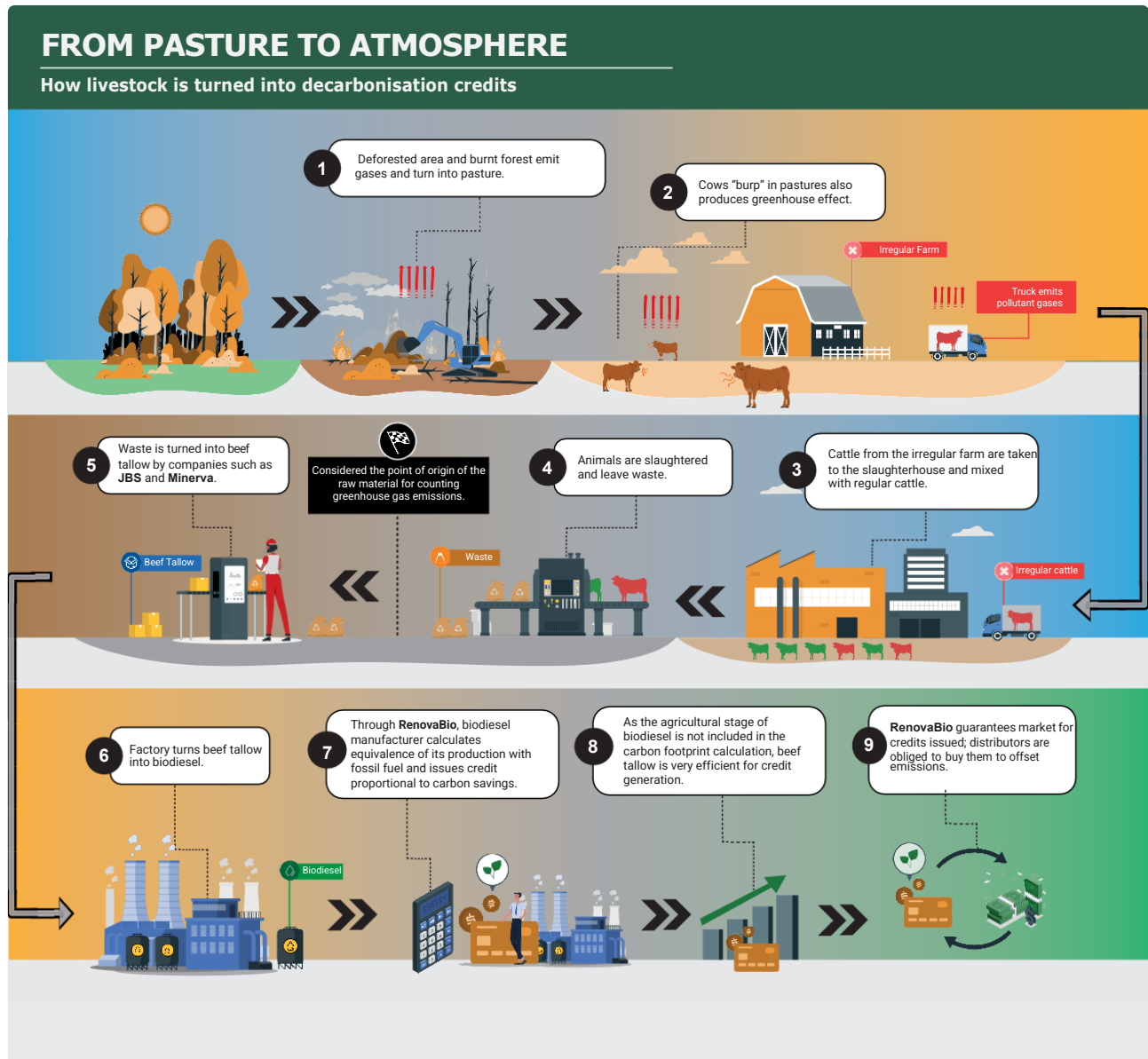
Around 75% of deforested public areas<sup>18</sup> in the Legal Amazon have become pasture, according to a survey by the Amazon Environmental Research Institute (IPAM). The Inter-American Development Bank (IADB) estimates that over 800,000 square kilometres of the Amazon Rainforest have already been destroyed for the cultivation of crops and pastures, with livestock being responsible for 70% of the deforestation in Latin American and Caribbean countries.

Brazilian greenhouse gas emissions are on an increasingly upward curve. In 2020, they grew 9.5%, reaching the highest level since 2006. Livestock contributed to a large part of this rate.<sup>19</sup>

In addition to causing deforestation, livestock also contributes to climate change in other ways. Almost two thirds of direct emissions

from agriculture (65%) in Brazil come from the digestion of ruminant animals, which emits methane – the cow’s “burp”.

Globally,<sup>20</sup> CO<sub>2</sub> emissions in agriculture and livestock increased 17% in the last 30 years. Brazil is the world’s third largest emitter in this context, behind China and India.





An aerial photograph showing a landscape where a large portion of the forest has been cleared. A dirt road winds through the remaining vegetation and cleared areas. In the center-right, there is a small, simple building with a white roof. The ground is a mix of brown soil and sparse green plants. The overall scene suggests a rural or agricultural setting in a tropical or subtropical region.

# REWARDING DEFORESTATION WITH CARBON CREDITS

Since 2006, regulatory agencies have authorized the operation of 38 industrial plants<sup>21</sup> that use beef fat as at least one of the raw materials for biofuel production. Together, they have a production capacity of 25,500 m<sup>3</sup> per day. The state of Mato Grosso has nine facilities, followed by Rio Grande do Sul, with eight, and Goiás, with six units. Among the companies, two meat industry giants stand out: JBS and Minerva.

JBS Biodiesel is the world's largest integrated producer of biodiesel from beef tallow. It is part of the JBS group, a Brazilian multinational present on several continents and one of the largest animal protein processors on the planet. Its biodiesel plant in Lins (SP)<sup>22</sup> was the first in Brazil to obtain the certification to issue Decarbonisation Credits (CBios). More recently,<sup>23</sup> the unit in Campo Verde (MT) also obtained the certification.

In August 2021 JBS started the construction<sup>24</sup> of a new biodiesel plant in Mafra (SC). The unit is

expected to use poultry fat and have a production capacity of 1 million litres of biodiesel per day. With this, the company expects to double its production capacity,<sup>25</sup> from 310 million litres to 670 million litres per year.

Minerva, another multinational of Brazilian origin, has a production unit next to its meatpacking plant in Palmeiras de Goiás (GO). In 2011, when the factory opened<sup>26</sup>, production was 45 m<sup>3</sup>/day, with the capacity to reach up to 100 m<sup>3</sup>/day. Today, the rate reaches 200 m<sup>3</sup>/day. In May 2021 the company was certified and qualified<sup>27</sup> to participate in RenovaBio.

In 2020, JBS generated 430,000 Decarbonisation Credits (CBios) with biodiesel production. Considering the average price of one CBio in 2020 (R\$ 43), JBS may have profited more than R\$ 18 million – the equivalent to US\$ 3.5 million<sup>28</sup> – from the operation, not counting the amount received from the sale of the biofuel itself.

Minerva certified its biodiesel plant under RenovaBio in May 2021. With its current production capacity, the meatpacker could obtain extra revenue of R\$ 3.3 million – US\$ 640 thousand<sup>29</sup> – from CBios, using the average value of the bond (R\$ 36) between May 1 and October 15, 2021 as a calculation basis. Currently, the company's main shareholder is Salic (UK) Limited, a British subsidiary of the state-owned Saudi Agricultural and Livestock Investment Company (Salic).

