



CONSULTORIA
E PROJETOS
pecege





Executive Summary

Accelerating the Market Demand for Bonsucro Certified Sugarcane in Brazil



Methodology



Methodology

Overview

- Data gathering from public and anonymous private sources;
- Literature review on consumer behaviour regarding sustainability and certifications in general;
- Interviews conducted with 13 companies, including 6 Bonsucro partners, in the following formats:
 1. In person
 2. Online
 3. Telephone call
 4. Written interview (if requested)
- Analysis of the collected information from above methods.



Brazilian consumers, sustainability and certifications



Brazilian consumers and sustainability

Challenges

- Brazil is an upper-middle income country (World Bank) and, in recent years, its economy has suffered from low growth and inflation;
- Brazil has considered the ethanol sector to be sustainable since it became a gasoline alternative. For this reason, the sugar-energy sector as a whole has been seen as a sustainable sector;
 - Despite this, historically, ethanol viability has always been dependent on its price relative to gasoline;
- Consumers are not willing to pay premiums for sustainable products, a classic example being the clothing sector;
- Brazilian consumers have little knowledge regarding certifications in general, instead being more concerned with health risks associated with some products;
 - The proliferation of standards has made it even harder for consumers to understand them.



Why do companies certify in Brazil?



Reasons for certifying

Multinational corporations

- International companies are under pressure from consumers and other stakeholders in developed countries regarding practices at all stages of production and the locations in which they operate;
- They do not consider environmental sustainability to be a feature that Brazilian consumers realistically value (at least in monetary terms), so they see certification as an additional cost they are willing to cover;
- In practice, their concerns are mostly limited to reputational risks due to requirements of consumers and other stakeholders in developed markets;
- Since certification is seen as a sunk cost, those companies may use the certification as part of their green marketing campaigns.



Reasons for certifying

Brazilian companies

- Companies (**buyers and producers of sugarcane derivatives**) that operate only in the domestic market are not under heavy scrutiny for social or environmental sustainability. Since the use of certified inputs would imply reduction in margins or market share, they opt for not acquiring them;
- Mills, in particular, know their suppliers quite well, including whether they are engaged with certification or not. Since the suppliers are not under heavy scrutiny from public opinion, they would not require sugarcane to be certified unless their clients demand so;
- The example of buyers' requirements influencing sugarcane mills' decisions can be seen in the adoption of food safety standards such as ISO 22.000. This, however, does not occur for sustainable standards;
 - Lack of consumer interest affects the decision for certifying along the supply chain.



Myths and facts about certification in Brazil



Myth

- Brazilians consume large amounts of sugar
- Mills have a large number of industrial buyers of white sugar in the domestic market
- Consumers value sustainability attributes of what they are buying
- Most companies that buy certified inputs see them as market differentials

Fact

- There is a growing concern about health, and consumption of sugar is trending towards industrialised food and beverages
- The sales of sugar by mills are highly concentrated in just a few clients
- Consumers recognise the importance of sustainability but are not willing to pay price premiums for it
- Most companies that buy certified inputs see them as a way of mitigating reputational risks in developed markets or lowering their carbon footprint



Sugarcane derivatives markets and key aspects for sustainable standards



Sugar

Household consumption

- The acquisition of sugar bags in Brazil has tended to decline due to changes in consumer behaviour;
- Traditional white sugar is considered a commodity, with its price being the most relevant aspect when making buying decisions;
- There is a strong trend favouring the indirect consumption of sugar;
 - Growth in consumption of highly processed food, while food preparation at home has declined;
- Increases in Brazilian consumption of sugar would be possible only through industrial goods.



Sugar

Industrial acquisitions

- Seasonal production versus a relatively stable demand each year;
- Strong preference for some varieties of sugar, especially those of lighter colour;
 - The same pattern appears for household consumption of sugar (bag form);
- Creation of long-standing relationships between industry and its suppliers (mills);
 - Most sugar produced by mills is sold to a limited number of buyers;
- Price is still relevant when making buying decisions;
- There is a tradition for certification related to food safety such as ISO 22.000, but sustainability certifications are not a priority among mills and their clients.



