

Module: Introduction**Page: Introduction**

CC0.1**Introduction**

Please give a general description and introduction to your organization.

JBS S.A. is a global leader in animal protein processing, owner of beef, pork and lamb, poultry and leather processing plants, in addition to feedlots. It also operates in the segments of cleaning and hygiene products, collagen, can making, casings, biodiesel, vegetable, recycling and transport.

Headquartered in São Paulo and foothold in 22 different countries, the company has more than 185,000 employees in production platforms and sales offices. Its team serves more than 300,000 customers in over 150 countries, offering a vast product portfolio and renowned brands, including Swift, Friboi, Seara, 1855, Canelones, Great Southern, Doriana, Rezende, Seara Turma da Mônica, Maturatta, Swift Black, All Natural, Cabaña Las Lilas, Pilgrim's, Gold Kist Farms, Pierce and Frangosul.

The businesses are organized in the following units: JBS Mercosul (which includes the Company's beef, leather and related businesses in Brazil, Argentina, Paraguay and Uruguay), JBS USA (responsible for operations in Australia, Canada, the United States, Mexico and Puerto Rico) and JBS foods, created in 2013 with focus on the poultry, pork and value added products in Brazil.

The company's shares have been traded in the Novo Mercado Special Corporate Governance Listing segment of the BM&FBOVESPA since 2007, when it held its IPO. In 2013, the company posted net revenue of R\$92.9 billion, with exports accounting for 27% of this total. In terms of revenue breakdown by business unit, JBS Mercosul contributed with R\$25.8 billion (including JBS Foods), while JBS USA contributed with US\$18.6 billion (beef), US\$3.5 billion (pork) and US\$8.4 billion (poultry).

CC0.2**Reporting Year**

Please state the start and end date of the year for which you are reporting data.

The current reporting year is the latest/most recent 12-month period for which data is reported. Enter the dates of this year first.

We request data for more than one reporting period for some emission accounting questions. Please provide data for the three years prior to the current reporting year if you have not provided this information before, or if this is the first time you have answered a CDP information request. (This does not apply if you have been offered and selected the option of answering the shorter questionnaire). If you are going to provide additional years of data, please give the dates of those reporting periods here. Work backwards from the most recent reporting year. Please enter dates in following format: day(DD)/month(MM)/year(YYYY) (i.e. 31/01/2001).

Enter Periods that will be disclosed
Tue 01 Jan 2013 - Tue 31 Dec 2013

CC0.3

Country list configuration

Please select the countries for which you will be supplying data. This selection will be carried forward to assist you in completing your response.

Select country
Brazil
United Arab Emirates
Australia
Argentina
Belgium
Chile
China
Czech Republic
Egypt
United Kingdom
Hong Kong
Germany
Japan

Select country
Mexico
Paraguay
Puerto Rico
South Korea
South Africa
Taiwan
United States of America
Uruguay
Italy
Russia
Canada
Vietnam
Portugal

CC0.4

Currency selection

Please select the currency in which you would like to submit your response. All financial information contained in the response should be in this currency.

BRL(R\$)

CC0.6

Modules

As part of the request for information on behalf of investors, electric utilities, companies with electric utility activities or assets, companies in the automobile or auto component manufacture sectors, companies in the oil and gas industry, companies in the information technology and telecommunications sectors and companies in the food, beverage and tobacco sectors should complete supplementary questions in addition to the main questionnaire.

If you are in these sectors (according to the Global Industry Classification Standard (GICS)), the corresponding sector modules will not appear below but will automatically appear in the navigation bar when you save this page. If you want to query your classification, please email respond@cdp.net.

If you have not been presented with a sector module that you consider would be appropriate for your company to answer, please select the module below. If you wish to view the questions first, please see <https://www.cdp.net/en-US/Programmes/Pages/More-questionnaires.aspx>.

Further Information**Module: Management****Page: CC1. Governance**

CC1.1**Where is the highest level of direct responsibility for climate change within your organization?**Individual/Sub-set of the Board or other committee appointed by the Board

CC1.1a**Please identify the position of the individual or name of the committee with this responsibility**

(i) Sustainability Committee Board.

(ii) Created in 2008, the Sustainability Committee was reformulated in 2013, following the governance restructure in the company, to advise the Board of Directors with respect to the risks and opportunities in sustainability initiatives. From this reformulation, the committee is composed by six members of the senior management, which has contributed to the engagement of JBS with the issues related to the environment and climate change and chaired by the representative of the BNDES. In order to review the progress of the proposed actions the committee performs quarterly meetings and the results are reported to the Board. The Sustainability Committee Board is responsible for dealing with and connecting all subjects related to the topic of sustainability and climate change in the company's business in a global perspective, such as: identification, evaluation and treatment of critical issues that result in risks and business impact; monitoring and implementation of policies, strategies and specific actions; and evaluation of proposals for investments in sustainability. Moreover, the focuses of the committee are i) integrating the JBS sustainability culture and practices in the recent acquired companies and ii) create a sustainability framework at a global level to set guidelines regarding both the supply chain (cattle purchase programs and actions on the poultry chain) and processing products (internal environmental improvements and eco-efficiency).

CC1.2

Do you provide incentives for the management of climate change issues, including the attainment of targets?

Yes

CC1.2a

Please provide further details on the incentives provided for the management of climate change issues

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator
Environment/Sustainability managers	Monetary reward	The beef business units have targets for implementation of the environmental management system (NBR ISO 14001:2004), which contains targets for water consumption and by-product recovery in wastewater treatment plant (number of indicators related to production). The recovery of the by-product effluent treatment plant reduces emissions by reducing organic carbon (COD) in the effluent and thus the potential for formation of methane in the wastewater treatment steps that follow. These goals are related to JBS's program of annual bonus.
Facility managers	Monetary reward	The beef business units have targets for implementation of the environmental management system (NBR ISO 14001:2004), which contains targets for water consumption and by-product recovery in wastewater treatment plant (number of indicators related to production). The recovery of the by-product effluent treatment plant reduces emissions by reducing organic carbon (COD) in the effluent and thus the potential for formation of methane in the wastewater treatment steps that follow. These goals are related to JBS's program of annual bonus.
Other: Regional environmental coordinators and facilities environmental supervisor	Monetary reward	The beef business units have targets for implementation of the environmental management system (NBR ISO 14001:2004), which contains targets for water consumption and by-product recovery in wastewater treatment plant (number of indicators related to production). The recovery of the by-product effluent treatment plant reduces emissions by reducing organic carbon (COD) in the effluent and thus the potential for formation of methane in the wastewater treatment steps that follow. These goals are related to JBS's program of annual bonus.