The biodiesel produced by JBS and Minerva uses as the main raw material tallow from the cattle these companies slaughter. While this is considered an advantage for the companies from the point of view of profitability, equally real is the chance that this product is “contaminated” by deforestation.

Both companies can sell carbon credits despite being, according to research based on the location of their slaughterhouses, the first and eighth meatpacking facilities in the Amazon with the highest risk of causing deforestation, respectively.<sup>30</sup> But that's not all. Various investigations by NGOs, the media and even public authority inspections have regularly found concrete cases of environmental crimes in the supply chain of these companies.

In October 2021, the Public Prosecutor's Office showed that 32% of JBS slaughtered animals in Pará contained socioenvironmental irregularities. Between 2018 and the first half of 2019, JBS slaughtered more than 285,000 animals raised on illegally deforested farms.<sup>31</sup>

The Public Prosecutor's Office found no problems with Minerva's purchases in Pará, but investigations by **Repórter Brasil** have already identified the company slaughtering cattle from deforesting ranchers in states such as Tocantins<sup>32</sup> and Mato Grosso.<sup>33</sup>

In its latest report on livestock,<sup>34</sup> **Repórter Brasil** shows the links that connect deforestation in the Amazon to the JBS slaughterhouse in Lins – the same city where the company operates one of its biodiesel plants. It is just another example among the many publications by the organisation that highlight how the company's monitoring fails to detect crimes related to indirect suppliers<sup>35</sup> and “cattle laundering”.<sup>36</sup>

When questioned by **Repórter Brasil** about its performance in the biofuels sector, JBS explained that it “has a policy of responsible raw material purchase for its direct suppliers” and that it has implemented a programme to demand social and environmental compliance from “suppliers of its suppliers” until 2025. It also said that, “if it were not for this use [biodiesel], this waste would be discarded, with losses for society”.

Minerva says it is the “first company in the sector to move forward with actions to evaluate the indirect supplier chain” and lists measures adopted to reduce its emissions.

**Read JBS Biodiesel's full statement and Minerva Biodiesel's full statement in the appendix section of this report.**





# THE ECOLOGICAL FOOTPRINT OF BIODIESEL SOLD TO THE EUROPEAN UNION

Europe is importing Brazilian biodiesel to reduce greenhouse gas emissions from its transport sector. But the purchase of 3.6 million litres from Brazilian giant JBS, in April 2020,<sup>37</sup> may be causing the opposite effect and contributing to global warming.

The European Union's biofuels policy has a preventive mechanism to avoid biofuel production from taking over native vegetation: the European Union Renewable Energy Directive.<sup>38</sup> It warns that removing trees that absorb CO<sub>2</sub> from the atmosphere can result in an increase in greenhouse gases rather than a decrease.

But the measure does not affect JBS' exports, since, according to the criteria adopted by the Directive, beef tallow is considered a waste and not a primary raw material. It is the same argument that, in Brazil, allows JBS to sell carbon credits in its biodiesel-related businesses.

The International Sustainability Et Carbon Certification (ISCC)<sup>39</sup> is the main certification system based on the EU's Directive, which establishes mandatory sustainability parameters for the processing and use of biodiesel in member countries. When it carried out the export operation in 2020, the meatpacking plant was backed by two ISCC certificates,<sup>40</sup> one for its facilities for receiving and storing<sup>41</sup> beef tallow and another for its biodiesel plant.<sup>42</sup>

In both cases, the summary of the audits carried out informs that the certification guarantees that<sup>43</sup> "the biomass is not produced in lands with high biodiversity and high carbon stock" — a criterion that could be applied to the Amazon, the largest tropical forest on the planet, where JBS has more than 30 slaughterhouses, whose purchase radius pose a risk<sup>44</sup> to 4.6 million hectares of native vegetation.

In 2020, **Repórter Brasil** presented evidence that JBS has actively participated of cattle transactions linked to deforestation. The company itself transported cattle from supplier farms that were embargoed by the environmental agencies to other properties on which there was no irregularity – and then bought and slaughtered the cattle,<sup>45</sup> covering its relationship with the destruction of the forest.

The number 1 principle of ISCC is based on the preservation of biodiversity. If it is violated, the certificate cannot be issued. In addition, certified companies are obliged, in theory, to demonstrate the complete traceability of the supply chain, as well as an effective reduction in greenhouse gas emissions by comparing the biofuel with its fossil counterpart.

However, ISCC makes a caveat: these principles refer to agricultural biomass, that is, they do not apply to raw materials classified as waste or residues – such as animal fats. Thus, instead of making it difficult, the criteria facilitate business for companies such as JBS, which produce biodiesel from beef tallow.

As it is considered a residue, the traceability of the chain does not go back to the pasture, which is the equivalent of agricultural cultivation in the case of soy or corn that generate biofuels.

Because it has a shorter verifiable supply chain, the calculation of emissions from beef tallow is also restricted to the industrial stage, which brings advantages to the manufacturer. From this perspective, biodiesel produced with beef tallow will provide savings in greenhouse gases in the atmosphere (compared to fossil diesel) much greater than the product whose raw

material requires verification from cultivation – which would account for the gases emitted in the planting, harvesting and transport.

JBS has already renewed its ISCC certification twice<sup>46</sup> after the 2020 export operation to the EU. If it had expanded its view to the entire cattle supply chain, the entity might have vetoed the certification, since JBS buys animals without traceability from birth to slaughter, and at a real risk of contributing to the loss of forest cover in biomes affected by high rates of deforestation, such as the Amazon and the Cerrado. It was precisely this scenario that led several European retailers to announce, in December 2021, the suspension of JBS meat purchases.<sup>47</sup>

Questioned, ISCC stated that “waste and residues are materials that are not the main products of a production process and that would otherwise be discarded. Therefore, it is desirable that they can have a further use, for example, with the production of biofuels.”

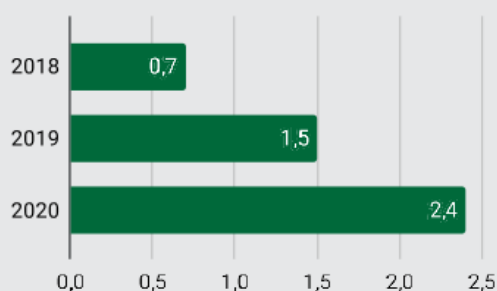
**Read the full responses provided by ISCC in the appendix section of this report.**

The argument, as already explained,<sup>48</sup> induces to the false idea that biodiesel uses a raw material previously destined to garbage dumps or sanitary landfills. But there is a consolidated market for the reuse of this bovine by-product, including its use in the manufacture of animal feed and cleaning products, among others.

According to the Brazilian Association of Animal Recycling (Abra), which represents the companies that use slaughter by-products such as animal fat, the national industry collects 99% of the residues produced by the meat chain,



### Revenue of beef tallow in the domestic market (in R\$ billion)



Source: Abiec

besides processing 100% of what is collected. Biodiesel, in turn, absorbs 36% of animal fat and only 13% of the total amount of residues from animal slaughter.<sup>49</sup>

In its last sale of biodiesel to the European Union, JBS did not inform which company and country were the buyers. It only said that the cargo arrived at the port of Rotterdam<sup>50</sup> in the Netherlands, the main port of arrival for Brazilian goods to Europe.

This, however, was not the only sale of biodiesel from JBS to the European continent. In 2014, the company sold 6.7 million litres of biodiesel to the Dutch company Argos. “It is the largest independent fuel distributor<sup>51</sup> in northern Europe. The fuel will be used in the mixture with conventional diesel to subsequently be distributed,” JBS sustainability report informed at the time. The certification that underpinned this deal was also given by ISCC.

