August 2022

Green Financing Framework

April 2022

Table of Contents

Raízen Green Financing Framework

1. Introduction

1.1 About Raízen

We are Raízen, a decade-long global reference in bioenergy, a company positioned for a new cycle of growth and expansion. We provide an increasingly clean and competitive energy mix, credited to a journey that has transformed us from a sugar, ethanol, and bioenergy producer and fuel distributor into a single, integrated energy business platform.

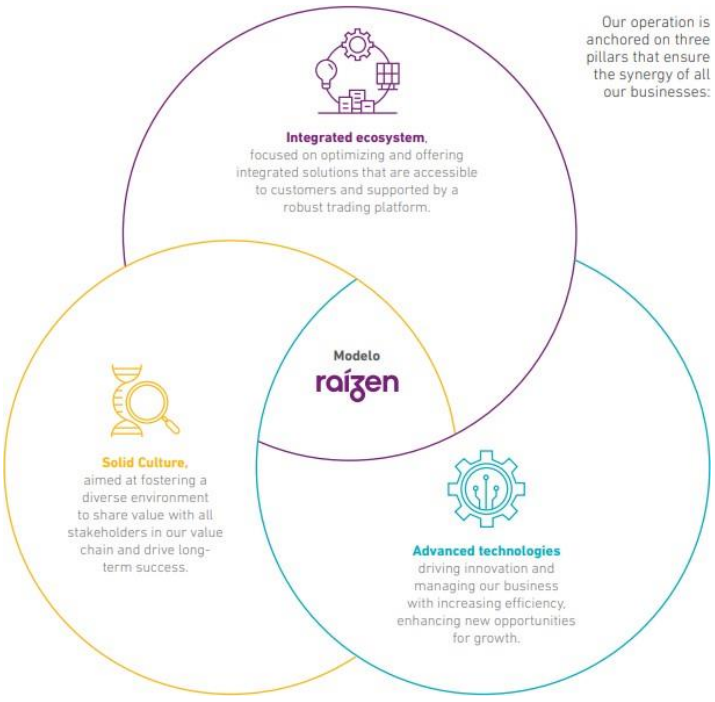
With an irreplicable business model, our purpose is to provide the energy society needs today and develop new forms of energy for the future, aiming for a gradual and sustainable energy transition that contributes to a low-carbon economy.

The starting point is our raw material—sugarcane—, from which we produce sugar, ethanol, and bioelectricity. We distribute and market our fuel (licensed under the Shell brand), supplying a network of service stations, bases at airports, and B2B customers in Brazil and Argentina. We complement our downstream value proposition by operating Shell Select convenience stores and Grupo Nós's OXXO proximity markets. Additionally, we continuously invest in solutions based on renewable sources, such as solar and biomass.

Our Geographical Footprint

Our End-to-End Business

With net operating revenues of R$114.6 billion in 2020/2021, we have more than 40,000 employees in Brazil and Argentina, as well as partnerships with sugarcane producers, carriers, and resellers, generating income and boosting the economy.



We also include social performance as part of our strategy; through the Raízen Foundation, we support children and youth in socially vulnerable situations in finding their own paths. Alongside these stakeholders, we overcame challenges and acquired much learning, especially during the COVID-19 pandemic, which changed the priorities of governments, companies, and individuals and revealed the need to reinvent ourselves.

Throughout this document, we'll reference Bonsucro, a global sustainability platform for sugarcane dedicated to the reduction of environmental and social impacts of sugarcane production, which takes into consideration the needs of an economic viable project in order to achieve these goals. The main goal of Bonsucro is to continuously work for the improvement of the sugarcane industry in a verified and sustainable ecosystem. In this way, Bonsucro acts collaboratively within the industry and work to continuously improve the three pillars of sustainability: economic, social and environmental viability.

Bonsucro aims at ensuring the integrity of the implementation of the Bonsucro Production Standard, through the implementation of the Certification Protocol. Each agricultural mill must run through diligence, vetting and certification process and comply with various requirements to earn such stamp – for instance, sustainable sourcing of biofuel feedstock ensuring none will originate from high conservation areas or converted land[1] and ensuring the reduction of, at least, 50% in lifecycle emission vs. the fossil fuel baseline. All certification must be renewed every 2 years, so it remains an ongoing commitment from our part.

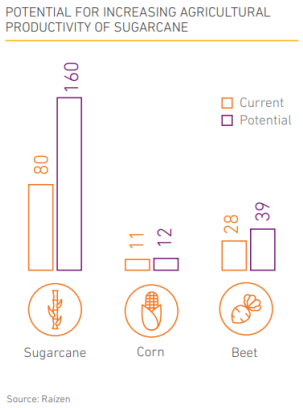
In 2011 Raízen became the first company in the world to have a production unit certified by Bonsucro and as of March 2022, 24 of the 35 of Raízen's bioenergy parks were certified in accordance with Bonsucro's standards. We have also committed to have 100% of our facilities certified by Bonsucro by 2027.

You can find all requirements under this link: https://www.bonsucro.com/certification-tools/

Operations & Benefits of Sugarcane Ethanol

The beginning of the entire process lies in our raw material. We invest in sugarcane, one of the most efficient sources for converting solar energy into affordable biomass.

Production. According to calculations from the Federation of Agriculture and Livestock of the state of Goiás (FAEG), presented by the Brazilian Sugarcane Industry Association (UNICA), 1 hectare of sugarcane produces an average of 8,000 liters of ethanol, 2,67x more than corn, the raw material behind most of the global production.



Though sugarcane already ranks at the top in terms of efficiency in converting ethanol with the lowest amount of sugarcane, it's believe that such conversion capacity is directly related to factors such as cultural variety, cutting stage, climate, soil and other characteristics associated with cultivation management. In this sense, Brazil plays a prominent role due to its favorable climate, wide availability of arable land, development of cultivation technologies, and more productive and resilient varieties. Such characteristics allow for increased productivity with minimal variation or increase in the planted area.

Amidst decarbonization targets and the call for the transformation of the global energy sector in order to increase the share of sustainable energy, biofuels will be on even heavier demand. Increasing productivity in ethanol production will be at the forefront of such transformation.

Energy balance. Another advantage is that the energy balance of sugarcane ethanol is much higher than that of corn ethanol – ethanol has smaller molecules, so sugarcane starts its fermentation process in a little less than 11 hours. In corn, carbohydrates need to be broken down into sugars before fermentation, resulting in a fermentation time of 40 to 70 hours.