Further Information

Page: CC2. Strategy

CC2.1

Please select the option that best describes your risk management procedures with regard to climate change risks and opportunities

Integrated into multi-disciplinary company wide risk management processes

CC2.1a

Please provide further details on your risk management procedures with regard to climate change risks and opportunities

Frequency of monitoring	To whom are results reported	Geographical areas considered	How far into the future are risks considered?	Comment
Six-monthly or more frequently	Individual/Sub-set of the Board or committee appointed by the Board	All areas where JBS has operations	3 to 6 years	The process of risk and opportunity identification is under the responsibility of the Sustainability Direction, which reports to the Sustainability Committee, appointed by the Board. To evaluate the risks and opportunities within the company, in relation to climate change, the process follows a methodology issued by the Sustainability Committee. The Sustainability Committee meets every quarter, where major advances and new opportunities and risks identified are evaluated. It reports to the Board, and the guidelines are forwarded to the technical team developing the necessary actions.

CC2.1b

Please describe how your risk and opportunity identification processes are applied at both company and asset level

The process of risk and opportunity identification is under the responsibility of the Sustainability Direction, which reports to the Sustainability Committee. To evaluate the climate change risks and opportunities within the company (company and asset level), the process follows a methodology issued by the Sustainability Committee, which includes (a) mapping and description of risks and opportunities, performed by the Technical Team, (b) analysis and prioritization of mapped risks and opportunities and the evaluation and study to transform the risk into opportunities.

The Sustainability Committee meets every quarter, where major advances and new opportunities and risks identified are evaluated. It reports to the Board, and the guidelines are forwarded to the technical team developing the necessary actions.

In the asset level, each manager is responsible for monitoring the environmental legislation of their country and establishes measures for compliance. In the USA,

for example, many states have announced or adopted programs to stabilize and reduce GHG emissions, and federal legislation has been proposed in Congress, including the creation of a system of cap and trade.

With respect to the commodities purchased to the animal feeds, JBS Foods has a Risk Committee (FRC), composed by the Chief Executive Officer of JBS Foods, JBS Foods CFO and sales and risks directors of JBS. This committee meets quarterly to analyze weather maps, reports of changes in planting, picture of world supply and demand, prices curves and economic scenario, identifying, monitoring and developing strategies to mitigate the risks which the Company is exposed to and minimize its possible effects on the company's business. The result of the quarterly meetings of this committee corresponds to the strategic planning of purchasing commodities in short (3 months), medium (1 year) and long term (10 years).

CC2.1c

How do you prioritize the risks and opportunities identified?

To evaluate and prioritize the risks and opportunities within the company (company and asset level), in relation to climate change, as already mentioned in the previously question, the process follows a methodology issued by the Sustainability Committee in which its main steps are described below:

(a) Description of risks and opportunities identified, the mapping process is performed by the Technical Team.

(b) Analysis of mapped Risks and Opportunities and their prioritization. This step is based on business impact and likelihood of occurrence.

i) Each risk or opportunity is classified as a consequence of its impact on business and its likelihood of occurrence. It is developed under three different scenarios: short, medium and long term.

ii) The Sustainability Committee focuses the Action Plan on the short-term scenario with risks / opportunities classified as high impact to business and high probability of occurrence or medium and high likelihood or high and medium probability impact. In the scenarios of medium and long term, only the risks / opportunities classified with high business impact and high probability of occurrence are the object of attention of the Sustainability Committee.

(c) The risks are studied to be transformed into opportunities.

The criteria for priorities are determined by assessing the impact of the risk and the probability of occurrence. The results are evaluated by the Sustainability Committee. The identified opportunities for emission reduction are assessed considering additionality and the potential for emission reduction, therefore these both criteria are considered for decision making of Sustainability Committee.

CC2.1d

Please explain why you do not have a process in place for assessing and managing risks and opportunities from climate change, and whether you plan to introduce such a process in future

Main reason for not having a process	Do you plan to introduce a process?	Comment
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CC2.2

Is climate change integrated into your business strategy?

Yes

CC2.2a

Please describe the process of how climate change is integrated into your business strategy and any outcomes of this process

- i) JBS's business strategy is directly influenced by climate change. The Company has an Environmental Policy being aware of its responsibility, as well as all the impacts generated by its operations in each region. JBS focuses on the entire production chain and the implementation of its strategy, which must be aligned with the Environmental Policy, so that its processes are always based on the environment and strategies to mitigate the environmental impacts of their activities. JBS policy established the commitment of: pollution prevention, compliance with legal requirements, setting objectives and targets for continuous improvement in processes and optimization of natural resources. Thus, among the goals and targets set by the company, the responsibility on climate change is considered.
- ii) The JBS sustainability initiatives are divided between suppliers and industrial processes. The climate change aspects that guide the company are based on physics, financial, regulatory and image risks which might interfere negatively in its operation. Based on these aspects, JBS support and developed the following initiatives: good practices in agribusiness, hiring legal cattle suppliers according to the company's social and environmental criteria, industrial processes, legal compliance, improvement in industrial projects and eco efficiency. Among the eco-efficiency projects, investments in technology for reduction of GHG emissions are included.
- iii) Components of climate change that have influenced its short term business strategy: In order to measure the climate change impacts due to JBS's activities, since 2009 JBS performs annually Inventory Emissions of GHG, which is an instrument of corporate management of the company to measure the emissions of GHG from its operations in Brazil, which accounts for direct and indirect emissions. From the year 2012, JBS expanded this measurement to its operations worldwide. In 2013, JBS became a member of the Brazilian GHG Protocol Program, through the publication of its Inventory of Emissions of GHG. The company also participates in other voluntary initiatives for reporting information regarding GHG emissions and the management and strategy related to climate change, as the ICO2 of BM&FBOVESPA. Besides, JBS has been participating in the Technical Working Groups, as the WG Scope 3 of the Brazilian GHG Protocol Program and the Agriculture GHG Protocol, to deep the discussions and development of auxiliary tool for calculating emissions from air travel and carbon emissions by agribusiness.
- iv) Components of climate change that have influenced its long term business strategy: JBS intends to include all sectors of its supply chain worldwide in its GHG emission inventory and also to promote the mitigation of JBS and its supply chain emissions. Therefore, JBS's aims to reduce directly and indirectly climate change impacts due to JBS's activities. Based on that, different initiatives have been developed and supported by JBS, as the Integrated Low Carbon Cattle Farming, a partnership established in 2013 between JBS and the Brazilian NGO Instituto Centro de Vida (ICV) to promotes sustainable cattle raising in the Amazon biome,

developing production models that improve management, increase productivity, increment quality in the product delivered to the market, reduce emissions of greenhouse gases in the production system and comply with environmental legislation. JBS also has an energy trading company, which operates in the domestic free market purchasing renewable energy. In 2013 JBS bought over 770,000 MWh of renewable energy. Besides JBS has a waste management company, Environmental JBS, that offers solid waste management solutions, with treatment and proper allocation of recyclable, non-recyclable and hazardous waste, as well as certification ensuring waste to contribute to the company's and its client's commitment to sustainability.