Sugar

Key issues for certification

- Focus is on processed food and niche sugar types, like brown sugar and demerara, rather than traditional white sugar;
- Mills concentrate their sales on few industrial buyers, usually geographically close to them, reducing the number of companies Bonsucro needs to work with;
- Companies that have operations in foreign markets are more likely to acquire certified sugar;
 - Sugar does not have a good substitute in the food industry, and reputational risks associated with it are growing due to the adoption of manual planting in sugarcane fields.



Ethanol (1st gen)

Mostly sold as a fuel in domestic market

- Most ethanol produced in Brazil is sold domestically as a fuel, either as pure hydrous ethanol or blended with traditional gasoline;
- Consumers traditionally choose to purchase gasoline C (gasoline blended with anhydrous ethanol) or hydrous ethanol based on their relative prices;
 - If the price of hydrous ethanol is above 70% of the price of gasoline C, consumers tend to prefer the latter;
 - Low availability and/or high taxation on hydrous ethanol are associated with small local markets;
- Consumers are concerned with price and branding. The latter functions as quality signalling;
 - Previous marketing campaigns by UNICA focusing on environmental benefits of ethanol had limited impact on sales;
 - When RenovaBio was created, there was a fear that fuel prices would increase, revealing that the sustainability underlying the programme was not being taken into consideration by consumers;
- Relevant standards: RenovaBio, Bonsucro, EPA/RFSP, CARB/LCFS.



Ethanol (1st gen)

Key issues for certification

- Most ethanol produced in Brazil is used as fuel by consumers that do not perceive value in its sustainable origin;
 - Fuel distributors and gas stations have little incentive for selling certified ethanol since it is a standardised product and consumers are not looking for certified products;
- Fuel ethanol has limited use in economic sectors since it cannot substitute diesel in heavy vehicles;
- Non-fuel ethanol may have better prospects but represents only a small fraction of total production;
 - Similarly to sugar, it cannot be easily substituted and is subject to the same reputational risks;
 - Mostly relevant for companies with operations in international markets.



Electricity

Market structure

- Alongside ethanol and sugar, Brazilian sugarcane mills usually produce and sell electricity to the local energy grid;
- Consumers are usually unaware of the source used for producing the electricity they get at home;
- Consumers cannot choose the source of their electricity as providers are local monopolies;
- The interest of some industrial companies in reducing the carbon footprint of their production lines allowed for growth in sustainability certification of electricity, particularly REC and I-REC in Brazil;
 - Those certifications work in a similar manner to the mass balance approach.



Electricity

Key issues for certification

- Electricity distribution is a highly regulated sector, including pricing terms for consumers;
 - Companies would need to absorb additional costs;
 - Since they are local monopolies, there is no real need to be sustainable as a market differential;
 - Little potential to sell certified electricity to households unless legally required;
- High potential in industrial sector, following the examples of REC and I-REC in Brazil;
 - The possibility of Bonsucro certified electricity as an equivalent of existing standards needs to be presented to electricity-intensive industries that are willing to reduce their carbon footprint.



Cachaça

Brazilian sugarcane-based spirit

- It is under heavy taxation in Brazil, increasing its price in all quality ranges
- Most production is of low quality, being produced on a large scale in a process similar to the production of regular ethanol. This type of cachaça is sold in large quantities, with price being the most relevant factor;
 - Can be certified by RACC/INMETRO (*Regulamento de Avaliação da Conformidade para Cachaça*), a food safety standard;
- Premium cachaças are usually produced by small distilleries (alembics) and are considered niche products in domestic and international markets;
 - Can be certified by RACC/INMETRO as well the ANPAQ (Associação Nacional de Produtores de Cachaça de Qualidade) standard;
 - Consumers tend to value attributes of a production system that could affect organoleptic properties.