Argos belongs to the Varo Group,<sup>52</sup> that, in 2019, sold its former Brazilian subsidiary to the ECB

Group.<sup>53</sup> The ECB Group, in turn, was the same that intermediated, in 2020, the most recent sale of JBS biodiesel to the European Union, being responsible for the logistics of the operation.

Varo was questioned by **Repórter Brasil** whether it had made another purchase of biodiesel from JBS in 2020, but the company said that “as a matter of principle, it does not provide information about any commercial activities or counterparties with which it is involved”. Nevertheless, it stressed that it “applies a very strict purchasing policy” that includes monitoring the origin of the fuels it distributes.

[Read Varo’s full statement in the appendix section of this report.](#)

## CARGILL: RAW MATERIALS OF UNDISCLOSED ORIGIN

In October 2021, the European Union once again acquired large volumes of Brazilian biodiesel. Almost 5 million litres were sent to the region by the Rio Grande do Sul company BSBIOS, controlled by the ECB Group – the same one that intermediated the JBS operation in 2020. This is the largest export recorded by Brazil since 2015.

According to information obtained by **Repórter Brasil**, the product landed in Belgium and was destined for Cargill NV, the local branch of the US multinational. Among other businesses, Cargill operates a biodiesel refinery in Belgium.<sup>54</sup>

When questioned, Cargill did not deny the relationship and said it applies “the highest standards of sustainability and traceability certification for all raw materials”. Nevertheless,

it did not answer questions from **Repórter Brasil** about the origin of the product or even if it has mechanisms to ensure that beef tallow eventually used in biodiesel is not linked to deforestation resulting from livestock in Brazil.

"We believe biofuels will play an important role in the energy transition, significantly reducing harmful greenhouse gas emissions, particularly in ships, planes and road vehicles. We are actively prioritising biofuels produced from renewable sources or from waste, such as used cooking oils, tallow and used bleaching earth. These raw materials have a greater contribution to certified emissions reductions", Cargill says.

**Read Cargill's full statement in the appendix section of this report.**

Just a few months earlier, BSBIOS had already carried out another sale operation to Europe. Between August and September 2021, a little over 2 million litres of biodiesel were sent to Clover Energy, a commodities trading company based in Switzerland. It sells a diversified portfolio of energy products and highlights that its clients include Cargill and Louis Dreyfus Commodities.

Clover Energy is also certified by ISCC.<sup>55</sup> Sought by **Repórter Brasil**, it said it preferred not to comment and that it "would not provide any details" about the operation.

BSBIOS has two biodiesel plants in the South of Brazil, in which it uses a mixture of raw materials. In addition to soy, which accounts for the largest volume of inputs, it also uses animal fats in the plants – including beef tallow, poultry oil, pork fat and fish oil. In 2020, animal fats accounted for 32% of the production of the Rio Grande do

Sul unit and 40% of the company's Paraná unit. That year BSBIOS purchased 250,800 tons of the raw material, almost 100,000 tons more than the amount purchased in 2018.

In Brazil, among the authorised biodiesel producing plants<sup>56</sup> using bovine tallow as raw material, BSBIOS has the greatest production potential, 2,600 m<sup>3</sup>/day, considering its two industrial plants.

According to the company's 2018 sustainability report<sup>57</sup>, the animal fats come from different Brazilian regions. BSBIOS buys the product from 85 meatpacking plants, rendering plants and slaughterhouses in the south, southeast and



Before being a raw material for biofuel, beef tallow was already found in the manufacture of cleaning and hygiene products, paint, varnish and animal feed





Workers handle animals in a refrigerator

central-west regions of Brazil. In the most recent report, from 2019, the company says it is supported by 127 animal fat suppliers, but gives no further details about the identity of these companies.

The company goes a long way to get the raw material. The average distance between the animal fat extraction unit and the biodiesel production unit is 700.36 km – the data are from RenovaCalc, the RenovaBio<sup>58</sup> monitoring system, and were updated in December 2020.

When questioned by **Repórter Brasil**, BSBIOS did not answer which are the suppliers of the beef tallow used in its plants and what is the geographic origin of the raw material. It also did

not answer whether beef tallow was part of the composition of the material recently exported to the European Union.

Just as in the case of JBS, the company has ISCC certificates. According to the company, the European certification attests that the biodiesel produced by BSBIOS reduces between 86% and 90% the emission of greenhouse gases compared to fossil diesel. “The ISCC proves the company’s sustainable vision and guarantees the continuity of access to the European biofuels market,” says the Brazilian company.

[Read BSBIOS’s full statement in the appendix section of this report.](#)





# EYES CLOSED TO THE PROBLEM

The use of animal fats in the biodiesel industry is growing amidst a great paradox. It is a sector driven by policies aimed, at least in theory, at fighting climate change. But, in practice, one of its main raw materials — beef tallow — is directly linked to the worsening of the problem, since livestock plays a central role in national carbon emissions.

Despite being obvious, the contradiction is completely ignored by governments, companies and certifiers. Behind this reality, there is a fragile rhetorical ploy: the classification of tallow as a mere slaughter “waste”. In this parallel universe, the use of tallow would only be a responsible way to use an item that would otherwise be discarded in landfills, dumps or even illegally.

But beef tallow, at least in Brazil, is not really a waste product. It has long been a consolidated by-product of the meat industry, being reused almost in its entirety according to companies operating in the so-called animal “recycling”.<sup>59</sup>

Tallow is traditionally used in the production of animal feed and cleaning products. The recent entry of the biodiesel industry in the dispute for the product would even be linked to the increase in its price in the domestic market. This situation suggests that there is no surplus of raw material, but competition between many different sectors for its acquisition.<sup>60</sup>

Furthermore, by-products such as tallow and leather do not bring merely marginal gains for the meat industry. In 2020, they accounted for 12% of the total revenue of Brazilian meatpackers.<sup>61</sup> In a sector that notably operates with reduced margins, the revenue from by-products is often what separates the profit from the loss in the operation of meatpacking plants.<sup>62</sup>

For this very reason, policies supporting the use of tallow in the biodiesel industry are not necessarily an incentive to the “green” or “circular” economy, as it may seem at first sight. In the current





situation, they fundamentally encourage the expansion of a business model that, ultimately, is inextricably linked to the destruction of forests and the emission of greenhouse gases.

## THE CATTLE TRAILS

In the end, the bottleneck in the biodiesel chain is the same as in the livestock chain as a whole: **lack of monitoring of animals from birth to slaughter. Even if this traceability were in fact required, contrary to what occurs today, the industry would have enormous difficulties to meet the demand.**

With the exception of some niche markets, there are no comprehensive mechanisms in Brazil to trace the origin of animals – which often pass through several farms before arriving at the slaughterhouse. The trail of deforestation in this long business network remains invisible, both to companies and to society.

This is a technical flaw that goes against the basic fundamentals of the credit market for the decarbonisation of the atmosphere. “One cannot talk about carbon credit if the chain is not known, because there is no way to calculate (the supposed

reduction of emissions)”, argues Ritaumaria Pereira, executive director and researcher of the Institute of Man and Environment of the Amazon (Imazon).

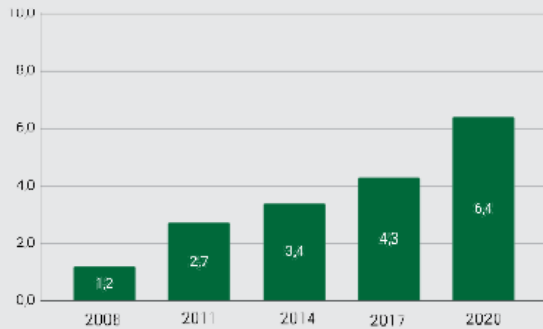
“The justification that the (biodiesel) chain starts only where tallow is generated is a false dilemma to do nothing”, adds Mauro Armelin, executive director of Friends of the Earth – Brazilian Amazon. For him, RenovaBio – the national policy that links the use of biodiesel to the concession of carbon credits – needs to consider changes in its parameters to account for this reality.