By-products & circular economy. Last in the production chain, sugarcane by-products have a higher value-added than those originated from corn, increasing the potential for reuse, recovery, and recycling of materials and energy—the basis of the circular economy. Our innovative mindset plays a key role into this, a few examples below:

- We use natural fertilizers to our fields, made from vinasse (resulting from the distillation process of sugarcane juice), filter cake (resulting from filtering sugarcane juice) and ash (resulting from the burning of bagasse);
- After the crushing phase of our productive process, water evaporates. We condense the vapor to be used in the industry. Water represents 75% of our raw material, making it one of the most relevant efficiencies in our chain;
- Filter cake and vinasse are also used for energy generation in our biogas plant, as is sugarcane bagasse, from which we produce electricity for our own use and for trading;
- Sugarcane bagasse also works as an input for our second-generation ethanol (E2G), reducing our carbon footprint by 35% compared to the required processing to produce first-generation ethanol. By reutilizing sugarcane bagasse, we have increased our production by up to 50% without expanding the planting area—a milestone for responsible land use and conscious production.

[1] In the last 10 years.

Our purpose of Leading the Energy Transition: Growth & Acquisition

There are favorable perspectives, based on the trends for greater relevance of renewable sources, accelerated by the pandemic and driven by public policies, such as RenovaBio and the appreciation of sugar in the international market. We are in the right place, at the right time, and with the right culture. Brazil is a continental country, with plenty of land, a good climate, and differentiated export logistics.

In this scenario, in line with our purpose of leading the energy transition and converging with a global agenda that is increasingly moving toward a low-carbon economy, at the end of the 2020/2021 harvest, we announced the commercial agreement for the integration of Biosev's assets. With the integration, we now have 35 bioenergy parks with a total installed capacity of 105 million tons of sugarcane and approximately 1.3 million hectares of cultivated area. We will also expand the availability of biomass to expedite the energy transition as we accelerate monetization of the ethanol ecosystem and increase our share in the sugar value chain. We also gain scale in logistics and trading, complementing the existing portfolio. With these operational, commercial, and financial synergies, our estimated gain is R$6 billion over ten years.

We operate end-to-end, with the understanding that bringing people and business together will lead us to unique opportunities which, if properly managed, can generate unique experiences that are made possible because of our differentiated portfolio of products and solutions.

In this context, we have received external recognition of our performance. For instance, in 2021, we featured in Exame's Magazine ESG Guide – an award that recognizes the companies that have contributed the most to building a vibrant and diversified economy in the country of Brazil - as the most sustainable company within the energy industry. We have also featured in CDP's exclusive "A LIST" once we have reached level A (leadership). CDP is an exclusive ranking of the world's leading companies in managing the impact of climate change within its business At last, we have also won the silver medal in the assessment through the EcoVadis platform (the world's largest supplier business management assessment platform based on corporate sustainability criteria), ultimately meaning that we are amongst the top quartile in a group of 50,000 companies reviewed in nearly 150 countries.

raízen

Our Decade-Long History & Key Milestones

Inception & 1st Harvest	- We started our activities in 2011-2022, following the integration of Shell and Cosan's businesses, and one of our main goals was for Brazilian sugarcane ethanol to be recognized as a renewable fuel alternative around the world. - To this end, we became the 1st company in the world to have a production unit certified by Bonsucro. - We also complemented our business by establishing and expanding our trading business, distribution infrastructure and more logistical structure to transport fuels throughout Brazil.
2012-2013, 2013-2014 2014-2015, 2015-2016 Harvests	- We began activities at the first 2nd generation ethanol (E2G) plant, being one of the 1st companies in the world to operationalize the production of this new biofuel We continued to: - Certify our units with Bonsucro and other relevant seals to the global market - Grow our market share - Work on social and sustainable initiatives, including share good sustainability practices with sugarcane suppliers - Make strong investments were in logistics and infrastructure - Grow our number of Shell service stations under operation
2016-2017 Harvest	- We debuted in the international market with our inaugural US$ bond offering - In the agribusiness arm, we advanced in precision technology and image processing, centralizing the control of all our operations, industrial and agricultural We continued to: - Invest in infrastructure and logistics to enhance operational capacity and leverage efficiency - Grow our number of Shell service stations under operation - Work on social and sustainable initiatives. With a focus on social impact, we invested in a system to improve the monitoring and effectiveness of our ongoing sponsorship and social investment projects
2017-2018, 2018-2019, 2019-2020 Harvests	- We made our debut in clean energy generation & distribution (our first photovoltaic panel plant); We continued to: - Certify our units with Bonsucro and other relevant seals to the global market - Invest in infrastructure and logistics to enhance operational capacity and leverage efficiency - Grow our number of Shell service stations under operation - Develop and/or offer new products, such as Shell V-Power, a new generation of premium gasoline with Shell's unique technology that improves vehicle performance and efficiency - We acquired Shell's assets in Argentina - Expand and invest on convenience store business at service stations, under the Shell Select brand, and proximity stores, under the OXXO brand - The ELO Program, which encourages and supports the continuous improvement of the practices of our sugarcane suppliers, was the subject of a case study in the Repository of Cases on the Big Push for Sustainability in Brazil, developed by the Brazilian office of the UN Economic Commission for Latin America and the Caribbean (ECLAC). - We released our 10 commitments for 2030 in line with the journey we are aware we need to take and the impacts we want to generate. According to a study conducted by an auditor, these commitments contribute to the targets of 14 of the UN's 17 SDGs (Sustainable Development Goals)
2020-2021 and 2021-2022 Harvest	- We started operations at our biogas plant - We integrated Biosev's assets in a transaction that strictly followed our principles of capital discipline – in doing so, we consolidated our position as a unique, irreplicable, integrated platform for businesses that continue to redefine the future of energy - Published our Sustainability-Linked Finance Framework - Priced our inaugural Sustainability-Linked Debentures - Closed our Sustainability-Linked Revolving Credit Facility - In 2021, we joined CDP's select "A LIST" when we reached level A (leadership). This was an achievement of the journey we started a few years ago by adopting best practices in climate change management by including the topic at the heart of our strategy.

1.2 Integrated Ecosystem

Renewable Energy & Energy Transition

Demand for biofuels has grown in recent years and projections indicate this trend will be maintained, supported by decarbonization targets and awareness around the composition of our energy matrix. In fact, looking from 2015 onwards, the consumption of liquid biofuels has grown far more relevantly than its production globally. Even so, according to the International Energy Agency (IEA), the global consumption of biofuels needs to triple for a sustainable development

scenario, or "SDS," to be reached. This scenario calls for the transformation of the global energy sector in order to increase the share of sustainable energy, in line with other global sustainability policies.

The IEA also highlights that most key markets for energy transformation have projections below what are necessary for the goal to be achieved. In Brazil, for example, projections indicate growth of 1.7% in the production of biofuels between 2019 and 2025, while a 5% increase between 2019 and 2030 is required so that the target is met. Therefore, there is still a large responsibility from biofuels producer to act as principals on this transformation. Illustratively, the table below compares the expected annual production growth in the top biofuels producers, from 2019 to 2025, with the necessary production growth to reach SDS, from 2019 to 2030:

Country/Region	Expected annual production growth (2019–2025)	Necessary production growth to reach SDS (2019–2030)
United States	1.9%	7%
European Union	0.5%	9%
Brazil	1.7%	5%
India	11.8%	22%
China	15.3%	19%
Southeast Asia	13.3%	10%

Source: International Energy Agency – IEA.