Cachaça

Key issues for certification

- The dichotomy between large- and small-scale production in the sector is a challenge for Bonsucro and other sustainable standards;
 - Large-scale producers are mostly concerned with the price of products sold due to consumer behaviour;
 - Small-scale producers lack knowledge and/or human resources for carrying out the certification process;
- Cachaça is a niche product in foreign markets, and consumers know very little about its production process;
 - Bonsucro may be relevant for consumers in developed markets to assure sustainable origin of the product;
 - Small producers may see the Bonsucro standard as useful for opening new markets; however, more direct support for them to carry out certification process would be needed.



New products

Energy segment

- Biomethane
 - Only one sugarcane mill is currently allowed to sell it (Cocal Energia);
 - Market has similar characteristics to electricity;
 - Has the possibility of physically segregating biomethane from traditional natural gas (even if it is not required);
 - May be of interest to industries that rely on natural gas and want to reduce their carbon footprint.
- E2G
 - Only two producers in Brazil (Raízen and Granbio);
 - Has a lower carbon footprint than traditional ethanol (E1G), allowing for high price premiums in foreign markets, making domestic market unattractive;
 - If sold in the EU, being Bonsucro certified is a must.
- SAF and green hydrogen
 - No Brazilian sugarcane mill is currently producing them;
 - Market prospects are similar to E2G due their very low carbon footprint;
 - If sold in the EU, Bonsucro tends to be a natural requirement.



New products

Energy segment: key issues for certification

- Biomethane
 - As is the case for electricity sold to households, the broad adoption of certified biomethane as a substitute for natural gas is unlikely due to local monopolies and regulated prices;
 - If biomethane is added to natural gas in local gas pipeline networks, a scheme such as the one adopted in REC and I-REC could take place for industrial buyers.
- E2G
 - Will continue to be aimed at foreign markets due to premiums;
 - Additional market for Bonsucro would be created if the existing model in the EU was replicated in other markets, particularly in the US.
- SAF and green hydrogen
 - Same considerations as E2G; however, in the immediate horizon SAF tends to be more relevant.



New products

Non-energy segment

- Industrial carbon dioxide (CO₂)
 - Used in sectors such as food, soft drinks, health assistance, oil and gas, paper and cellulosic pulp, water and wastewater treatment, and metallurgy;
 - In the sugar-energy sector, it is produced by separating biomethane and CO₂ from biogas;
 - One frequent origin for CO₂ is natural gas, so, in principle, the use of CO₂ from sugarcane could make companies' production systems more sustainable.
- Dry yeast
 - By-product of ethanol fermentation;
 - Mostly used for producing animal feed, particularly cattle;
 - Economically interesting source of vitamins, proteins and amino acids;
 - Cattle production is largely considered an environmentally unfriendly activity.



New products

Non-energy segment: key issues for certification

- Industrial carbon dioxide (CO₂)
 - In the food industry it is used as a direct component of the products sold, as is the case with sugar. If those companies are mostly concerned with labour and/or environmental violations in the sugar production chain, they would consider CO₂ from mills an **unnecessary risk** and avoid adopting it;
 - In heavy industries, where carbon footprint is a major concern, the adoption of CO₂ from mills could complement the use of certified electricity or biomethane.
- Dry yeast
 - The meat production chain is currently concerned with methane emissions;
 - Since animal feed is made from multiple inputs, not only would dry yeast need to have a sustainable origin, but also many other components, increasing production costs;
 - Cattle producers and the meat industry may be unable to charge extra for covering certification costs, especially in the context of high meat prices.