v) The company has a better understanding of the risks and opportunities related to climate change. Therefore, we consider ourselves more prepared to the possible climate change impacts and we take advantage of the opportunities and we believe this represents a strategic advantage. For example we are the first company of our sector with a CDM project registered on UNFCCC and one of the pioneers on elaborating GHG emissions inventory in Brazil. Moreover, JBS evaluate and invest in new technologies to reduce emissions of greenhouse gases, making their operations more efficient and incorporating principles of sustainability into their operations and seeking constant innovation and development of their business.

vi) Practical actions have also been applied in the livestock sector of our cattle supply chain. One of JBS public commitments is the engagement in combating deforestation. Therefore practical actions have also been applied in policy and in the livestock sector of our cattle supply chain. The company prepared internal guidelines on the purchase of cattle from the Amazon biome, pledging to purchase cattle only from farms that are in regularity with social, environmental and land standards of IBAMA and the Ministry of Labor and Education, avoiding on this the purchase of cattle from deforested areas and with analogous to slave and / or child labor. This action aims to ensure the source of our raw material, but also serves to aid the reduction of deforestation in the Amazon Biome, and therefore lower CO2 emissions from forest degradation. This Monitoring System of JBS is annually audited, independently, to ensure compliance with the company's commitments to sustainability. With the fulfillment of the criteria JBS ensures that your entire value chain, including all products and by-products derived from cattle operations are sustainable. Another substantial business decisions made were the partnership established between JBS Brazilian and NGO ICV to support the program Integrated Low Carbon Cattle Farming.

JBS Foods has a policy of only buying soybeans from companies that are signatories to the Soy Moratorium, thus avoiding the risk associated with deforestation.

Climate change is closely linked to the grain purchase, once its supply and its geographical distribution may be affected by the climate physics changes.

Moreover, in 2013 34.5 million were invested in Beef, Poultry and Pork units of JBS USA in projects related to wastewater treatment, waste management, air emissions and eco-efficiency projects, as water consumption reduction, energy recovery from waste, recovery of by-products, and other projects related to recovery of erosion and degraded areas, reforestation, operational improvements, among others. Many initiatives has been developed regarding this issues and JBS logistics operations to reduce the carbon emissions of the company. For 2014 is planned 26 environmental projects with an estimated investment of R\$7.1 million and new Investment Plan of R\$17.7 million, contemplating the new units acquired by JBS.

CC2.2b

Please explain why climate change is not integrated into your business strategy

CC2.3

Do you engage in activities that could either directly or indirectly influence public policy on climate change through any of the following? (tick all that apply)

Funding research organizations

Other

CC2.3a

On what issues have you been engaging directly with policy makers?

Focus of legislation	Corporate Position	Details of engagement	Proposed legislative solution
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CC2.3b

Are you on the Board of any trade associations or provide funding beyond membership?

CC2.3c

Please enter the details of those trade associations that are likely to take a position on climate change legislation

Trade association	Is your position on climate change consistent with theirs?	Please explain the trade association's position	How have you, or are you attempting to, influence the position?
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CC2.3d

Do you publically disclose a list of all the research organizations that you fund?

Yes

CC2.3e

Do you fund any research organizations to produce or disseminate public work on climate change?

No

CC2.3f

Please describe the work and how it aligns with your own strategy on climate change

CC2.3g

Please provide details of the other engagement activities that you undertake

JBS is part of the Board of The Global Roundtable for Sustainable Beef (GRSB), a global, multi-stakeholder initiative developed to advance continuous improvement in sustainability of the global beef value chain through leadership, science and multi-stakeholder engagement and collaboration. The GRSB envisions a world in which all aspects of the beef value chain are environmentally sound, socially responsible and economically viable (<http://grsbeef.org/Default.aspx?pageId=1814146>). In the same way, JBS is also part of the Board of The Brazilian Roundtable on Sustainable Livestock (BRSL) which its main goal is to discuss and formulate, in a transparent manner, principles, standards and common practices to be adopted by the sector, which contribute to the development of a sustainable cattle ranching, socially just, environmentally friend and economically viable (<http://www.pecuariasustentavel.org.br/>).

With the policy of not acquiring cattle from farms listed among the IBAMA areas of illegal deforestation, JBS work through ABIEC - Brazilian Beef Exporters Association and the sector of grains (ABIOVE) to improve the public list of illegal deforestation areas. As a result of these efforts, in 2012 the GT-IBAMA (IBAMA Working Group) was created, in order to propose solutions to operational improvements relating to the public list of areas embargoed by IBAMA. This joint work in partnership with the productive sector and technicians from IBAMA has led to continuous improvement of the IBAMA list as a query tool for companies that establish environmental criteria for their suppliers.

Moreover, the company is often involved in events, participation in seminars and multi-stakeholders meetings that JBS is requested to provide information on the policies and procedures related to social responsibility and corporate sustainability, including climate change. In 2013 JBS was present as speaker in the following events:

- Anuga Fair in Germany (food fair for the retail trade and the food service and catering market);
- Regional Meeting on Amazon (Attorneyship of Pará Republic);
- Discussion Forums TEEB for the Brazilian Business Sector, sponsored by International Conservation; and
- Dialogue and synergies between initiatives in the chains of Livestock - Forests WG, Global Roundtable for Sustainable Beef (GRSB) and The Brazilian Roundtable on Sustainable Livestock (BRSL).

In 2013, JBS became a member of the Brazilian GHG Protocol Program, through the publication of its Inventory of Emissions of Greenhouse Gases in the Public Registry of Emissions Platform. The company also participates in other initiatives for reporting information regarding GHG emissions and the management strategy and related climate change, as the CDP - Driving Sustainable Economies - module on Climate Change, and the Carbon Efficient Index (ICO₂) of BM&FBOVESPA. Besides JBS has participated in the Scope 3 Technical Working Group of the Brazilian GHG Protocol Program, for further discussion and development of auxiliary tool for calculating emissions from air travel reviewers, and in the Working Group of the Agriculture GHG Protocol, which aimed to develop and offer a tool with a

new metric for calculating carbon emissions by the agribusiness sector, seeking to adapt to the Brazilian reality the indicators used worldwide (countries of temperate climate) currently in agricultural measurement.

Following the trends of lifecycle analysis, in 2013 JBS established partnership with other international 5 tanneries and with the support of COTANCE (Association of European Tanneries), came together to discuss the methodologies available for the analysis of the leather life cycle and develop a harmonized approach that can be used throughout the global leather sector as a clear and transparent verification and continuous improvement. The results of this study should be completed in mid 2014 and sent to the CEN (European Committee for Standardization) for appreciation and possible consideration in the development of rules for the life cycle analysis of leather.

CC2.3h

What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?

To ensure that all engagement is consistent with the overall climate change strategy, the Sustainability Committee Board is responsible for dealing with and connecting all subjects related to the topic of sustainability and climate change in the company's business in a global perspective, such as: identification, evaluation and treatment of critical issues that result in risks and business impact; monitoring and implementation of policies, strategies and specific actions; and evaluation of proposals for investments in sustainability.