**WITH THE EXCEPTION OF SOME NICHE MARKETS, THERE ARE NO COMPREHENSIVE MECHANISMS IN BRAZIL TO TRACE THE ORIGIN OF ANIMALS – WHICH OFTEN PASS THROUGH SEVERAL FARMS BEFORE ARRIVING AT THE SLAUGHTERHOUSE.**

Pereira lists other possible efforts to mitigate the problem. They include, for example, universal adherence to the so-called “Meat TACs” – Conduct Adjustment Agreements signed between the

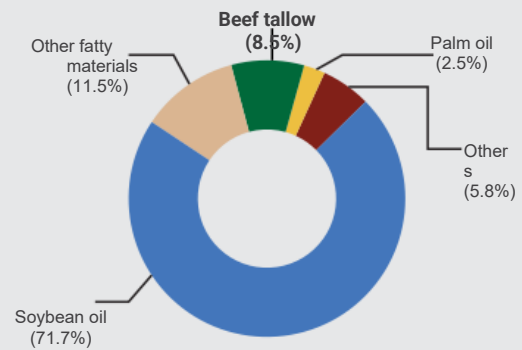


### Annual production of biodiesel in Brazil (in billions of litres)



Source: EPE

### Raw materials used in the production of biodiesel



Source: BiodieselBR

Federal Prosecution Service and meat processing plants operating in the Amazon for monitoring animal suppliers.

But the researcher points out that the measure, by itself, is not a definitive solution, since such agreements only cover the so-called direct suppliers – that is, the last farm through which the cattle passed before being bought by the industry. “In some cases, the direct supplier is the one who does the ‘finishing’, the last two months of the animal, which is slaughtered at 36 months (of age)”, explains Armelin. “So those other 34 months are left open.”

Greater transparency in public data on animal transit, including between farms, independent audits of the supply chain of slaughterhouses and even the implementation of chips for the electronic and individual traceability of cattle, as already exists in other countries, are other possible alternatives suggested by NGOs and research institutes.

On the international scene, civil society organisations question the very rationality of using beef tallow as a way out to “decarbonise” the planet – regardless of advances in traceability or not.

“Biofuels based on animal fat cannot be the long-term solution to reducing emissions in the transport sector”, says Maik Marahrens, biofuels expert at Transport & Environment – one of the leading coalitions advocating for clean and sustainable transport in the European Union. “Industrial livestock farming comes with a massive ecological footprint and is a major driver of climate change. It needs to be reduced, instead of being incentivized through new policy-driven markets for its products.”

Formed by NGOs from 24 European countries, the coalition stresses that the by-products of slaughter are already used by other supply chains, and that European policies to promote renewable energy should not create additional incentives to use these by-products in the manufacture of fuels. ■

# APPENDIX

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**Full explanations**



## JBS

No mercado desde 2007, a JBS Biodiesel utiliza sebo bovino oriundo do processamento das operações da Companhia. A JBS conta com uma Política de Compra Responsável de Matéria-Prima para seus fornecedores diretos. Para ampliar o cumprimento de seus critérios socioambientais para os fornecedores de seus fornecedores, a JBS implantou a Plataforma Pecuária Transparente, que utiliza tecnologia blockchain. Até 2025, todos os fornecedores diretos da JBS precisarão estar na plataforma para manter negócios com a Companhia.

Após um processo que se desenvolveu por dois anos, em outubro de 2019, a unidade da JBS Biodiesel em Lins (SP) foi a primeira do país a ser certificada pelo RenovaBio, programa que autoriza usinas a emitir os CBios, créditos de descarbonização. Em 2020, a JBS emitiu mais de 430 mil CBios. Operações de exportação não dão direito a emitir esses créditos.

Quanto às certificações obtidas pela JBS, é natural haver melhor nota de eficiência pelo fato de usar matérias-primas residuais, como sebo bovino, óleos de vísceras e outras gorduras animais, em uma destinação correta. Não fosse essa utilização, esses resíduos seriam descartados, com prejuízo para a sociedade. A JBS entende a importância da economia circular para a sustentabilidade ambiental e por isso está permanentemente atenta para identificar oportunidades e encontrar soluções técnicas para a melhor destinação de resíduos.

Sobre o ponto levantado relacionado a “violações do Princípio 1 do ISCC”, o questionamento não procede. Trata-se de uma frase-padrão que fica fixa na página 8 de todo relatório que a certificadora emite e não foi trazida pelo auditor. A JBS tem a certificação da ISCC desde 2013, reforçando o seu compromisso com o desenvolvimento sustentável em suas operações.

Quanto à unidade de Campo Verde (MT), a JBS Biodiesel esclarece que a parcela de produção elegível a emitir CBios passou de 49% para 55%. Os 80% se referem à nota de eficiência energética conferida pela ANP (Agência Nacional do Petróleo, Gás Natural e Biocombustíveis), o que a coloca entre as cinco mais altas entre as empresas atualmente certificadas e confirma o potencial em termos energético-ambientais. Em Lins, 95% da produção é elegível para a emissão, pois, além do sebo bovino, também há importante participação do óleo de fritura recuperado na composição do biodiesel da unidade.

A capacidade atual de produção autorizada da JBS Biodiesel é de 350 milhões de litros por ano. Mafra (SC) ainda não entrou em operação. A Companhia se reserva o direito de preservar informações comerciais que considera estratégicas.

## Minerva

A Minerva Biodiesel, unidade produtora de biodiesel da Minerva Foods, atua com a missão de ser uma unidade de negócios 100% sustentável em diferentes cadeias produtivas, em linha com melhores práticas de ESG. Nos últimos anos, a empresa tem desenvolvido diversas soluções e iniciativas para utilizar produtos excedentes e/ou residuais de processos para geração de grãos e proteínas, a fim de produzir um biodiesel mais sustentável, com um coeficiente eficaz na redução de poluição e com capacidade de gerar créditos de carbono.

Em 2011, a Companhia inaugurou sua primeira unidade em Palmeiras de Goiás (GO), que hoje possui capacidade produtiva de aproximadamente 200m<sup>3</sup> diariamente, biodiesel este proveniente de sebo bovino produzido nas unidades produtivas da Minerva Foods no país, bem como de outras matérias-primas de fornecedores terceiros como outros óleos vegetais e animais.

Em maio de 2021, a Minerva Biodiesel aderiu ao Programa RenovaBio, passando a emitir créditos de descarbonização por meio da emissão de Certificados de Biocombustíveis (CBIOs). Cada unidade equivale a uma tonelada de dióxido de carbono que deixou de ser emitida e, atualmente, a Companhia possui potencial de emissão de aproximadamente 98.337 CBIOs. Valor superior às emissões de gases de efeito estufa das atividades industriais (escopo 1) no Brasil e 40% do total de emissões para todas as atividades da Companhia nos escopos 1 e 2. A Green Domus foi a empresa responsável pela auditoria da Minerva Foods no âmbito do RenovaBio.

No setor, a Minerva Foods lidera as iniciativas no combate ao desmatamento ilegal e às mudanças climáticas relacionadas à conversão de terras na América do Sul. Ao longo dos últimos 10 anos, a empresa vem adotando iniciativas em prol de uma produção cada vez mais sustentável em toda a cadeia. Em 2020, a Minerva Foods zerou as emissões de gases de efeito estufa (GEE) no escopo 2 – proveniente da aquisição de energia elétrica consumida – em 100% de suas operações, além de promover a remoção de mais de 38 mil toneladas de CO<sub>2</sub> da atmosfera através do plantio de árvores.