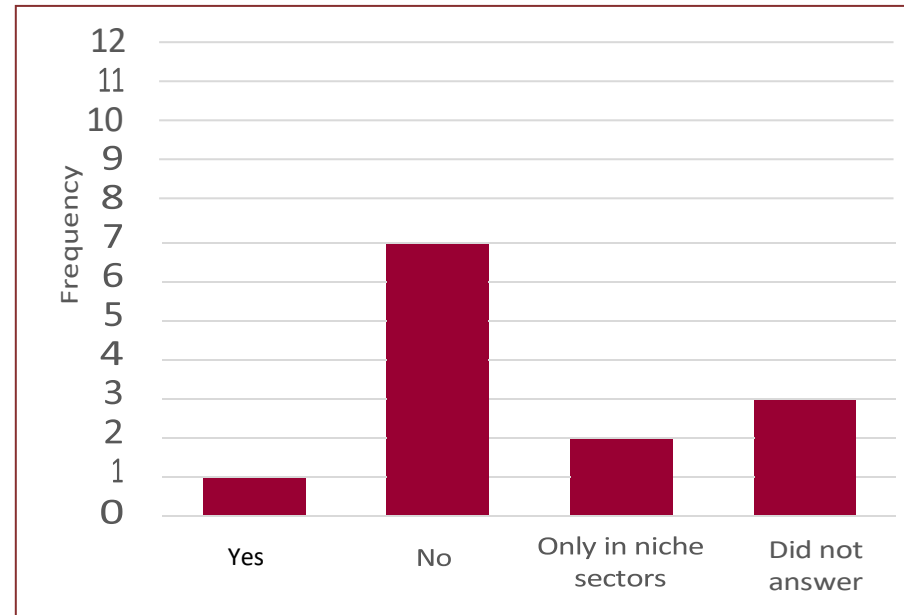
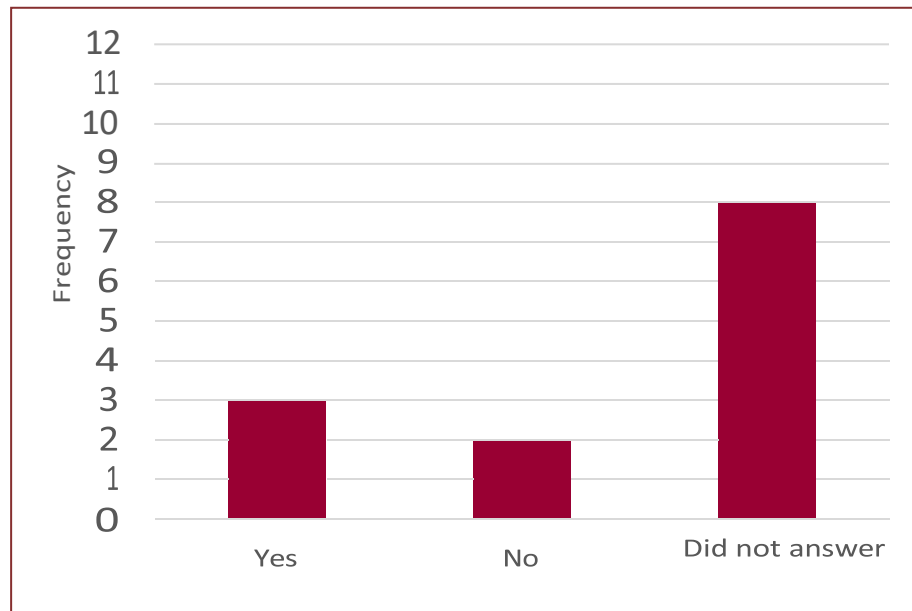
Frequent themes in interviews



Frequent aspects in interviews

The company...