The Sustainability and climate change strategy of JBS is focused on both the supply chain (cattle purchase programs and actions on the poultry chain) and processing products (internal environmental improvements and eco-efficiency).

Regarding the supply chain and based on this best practices in agribusiness, the main strategies adopted by JBS's Sustainability Committee to promote the Sustainable Farming Program in Brazil are related to decreased pressure on new pastures and thus contributing to reducing deforestation, and consequently to reduce CO2 emissions. Following this strategy, since 2010, we have been supported EMBRAPA for developing a Technical Cooperation Agreement to inform and support farmers in implementing best practices in agribusiness and sustainable use of natural resources involved in production. In 2013, this program was extended for a partnership between JBS and the Brazilian NGO Instituto Centro de Vida (ICV), the "Integrated Low Carbon Cattle Farming" to promotes sustainable cattle raising in the Amazon biome, developing production models that improve management, increase productivity, increment quality in the product delivered to the market, reduce emissions of greenhouse gases in the production system and comply with environmental legislation.

Moreover, the company prepared internal guidelines on the purchase of cattle from the Amazon biome, pledging to purchase cattle only from farms that are in regularity with social, environmental and land standards. The company's supplier list is frequently updated with the official list of IBAMA, which indicates that there are farms in environmental non-compliance, and with the Ministry of Labor and Education, which indicates farms analogous to slave and / or child labor. Whether one falls within any of the list, trade relations are immediately canceled with suppliers. Besides these controls, the company also performs satellite monitoring, where suppliers are located in the Amazon biome. If deforestation is identified in conservation areas, the trade is canceled, thus preventing the acquisition of raw materials from deforestation. This action aims to ensure the source of our raw material, but also serves to aid the reduction of deforestation in the Amazon Biome, and therefore lower CO2 emissions from forest degradation.

Besides that, according to the JBS Sustainability policy, JBS commitment to sustainability is evidenced by the manner in which the relationships are established with willing partners who seek to make a positive impact. JBS has established productive relationships with Non-Governmental Organizations (NGOs), including Instituto Centro de Vida (ICV), and is part of the Board of the Brazilian Roundtable on Sustainable Livestock (BRSL) and the Global Roundtable for Sustainable Beef (GRSB).

CC2.3i

Please explain why you do not engage with policy makers

Further Information

Page: CC3. Targets and Initiatives

CC3.1

Did you have an emissions reduction target that was active (ongoing or reached completion) in the reporting year?

No

CC3.1a

Please provide details of your absolute target

ID	Scope	% of emissions in scope	% reduction from base year	Base year	Base year emissions (metric tonnes CO2e)	Target year	Comment
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CC3.1b

Please provide details of your intensity target

ID	Scope	% of emissions in scope	% reduction from base year	Metric	Base year	Normalized base year emissions	Target year	Comment
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CC3.1c

Please also indicate what change in absolute emissions this intensity target reflects

ID	Direction of change anticipated in absolute Scope 1+2 emissions at target completion?	% change anticipated in absolute Scope 1+2 emissions	Direction of change anticipated in absolute Scope 3 emissions at target completion?	% change anticipated in absolute Scope 3 emissions	Comment
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CC3.1d

For all of your targets, please provide details on the progress made in the reporting year

ID	% complete (time)	% complete (emissions)	Comment
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CC3.1e

Please explain (i) why you do not have a target; and (ii) forecast how your emissions will change over the next five years

i) Currently, JBS have not set goals, because we are evaluating internally the data obtained over the years to establish targets to reduce emissions, defining the best indicators / metrics that represent the different sectors in which the company operates. From the GHG Emissions Inventory process and results since 2009, the company has been enhanced its familiarity with the accounting methodologies and emissions factors and improved its knowledge regarding the GHG emission

sources and organizational boundary. JBS GHG Emission Inventory has been improved year by year, with the inclusion of new emissions sources and units, which is very satisfactory from the management's point of view. Moreover, the continuous acquisition of new units/companies by the company makes it hard to establish a base year data for emission levels. In the mean time, while we are working on establishing a global index that could be applied in the company as a whole, we have defined targets in some business of the company which indirectly aims to reduce GHG emissions, as the implementation of the Environmental Management System and energy reduction targets.

ii) JBS has plans to expand its production, therefore the next five years should increase absolute emissions. However, due to the company's investments in new technologies indicators of GHG emissions per unit of output should decrease in the next five years.

iii) Considering the production estimates for 2014, the Beef Units (meatpackers' processing units) of JBS in Brazil and JBS Foods (not considering Frango Sul) will emit in 2014 352,488 and 195,818 tCO₂e. This estimate did not consider future acquisitions of JBS.

CC3.2

Does the use of your goods and/or services directly enable GHG emissions to be avoided by a third party?

Yes

CC3.2a

Please provide details of how the use of your goods and/or services directly enable GHG emissions to be avoided by a third party

Through the use of its biodiesel produced by JBS Biodiesel using Beef tallow, JBS contributed to reducing emissions from third parties scope 1 regarding the use of fossil fuels. In 2013, JBS produced approximately 89,398.010 tones of biodiesel from animal and plant oils. Since 2012, with the production of biodiesel, it is estimated that were avoided the emission of around 456,408 tCO₂, that would be emitted if diesel were employed. The estimations were performed considering the amount of energy that would be generated by biodiesel (amount of biodiesel x net calorific value of biodiesel – 163,378 tones x 0.0377 TJ/ton = 6,159.35 TJ), that could result in emissions from diesel (6,159.35 TJ x 74.1 tCO₂/TJ = 456,408 tCO₂). The emission factor of diesel available in 2006 IPCC Guidelines for National Greenhouse Gas Inventories (74.1 tCO₂/TJ) were employed. The net calorific value was obtained from Brazilian National Energy Balance (0.0377 TJ/ton).

JBS Biodiesel is the largest vertically integrated global producer of biodiesel from beef tallow. It has production capacity authorized by the National Agency of Petroleum, Natural Gas and Biofuels (ANP) of more than 500 million liters per year and is the first biodiesel industry in Brazil with the carbon, sustainability and traceability seal of the International Sustainability and Carbon Certification (ISCC), allowing it to enter the European market without restrictions on the products. Beef tallow is now the second most important raw material for biodiesel production in Brazil. Beef tallow biodiesel is a clean and high quality fuel that adds value to the beef chain and also contributes to the environment by properly disposing unwanted waste.

