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The Council's observation of Marfrig Global Foods SA

On the basis of the Council on Ethics' recommendation of 30 September 2021, Norges Bank decided on 21 December 2021 to place Marfrig Global Foods SA (Marfrig) under observation, due to the risk that the company is contributing to severe environmental damage.

Marfrig is one of Brazil's largest producers of beef and the world's largest producer of hamburgers. The Council's recommendation concerned the deforestation and loss of biodiversity associated with Marfrig's purchases of beef cattle for its slaughterhouses in Brazil. In 2020, Marfrig pledged to eliminate deforestation throughout its supply chain in the Amazon by 2025 and in the Cerrado by 2030. This would be achieved partly through a plan to improve the monitoring and control of its supply chain (the so-called Verde+ plan). Since it was too early to assess the results of these efforts, the Council recommended that the company be placed under observation.

Over the past two years, the Council has communicated with Marfrig on several occasions and also held a video conference with the company in August 2023. The company has supplied information and shared data on a selection of its suppliers. With the help of consultants, the Council has assessed Marfrig's progress and the risk of deforestation associated with its direct and indirect suppliers.

Recommendation from 2021

The risk of deforestation and loss of biodiversity relates to the conversion of forest and natural vegetation to pasture for cattle grazing. Deforestation takes place on farms in Marfrig's supply chain, which is complex and comprises many tiers. Slaughterhouses purchase cattle from farms (direct suppliers) which, in turn may have purchased calves from other farms (so-called indirect suppliers). The cattle may therefore have been moved between many different farms before being purchased by the slaughterhouse.

In 2009, Marfrig pledged to establish monitoring systems to prevent the purchase of cattle from farms involved in the deforestation of the Amazon rainforest. The company was nevertheless criticised for not doing enough to reduce the risk of deforestation and illegal practices in its supply chain – particularly among the indirect suppliers.

The Council's studies, on which its 2021 recommendation was based, concluded that deforestation occurred at all stages in the supply chain, among both direct and indirect suppliers. Marfrig's indirect suppliers constituted the greatest risk. The Council considered that Marfrig's follow-up of its suppliers at that time was insufficient to prevent deforestation, but that the new initiatives which Marfrig had announced could help to reduce the risk of deforestation in its supply chain.

The Council's observation

Marfrig's monitoring and control of direct and indirect suppliers

Marfrig's Verde+ Plan includes a comprehensive system for monitoring direct and indirect suppliers based on risk assessments of where deforestation is likely to occur.

According to Marfrig, the company has had 100 per cent control of its direct suppliers in the Amazon biome since 2014, and in the Cerrado since 2020. Marfrig identifies indirect suppliers through disclosures from its direct suppliers. By means of a questionnaire, Marfrig's direct suppliers are asked to voluntarily disclose information about who they purchase cattle from and where these tier 2 suppliers are located. According to Marfrig, this information is verified by means of a system that checks the suppliers' location and whether they have been blacklisted by the authorities. Any blacklisted companies are excluded as suppliers to Marfrig for the duration of their blacklisting. This system encompasses all the farms that supply Marfrig and that Marfrig holds information about.

To assess the deforestation risk posed by indirect suppliers, Marfrig has developed Risk Mitigation Maps for Indirect Suppliers. By comparing vegetation maps against the areas where its indirect suppliers raise beef cattle, Marfrig has defined five risk categories:

very high, high, medium, low and very low risk of deforestation. Marfrig uses the risk mitigation maps as the basis for monitoring indirect suppliers.

Marfrig has reported that, in September 2022, it had control of 71 per cent of tier 2 suppliers, and 68 per cent of tier 3 suppliers in the Amazon biome. By the end of 2023, it states, all suppliers in very high, high and medium risk areas will be fully surveyed.¹ Marfrig discloses that it had equivalent control of its indirect suppliers in the Cerrado biome at the close of 2022 and that it had completed its survey of all indirect suppliers in those areas at very high or high risk of deforestation.