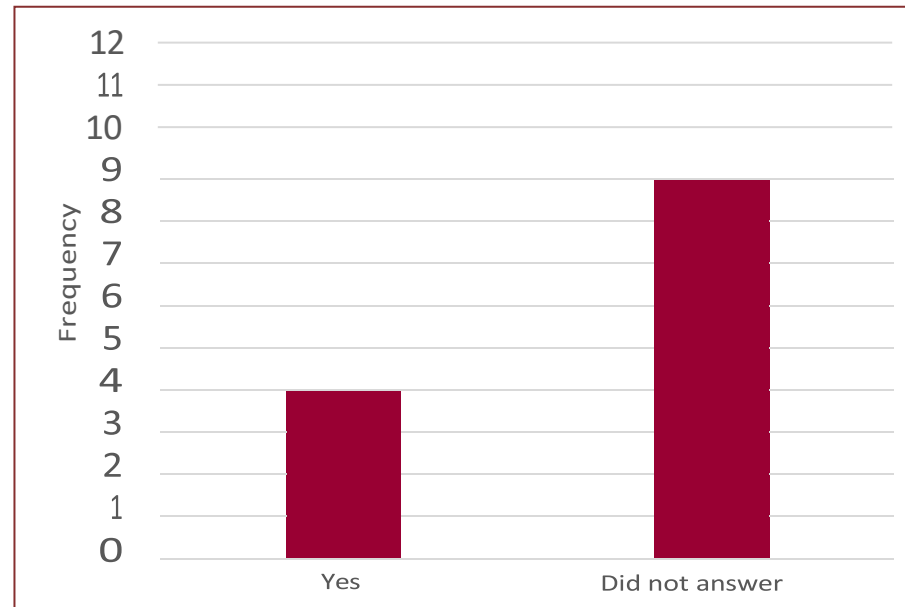
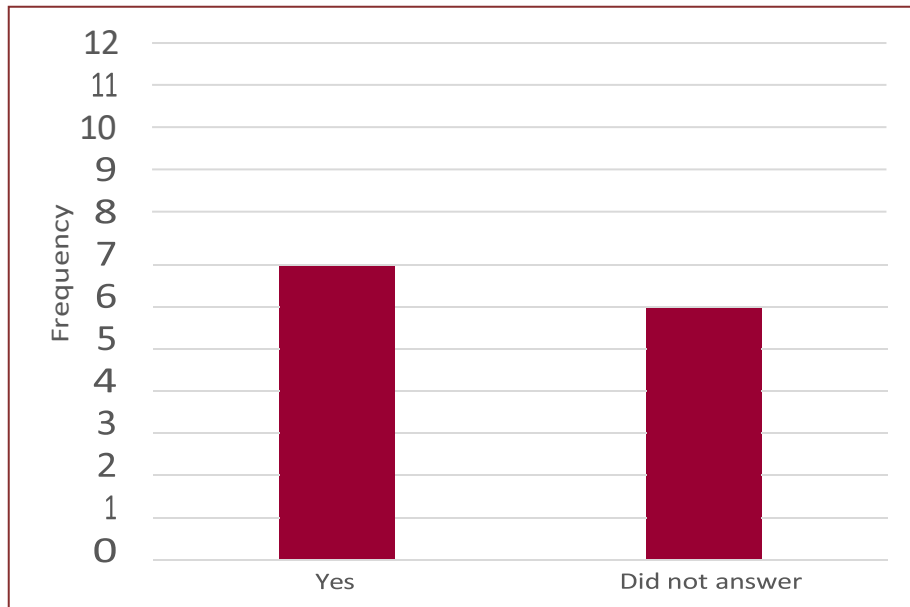
- Is willing to absorb additional costs related to sustainability certification.
- Believes that consumers see value in sustainability certification or that they are willing to pay premiums for it.



Frequent aspects in interviews

The company...