Furthermore, JBS offers solid waste management solutions by its company, JBS Environmental (JBS Ambiental), that directly enables scope 1 GHG emissions to be avoided by a third party. JBS' exclusive and independent business unit that offers solid waste management solutions, with treatment and proper allocation of recyclable, non-recyclable and hazardous waste, as well as ensuring waste certification to contribute to the company's and its client's commitment to sustainability. The goal is to reduce disposal of waste in landfills and create value from waste processing and turning it back into raw material. With 10 units located throughout Brazil, currently JBS Environmental recycles 1,800 tons per month of plastics and other materials such as paper, cardboard, ferrous and nonferrous metals, and

properly allocates with traceability non-recyclable and hazardous waste. In 2013, the JBS Environmental recycled or send to be recycle 3,377 tons of waste (10% paperboard and 90% plastic scrap), which avoided approximately 158 tCO₂e considering that the waste recycled by JBS Environmental would be sent to a sanitary landfill. This avoided emission was calculated using the Brazilian GHG Protocol Methodology, which considers a Methane correction factor of 1 and a oxidation factor of 0.1.

Moreover, JBS enable GHG emissions to be avoided by their pigs and poultry suppliers by encouraging them to adopt sustainable practices, such as the adoption of cisterns to collect rainwater, biodigesters and composting on their farms. These and other environmental practices adopted by producers are accompanied by qualified JBS technicians who check and guide farmers to adopt best practices of production. JBS Foods has a dedicated technical team to monitor over 7,000 outgrowers providing technical assistance for responsible production and guidance regarding Good Practices of production. In 2013, the company made more than 100,000 technical visits to poultries and pigs outgrowers.

JBS is not considering to generate carbon credits.

CC3.3

Did you have emissions reduction initiatives that were active within the reporting year (this can include those in the planning and implementation phases)

Yes

CC3.3a

Please identify the total number of projects at each stage of development, and for those in the implementation stages, the estimated CO₂e savings

Stage of development	Number of projects	Total estimated annual CO ₂ e savings in metric tonnes CO ₂ e (only for rows marked *)
Under investigation	74	
To be implemented*	26	78000
Implementation commenced*	19	57000
Implemented*	12	57323
Not to be implemented	0	0

CC3.3b

For those initiatives implemented in the reporting year, please provide details in the table below

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative, years	Comment
Transportation: fleet	Optimization of logistics fleet - JBS Carrier implemented Ecofrotas system, aiming to better manage performance indicators, reduce fuel consumption, improves operational efficiency and a more efficient logistics. Besides the data of economic performance, the system also monitors the emissions of greenhouse gases generated from the combustion of fuel in the vehicle fleet, enabling manage and develop strategies for reducing emissions and environmental impacts.	16930					
Energy efficiency: Processes	Improvements in energy conservation and efficiency, as installations or replacement of more efficient machines, automatic shutdowns lamps, facilities controllers for automatic shutdown of equipment, among others.	509	152786			Over 5 years	Most part of the Initiatives mentioned in this line did not require investment, since they are related to employee's behavioral change.
Energy efficiency: Building fabric	End To End Project - contributed to the decrease of electricity to produce Hamburger Friboi in Campo Grande (MS) and Lins (SP) units.	215	687866			Over 5 years	
Process emissions reductions	JBS Australia - facility at Dinmore in Queensland: waste water treatment system upgrade by installing new pre-treatment equipment and covered anaerobic lagoon technology. The existing boiler will also be	46000	2470000	1990000	4-10 years	Over 5 years	

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative, years	Comment
	modified to co-combust biogas generated from the site with natural gas.						
Process emissions reductions	Unit of Veríssimo /MG: Implementation of an aerators system in the wastewater treatment - reduction of methane emissions from wastewater treatment.	950	0	30000		Over 5 years	
Process emissions reductions	Unit of Amparo/SP: Transformation of an anaerobic wastewater treatment to an aerobic treatment system – reduction of methane emissions from wastewater treatment. Implementation of a system of activated sludge.	4992	0	3218999		Over 5 years	
Process emissions reductions	In feedlots for cattle company composting projects were implemented for the production of organic fertilizers. Aerobic composting replaces conventional treatment incorporating manure into the soil. The proper manure management aims the sustainability of the business turning waste into value-added products and agronomic.						
Process emissions reductions	Lins unit (cattle slaughter) - The project activity aims to modify the wastewater treatment system, by transforming the treatment of anaerobic lagoon system in an aerobic treatment system, which consists of a physical-chemical treatment by diffusion air, which avoids methane emissions from anaerobic lagoons.	7422	493408	2560000	4-10 years	Over 5 years	Financial return on the recovery and sale of beef tallow for the manufacture of biodiesel and / or by-products.
Process emissions reductions	Campo Grande II (cattle slaughter) - The project activity aims to modify the wastewater treatment system, by transforming the treatment of anaerobic lagoon system in an aerobic treatment system, which consists of a physical treatment for air diffusion which avoids methane emissions	9170	0	545900		Over 5 years	

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative, years	Comment
	from anaerobic lagoons.						
Process emissions reductions	Naviraí (cattle slaughter) - The project activity aims to modify the wastewater treatment system, by transforming the treatment of anaerobic lagoon system in an aerobic treatment system, which consists of a physical treatment for air diffusion which avoids methane emissions from anaerobic lagoons.	4933	0	200000		Over 5 years	
Process emissions reductions	Unit of Caxias do Sul - Peru/RS (turkey slaughter): Operational improvements to the wastewater treatment system.	283	0	0		Over 5 years	
Process emissions reductions	Unit of Ipumirim/SC (poultry slaughter): Operational improvements to the wastewater treatment system.	1033	0	0		Over 5 years	
Process emissions reductions	Unit of Osasco/SP (processed): Operational improvements to the wastewater treatment system.	296	0	0		Over 5 years	
Process emissions reductions	Unit of Confresa/MT (beef): Boiler refit for partial replacement the use of BPF oil to biomass.	5499	1865365	150000	<1 year	Over 5 years	
Process emissions reductions	Beef units of Vilhena/RO, Cuiabá/MT, Água Boa/MT: Project to reduce water consumption - reduction in the volume of generated effluents and consequently emissions reduction from the treatment of wastewater.	11101	0	71500		Over 5 years	
Process emissions reductions	Beef units of Santana do Araguaia/PA and Tucumã/PA: Purchase and installation of new equipment in the wastewater treatment system, which generated improvements in efficiency of organic matter removal and reduction of	12649	0	1905000		Over 5 years	

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative, years	Comment
	emissions from wastewater treatment. // Project to reduce water consumption - reduction in the volume of generated effluents and consequently emissions reduction from the treatment of wastewater.						
Process emissions reductions	Beef units of Matupá/MT and Rio Branco II /AC: Purchase and installation of new equipment in the wastewater treatment system, which generated improvements in efficiency of organic matter removal and reduction of emissions from wastewater treatment.	6551	0	2000000		Over 5 years	

CC3.3c

What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Dedicated budget for other emissions reduction activities	The Company has two CDM projects in Brazil, registered in UNFCCC (United Nations Convention), aimed at the avoidance of methane by means of waste water treatment.
Other	Other investments are drive in accordance to the Guidelines of Sustainability and Environment Policy of the Company.