In August 2023, the company announced that it had sold its slaughterhouses in the Amazon. This reduces the company's overall exposure to deforestation. Marfrig is, however, still exposed to deforestation through the purchase of cattle from the Cerrado, which was Marfrig's most important source of supply, even before the sale of the Amazon slaughterhouses. At the same time, Marfrig disclosed that it planned to focus more on meat processing and products with a higher level of value-added.² In November 2023, Marfrig announced that it would reach now full traceability in its supply chain by 2025.³

Marfrig has provided the Council with a list of 2,215 direct suppliers. These are a subset of Marfrig's supply chain and represent the company's known direct suppliers in the states of Mato Grosso (MT) and Rondônia (RO).⁴

Of these 2,215 direct suppliers, 1,585 are full-cycle ranchers, which means that calves are born, raised, fattened and subsequently sold to Marfrig by the same farm. The remaining 630 direct suppliers are not full-cycle farms, which means that they have acquired calves from different sources before selling them to Marfrig. These suppliers disclosed a total of 376 indirect suppliers.

This means that, on average, Marfrig's direct suppliers reported 0.6 indirect suppliers each (376/630) in the period from September 2021 to August 2022. By comparison, another study shows that cattle ranches in the Amazon buy cattle from an average of six

¹ Marfrig: Three years of Marfrig Verde+. Commitment and Transparency, https://marfrig.com.br/pt/Documentos%20Compartilhados/Marfrig_Verde+_Resultados22_ENG_BOA_v5.pdf

² Marfrig, Material Fact. South American Operations, 28. August 2023, [c865cba7-628f-a65e-417d-54df27ecb3b1 \(mziq.com\)](https://www.marfrig.com.br/en/sustainability/sustainability-platform)

³ Marfrig, Sustainability Platform, <https://www.marfrig.com.br/en/sustainability/sustainability-platform>

⁴ Marfrig has now closed its slaughterhouse in Rondônia, and two in Mato Grosso, but still owns the slaughterhouse in Varzea Grande, Mato Grosso.

suppliers per year and 24 suppliers in a five-year period.⁵ Other studies also confirm that the number of indirect suppliers increases when a longer time period is examined.⁶ Marfrig's numbers are low, which indicates that it has a long way to go before its survey of the company's indirect suppliers is complete.

Marfrig reports that it has surveyed 100 per cent of indirect suppliers in high and very-high risk areas of the Cerrado. However, these two categories supply only 6.5 per cent of the cattle Marfrig purchases. Most of the cattle are sourced from farms located in areas designated as medium risk. Marfrig aims to report on these areas by 2025 and 2026.

Marfrig's reporting is based on the number of suppliers and not on the volume purchased. While more than 70 per cent of the supplier ranches that Marfrig disclosed to the Council are full-cycle farms, these account for less than 50 per cent of the volume Marfrig purchases. This applies whether the volume is expressed in terms of the number or weight of the cattle slaughtered. Around a quarter of purchases come from raising /finishing farms, for which Marfrig only reports partial traceability. Another quarter of purchases come from finishing farms, from where the cattle's origins can be difficult to trace. Based on volume, the level of traceability is lower than that reported by Marfrig.

Deforestation associated with Marfrig's direct & indirect suppliers

Marfrig has consistently reported that the company's purchases of cattle from direct suppliers are 100 per cent free of deforestation. At the same time, an examination of the supplier data supplied by Marfrig revealed deforested areas covering more than 230 km² among the company's direct suppliers in the period 2009–2022 (Table 1.1).

The difference is mainly due to the use of different datasets for deforestation monitoring. Marfrig uses the PRODES Amazônia Legal dataset for monitoring deforestation in all biomes in the "Legal Amazon" region, which includes areas of Amazon rainforest, Cerrado savannah, and Pantanal wetlands.

PRODES is the Brazilian government's satellite monitoring program. PRODES Amazônia Legal was developed to calculate loss of primary forest in the Amazon. There are, however, PRODES products available for the Cerrado and the Pantanal (PRODES Cerrado, and PRODES Pantanal) which take biome-specific characteristics into account. PRODES Amazônia Legal is especially insensitive with respect to detecting vegetation loss in the Cerrado. Specifically, PRODES Amazônia Legal detects 93-times less vegetation loss at

⁵ Skidmore, M. *Agriculture, Environmental Policy, and Climate: Essays on Cattle Ranching in the Brazilian Amazon*. (The University of Wisconsin - Madison, 2020).