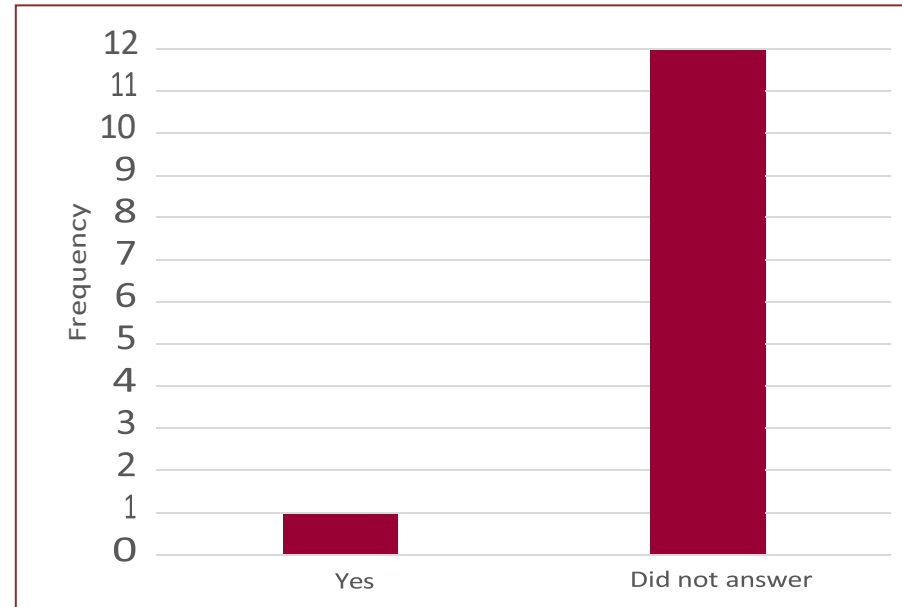
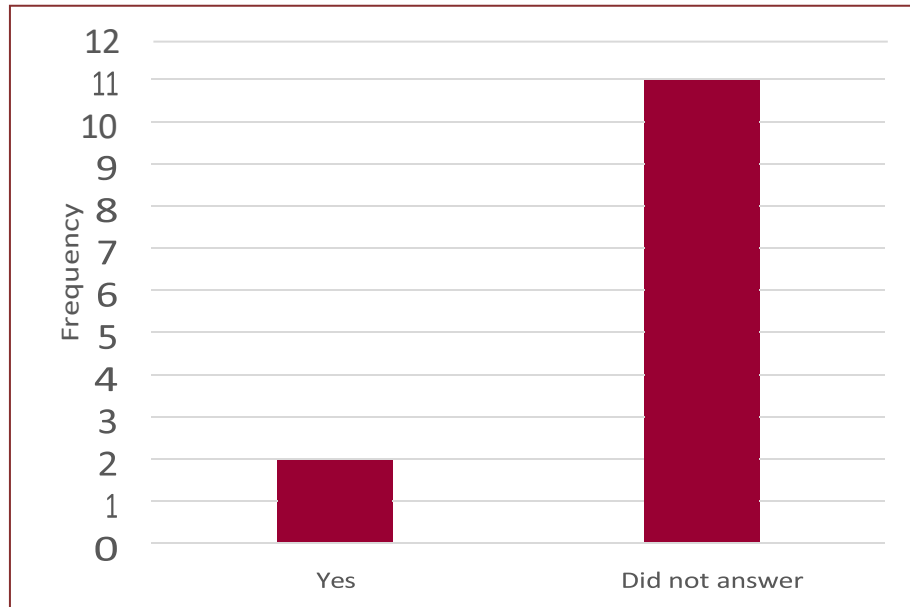
- Considers that consumers are unaware of sustainability certification schemes or that marketing campaigns are necessary.
- Agrees that the motivation for companies to certify is related to reputational risks.



Frequent aspects in interviews

The company...

- Believes that there should be more regulations to incentivise the adoption of sustainability certification.
- Would like to make a partnership with Bonsucro for promoting the standard among consumers.



General recommendations



Recommendations

Communication

Communicating with stakeholders:

- Consumers and even other potential stakeholders may be unaware of the Bonsucro standard's features and scope;
- The large number of standards make it unlikely that consumers understand the specifics;
- Corporate buyers may be particularly interested in standards related to low-carbon energy sources but are unaware that Bonsucro could be an alternative;
- Marketing campaigns through traditional and/or social media are recommended, even in countries with no sugarcane production since there may be demand for credits.

Making the standard trustworthy for consumers:

- It is important to convince the consumers and other stakeholders that the Bonsucro standard is credible in what it measures;
- The plethora of certificates makes it difficult and time-consuming for consumers to gather enough information to trust what standards are claiming.



Recommendations

Communication

Engaging the retail sector in selling certified products:

- Final consumers may be informed of the Bonsucro standard when making purchases in the retail sector;
- A possible strategy is creating shelves exclusively for Bonsucro-certified products, especially in retail chains that are aimed at upper social classes, such as Pão de Açúcar (premium supermarkets from Grupo GPA);
 - It can incentivise the acquisition of certified products since consumers may not pay attention to labels;
 - It can be used to raise awareness on the scope of products that can be certified by Bonsucro.