CC3.3d

If you do not have any emissions reduction initiatives, please explain why not

Further Information

In 2013 34.5 million were invested in Beef, Poultry and Pork units in projects related to wastewater treatment, solid waste management, air emissions and eco-efficiency projects, as water consumption reduction, energy recovery from waste, recovery of by-products, and other projects related to recovery of erosion and degraded areas, reforestation, operational improvements, among others. For 2014 is planned 26 environmental projects with an estimated investment of R\$ 7,1 million. In addition, a new Investment Plan of R\$ 17,7 million is already in place, contemplating the new refrigeration units acquired by JBS . Of this amount, 83% will be for the treatment of wastewater, 2.7% solid waste, 6.4% air emissions from boilers, 1.5% water treatment and the remaining 6.4% refer to other projects to mitigate environmental impacts.

Page: CC4. Communication

CC4.1

Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s)

Publication	Page/Section reference	Attach the document
In mainstream financial reports (complete)	43 to 45 and 82 to 84 http://relatorioanual.jbs.com.br/eng/index.htm	https://www.cdp.net/sites/2014/30/9730/Investor CDP 2014/Shared Documents/Attachments/CC4.1/JBS_RAS_2013_ING.pdf
In other regulatory filings	26 to 27 and 144 to 146 - http://jbss.infoinvest.com.br/ptb/2992/39146.pdf	https://www.cdp.net/sites/2014/30/9730/Investor CDP 2014/Shared Documents/Attachments/CC4.1/Formulário de

Publication	Page/Section reference	Attach the document
(complete)		Referencia JBS 2014.pdf
In voluntary communications (underway) – previous year attached	The whole link - http://registropublicodeemissoes.com.br/index.php/participant/930	https://www.cdp.net/sites/2014/30/9730/Investor CDP 2014/Shared Documents/Attachments/CC4.1/Registro Público_JBS.pdf
In voluntary communications (underway) – previous year attached	The whole link - http://www.bmfbovespa.com.br/indices/ResumoEmissaoGEE.aspx?Indice=ICO2&idioma=pt-br	https://www.cdp.net/sites/2014/30/9730/Investor CDP 2014/Shared Documents/Attachments/CC4.1/ICO2.pdf

Further Information

Module: Risks and Opportunities

Page: CC5. Climate Change Risks

CC5.1

Have you identified any climate change risks that have the potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply

- Risks driven by changes in regulation
- Risks driven by changes in physical climate parameters
- Risks driven by changes in other climate-related developments

CC5.1a

Please describe your risks driven by changes in regulation

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Uncertainty surrounding new regulation	As JBS is present in many different countries worldwide and faces different regulatory risks according to its location. In the medium and long term we expect more strict legislation regarding GHG emissions reduction as an approach to mitigate climate change. Therefore, there is a risk that our business will have to comply by changing operation processes and investing on new mandatory technologies. In December 2010, the Brazilian government published Decree 7390, which	Increased operational cost	3 to 6 years	Direct	Very likely	Medium	The risks presented by this type of regulation translate into higher production and energy costs, as well as a possible effect on market competitiveness. While the agriculture and livestock sectors of these economies are expected to be left out of most regulatory measures, it is likely that the production operations will be included.	JBS believes that the inclusion of sustainability principles in all operations allows innovation and continuous development of its business, therefore could anticipate future obligations. This commitment, expressed in the Environmental Policy, is the basis for the EMS certified by ISO14001 standard. The company has a Sustainability Department, created in 2012 to deal with economic, environmental and social aspects in an integrated, strategic manner aimed at sustainable	To monitor and deal with risks, the costs can be described as expenses in the area of sustainability, where in 2013 approximately R\$ 2,050,000 (BRL) were spent.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>regulates the National Policy on Climate Change (2008). The National Plan on Climate Change is established through two plans: the Prevention and Control Action Plans of deforestation in the biomes, and the Department of Mitigation and Adaptation. The decree states that the sector plans will be prepared and shall include emission reduction targets for 2020. Although there are no reduction targets for each sector separately, the decree emphasizes the voluntary commitment to reduce national emissions by 36.1% to 38.9% by 2020.</p>							<p>development of business. Adoption of good governance practices and socio-environmental management has provided success in the development of initiatives which add value to products and shareholders of the company. Activities are carried out with the responsible use of natural resources, food safety, promotion of animal welfare, observance of internal policies, resulting in the strengthening of partnerships. These responsible activities are the result of a uniform management model which prioritizes sustainable</p>	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>Therefore, JBS is preparing, through its Sustainability Committee, and identifying opportunities and investments needed to be developed with a focus on mitigation of reductions of greenhouse gases.</p>							<p>development of business based on international sustainability standards and criteria, such as the Dow Jones Sustainability Index, the Business Sustainability Index, the Global Reporting Initiative and the United Nations Global Compact. The Sustainability Committee identifies and deals with critical matters which represent risks or may have a relevant impact on the company in the sustainability sphere. It also recommends and monitors implementation of business sustainability policies and strategies.</p>	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Cap and trade schemes	USA: The situation in the United States has quickly evolved over the past few months and the probability to create a national cap and trade market for GHG emissions is high within the next years. Our units in the United States are currently seeking strategic positioning and studying how it might adapt to emission targets. The west cost of the United States is developing several climate change initiatives, especially the State of California, which has developed a cap and trade scheme. The Environmental Protection Agency has released in April	Increased operational cost	3 to 6 years	Direct	Very likely	Medium	Increase of operational costs. May incur increased energy costs, environmental costs and other, and investments to comply with existing or new restrictions GHG emissions.	The Company is subject to laws and regulations related to climate change, and compliance with related standards can be difficult and costly. Stakeholders in countries, which we operate, such as government agencies, legislators and regulators, shareholders and non-governmental organizations as well as companies operating in many sectors, are considering ways to reduce GHG emissions. In the United States, for example, many states have announced or adopted programs to stabilize and reduce GHG emissions, and federal legislation	To monitor and deal with risks, the costs can be described as expenses in the area of sustainability, where in 2013 approximately R\$ 2,050,000 (BRL) were spent.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	2009 new mandatory GHG reporting guidelines that is being enforced since the beginning of 2011 in different sectors, including the Food Processing and Manure Management. JBS is currently implementing emission inventory mechanisms for all American Units, following the established guidelines.							has been proposed in Congress, including the creation of a system of cap and trade. The EPA regulates emissions of greenhouse gases through the Clean Air Act. A number of the Company's facilities are already required to monitor and report emissions of greenhouse gases, according to reports from the EPA. JBS annually develop its GHG Inventory to measure its emissions worldwide in order to identify the main emissions source and develop its GHG reductions initiatives.	
Carbon taxes	The Australian federal	Increased operational	Up to 1 year	Direct	Virtually certain	High	The Company anticipates that it	JBS has been investing in	The investment in GHG