Também com foco em emissões, em 2021, a Minerva Foods anunciou sua nova estratégia de Sustentabilidade, com o compromisso de ser Carbono Neutro, alcançando emissões líquidas zero, até 2035 – 15 anos antes do previsto no Acordo de Paris.

Dentre as metas, a empresa se comprometeu a reduzir em 30% a intensidade das emissões de Gases de Efeito Estufa (GEE) nos escopos 1 e 2 até 2030 (escopo 2 já concluído); e a manter sua matriz energética carbono neutro com 100% da energia advinda de fontes renováveis. Além disso, a Companhia irá inserir 50% dos fornecedores de carne bovina no Novo Programa de Baixa Emissão de Carbono até 2030.

### Monitoramento de Fornecedores

Como parte de sua estratégia de sustentabilidade no âmbito do ESG, a Companhia é a primeira e única empresa do setor a utilizar sistemas de informações geográficas em todas as regiões no Brasil e no Paraguai, com pioneirismo no monitoramento de fornecedores no Cerrado e no uso de tecnologias para avaliar riscos dos indiretos. Hoje, soma mais de 14 milhões de hectares analisados entre o Brasil e o Paraguai. Juntas, todas as regiões que monitoradas são maiores que o território da Grécia.

No Brasil, 100% de compras realizadas pela Minerva Foods são monitoradas nas regiões da Amazônia, Cerrado, Pantanal e Mata Atlântica, por meio de mapas georreferenciados de fazendas fornecedoras diretas, garantindo o cumprimento de rigorosos critérios socioambientais por parte de seus parceiros comerciais.

Atualmente, a empresa monitora de forma privada mais de 9.000 fornecedores no bioma Amazônia, compreendendo uma área total de mais de 9 milhões de hectares, uma região equivalente ao território de Portugal. Além disso, também monitora mais de 2 milhões de hectares no Cerrado, Pantanal e Mata Atlântica.

Entre diversas outras iniciativas, a Minerva Foods é também a primeira Companhia do setor a avançar com ações para avaliação da cadeia de fornecedores indiretos. Em 2020, a Companhia iniciou testes com o Visipec, uma ferramenta para avaliação de riscos relacionados a esses fornecedores no Brasil, desenvolvida em parceria com a National Wildlife Federation (NWF) e a Universidade de Wisconsin. Os resultados iniciais dos testes indicaram 99,9% de atendimento aos critérios definidos pelo Grupo de Trabalho dos Fornecedores Indiretos, considerando o universo de 3.314 potenciais propriedades indiretas mapeadas e avaliadas. No segundo teste, o resultado foi 99,3% de conformidade, e no terceiro

TAC results in the 2017 and 2018 audits

|              | 2017              |           |         |         |             | 2018              |           |         |         |             |
|--------------|-------------------|-----------|---------|---------|-------------|-------------------|-----------|---------|---------|-------------|
|              | Number of animals | Audited   | Imag.   | % Imag. | Geo Company | Number of animals | Audited   | Imag.   | % Imag. | Geo Company |
| JBS (4)      | 610,269           | 610,269   | 118,459 | 19.1%   | ●           | 541,454           | 501,207   | 24,907  | 4.3%    | ●           |
| Mercúrio (3) | 381,772           | 381,772   | 1,328   | 0.3%    | ●           | 538,226           | 505,416   | 1,128   | 0.2%    | ●           |
| Minerva      | 181,008           | 181,008   | —       | 0%      | ●           | 304,361           | 297,000   | 776     | 0.3%    | ●           |
| Master-norte | 164,280           | 164,280   | 518     | 0.3%    | ●           | 177,318           | 155,693   | 0       | 0.0%    | ●           |
| Xinguará     | 163,573           | 163,573   | —       | 0%      | ●           | 177,070           | 152,064   | 85      | 0.1%    | ●           |
| Frigel       | 160,791           | 160,791   | 27,969  | 17.4%   | ●           | 271,591           | 271,591   | 50,830  | 18.7%   | ●           |
| Master-boi   | 127,837           | 127,837   | 39,684  | 31%     | ●           | 147,885           | 147,885   | 5,508   | 3.7%    | ●           |
| Rio Maria    | 123,864           | 123,864   | —       | 0%      | ●           | 127,760           | 93,571    | 19      | 0.0%    | ●           |
| Agro-expert  | 96,614            | 96,614    | —       | 0%      | ●           | 93,490            | 88,369    | —       | 0.0%    | ●           |
| Forte-frigo  | 74,056            | 74,056    | 6,222   | 8.4%    | ●           | 122,570           | 122,570   | 18,687  | 15.3%   | ●           |
| Totals       | 2,984,064         | 2,984,064 | 194,180 | 6.5%    |             | 2,501,525         | 2,135,164 | 181,940 | 7.3%    |             |

Geo Company: Agrotex ● Nixol ●  
Source: Data collected from surveys of audits by the Amigos da Terra - Amazônia Brasileira Technical Team (2019).

iretas analisadas e 2.995 fazendas  
ecedora direta na operação.

mais confiável procedimento  
ra os melhores resultados entre



Fonte: Amigos da Terra – 10 anos TAC da Carne no Pará e Compromisso Público da Pecuária:  
a importância da rastreabilidade da carne na redução dos desmatamentos da Amazônia.

Adicionalmente, em recente estudo da ONG Amigos da Terra, os resultados das empresas comprometidas com a agenda foram avaliados. Mais detalhes no link a seguir:

<http://amigosdaterra.org.br/project/10-anos-tac-da-carne-no-para-e-compromisso>

Cabe também lembrar que a Minerva Foods é a única empresa do setor atualmente financiada pela IFC, do Grupo Banco Mundial, que, desde o seu investimento na empresa, apoia seu compromisso com a sustentabilidade e sua liderança no gerenciamento das questões socioambientais de sua cadeia produtiva.

## International Sustainability & Carbon Certification (ISCC)

**ISCC provided certificates to the JBS biodiesel plant that supported the sale of beef tallow biodiesel to Europe in the years 2014 and 2020. Is ISCC aware that JBS' supply chain is highly exposed to deforestation and that the company is regularly involved in allegations of non-compliance with socio-environmental principles?**

If ISCC certified system users violate ISCC requirements, we encourage all stakeholder to report these violations through our website. ISCC will then investigate such complaints in the framework of the ISCC integrity program. Consequences from violations of ISCC requirements include e.g. the withdrawal of a certificate (this will be published on our website [here](#)) or, in case of systematic and/or intentional violations or fraud, an exclusion from recertification under ISCC (this will be published on our website [here](#)).

**What are the criteria used by ISCC for this certification and why are these violations not being accounted for when issuing these certificates?**

Please note that ISCC does not offer a certification standard for animals or meat products. However, ISCC certification can be applied for the certification of waste and residue raw materials, including rendered animal fats. In case of waste and residues the certification process starts at the point where the waste or residue material is generated. In case of rendered animal fat this so-called "point of origin" is usually the rendering plant. Please also see attached ISCC document 202-5 "Waste and Residues". Please understand that the ISCC sustainability criteria for agricultural biomass (as specified in ISCC documents 202- 1 and 202-2) do not apply to waste or residue raw materials such as rendered animal fats.