⁶ Zu Ermgassen E. et.al, Addressing indirect sourcing in zero deforestation commodity supply chains, in *Science Advances*, 29 Apr 2022, Vol 8, Issue 17, <https://www.science.org/doi/10.1126/sciadv.abn3132>

properties operated by Marfrig’s suppliers than the PRODES Cerrado product, as shown in the tables below.

*Tabell 1.1 Comparison of the deforestation detected at properties operated by Marfrig’s **direct** suppliers using different PRODES datasets (2009–2022).*

Biome where Marfrig’s suppliers are located	Areas of deforestation (km ²) ⁷ identified with:	
	Biome-specific PRODES	PRODES Amazônia Legal
Cerrado	203.84	2.19
Amazon	20.63	18.98
Pantanal	6.82	0.63
Total deforestation	231.29	21.80

The studies commissioned by the Council identified 5.41–25.35 km² of deforestation at properties operated by the 376 *indirect* suppliers disclosed by Marfrig (Table 1.2). Most of this deforestation was in the Cerrado, where the percentage of direct and indirect suppliers exposed to deforestation was practically equal (Figure 1).

⁷ 1 km² is equal to 100 hectares.

Tabell 1.2 Comparison of the deforestation detected among Marfrig's **indirect** suppliers using different PRODES datasets (2009–2022).

Biome where Marfrig's suppliers are located	Area of deforestation (km ²) identified with:	
	Biome-specific PRODES	PRODES Amazônia Legal
Cerrado	20.02	0.08
Amazon	5.33	5.33
Pantanal	0	0
Total deforestation	25.35	5.41

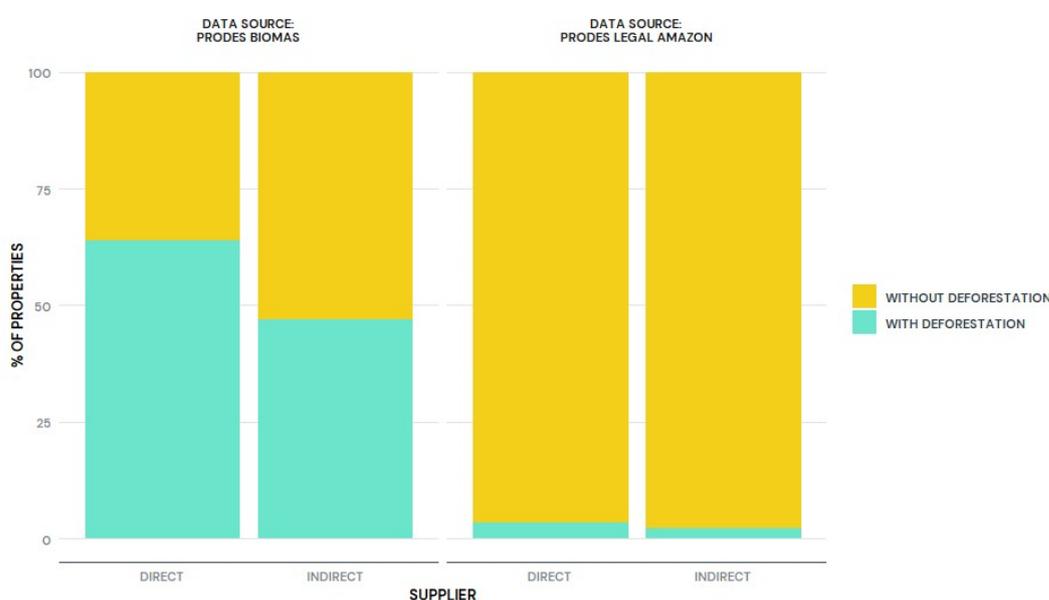


Figure 1 - The percentage of Marfrig's **direct and indirect** suppliers in the Cerrado which experienced deforestation (2009–2022), as detected using the PRODES Cerrado (left) and PRODES Amazônia Legal datasets. The yellow colour denotes the share of properties without deforestation. Green denotes the share of properties with deforestation.