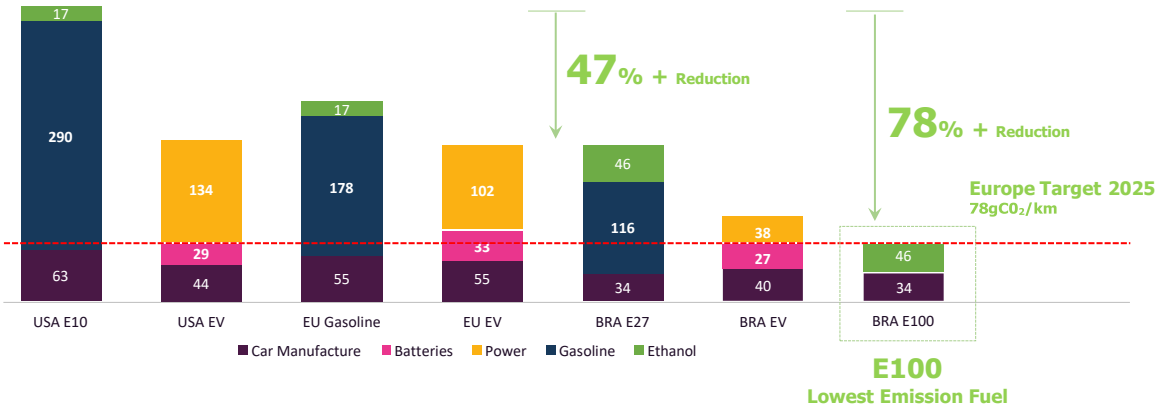
In addition to the IEA's SDS goals, other biofuel policies targeting decarbonization were developed around the world, with an emphasis on RenovaBio in Brazil, the Renewables Fuel Standard, or "RFS," and the Low-Carbon Fuel Standard, or "LCFS," in the United States, and the Renewable Energy Directive II, or "RED-II," in Europe. Other countries have also developed policies related to biofuels, such as India, Thailand, the Philippines, Japan, Canada and Colombia.

Macro policies and nation-wide commitments are setting the tone for decarbonization and further paving the runway for biofuels. An increasing number of individuals are reacting and changing their habits, demanding clean energy. In Brazil, more than half of the energy mix is based on renewable sources such as water, wind, and biomass. However, the situation in most other countries is very different, with a predominance of fossil sources. According to the Energy Research Company (EPE), the share of oil in global energy consumption is more than 30%, and it will remain the main energy source in the world for the next 15 years.

Our leading role in the energy transition agenda is also made evident by the quality of Brazilian ethanol, a reference as a source of lower environmental impact. The ethanol blend of up to 27% in gasoline (E27) provides a 15% reduction in CO2eq emissions per kilometer compared to pure gasoline and up to 35% in hybrid vehicles.

> *Ethanol vs. Electric Vehicles: Quest to Decarbonization*
>
> *Total emissions of gases from pure ethanol (E100) are 70% lower than emissions from regular gasoline (E27). These values are also lower when compared to emissions from electric vehicles in other countries, such as the United States. In other words, the effective emissions decrease of a battery-powered electric car is limited to the emissions of the electric matrix supplying its power. In any case, ethanol adoption is the most efficient form of mobility decarbonization in Brazil, and biofuels are bound to play an important role in the decarbonization of countries with similar characteristics.*

Total Emissions (gCO_2/km)[1]



As the largest global producer of first- and second-generation ethanol, promoting large-scale decarbonization for our customers and helping position them at the forefront of a low-carbon economy, we measured the greenhouse gas emissions that were avoided due to the consumption of our products— totalizing over 30 million tons of CO2e since 2011

Sugarcane: The Right Crop for the Future of Sustainable Bioenergy

Our commitment to a responsible business connected to the low-carbon economy begins with our raw material, sugarcane. This is where we get our sugar and our growing portfolio of renewable products from, and we are proud to be the largest producer of sugarcane and its derivatives in the world.

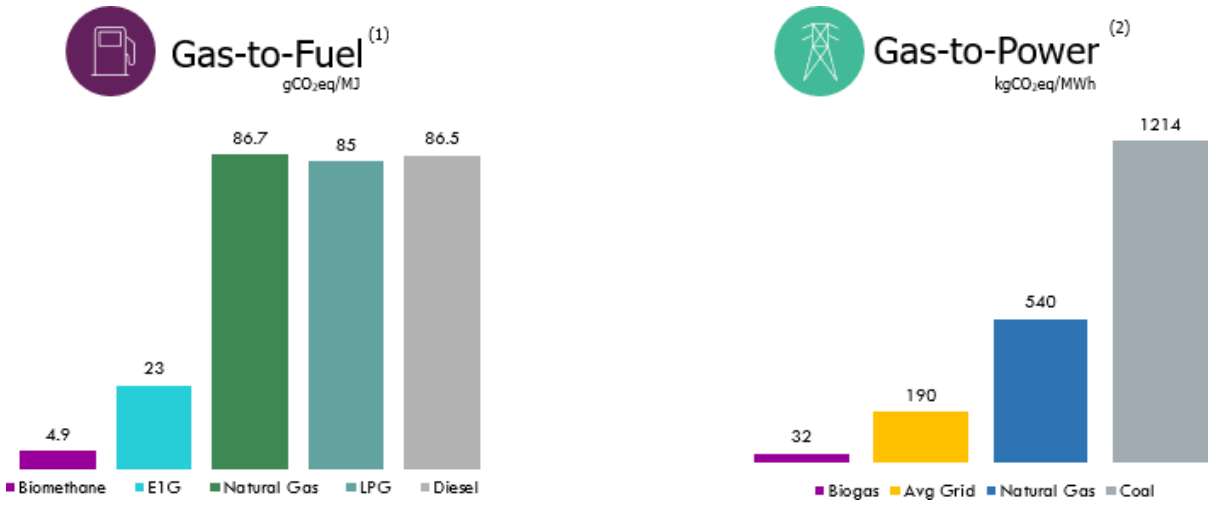
Sugarcane is considered the most efficient crop converting solar energy into biomass, which allows us to be a great promoter of global decarbonization and reach the maximum reuse of residues using all its by-products (bagasse, straw, vinasse, and filter cake). Through innovation with advanced technologies and following the principles of the circular economy, we have expanded our portfolio of renewables. We use filter cake and vinasse residues to generate energy in our biogas plant, in addition to using them as organic fertilizers in the cultivation of sugarcane. We generate bioelectricity and pellets (an option to replace coal for energy generation) by reusing bagasse, which is still an input to produce second-generation ethanol (E2G), a use that reduces our carbon footprint by 30% in comparison with the manufacture of first-generation ethanol. As a result, we have increased our production by up to 50% without increasing the planting area – a milestone for responsible land use and conscious production.