**There is, for example, a certificate available on the ISCC page from 2019. Yesterday, the Brazilian Federal Public Prosecutor's Office released an [audit in which it found that between 2018 and 2019, 32% of cattle slaughtering done by JBS violated socio environmental commitments](#). Is this in line**

### **with the principles safeguarded by ISCC?**

Please understand that cattle farming is not within the scope of ISCC certification.

**In the certificate issued in 2019, ISCC evaluated 63 requirements to issue certification, 12 of them related to traceability and 18 to greenhouse gas emissions. Can you detail a bit what those points were and the company's performance on each of them?**

The ISCC requirements on traceability are specified in ISCC document 203 Traceability and Chain of Custody. The requirements on GHG emissions are specified in ISCC document 205 Greenhouse Gas Emissions. Please note that due to our privacy and data protection policy ISCC is not in the position to disclose information about individual certified System Users, other than the information that is publicly available on our website.

**The 2019 audit report on page 7 has the inscription "Number of non-conformities 0". In the following year's report, on page 8, the same field has the following text: "Violations of ISCC Principle 1 are critical non-conformities and cannot be subject to corrective measures". What does this mean, exactly? Is JBS failing to comply with any of the certifier's principles, in a serious way?**

This statement is a generic explanation in the report template. This explanation is displayed irrespective of the certified System User and irrespective of the outcome of the individual audit. If a violation of ISCC Principle 1 is detected during an audit, an ISCC certificate cannot be issued. However, as ISCC Principle 1 refers to agricultural biomass, it does not apply in case of waste or residues, such as rendered animal fats.

**In the 202-2021 certificate, ISCC determined that there were "mandatory improvement improvement measures" determined for JBS. Can you say what it referred to? Can the ISCC assure you that this was executed?**

Before an ISCC certificate can be issued, all existing non-conformities with ISCC requirements must be resolved. To do this, the System User must implement appropriate corrective measures and the auditor must verify that all corrective measures have been implemented and that the System User is compliant with all requirements. Corrective measures must be implemented by the System User within 40 days after the date of the audit. If corrective measures are not implemented within 40 days after the audit, the certificate cannot be issued and the audit must be repeated. Please note that due to our privacy and data protection policy ISCC is not in the position to disclose information about individual certified economic operators, other than the information that is publicly available on our website.

**In this same report, there is the voluntary improvement suggestion "Review all GHG calculation data before delivering, the period between data collection and the audit date is very long and should be a maximum of 2 months". Can you explain what this refers to? Does ISCC know if this change has been implemented?**

As indicated in the report, this is a voluntary improvement suggestion by the auditor. Please note that due to our privacy and data protection policy ISCC is not in the position to disclose information about individual certified economic operators, other than the information that is publicly available on our website.

**In the certification of beef tallow biodiesel plants, are the farms from which the animals from which the raw material is made audited?**

ISCC does not offer a certification standard for animals or animal farming or the derived meat products.

**In cases where the biodiesel is of vegetable origin, is the origin of the raw material taken into consideration? If there is a difference between the two raw materials, please explain the reasons.**

In case of raw materials which are directly generated by agriculture, such as rapeseed, sunflower, soybean, etc. the farmers cultivating the raw material must comply with the ISCC requirements for agricultural biomass (ISCC document 202-1 and ISCC document 202-2). Waste and residues are materials that are not the main products of a production process and which otherwise might be discarded (see ISCC document 202-5 "Waste and Residues"). Therefore, it is desirable that such materials can be put into further use, e.g. for the production of biofuels. For those materials a certification upstream of the point of origin is not required. If agricultural crops (e.g. rapeseed, sunflower, soybean, etc.) are used for the production of products, the sustainability of the production of these crops has to be covered by the certification as well. In general terms, the certification starts at this point where the raw material used for the production of the sustainable product occurs (i.e. is generated or cultivated).

**Can ISCC assure that the biodiesel chain produced by JBS is free from the risk of deforestation and other relevant social and environmental violations?**

Compliance with the ISCC requirements is verified during annual audits by independent auditors. If a company complies with the applicable requirements, an ISCC certificate is issued. If compliance with the ISCC requirements cannot be verified and confirmed by the auditor, a certificate cannot be issued.

**ISCC is an independent multi-stakeholder organization. Is it true that Varo Energy group is part of this initiative? If so, how is it possible for ISCC to certify a Brazilian company that is a supplier of one of its partners?**

A list of all members of the ISCC association (ISCC e.V.) is published on the [ISCC website](#). ISCC itself does neither conduct audits nor issue certificates to its system users. ISCC certificates are issued by independent third party Certification Bodies cooperating with ISCC. Precondition for issuing an ISCC certificate is a successful audit conducted by an independent auditor. Please find further information about the organizational setup of ISCC, the role of members in the ISCC association, and the role of certification bodies in our ISCC document 102 Governance (attached, particularly chapter 4). Please



also understand that membership in the ISCC association does not automatically mean, that a company will be certified. A certificate will only be issued by a Certification Body upon a successful audit, irrespective if the system user is a member in the ISCC association or not.

**Please, I need one last clarification: what is the specific purpose of this ISCC certificate for JBS? Is it mandatory for any business transaction?**

The European Commission has set specific targets for renewable energy in the transport sector in the Renewable Energy Directive (RED II). These targets can be met by using biofuels if the biofuels are produced in a sustainable way. Please find further information [here](#). For biofuels which are produced from crops the respective requirements are specified in ISCC document 202-1 attached (ISCC Principle 1 = Protection of Land with High Biodiversity Value or High Carbon Stock). Please note that ISCC goes beyond these legal minimum requirements and requires that additional sustainability requirements must be complied with (comprised in ISCC document 202-2 ISCC Principles 2 – 6). In addition to these requirements focusing on the sustainable cultivation of the crops, the biofuels must achieve a mandatory reduction in GHG emissions compared to fossil fuels and the biofuels must be traceable through the supply chain up to the respective raw material origin. In case of waste or residue raw materials such as rendered animal fats, the RED II specifies that the requirements for sustainable cultivation do not apply, but the requirements for traceability and GHG savings must still be met. Companies can demonstrate compliance with these legal requirements from the RED II by becoming certified according to a voluntary scheme like ISCC EU, that is recognized accordingly by the European Commission. Please find further information about the voluntary schemes [here](#).

This means, if a company intends to produce and sell biofuels for the European market, a certification according to one of the voluntary schemes is required.

**So, just to confirm: in case of animal tallow, the traceability required starts at the point of origin, that means a slaughterhouse, not a field or a farm where the cattle was raised, that's correct?**

Your understanding is generally correct. The point of origin for rendered animal fat is certainly not a field or a farm where cattle is raised. However, please note that for rendered animal fat the point of origin is usually a rendering plant (not a slaughterhouse).

## ***Agência Nacional do Petróleo, Gás Natural e Biocombustíveis (ANP)***

**Quando o programa RenovaBio começou de fato a funcionar?**

No final de 2019, tendo sido a 1ª certificação de produtor de biocombustível aprovada em outubro de 2019 e a geração de lastro para CBIOs iniciada em janeiro de 2020.

### **Qual o número de participantes do programa atualmente (usinas e distribuidoras)?**

Atualmente, existem 292 usinas certificadas. Frise-se que a participação de produtores de biocombustíveis no programa é voluntária. No que se refere às metas de redução de emissões de gases de efeito estufa, em torno de 140 distribuidoras compõem a relação de empresas obrigadas a comprovar a aquisição e aposentadoria de CBIOs. Importante destacar que esse número varia conforme o ano, e está diretamente relacionado com a comercialização de combustíveis fósseis pelas distribuidoras no ano anterior.

### **Quantos créditos de carbono foram gerados até hoje?**

Desde o início do programa, foram gerados 42 milhões de CBIOs.