Creating a less fragmented market for standards:

- Creating a unified seal for different production chains;
- With a set of common sustainability requirements among different production chains, it would be much easier for consumers to be aware of the relevance of the seal;
- A unified seal could make marketing campaigns cheaper, reaching a larger audience for all partners and simplifying certification for corporate buyers.



Recommendations

Financial markets

- Around the world, financial markets have been the catalyst for **ESG practices**;
- Lines of credit and issued bonds associated with sustainability may have lower interest rates;
- Both sugarcane mills and their buyers can benefit from **sustainable financing**, and certification can be part of the new tools;
- The sustainability features of those new financial instruments are poorly regulated, so credibility of **third-party institutions** is very important, including sustainable standards;
- Institutions which design **green bonds and sustainability-linked bonds (SLBs)** should be aware of Bonsucro and how its standard is aligned to the ESG agenda.



Recommendations

Green bonds and SLBs

- **Green bonds**
 - Lower than usual interest rates;
 - Companies issue green bonds for financing only sustainable projects;
 - Examples: installing solar panels for generating electricity used in production line or a biomethane production plant;
 - Second-party opinion reports provide credibility for the issuer;
 - More difficult for Bonsucro to play a direct role.
- **Sustainability-linked bonds (SLB)**
 - Lower than usual interest rates;
 - Projects do not need to be sustainable, unlike issuing green bonds;
 - Financial resources can be freely used by companies; however, they undertake to comply with specific requirements of sustainability actions that may include acquiring a certain level of certified inputs;
 - Second-party opinion reports provide credibility for the issuer;
 - Acquiring Bonsucro certified inputs is a possible target in SLB.



Recommendations

Acting in other sustainable markets

- In the context of an ESG agenda, new markets are created for monetising sustainable activities;
- Even though some of the new opportunities are not directly related to the flow of certified sugarcane derivatives, they may represent additional revenues and credibility for Bonsucro;
 - Partnerships with initiatives that promote **payment for environmental services**, such as the recent São Paulo state *Política Estadual de Pagamento por Serviços Ambientais* (PEPSA) where it is stated that the payments are conditioned on demonstrating certain requirements. In this policy, independent institutions could certify the environmental services provided;
 - Partnership with players in the **carbon credit market**, creating measures for carbon fixation in sugarcane production;
 - Partnership with standards focused on traceability.



Recommendations

Other suggestions

- **Evaluate and measure social and environmental practices:** to avoid the risk of discrediting the standard, Bonsucro must pay attention to the integration of practices related to the certification and decision-making of the company. The evolution of the standard's variables needs to be continuously measured to ensure mills and farmers are improving in their sustainability challenges.
- **Developing unified certifications protocols:** the existence of many different standards implies not only financial costs but also many hours in the certification process;
 - Creating joint certification processes in which producers could be certified for more than one standard at the same time, reducing the total cost and the time needed;
 - Example: Bonsucro and RenovaBio.



Final remarks



Final remarks

- **Lagging demand for certified products in Brazilian market**
 - Brazilian consumers know the importance of sustainability but are not willing to pay more for it;
 - Mills acquire certified sugarcane according to buyer's requirements which, in turn, reflects consumer preference.
- **Lack of knowledge by stakeholders regarding Bonsucro**
 - Marketing campaigns are fundamental for consumers to monetarily value sustainability;
 - Potential buyers of certified sugarcane derivatives may not be aware that the Bonsucro standard has a broad scope, especially in the energy sector.
- **Potential market for sustainable energy sources**
 - Domestic market: biomethane, electricity;
 - Foreign markets: 2G ethanol, SAF and green hydrogen.
- **Financial institutions** can change the incentives for mills and their clients to acquire certified sugarcane or its derivatives
 - Green bonds and SLBs





ASSINATURA | CONTATO