According to calculations, Brazilian sugarcane ethanol has one of the best carbon footprints in the world among current technologies. The carbon footprint of sugarcane ethanol varies between 16 and 24 gCO2e/MJ, which corresponds to a reduction between 74% and 83% in GHG emissions when compared to gasoline. The carbon footprint of sugarcane ethanol is smaller than that of American corn ethanol (which ranges between 43 to 62 gCO2e/MJ) and corn ethanol produced in Europe (30 to 68 gCO2e/MJ), according to different public sources including the California Air Resources Board – LCFS, Renovabio, and Raizen LCA Assessment. We are a truly unique integrated energy company positioned to thrive in all energy transition scenarios.

[1] Nature Sustainability (2020); CNPEM (2018), K. Aguirre et al. (2012); M. Messagie, F. S. Boureima, T. Coosemans, C. Macharis and J. Van Mierlo (2014)

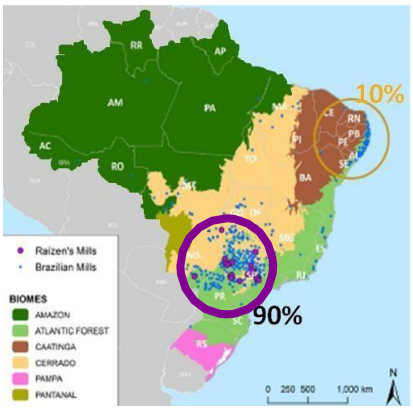
[2] *Sources*: California Air Resources Board – LCFS, Renovabio and Raízen LCA Assessment

CO_2 Emission by source (gCO_2/MJ)[2]



Land Use

Brazil occupies a privileged position in the world in terms of land use due to its large reserve of natural vegetation and the dynamism of the country's agricultural production. According to data from MapBiomas (2020), over 60% of the country is covered by natural vegetation and only 1% is used for sugarcane.



Sugarcane does not present a risk of direct or indirect deforestation in Brazil and, helps the recovery of native vegetation. According to FOLLADOR, et al. (2019)[2], 57% of the sugarcane area existing in 2017 was already taken by sugarcane in 2008, and the remaining 43% were expansions of the sugarcane area into other areas, such as degraded pastures and other crops. The expansion occurred mainly over areas of pasture (56%), agriculture and pasture mix (16%) and annual and perennial crops (25%), with only 1% to natural forest areas and the remainder with transition to other areas (non-forest).

Sugarcane is produced mainly in the Center-South and Northeast regions, which are geographically distant from deforestation areas and Raízen, with our production concentrated in the Center-South region, is more than 1.000km far from the Amazon, as shown on the map on the side.

Brazil has one of the most complete frameworks of regulations to protect natural vegetation. Most of the country's natural vegetation is legally protected and cannot be converted to other uses. From an analysis carried out on the MapBiomas

[2] M. Follador, G. Philippidis, J. Davis, and B. Soares-Filho, Assessing the impacts of the EU bioeconomy on third countries - Potential environmental impacts in Brazil of UE biofuel demand to 2030. 2019

platform (2020), we found that 87% of the areas that supply sugarcane to Raízen are located in municipalities where there was an increase in forests between 2008 and 2018.

This type of analysis is only possible because 100% of Raízen's areas are geographically traceable, that is, we know exactly where sugarcane is produced through geographic data, enabling the management of the sustainability attributes of the production chain.

Sustainable Value Chain and Sourcing

We work to continuously improve our production chain and strive to comply with the main international sustainability standards. We were the first company in the world to be certified to Bonsucro standard, an international and voluntary award dedicated to increase the sustainability of the sugarcane industry.

Raízen's sugarcane production chain includes our own areas and areas owned by suppliers, in a proportion of approximately 50% for each. To achieve and ensure the sustainability of our entire chain, we adopt two different but complementary strategies: Bonsucro Standard and ELO Program.

For Raízen's own production through leasing land and planting and cultivating sugarcane, the Bonsucro Standard provides guidance on how to assess the impacts on the environment and the labor conditions, and the efficient means of production. As to the production from sugarcane suppliers which are not controlled by Raízen, the ELO Program promotes compliance to the law, sustainability, and continuous improvement.ELO is a pioneering program from Raízen that seeks to include sugarcane suppliers with the purpose of ensuring sustainable supply, reducing risks throughout the value chain, and creating shared value. Since the program was inspired by the Bonsucro Standard, most of the criteria required for the certification are part of Raízen's internal program. The program provides that Raízen must work along with producers undertaking a diagnosis in their rural properties, identifying opportunities, providing individual guidance supported by technical follow-up and engaging producers to provide continuous improvement. Two independent NGOs, Solidaridad and Imaflora, manage the program, which ensures better results. Imaflora's annual inspections as an external party ensure the program's reliability.

In 2019, the ELO Program was acknowledged during the Bonsucro Week as a transformative and innovative action. That same year, the United Nations Economic Commission for Latin America, and the Caribbean (UNECLAC) elected the program as an example of Big Push towards sustainability in the sugarcane production chain.

The Bonsucro certification for our own production and the ELO Program for our suppliers work in tandem. The details of the main issues assessed by each can be found below

BON SUCRO
The global sugarcane platform

- ✓ GHG emissions
- ✓ Land rights
- ✓ Health and safety
- ✓ Forced and child labor
- ✓ Fertilizers and pesticides
- ✓ Water
- ✓ Land use change (LUC)
- ✓ Applied agrochemical limit

elo

- ✓ Decent work
- ✓ Human rights
- ✓ Forced and child labor
- ✓ Accident prevention
- ✓ Accommodation conditions
- ✓ Health, Safety and Welfare of workers
- ✓ Water, soil and forest management
- ✓ Agrochemicals

Our commitment to the energy transition has increased day after day. In 2021, we expanded our potential to produce renewables by acquiring the assets from Biosev. This acquisition brought us nine bioenergy parks with an installed capacity for crushing up to 31 million tons of sugarcane. Even with this increase, we are committed to the ESG agenda. We are publicly committed to certify all units under the Bonsucro certification, increasing our levels of social and environmental responsibility.

We are focused on achieving this by creating value and positively impacting all our stakeholders, such as the investors, surrounding communities, suppliers, and employees. Our target is to provide all these groups with an ecosystem of value creation. To achieve this, we must ensure we continue to operate.

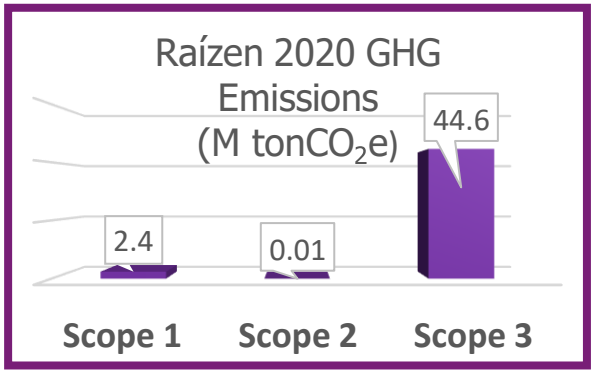
Last year 2.2 million people were directly and indirectly benefitted by our initiatives. We gathered R$ 25 million invested in our social projects in Brazil through promoted projects, Fundação Raízen and other sponsorships and social partnerships.