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>government has proposed a cap and trade system for greenhouse gases, while several states are also considering implementing regulations may be more stringent than those at the federal level. In addition, the Australian federal government recently approved the "Clean Energy Future" legislative package of laws that substantially reform the rules on environmental regulation. Among other provisions, the legislative package "Clean Energy Future" provides a mechanism to price carbon for waste, which establishes an automatic limit of liability for emissions greater</p>	cost					<p>will incur additional costs as a result of (1) additional investments that will bear to comply with new regulations and (2) the price of carbon which may need to pay as a result of their level of carbon emissions.</p>	<p>emission reduction initiatives to reduce its emission in Australia and reduce the impact of Carbon Taxes in the company. In 2013, the Dinmore in Queensland has developed an important initiative to upgrade the waste water treatment system by installing new pre-treatment equipment and covered anaerobic lagoon technology. The existing boiler will also be modified to co-combust biogas generated from the site with natural gas. This initiative reduces 46,000 tCO₂e per year.</p>	<p>reductions initiatives in Australia is R\$2.47 million (BRL).</p>

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	than 25,000 tons of CO2, a greenhouse gas in a given year. During a fixed price (2012-2015), will be required for operators of any type of industry, such as the Company's facilities, purchase and deliver carbon units sufficient to cover their waste emissions that are in excess of the limit.								
General environmental regulations, including planning	Due to the company historical acquisitions and the possibility of further acquisitions, internal standardization of processes and controls can become a challenge for the company's operation.	Increased operational cost	1 to 3 years	Direct	Likely	Low-medium	So far it has not been possible to estimate the financial implications related to this risk.	JBS has as standard procedure in their procurement processes to identify synergies between areas processes and services. In addition, it seeks to identify practices considered as benchmark for the company to	Costs related to the processes identification and synergies mapping and implementations of new practices.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								replicate it in other units.	
Uncertainty surrounding new regulation	The determination of new regulatory frameworks can affect the company's production due to difficulties on compliance. This may affect the financial performance of the company, thus reflecting the value of the shares on the stock exchange.	Reduced stock price (market valuation)	3 to 6 years	Direct	About as likely as not	Low-medium	So far it has not been possible to estimate the financial implications related to this risk.	The company has been working with strategic management in Climate Change since 2009. Seeking to prepare for future regulations that might bring impact on their operations.	To monitor and deal with risks, the costs can be described as expenses in the area of sustainability, where in 2013 approximately R\$ 2,050,000 (BRL) were spent.

CC5.1b

Please describe your risks that are driven by change in physical climate parameters

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Induced changes in natural resources	The physical risks identified by the Company are global and	Reduction/disruption in production capacity	Unknown	Indirect (Supply chain)	Unknown	High	The potential financial implications of the risk	A significant change in climate patterns could affect the supply	As a result of the partnership with ICV, JBS developed

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>divided by physical assets, supply chain and business structure. The productivity of livestock and crops/pasture may be severely affected by increasing temperatures, CO2 concentration in the atmosphere, changes in annual rain patterns and future increase in disease, pests and weeds that affect livestock and plants alike. The studies regarding these variables have been developed for several years, however the effects are still fairly uncertain. Livestock: from an animal physiology perspective, an increase in overall</p>						<p>before taking action is related to the increase in operating costs.</p>	<p>of food ingredients as well as the ability of both industry and the JBS to get the food ingredients, raise animals or deliver products. The price of corn and soybean meal, the main food ingredients of JBS Pilgrim's Pride and JBS Foods, increased significantly in the last years in North America and there is no guarantee that the price of corn bran or soybean meal will not continue to rise due to, specially, the growing demand for these products worldwide and the production of ethanol and biodiesel. High prices of food ingredients may continue to have an adverse effect on the Company's operating results.</p>	<p>subsidy protocols for purchase of cattle in the project area which comply with the criteria of quality and the basic requirements of Good Agricultural Practices. Other costs are related to the support on the dissemination of results of Good Agricultural Practices through corporate videos, brochures, field days in conjunction with the ICV a and training of technical and ranchers together with ICV regarding good practice.</p>

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>temperatures to which the animals are exposed could have severe effects on the animal. If average temperatures reach a level above the animals upper critical limit in its thermal neutral zone, studies have shown that the animal will suffer from heat stress and will require a higher energy and water intake, affecting the animal's weight gain and its ability to reproduce. In the long run this may affect cattle prices as well as its supply as farmers may prefer to raise other livestock that reacts better to higher temperatures.</p> <p>Feed:</p>							<p>JBS seeks, wherever possible, to assume advance purchase or financial derivative contracts for the purchase of food ingredients in order to manage their costs with food ingredients. Moreover, JBS and NGO ICV have partnered to support sustainable livestock farming in the Amazonia biome by showing that livestock farming can be profitable even within a framework of rigorous environmental controls. The project, called Low Carbon Integrated Livestock Farming, helps the Livestock farmers to refurbish degraded pasture, institute integrated management</p>	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>considering that part of the Company's livestock supply is raised in feedlots, there is a natural worry about the supply and cost of feed. The precise effects of climate change in soybean and maize yields are yet uncertain, due to the complexity of the models required to make such estimates. While numerous studies expect the crop yields to increase due to higher CO2 concentrations in the atmosphere (Drake and Gonzalez- Meler, 1997), it is also widely accepted that due to the controlled nature of these studies their results cannot be considered</p>							<p>practices for pasture land and increase the number of cattle the property could handle. The results were that not only farm incomes rose, but the properties automatically started to implement a more environmentally responsible production model.</p>	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>conclusive due to the uncertainties regarding the interactions with water availability, soil nutrients, pests, weeds and other variables. While the Company identifies feed availability as a risk, it is still uncertain about its magnitude. Pasture: as mentioned before, the effects of climate change are still uncertain regarding plants. Pastures can be considered a specific case, since there are known differences in the response to climate change between plants with different metabolic carbon fixations such as pastures (Ainsworth EA and Long SP,</p>								

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	2005). Changes in the pasture growth and availability could be risky for the supply of livestock, especially in Brazil and Argentina.								

CC5.1c

Please describe your risks that are driven by changes in other climate-related developments

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated Financial Implications	Management method	Cost of management
Reputation	JBS is exposed to risks that indirectly affect its operations and ability to operate in the international market. As the topic of climate change becomes a concern to consumers all over the world, the Company is aware	Reduced demand for goods/services	Up to 1 year	Direct	Very unlikely	High	The potential financial implication is decrease of income due to the risk of reputation.	One of JBS public commitments is the engagement in combating deforestation. Therefore practical actions have also been applied in policy and in the livestock sector of our cattle supply. JBS prepared internal guidelines	Approximately R\$ 1,715,000 (BRL) are spent per year with the social and environmental monitoring system, considering the costs with third parties (geographic monitoring, preparation of