Suppliers' compliance with the Brazilian Forest Code

The Brazilian Forest Code is a law which requires farmers to retain a portion of their property as natural vegetation, the so-called Legal Reserve. Farmers must set aside 80 per cent of their property in the Amazon, and 20–35 per cent in the Cerrado. Farmers must also register the geographic coordinates for their properties in a Rural Environmental Registry (CAR) and identify the areas they have set aside for conservation purposes.

Based on the list of 2,215 suppliers that Marfrig shared with the Council, it appears as though 36 per cent had not met the requirements of the Brazilian Forest Code (i.e., had not set aside a sufficiently large area for conservation). A further 12 per cent of the

suppliers appeared to have both engaged in illegal deforestation and failed to set aside a sufficiently large area, as they are legally obliged to do. The Forest Code allows farmers that fail to meet the Legal Reserve requirements to compensate for this by paying other landowners who have set aside productive areas for conservation as Protected Areas. It also allows farmers with a Legal Reserve deficit to offset this at other landholdings within the same biome. It has not been possible for the Council to verify whether the suppliers that have not set aside sufficient areas for conservation are in the process of meeting their obligations.

Information provided by Marfrig

Marfrig has provided information relating to this case and has commented on the draft observation report.

Control and monitoring of suppliers

With respect to the relationship between direct and indirect suppliers, Marfrig states that, since 2013, it has prioritised cooperation with full-cycle suppliers and suppliers that breed and raise their own calves, precisely to avoid the risks associated with indirect suppliers. Implementation of the Verde+ plan has a progressive timetable. In other words, direct suppliers remain responsible for providing Marfrig with information about their indirect suppliers. Marfrig discloses that: *"In 2023 the ratio indirect suppliers/direct suppliers at Marfrig supply chain was 4:1. This calculation is made taking into account the number of direct suppliers who have already informed their indirect suppliers. The 4:1 ratio is close to the figure suggested in the study [see footnote 5] but is important to consider the particularities above mentioned regarding Marfrig's commercialization model."*

With respect to reporting based on the number of suppliers and not the volume purchased, the company writes: "Marfrig emphatically reiterates that its supply chain control model based on suppliers' territories is the most effective aiming territorial control and, consequently, in preventing the entrance of animals from deforested areas into the company's supply chain. From the perspective to prevent deforestation and biodiversity preservation in the places of origin of the animals bought by the company, the origin identification indexes are based on the number of supplier farms, regardless of the volume of cattle allocated to them." Marfrig points out that the company's control system is based on geographic data aimed at monitoring land area, irrespective of the number of cattle. "From this perspective, if we have 100% of the territory monitored and free from deforestation, we will consequently have 100% of the animals adhering to the criteria adopted."

Deforestation of land held by direct and indirect suppliers

Marfrig repeats that it will fulfil its pledge for zero deforestation “meaning that there should be no new deforestation in the areas of the farms related to Marfrig's supply chain.”

Marfrig underlines that it complies with official protocols for monitoring deforestation in its supply chain, as its pledge for “zero deforestation” presumes. *“Marfrig emphasizes, [...], that it follows the public commitments made since 2009 and adopts the official protocols to this purpose. Thus, it makes use of PRODES Amazônia Legal because it is a concept aligned with the official and sectoral protocols originated from public commitments with Greenpeace and later in sectoral agreements that were objectively configured in the Monitoring Protocol for Cattle Suppliers in the Amazon (Beef on Track), used even by Brazil's Federal Prosecutor's Office, by which Marfrig is audited every year.”*

For areas that do not fall within the scope of the Legal Amazon, the PRODES datasets will be used “according to the biome in which they are located and/or following the sectoral agreements protocols when they exist.”

Compliance with the Brazilian Forest Code

Marfrig considers that ensuring compliance with the Brazilian Forest Code is the responsibility of the public authorities. “In instances where these agencies identify any breaches of legality, they have the authority to suspend or revoke the respective CARs (Rural Environmental Registrations). Consequently, these farms are automatically disqualified (and blocked) from supplying to Marfrig.”⁸ The company further states that PRODES will reveal all new deforestation – both legal and illegal.