We have contributed to society by engaging our people in social initiatives, which surpassed 5,000 hours of volunteer work. Our initiatives were acknowledged by the Guia Exame publication, who ranked us one of the Best ESG Companies of 2021; we were also ranked top 3 in the MasterCana Social. We are on the right path to change the future of energy.

Our strategy towards the low carbon economy

Raízen is an integrated energy company with a relevant renewable portfolio, supplying over 180 billion MJ of clean energy per year to the market. We are eager to continue on this growth trend and designed an aggressive investment plan to expand our energy supply capacity, mainly by utilizing more efficiently our byproducts to such end.

Overall, our operation presents a low level greenhouse gas (GHG) emission, especially considering that our bioenergy parks are energy self-sufficient and we re-utilize our own biomass residues to meet the internal energy demand. This dynamic is reflected in Raízen's emission profile, with low scope 1 and 2 emissions[3].



The direct GHG emission is also a result of the required inputs for our agricultural operation. In this sense, with field efficiency projects, Raízen has been able to further reduce the GHG emission intensity from sugarcane products, following our public commitment to reduce our sugar and ethanol carbon footprint. With that in mind, transparency is a fundamental value for Raízen. In line

[3] Emissions are calculated following the Brazilian version of a worldwide consolidated methodology – the Brazilian GHG Protocol Program. In this methodology, emissions are classified within three scopes following how it was originated: Scope 1 (emissions from Raízen's production activities), Scope 2 (emissions associated exclusively energy consumption) and Scope 3 (all emissions related to Raízen's activities, which are not directly Company's responsibility).

with our goal of leading the decarbonization across our production chain, we have engaged our main suppliers to initiate their process to reduce their carbon emissions as well.

That said, outside of our production process and in our downstream process, our fuel distribution arm contributesthe most to our total emissions level. Brazil is considered a successful case in the use of biofuels within the mobility industry, leveraging on the largest flex fuel fleet in the world (runs on any mix of gasoline and ethanol) and a robust blending program, with a mandatory share of ethanol in the gasoline mix and biodiesel in diesel mix. We strongly encourage the global carbon pricing and the expanded use of ethanol and other biofuels as means to mitigate worldwide emissions and, in turn, reduce our total carbon footprint, including scope 3.

Our value proposition derives not only from our certified sustainable sugarcane production (we are the largest producer of Bonsucro-certified sugarcane in the world), but also from the avoided GHG emissions. Each renewable product substitutes a fossil-equivalent with heavier load of carbon footprint, and by doing so, we have avoided over 30 million tons of $CO2e$[4] since 2011, by replacing the energy matrix with biofuels. Therefore, Raízen plays a critical role in the decarbonization of all production chains, in which we participate.

Over the next decade, our main goal is to expand our renewable generation capacity, with new 2nd generation ethanol and biogas plants. The new facilities will contribute to our portfolio decarbonization potential, which will count with an additional capacity to avoid ~10 million tons of CO2e per year. In order to support such capacity increase, heavy investments focused on technology and alternative energy sources will be required, further diversifying our portfolio. Our long-term goals, combined to our support to public policies, encourage the reduction of emissions originated from the use of the products that we sell.

Our commitments include maximizing the positive impact of our portfolio by reducing emissions from our carbon footprint. In this way, we investigate and study ways to have a positive influence on our supply chain on Scope 3 emissions. We make our strong emissions management transparent through periodic publication in the Public Emissions Registry, as well as for our significant prominence as a company included in the A-List of CDP Climate, an exclusive ranking of the world's leading companies in managing the impact of climate change within its business. In addition, we internally conduct a strategic and cultural alignment process for our employees on this topic, which also has a corporate ESG indicator directly linked to the variable compensation of the management and other Raízen's employees (KPI CO2 emissions avoided by our renewable product portfolio).

Our Diverse Renewable Products Portfolio: Sugarcane-Derived Energy Sources & Solar Power Generation

Throughout our decade-long history, we have made strategic moves that feed into our goal of leading the energy matrix transition. We have advanced to different biofuel and renewable energy streams, complementing our bioenergy park with diverse sources of generation.

We have summarized our presence in each energy stream and detailed potential new markets that might dictate our growth strategies outside of our existing park.

Sugarcane Ethanol

We are present in people's lives, providing the energy they need—today and tomorrow. By investing in clean and renewable energy, we have become the largest producer of sugarcane ethanol in Brazil, selling different types (such as hydrous in different standards, anhydrous, and neutral) to various markets, both nationally and globally.

[4] The avoided GHG Emissions indicator measures the volume of avoided emissions due to the displacement of fossil energy sources by Raízen's renewable products. It is calculated by multiplying the carbon footprint of the product, the volume produced and the avoided emissions factor (difference between Raízen's product carbon footprint and the fossil it replaced).

Selling the product as a raw material for small and large industries is yet another of our demands. Our customers include the largest companies in Brazil and in the world in the fuel, pharmaceutical, chemical, cosmetics, and beverage segments, among others.

2nd Generation Ethanol (E2G)

With an inquisitive approach, we began to view sugarcane straw and bagasse, previously considered waste, as raw material for our second-generation ethanol (E2G), an advanced biofuel with the same chemical composition as regular ethanol; however, it reuses this waste through processes such as pre-treatment and hydrolysis, making it possible to access the sugars that are still contained in the fibers and increasing our production capacity by up to 50% using the same planted area.

We are the only company in the world that produces E2G on a commercial scale in a continuous and uninterrupted manner, having already exported more than 80 million liters to the United States and Europe, and with solid plans for new plants in the short and long term.

One of our strategies to continue investing in renewable products includes exploring all the possibilities of sugarcane. We operate in a circular economy system, reusing all the by-products and inputs used in our processes to generate new forms of energy. By doing this, we are directly contributing to the environment, generating less industrial waste and creating sustainable products that will help clean up the Brazilian energy mix.

Electric Power and Biogas Co-Generation from Sugarcane Bagasse and Straw

We are one of the world's largest producers of electric energy from sugarcane bagasse and straw, and all of our 23 bioenergy parks in operation for the 2020/2021 harvest (prior Biosev acquisition) are self-sufficient in energy consumption, while 13 of them sell their surplus to the National Interconnected System (SIN).

In October 2020, we began activities at our biogas plant in Guariba (SP). This is one of the largest biogas plants in the world. Using the by-products from filter cake and vinasse, it produces biogas that can be converted into electricity or biomethane gas—a substitute for natural gas and diesel in heavy vehicles.