### **Quais os biocombustíveis incluídos e qual sua participação no programa?**

A participação do etanol na geração de CBIOs corresponde a 85,3% do total gerado, a do biodiesel é de 14,5 % e a do biometano equivale a 0,2%. Ainda não existe produtor de bioquerosene e de diesel verde autorizados a operar pela ANP, e nem mesmo certificados no âmbito do RenovaBio, embora já esteja prevista rota de produção de tais produtos na RenovaCalc.

### **Há uma certificadora oficial do RenovaBio ou cada empresa pode escolher a sua certificadora? Se for de livre escolha, quem fiscaliza se a certificação foi emitida com base em critérios mínimos?**

Existem hoje 11 firmas inspetoras credenciadas pela ANP para realizar a Certificação de Biocombustíveis. As unidades produtoras de biocombustíveis interessadas em obter a Certificação da Produção Eficiente de Biocombustíveis podem escolher dentre a relação de firmas inspetoras credenciadas aquela que deseja contratar. O processo de certificação conduzido pela firma inspetora é submetido à aprovação da ANP, conforme Resolução ANP nº 758.

### **Especificamente sobre o biocombustível de sebo de boi: quantas empresas e quantas plantas estão certificadas pelo RenovaBio e quantos créditos de carbono elas geraram?**

Existem 22 unidades produtoras de biodiesel certificadas no âmbito do RenovaBio que utilizam gordura animal como uma de suas biomassas para produção do biocombustível certificado. Tais usinas geraram em torno de 4,6 milhões de CBIOs até setembro/2020. No entanto, cabe pontuar que a gordura animal não foi a única biomassa usada por tais usinas para produção de biodiesel.

### **Qual a participação desse biocombustível (biodiesel de sebo de boi) na matriz do programa?**

Não temos resposta para essa questão no momento. Conforme já informado, o sebo de boi corresponde a uma das biomassas utilizadas pelas usinas certificadas para produção de biodiesel. As usinas que utilizam sebo de boi geraram aproximadamente 11% dos CBIOs até setembro/2020, mas apenas parte desse volume é proveniente do sebo de boi.

**Entre os fabricantes de biodiesel de sebo de boi no Brasil estão dois grandes frigoríficos - JBS e Minerva - que com frequência aparecem envolvidos em denúncias por compra de gado de áreas desmatadas na Amazônia – no bioma, 90% do desmatamento se transforma em áreas de pastagem. Ainda que o sebo seja um resíduo da cadeia da pecuária, não é contraditório emitir créditos de carbono para um produtor cuja origem da matéria prima é um dos principais emissores de CO2 no Brasil?**

No RenovaBio não são atribuídas emissões de gases causadores do efeito estufa à geração de biomassas classificadas como produtos residuais, sendo contabilizadas apenas as emissões ocorridas a partir de seu recolhimento e transporte até a unidade de processamento. O sebo bovino é considerado resíduo ambiental, assim como a gordura de porco e frango. E como tal, considera-se que não há emissões em sua geração. Seu uso para a produção de biocombustíveis possibilita o aproveitamento desse material, que é resultante da atividade de produção de carne.

### **Varo Energy**

VARO Energy as a matter of principle, does not provide information on any commercial activities or counterparties it engages with.

Please note however, that VARO Energy applies a very strict procurement policy. This means that the origins of crudes, petroleum products and other components are systematically monitored. Through this, full compliance with environmental, social and traceability criteria as well as the qualification of biofuel or biomass companies for legal recognition under the targets set by European regulations for transportation fuels can be assured.

### **Cargill**

Como Cargill, cumprimos toda a legislação vigente nos países onde atuamos e aplicamos os mais altos padrões de certificação de sustentabilidade e rastreabilidade para todas as matérias-primas.



Acreditamos que os biocombustíveis desempenharão um papel importante na transição energética, reduzindo significativamente as emissões nocivas de gases de efeito estufa, principalmente em navios, aviões e veículos rodoviários. Estamos priorizando ativamente os biocombustíveis produzidos a partir de fontes renováveis ou de resíduos, como óleos de cozinha usados, sebo e terra de branqueamento usada. Essas matérias-primas têm uma maior contribuição para as reduções de emissões certificadas.

## **BSB IOS e ECB Group**

Em 27/10/2021

**Em 2020 o grupo ECB intermediou a venda 3,6 milhões de litros de biodiesel de sebo de boi da JBS para a Europa. Qual foi o destino desse biodiesel no mercado europeu? Quem o comprou? Qual será seu uso?**

Como anunciado no comunicado, a operação logística foi conduzida pelo ECB Group. As demais informações solicitadas estão disponíveis no comunicado (indicado na pergunta).

**Em 2014, houve transação semelhante (6,7 milhões de litros de biodiesel), cujo destino foi uma distribuidora holandesa de combustíveis chamada Argos, subsidiária do grupo Varo Energy, de quem o grupo ECB comprou a trading brasileira em 2019. A intermediação da compra de 2020 tem relação com essa relação anterior entre as empresas?**

O ECB Group não intermediou essa operação de 2014.

**Quais foram os critérios sociais e ambientais aplicados às transações de 2014 e 2021? Foi exigida certificação? Por qual motivo? Houve mudança nas exigências socioambientais entre uma compra e outra?**

Para toda operação de comércio internacional para a Europa é exigida a certificação da International Sustainability and Carbon Certification (ISCC), um sistema de certificação líder global que cobre todas as matérias-primas sustentáveis, incluindo biomassa agrícola e florestal, resíduos e resíduos biogênicos, materiais circulares e renováveis. Tal certificado é auditado anualmente. Portanto, neste caso de 2020, o biodiesel da JBS negociado foi rigorosamente certificado pelo ISCC.

**A pecuária é um dos principais emissores de gases de efeito estufa no Brasil e um setor intimamente relacionado com o desmatamento da Amazônia. Houve alguma precaução por parte do grupo ECB para que o biodiesel de sebo de boi vendido estivesse livre de desmatamento? Em caso afirmativo, como isso foi checado? A ECB adota critérios socioambientais para transações que intermedia? Quais?**

A quinta edição do Relatório de Sustentabilidade do ECB Group reforça os compromissos da empresa

com as práticas exercidas nas dimensões sociais, econômicas, ambientais e de governança e ética (<https://www.bsbios.com/pt/publicacoes/Visualizar/relatorio-de-sustentabilidade2020#book/13>).

A empresa possui certificações nacionais e internacionais de seus produtos, que atestam a qualidade, a sustentabilidade e sua conformidade. Entre elas, destacam-se as certificações ISCC e RenovaBio, que são auditadas regularmente.

A ISCC atesta que o biodiesel produzido pela BSBIOS, desde a produção da matéria-prima sustentável (gorduras animais) até a sua industrialização, reduz de 86% à 90% a emissão de Gases de Efeito Estufa (GEE), se comparado ao diesel fóssil, colaborando para a redução de emissões de CO<sub>2</sub> na atmosfera. O ISCC comprova a visão sustentável da empresa e garante a continuidade de acesso ao mercado europeu de biocombustíveis.

O Certificado de Produção ou Importação Eficiente de Biocombustíveis é emitido por firma inspetora credenciada no RenovaBio como resultado do processo de Certificação de Biocombustíveis aprovado pela ANP.

É o documento que habilita o produtor ou importador de biocombustível autorizado pela ANP como emissor primário apto a solicitar a emissão de Crédito de Descarbonização (CBIO) em quantidade proporcional ao volume de biocombustível produzido ou importado e comercializado, nos termos definidos na Resolução ANP nº 758/2018. 5.