In Marfrig's opinion, assessing compliance with the Forest Code is a complex matter, and only the authorities are competent to assess whether the areas set aside are adequate under the law. *“...only the official agency can approve situations regarding the adequacy or not regarding the legal reserve, so it is not feasible for Marfrig to take it upon itself, as suggested by this Council, to verify or not compliance with the Brazilian Forest Code, since Marfrig does not have these qualifications demanded by Brazilian legislation.”*

The Council's assessment

The cattle industry is one of the most important causes of deforestation and loss of biodiversity in Brazil. Marfrig has pledged to eliminate all deforestation from its supply chain in all the areas in which it operates. The company's efforts to identify and monitor deforestation among its indirect suppliers is critical for fulfilling this commitment.

⁸ Email to the Council on Ethics, 22 September 2023

Marfrig appears to be on track in its commitment to map and monitor indirect suppliers. Marfrig's announcement that this work will be brought forward and that the company aims to achieve full traceability by 2025 is a positive step.

How Marfrig reports progress is important for the credibility of its claims. Marfrig reports publicly on progress, monitoring and traceability of its suppliers in terms of percentages, but provides little tangible information to substantiate its assertions.

Based on the data that Marfrig has shared with it, the Council notes that Marfrig's reporting of traceability is based on the number of farms supplying the company. Based on volume, the Council notes that the level of traceability is significantly lower than the numbers that Marfrig reports.

Furthermore, Marfrig's survey of its indirect suppliers is based on information provided voluntarily to the company's direct suppliers. Marfrig verifies the lists of indirect suppliers that it receives from its direct suppliers. The extent to which Marfrig verifies that each farmer has disclosed all its suppliers to Marfrig, including any non-compliant properties, and how Marfrig manages this risk, remains unclear to the Council.

The Council also notes that Marfrig so far seems to have identified only 0.6 indirect suppliers for every direct supplier (a ratio of 0.6:1). This is based on Marfrig's own data for one year, which the company has shared with the Council. An industry average of around six indirect suppliers for every direct supplier (a ratio of 6:1) could indicate that much remains to be done to identify all its indirect suppliers. Marfrig points out that it has prioritised cooperation with farms that do not buy from other farms (full-cycle producers) and that the ratio of indirect to direct suppliers in 2023 was 4:1.

Nevertheless, the Council considers that Marfrig's own data shows that the company still has a ways to go in having control of its entire supply chain, if all suppliers are included in the accounting, and that the proportion of indirect suppliers increases when the survey covers a time period of longer than one year.

Most concerning, in the Council's view, is the fact that for the Cerrado area, the datasets on which Marfrig's monitoring is based, detects less than 10 per cent of the deforestation which actually takes place. Marfrig underlines that it uses datasets and methods established in official protocols. The Council takes the position that better tools have now become available. Since the Cerrado is the company's most important supply base, Marfrig's approach appears formalistic in nature, more intended to comply with a minimum standard than to actually prevent deforestation. In the Council's view, when new and better data become available, Marfrig should use these to fulfil its commitment to eliminate deforestation.

The Council's study has also revealed that some of Marfrig's suppliers do not seem to be complying with the Forest Code's requirement to set aside a sufficiently large area of

forest and natural vegetation on their properties. Marfrig is concerned that it would be very difficult for the company to monitor its suppliers and asserts that compliance with the Forest Code is a matter for the public authorities. Marfrig claims that it is sufficient to exclude properties that have been blacklisted by the authorities. At the same time, it is well known that environmental agencies in Brazil blacklist only a small proportion of the properties that operate in violation of the law. This was an issue raised in the Council's original recommendation from 2021. The Council presumes that it is possible to identify properties where there is a risk of illegal practices, as was done in the Council's own study, and obtain further information about them.

The Council recognises that Marfrig is committed to eliminating deforestation in its supply chain, that it is bringing forward its timetable for full supply chain traceability, and that the company has made progress in some areas. Although, Marfrig's sale of its slaughterhouses in the Amazon will reduce the company's overall risk with respect to deforestation, the issue of how the company verifies the origins of the carcasses it processes will become even more important going forward, given that the company now wishes to focus more on meat processing.

The matters raised in this observation report are, in the Council's view, key issues which Marfrig should address in order to fulfil its commitment and further reduce the risk of deforestation in its supply chain. The Council will continue its observation of Marfrig in order to follow-up the company's further efforts in these matters and assess the results thereof.

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