This plant, which currently generates electricity and has an installed capacity of 21 MW in 153,100 sqm of built area, is adjacent to the Bonfim mill, where more than 5 million tons of sugarcane are crushed per year, generating a high volume of vinasse and filter cake to meet the needs of a commercial-scale biogas project. The vinasse will be used during the harvest period, and the filter cake will be used throughout the year. This combination should produce around 138,000 MWh, of which 96,000 MWh will be sold through a contract agreed upon at an auction held in 2016. The surplus volume of energy can be negotiated in the free market or through other contracts. Raízen Geo Biogás, a joint venture with Geo Energética, will be responsible for operation and sales. With our biogas plant, we have assumed a strategic position in the renewable energy market. The project, which has an ambitious expansion plan for the next 10 years, marks a revolution in the treatment of agro-industrial by-products, consolidating the circular economy practice adopted in our production processes. We have a commitment to reach a daily production of more than 2 million Nm3/day of biomethane, which is also considered an advanced biofuel.

We also obtained biomass energy, which accounts for 8.3% of the Brazilian energy mix, by burning organic materials. Compared to natural gas, these by-products generate 85% less greenhouse gas emissions. Our units have an installed capacity of about 1 GW for power generation, and our annual production of electricity from biomass amounts to 2.4 TWh. Together with energy trader WX Energy, besides selling energy in the free energy market, we have provided integrated and tailored solutions to different customer profiles, which generates a flow of contracts as we diversify the supply of products and services in our portfolio.

Through a joint venture with Sumitomo, in which we have an 81.5% stake, we have acquired a strategic position in the market for the production and sale of biomass pellets (sugarcane bagasse and straw). Our solution—instrumental in replacing coal in thermoelectric power plants for energy generation—has a capacity of 100,000 tons/year at the Diamante

Unit. Our product has unique sustainability attributes when compared to wood pellets, and in the last harvest it was exported to large generators in the Netherlands and the United Kingdom.

Solar Power Distributed Generation

In 2018 we decided to complement our renewable energy matrix by investing in solar power distributed generation, taking advantage of the Company's large physical land availability as well as Brazilian government tax incentives for investment in this segment. In 2019, we inaugurated our first solar power plant next to the Costa Pinto unit, with an installed power of 1.3 MWp and since then increased our solar power generation capacity 30-fold, with six new plants reaching a total volume of 51,567 MWh/year. With this expansion, we have become the largest distributed generation company in multiple states, operating simultaneously in five states in Brazil.

New Energy Solutions

We work to better manage the by-products generated by our operations. This process occurs in four ways: use of by-products from sugarcane processing as natural fertilizers; use of filter cake and vinasse as inputs for the biogas plant to generate electricity or biomethane (advanced biofuel); input to produce second-generation ethanol; and in the area of energy demand, the self-sufficiency of our operation with the use of fossil resources only in specific processes.

Biofuels, which are increasingly gaining space in our portfolio, are assuming a strategic position in the market due to the low-carbon logic and the global need to limit the increase in the average global temperature to 1.5 °C above pre-industrial levels, as advocated for by, for example, the Paris Agreement. Brazil's Nationally Determined Contributions (NDC) include, among other measures, an 18% increase in the share of sustainable bioenergy in the country's energy matrix by 2030. To contribute to achieving this goal, the Federal Government created the National Biofuels Policy (RenovaBio) three years ago, effective as of December 2019. The main instrument of the provision is the establishment of annual decarbonization targets for the Brazilian fuel distribution sector, broken down into specific targets for each distributor based on their performance in the previous year. The targets are met through the purchase of CBios, credits generated by biofuel producers according to the carbon intensity of their production processes.

Therefore, there is increased importance on quantifying and managing our Greenhouse Gas (GHG) emissions. These are practices that we have adopted since the start of our activities based on the guidelines of the Greenhouse Gas Protocol and its Brazilian version, the Brazilian GHG Protocol Program. Most of the data is collected automatically to avoid information handling and mitigate calculation errors. The results are submitted for an independent audit, which results in an analytical report on each of our emission sources. This allows us to map where our biggest and smallest impacts are and assess the application of more or less energy to drive our transition to a low-carbon economy.

1.3 Corporate Governance and Sustainability

We are a joint venture between Shell and Cosan — each with a 50% stake—whose actions are based on solid principles of transparency, equity, accountability, and corporate responsibility. Guided by our values, we have been improving our corporate governance practices year by year following self-assessments, criteria, regulations, and concepts of excellence in the global market. Some of the best practices adopted include:

• Segregation of duties of the Chairman of the Board of Directors and the CEO.

• Compliance program, with an independent Ethics Channel.

• Periodic assessment of executives, based on economic, social, and environmental criteria.

• Advisory Committees to the Board of Directors, including an Audit Committee.

• Transparent and timely communication with investors, with annual events to present strategy and results; conference calls after disclosure of results; and simultaneous disclosure in English and Portuguese of relevant facts, among others.

• Financial statements audited externally and in accordance with international accounting standards.

• Voluntary adherence to the Sarbanes-Oxley Act, which requires the adoption of mechanisms for financial reports that are readily verifiable with traceable source data.

Public commitments reinforce our stance. We are signatories to the Ethos Institute's Business Pact for Integrity and Against Corruption, and we support the Combustível Legal Institute, created through a movement started by Plural (formerly Sindicom) to reinforce the importance of an ethical and loyal environment where everyone pays their taxes honestly, thereby fostering fair competition.

Our Sustainability Governance

Raízen integrates environmental, social, economic, and governance (ESG) aspects to generate and share value with our stakeholders, as this is what ensures the continuity, competitiveness, and responsibility of our business. As a global energy company, Raízen actively seeks to contribute to the energy transition in a low-carbon economy. Aiming to maximize our positive social and environmental impact, the company has a robust Strategic Sustainability Plan linked to operations and based on material topics for our stakeholders, in line with the UN Sustainable Development Targets (SDGs). The Plan has short and long-term targets and actions, under the direct management of our senior leadership (further information on https://www.raizen.com.br/en/esg-agenda).

Despite its young age, Raízen inherits over a century of learning from our shareholders in corporate governance flows, practices, and structures. The guidance of Raízen's long-term ESG targets and initiatives is the responsibility of the CSR Social Responsibility Committee (advisory body to the company's Board of Directors), which comprises the majority shareholders of Shell's, Cosan's and Raízen's Board of Directors Supporting this, the 18-member Raízen Sustainability Committee, 4 of which are women, is the core of the strategic management of the Raízen's ESG Agenda, in which the company's ESG metrics and strategies are discussed, in addition to ensuring cross-cutting alignment of the topic between the top management and the operations.

The company's climate change strategy, as well as its plan for transitioning to a low carbon economy are overseen not only by the Sustainability Committee (which is composed by senior leadership including our CEO) but also by our CSR Committee (advisory committee to the Board).