**Como o grupo ECB se posiciona à luz das constantes revelações de que a JBS abate animais de fazendas desmatadas ilegalmente? O Ministério Público Federal do Brasil recentemente revelou que entre 2018 e 2019, 32% dos abates da JBS não respeitaram critérios sociais e ambientais. Isso é um impeditivo para a venda do biodiesel de sebo de boi no exterior?**

Como já afirmado, a operação em questão contou com a exigência da certificação ISCC. O ECB Group reitera que cumpre rigorosamente com a legislação e demais normas determinadas pelas autoridades e que está consciente de seu papel na cadeia. A empresa não está credenciada a se posicionar sobre temas que envolvem outras organizações.

**O mercado internacional para o biodiesel brasileiro está crescendo em geral? Há dados que ilustrem? E o mercado para o biodiesel de sebo de boi?**

Sobre o desempenho do setor, sugerimos recorrer às instituições que fazem essa análise de desempenho comercial global.

**O grupo ECB produz e vende biodiesel de outras origens e está certificado no RenovaBio. Há**

**operações de exportação nos últimos anos do biodiesel produzido pela BSBios, por exemplo? Podem lista quantidades e destinos?**

Como parte de sua atividade estratégica e operacional, o ECB Group está sempre atento a oportunidades comerciais nas áreas do Agronegócio e de Energia Renovável, tanto no mercado interno como externo.

**Acham que a exposição do biodiesel de sebo de boi ao desmatamento pode trazer algum prejuízo em geral para o setor de biocombustíveis, tendo em vista a crescente preocupação internacional com a preservação da Amazônia?**

O uso de resíduos orgânicos animais na produção de biodiesel é um destino correto, uma vez que evita um descarte extremamente prejudicial ao meio ambiente. Como já esclarecido, o ISCC é um sistema de certificação global que cobre todas as matérias-primas sustentáveis, incluindo biomassa agrícola e florestal, resíduos e resíduos biogênicos, materiais circulares e renováveis. O Grupo atua consciente de seu papel na cadeia e tem mantido o esforço constante no sentido de melhorar cada vez mais suas operações.

Em 13/01/2022

**Em 2021 a Bsbios realizou uma exportação de pouco mais de 5 milhões de litros de biodiesel para a Europa. Em relação a esta operação:**

- 1. Qual foi o destino desse biodiesel no mercado europeu? Quem foi o cliente final da operação?**
- 2. Quais foram as matérias primas utilizadas na produção do biodiesel exportado? O sebo bovino faz parte desta composição? Em caso positivo, qual a porcentagem de sebo bovino utilizada?**
- 3. Quais foram os critérios sociais e ambientais aplicados à transação de 2021? Em relação ao sebo bovino, houve alguma precaução por parte da Bsbios para que o biodiesel de sebo de boi vendido estivesse livre de desmatamento e outros problemas socioambientais associados? Em caso afirmativo, como isso foi checado?**
- 4. Quais são os fornecedores de sebo bovino e a origem geográfica do sebo bovino utilizado para a produção do biodiesel?**

Todas as informações disponíveis sobre a operações de exportação da BSBIOS já são públicas. Em 27 de outubro de 2021, atendemos demanda semelhante da **Repórter Brasil** e as respostas e compromissos que norteiam a atuação da empresa permanecem os mesmos.

Para toda operação de comércio internacional para a Europa é exigida a certificação da International Sustainability and Carbon Certification (ISCC), um sistema de certificação líder global que cobre todas as matérias-primas sustentáveis, incluindo biomassa agrícola e florestal, resíduos e resíduos biogênicos, materiais circulares e renováveis. Tal certificado é auditado anualmente.



A quinta edição do Relatório de Sustentabilidade do ECB Group reforça os compromissos da empresa com as práticas exercidas nas dimensões sociais, econômicas, ambientais e de governança e ética (<https://www.bsbios.com/pt/publicacoes/Visualizar/relatorio-de-sustentabilidade2020#book/13>).

A empresa possui certificações nacionais e internacionais de seus produtos, que atestam a qualidade, a sustentabilidade e sua conformidade. Entre elas, a ISCC e o RenovaBio, que são auditadas regularmente.

A ISCC atesta que o biodiesel produzido pela BSBIOS, desde a produção da matéria-prima sustentável (gorduras animais) até a sua industrialização, reduz de 86% à 90% a emissão de Gases de Efeito Estufa (GEE), se comparado ao diesel fóssil, colaborando para a redução de emissões de CO<sub>2</sub> na atmosfera. O ISCC comprova a visão sustentável da empresa e garante à continuidade de acesso ao mercado europeu de biocombustíveis.

O uso de resíduos orgânicos animais na produção de biodiesel é um destino correto, uma vez que evita um descarte extremamente prejudicial ao meio ambiente. O Certificado da Produção ou Importação Eficiente de Biocombustíveis é emitido por firma inspetora credenciada no RenovaBio como resultado do processo de Certificação de Biocombustíveis aprovado pela ANP.

É o documento que habilita o produtor ou importador de biocombustível autorizado pela ANP como emissor primário apto a solicitar a emissão de Crédito de Descarbonização (CBIO) em quantidade proporcional ao volume de biocombustível produzido ou importado e comercializado, nos termos definidos na Resolução ANP nº 758/2018.

O Grupo atua consciente de seu papel na cadeia e tem mantido o esforço constante no sentido de melhorar cada vez mais suas operações.

**Tivemos acesso a Bill of Landing da operação e a descrição do produto (HS Code 29150000, referente a ácidos) é diferente do que foi comunicado ao Comex Stat (HS Code 3826, referente ao biodiesel).**

**1. Porque os registros estão com descrições diferentes?**

**2. Vocês confirmam, portanto, que nos dois casos se trata de operação mencionada na solicitação anterior, de exportação de biodiesel e envolvendo a Cargill?**

A BSBIOS reafirma todos os compromissos sobre suas operações de exportação e a correção de seus procedimentos. Para toda operação de comércio internacional para a Europa é exigida a certificação da International Sustainability and Carbon Certification (ISCC), um sistema de certificação líder global que cobre todas as matérias-primas sustentáveis, incluindo biomassa agrícola e florestal, resíduos e resíduos biogênicos, materiais circulares e renováveis. Tal certificado é auditado anualmente. A quinta edição do Relatório de Sustentabilidade do ECB Group reforça os compromissos da empresa com as práticas exercidas nas dimensões sociais, econômicas, ambientais e de governança e ética ([https://](https://www.bsbios.com/pt/publicacoes/Visualizar/relatorio-de-sustentabilidade2020#book/13)

[www.bsbios.com/pt/publicacoes/Visualizar/relatorio-de-sustentabilidade2020#book/13](http://www.bsbios.com/pt/publicacoes/Visualizar/relatorio-de-sustentabilidade2020#book/13)).

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O uso de resíduos orgânicos animais na produção de biodiesel é um destino correto, uma vez que evita um descarte extremamente prejudicial ao meio ambiente e, com isso realiza o ciclo da economia circular. O Certificado de Produção ou Importação Eficiente de Biocombustíveis é emitido por firma inspetora credenciada no RenovaBio como resultado do processo de Certificação de Biocombustíveis aprovado pela ANP. É o documento que habilita o produtor ou importador de biocombustível autorizado pela ANP como emissor primário apto a solicitar a emissão de Crédito de Descarbonização (CBIO) em quantidade proporcional ao volume de biocombustível produzido ou importado e comercializado, nos termos definidos na Resolução ANP nº 758/2018.

O Grupo atua consciente de seu papel na cadeia e tem mantido o esforço constante no sentido de melhorar cada vez mais suas operações.

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# MONITOR

#14

OCTOBER 2022