Our Sustainability Commitments

As part of our sustainability agenda, we focus on a critical and integrated look at some of the most relevant (material) topics for our operations, which follows the risks and opportunities of our business model. We identified seven material topics for which short and medium-term action plans, long-term ambitions, and goals should be strategically structured and cascaded over the next harvests and which should be updated by the main interfacing teams. The topics are:

- Climate change and energy transition
- Management of health, safety, and environment

- Governance, ethics, and compliance
- Innovation, development, and circular economy
- Community relations
- Human rights, diversity, and inclusion
- Economic-financial performance and business expansion

Based on the topics above, we developed Raízen's Strategic Sustainability Plan with long-term goals and actions, with the involvement of our C-level. This has enabled a leap in the company's maturity, allowing us to take a more solid position to launch our 10 public commitments made in line with the 16 UN Sustainable Development Goals (SDG) and correlated with each material topic. It is a set of practices that has always been part of our daily lives— doing more with less, reducing environmental impacts, valuing the quality of life of our team, generating positive social impacts, and guaran - teeing a circular economy—and it has gained even more relevance in the "Decade of Action," a name given by the UN to express the approaching deadline for reaching the global commitments of the Sustainable Development Agenda. To learn more, access.

MATERIAL TOPIC[6]	PUBLICLY ASSUMED TARGETS (BY 2030)[7]	SUSTAINABLE DEVELOPMENT GOALS (SDG)
Climate change and energy transition	1) Reduce the carbon footprint of ethanol and sugar by 10%	
Management of health, safety, and environment	2) Reduce water withdrawal from external sources by 10% 3) Increase the GJ/ha indicator by 15% 6) Maintain certification by an internationally recognized standard for all units in operation	
Governance, ethics, and compliance	4) Guarantee a robust system for traceability of 100% of the volume of sugarcane crushed 8) Actively influence our strategic partners to eliminate the risk of violating our ethics and compliance values	
Innovation, development, and circular economy	1) Reduce the carbon footprint of ethanol and sugar by 10% 2) Reduce water withdrawal from external sources by 10% 3) Increase the GJ/ha indicator by 15%	

[6] *See our ambitions for each topic in the full version of our 2020/2021 sustainability report, available here.*
[7] *The baseline for the commitments is the 2018/2019 crop year.*

MATERIAL TOPIC[6]	PUBLICLY ASSUMED TARGETS (BY 2030)[7]	SUSTAINABLE DEVELOPMENT GOALS (SDG)
Community relations	9) 100% of neighboring communities[8] supported by the Raízen Foundation	
Human rights, diversity, and inclusion	5) Guarantee internationally recognized sustainability programs for sugarcane sources 7) Make progress with respect to human rights in our operations and in our supply chain 10) Have 30% of leadership positions held by women, from management on up, by 2025 No commitments are directly associated, since this is a cross-cutting topic that guides the execution of the others.	
Economic-financial performance and business expansion	No commitments are directly associated, since this is a cross-cutting topic that guides the execution of the others.	

[8] *Commitment applicable to neighboring communities capable of receiving the model..*

2. Rationale for Issuance

Society's demand for clean energy is becoming increasingly stronger, driven by global trends that place sustainability at the heart of business, financial markets, and global capital providers. Our business strategy and growth is entirely entwined with it and this issuance further binds our commitments.

Therefore, our aim by establishing this Green Financing Framework is to be able to raise financing in various markets (international and local debt capital markets, as well as local and international bank markets) by issuing green debt instruments ("Green Instruments") to support our sustainable development.

3. Application of the Green Bond and Loan Principles

3.1 Introduction

This Green Finance Framework is aligned with the Green Bond Principles published by the International Capital Markets Association ("ICMA") in 2021 and the Green Loan Principles published by the Loan Market Association ("LMA") and the Loan Syndications and Trading Association ("LSTA"), respectively, in 2021.

This Framework allows Raízen to issue Green Instruments, including green bonds in the international and local markets and green loans in the international and local bank markets, all of which to be deployed into Green Eligible Projects.

3.2 Use of Proceeds

An amount equal to the net proceeds of the Green Instruments issued by Raízen will be used to finance or refinance Eligible Assets and Projects that have been evaluated and selected by Raízen in accordance with this Green Finance Framework.

Each of these uses will be diligently checked against the Eligibility Criteria set forth in the following section, ensuring full compliance.

Assets and Projects may be eligible when disbursed within three years (36 months) prior to the issuance date of any Green Instrument, and Raízen intends to full allocate the bond proceeds within three years (36 months) after each issuance of Green Instruments.

3.2.1 Eligible Assets and Projects

Eligible Assets and Projects include expenditures for the following eligible categories which have the objective to contribute towards a low carbon economy and mitigate climate change globally with our sustainable solutions in place.

Table: Eligible Green Projects

GBP Eligible Category	Eligibility Criteria	SDGAlignment
Renewable Energy	- Expenditures related to Bonsucro-certified production of hydrous[6] and anhydrous[1] sugarcane ethanol biofuel including: (i) capital expenditures for development, construction, remodeling, operation, and maintenance of biofuel production facilities (including but not limited to 2nd generation plants) including procurement labor and purchase of equipment; and/or (ii) operational expenditures for plantation and/or purchase of sugarcane feedstock for biofuel production in a sustainable matter, that can be certified by Bonsucro. - Expenditures related to co-generation of energy from biomass including: (i) capital expenditures for development, construction, remodeling, operation, and maintenance of co-generation facilities including procurement labor and purchase of equipment and inputs. - Expenditures related to biodigestion of industrialsugar-energy residues (and others) for the production of energy and/or biomethane through biogas including: (i) capital expenditures for development, construction, remodeling, operation, and maintenance of biogas facilities including procurement labor and purchase of equipment and inputs; and/or (ii) operational expenditures to purchase of inputs in the biogas production. - Expenditures related to the production of solar energy including capital expenditures for development, construction, remodeling, operation, and maintenance of solar plants including procurement labor and purchase of equipment and inputs.	
Energy efficiency	Expenditures related to the (i) improvement of energy efficiency at sugarcane ethanol biofuel plants, co-generation units, biogas facilities and/or solar plants, (ii) purchase of more efficient equipment.	

[1] The hydrated ethanol is the common ethanol sold at gas stations, while anhydrous ethanol is that mixed up with gasoline. The difference between the two is the amount of water present in each of them. The hydrated ethanol has a range concentration of 95.2% to 93.8% of ethanol with the remainder being water, while anhydrous ethanol has a minimum concentration of 99.3%. The investments contemplated in this Framework are intended only to produce biofuel and does not include the costs associated with the blending of gasoline.

3.2.2 Exclusionary Criteria

Proceeds from any Green Instrument issued by Raizen will not be used to finance or refinance assets and/or projects that utilize fossil-based feedstock or that are associated with environmentally negative resources extraction. In other words, every sugarcane production operation, which is 100% renewable, is eligible.

Raízen has a clear stand against any actions that would cause deforestation. We are committed to preventing deforestation in our own supply chains and require the same from all our raw material suppliers. Raízen commits to only allocate proceeds to production based on raw material from areas covered by internationally recognized standards.

3.3 Selection and Evaluation of Eligible Assets and Projects

Raízen has designed and implemented a process to ensure that only assets and projects aligned with the criteria set out above will be selected as Eligible Assets and Projects for the issuance of its Green Instruments. To oversee this, Raízen's senior management, including CFO and CSO will discuss and establish, on an annual basis, which projects will be using the proceeds in the following crop year. The decision will be documented, and an impact report will be issued by the end of the year.

The project selection process for the Eligible Assets and Projects includes the following steps:

1. Raízen evaluates eligibility of proposals according to the eligibility criteria specified in the above table and removes assets and projects that do not meet the criteria.

2. All projects will undergo an assessment to ensure that their development, construction, and operation have been, and are being carried out, in accordance with our Corporate Governance and Regulatory, Sustainability and Compliance Policies, as well as with our Health, Safety and Environmental Policy.

3. Raízen’s Treasury verifies eligibility and presents the potential Green Assets and Projects to the senior management for final approval.

3.4 Management of Proceeds

Raízen intends to allocate the proceeds from any Green Instrument issued under this Framework to an Eligible Green Portfolio, selected in accordance with the use of proceeds criteria and evaluation and selection process presented herein. The portfolio consists of new and/or existing assets and projects.

Raízen will strive to maintain a level of allocation for the Eligible Green Portfolio that matches or exceeds the balance of net proceeds from its outstanding green instruments. Further eligible green assets and/or projects will be added to the Issuer's Eligible Green Portfolio.

Pending the full allocation to the Eligible Green Portfolio, Raízen will hold and / or invest the balance of net proceeds not yet allocated, at its own discretion, in its treasury liquidity portfolio (in cash or cash equivalents, money market funds, etc).

The Raízen's senior management monitors the Eligible Green Portfolio and will exclude green assets and projects that no longer comply with the applicable eligibility criteria or have been disposed of, replacing them as soon as reasonably practicable.

The allocation of the net proceeds of issued Green Instruments to the Eligible Green Portfolio will be reviewed and approved by the Raízen's senior management on at least an annual basis. Raízen will report on this portfolio going forward.

The Framework may be amended from time to time to reflect market developments and best practices. Any new issuance of Green Instruments will be aligned with the latest version of the Framework. Assets will only be added to the portfolio if they fulfill the then current eligibility criteria.

3.5 Reporting

Raízen will report annually the allocation and, where feasible, the impact of the proceeds derived from the Green Instruments raised , at least at category level throughout the tenor of any Green Instrument or until full allocation.

The reporting will be published as part of, or concurrently along with, Raízen's annual sustainability report. Any material developments, such as modification of the Framework or allocation portfolio, will be reported in a timely manner. Where relevant, Raízen will seek to align the reporting with the latest standards and practices as identified by ICMA.

The impactreport will, to the extent feasible, also include a section methodology, baselines and assumptions used in impact calculations. Raízen intends to provide aggregated reporting for all of Raízen's Green Instruments.

Reports will be available at: www.raizen.com.br

3.5.1 Allocation Reporting

In terms of the overall allocation of proceeds, Raízen will include the following in its reporting:

- the total amount of assets and capital expenditures in the Eligible Green Portfolio, specified on category and subcategory level;
- the amount and / or percentage of new and existing projects (share of financing and refinancing);
- the geographical distribution of assets and capital expenditures included in the Eligible Green Portfolio;
- breakdown of the Eligible Green Portfolio by nature of what is being financed (assets, capital expenditures);
- the balance of unallocated proceeds (if any)

3.5.2 Impact Report

Raízen will strive to report on the actual environmental impact of the investments financed by its Green Bonds. If/when actual impact for some reason is not observable, or unreasonably difficult to source, estimated impact will be reported. The impact indicators may vary with investment categories, as defined in this Green Finance Framework. The impact metrics selected may include the following:

Eligible Category	Potential Impact Indicators
Renewable Energy	• Avoided Emissions (tCO2 against Fossil Fuels)
	• MJ/year of Bio-Gas Energy Generated
	• MW/year of Co-Generation Generated
	• MW/year of Solar Power Generated
Energy Eficiency	• Annual energy savings in MWh/GWh (electricity) and GJ/TJ (other energy savings) • Annual GHG emissions reduced/avoided in tonnes of CO2 equivalent

3.6 External Review

3.6.1 Second Party Opinion

Raízen has obtained and will make publicly available a Second-Party Opinion ("SPO") from Sustainalytics, a leading ESG research, ratings, and data firm, to provide an opinion on the environmental and social benefits of this Framework as well as the alignment to the GBP and the GLP. The SPO will be available on the SPO provider's website.

3.6.2 Assurance

We expect that our annual report will be accompanied by (i) assertions by Raízen's management as to the amountof the net proceeds from the sale of any Green Instrument that have been allocated to Eligible Assets and Projects; (ii) a report from an independent third party who will examine and verify Raízen's management of the net proceeds from the sale of any Green Instrument and provide assurance as to the compatibility in all material respects of any selected Eligible Assets and Projects, to which a portion or all of the net proceeds from the sale of any Green Instrument have been allocated, with the eligibility criteria set forthin this Framework.

Disclaimer

This document is intended to provide non-exhaustive, general information. This document may contain or incorporate by reference public information not separately reviewed, approved or endorsed by Raízen and accordingly, no representation, warranty or undertaking, express or implied, is made and no responsibility or liability is accepted by Raízen as to the fairness, accuracy, reasonableness or completeness of such information. This document may contain statements about future events and expectations that are forward looking statements. None of the future projections, expectations, estimates or prospects in this document should be taken as forecasts or promises nor should they be taken as implying any indication, assurance or guarantee that the assumptions on which such future projections, expectations, estimates or prospects have been prepared are correct or exhaustive or, in the case of the assumptions, fully stated in the document. Raízen has and undertakes no obligation to update, modify or amend this document, the statements contained herein to reflect actual changes in assumptions or changes in factors affecting these statements or to otherwise notify any addressee if any information, opinion, projection, forecast or estimate set forth herein changes or subsequently becomes inaccurate. This document is not intended to be and should not be construed as providing legal or financial advice. It does not constitute an offer or invitation to sell or any solicitation of any offer to subscribe for or purchase or a recommendation regarding any securities, nothing contained herein shall form the basis of any contract or commitment whatsoever and it has not been approved by any security regulatory authority. The distribution of this document and of the information it contains may be subject of legal restrictions in some countries. Persons who might come into possession of it must inquire as to the existence of such restrictions and comply with them. The information in this document has not been independently verified. The addressee is solely liable for any use of the information contained herein and Raízen shall not be held responsible for any damages, direct, indirect or otherwise, arising from the use of this document by the addressee.