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated Financial Implications	Management method	Cost of management
	<p>of its responsibility. JBS is working to create tools and control mechanisms that allows it to mitigate its exposure to reputational and image risks regarding the effect of its activities in climate change. The image risks that could affect JBS is related to food security and the supply chain, which may cause deforestation to create new pastures.</p>							<p>on the cattle purchase from the Amazon biome, pledging to purchase cattle only from farms that are in regularity with social, environmental and land standards. The company's supplier list is frequently updated with official list of IBAMA, which indicates farms in environmental non-compliance, and with the Ministry of Labor and Education, which indicates farms analogous to slave and/or child labor. Whether one falls within any of the list, trade relations are immediately canceled with suppliers. Besides these controls, JBS performs satellite monitoring, where suppliers are located in Amazon biome. If deforestation is identified in</p>	<p>Easy Map project system, advanced analysis and integration of systems), audits, travel for training and meetings with involved employees.</p>

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated Financial Implications	Management method	Cost of management
								<p>conservation areas, the trade is canceled, thus preventing the acquisition of raw materials from deforestation. This action aims to ensure the source of our raw material, but also serves to aid the reduction of deforestation in Amazon Biome, and therefore lower CO2 emissions from forest degradation. The Social and Environmental Suppliers Monitoring System of JBS is annually audited, independently, to ensure compliance with the company's commitments to sustainability. With the fulfillment of the criteria JBS ensures that your entire value chain, including all products and by-products derived from cattle</p>	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated Financial Implications	Management method	Cost of management
								operations are sustainable.	

CC5.1d

Please explain why you do not consider your company to be exposed to risks driven by changes in regulation that have the potential to generate a substantive change in your business operations, revenue or expenditure

CC5.1e

Please explain why you do not consider your company to be exposed to risks driven by physical climate parameters that have the potential to generate a substantive change in your business operations, revenue or expenditure

CC5.1f

Please explain why you do not consider your company to be exposed to risks driven by changes in other climate-related developments that have the potential to generate a substantive change in your business operations, revenue or expenditure

Further Information

Page: CC6. Climate Change Opportunities

CC6.1

Have you identified any climate change opportunities that have the potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply

- Opportunities driven by changes in regulation
- Opportunities driven by changes in physical climate parameters
- Opportunities driven by changes in other climate-related developments

CC6.1a

Please describe your opportunities that are driven by changes in regulation

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Cap and trade schemes	The Company has developed five CDM projects in Brazil, which can generate revenue through the sale of carbon credits. The scope of the project is avoidance of methane through	Premium price opportunities	Up to 1 year	Direct	Virtually certain	Low-medium	The development of project activities to reduce emissions, such as CDM trading scheme within others, can generate revenue through the sales of carbon	JBS intends to continuously monitor studies regarding the regulatory requirements related to climate change in the variables mentioned above as well as ways of enhancing them in the long-short,	The development of these projects have associated costs. JBS has already spent about R\$ 9,147,838 (BRL) in CDM projects.

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>wastewater treatment. The projects were implemented in five units: Bar Herons (Mato Grosso), Vilhena (Rondônia), Goiânia (Goiás), Campo Grande (Mato Grosso do Sul) and Andradina (São Paulo). Two of them are already registered with the UNFCCC (United Nations Framework Convention on Climate Change) and the other projects are under validation. The feasibility of reducing emissions of other projects in Brazil and Argentina is currently being evaluated by</p>						<p>credits. According to the PDDs from JBS CDM projects, about 73066 tCO₂e would be generated per year. As currently the credit amount is low (about R\$ 1.50), the potential financial impact will not be significant (about R \$ 110,000). Thus, JBS is waiting for a better time to verify the monitoring of these projects.</p>	<p>medium and long term. The Company has developed five CDM projects in Brazil, which can generate revenue through the sale of carbon credits. The scope of the project is avoidance of methane through wastewater treatment. The projects were implemented in five units: Bar Herons (Mato Grosso), Vilhena (Rondônia), Goiânia (Goiás), Campo Grande (Mato Grosso do Sul) and Andradina (São Paulo). Two of them are already registered with the UNFCCC (United Nations</p>	

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>JBS and its partners. Society monitors the development of new regulatory systems in order to identify other opportunities for development and implementation of projects. The company sees the development of emission reduction projects as vital to mitigate its impact on climate change, as well as a gateway to broader issues of sustainability, as well as cogeneration and waste and water management.</p>							<p>Framework Convention on Climate Change) and the other projects are under validation. The feasibility of reducing emissions of other projects in Brazil and Argentina is currently being evaluated by JBS and its partners. Society monitors the development of new regulatory systems in order to identify other opportunities for development and implementation of projects. The company sees the development of emission reduction projects as vital</p>	

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								to mitigate its impact on climate change, as well as a gateway to broader issues of sustainability, as well as cogeneration and waste and water management.	
Other regulatory drivers	Other regulatory drivers Biodiesel – In 2008 the Brazilian government, through the National Program of Biodiesel Production and Use (PNPB) forced the mix of pure biodiesel (B100) in diesel oil used in the country in order to reduce GHG emissions. Between	New products/business services	Up to 1 year	Direct	Virtually certain	Low-medium	Thanks to regulations, today the biodiesel production also generates revenue for JBS.	In 2013, 89,398 tons of biodiesel were produced from different animal and plant oils in the plant located in Brazil. Today there is great expectation for this new division of JBS, due to greater demand for renewable fuels in the country.	JBS invested R\$ 40 million (BRL) in the implementation of JBS biodiesel facility.

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	January and June 2008, the blend of biodiesel in diesel oil was 2% (B2) and today has been established a 5% blend (B5), which advanced the goal of the PNPB in three years. From this new market, in 2013 JBS produced 89,398 tons of Biodiesel.								

CC6.1b

Please describe the opportunities that are driven by changes in physical climate parameters

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Change in mean (average) temperature	Changes in rainfall and temperature can cause	Increased production capacity	>6 years	Indirect (Supply chain)	Likely	High	The potential financial implication is the increase of	JBS and NGO ICV have partnered to support sustainable livestock farming in the	As a result of the partnership with ICV, JBS developed subsidy protocols for

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	the increase of productivity in pasture areas.						production capacity due the increase in raw material availability.	Amazonia biome by showing that livestock farming can be profitable even within a framework of rigorous environmental controls. The project, called Low Carbon Integrated Livestock Farming, helps the Livestock farmers to refurbish degraded pasture, institute integrated management practices for pasture land and increase the number of cattle the property could handle. The results were that not only farm incomes rose, but the properties automatically started to implement a more environmentally responsible production model.	purchase of cattle in the project area which comply with the criteria of quality and the basic requirements of Good Agricultural Practices. Other costs are related to the support on the dissemination of results of Good Agricultural Practices through corporate videos, brochures, field days in conjunction with the ICV a and training of technical and ranchers together with ICV regarding good practice.
Change in mean (average) precipitation	Changes in rainfall and temperature can cause the opening of new agricultural areas.	Increased production capacity	>6 years	Indirect (Supply chain)	Likely	Medium	The potential financial implication is the increase of production capacity due the increase in raw material		

CC6.1c

Please describe the opportunities that are driven by changes in other climate-related developments

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Reputation	JBS has the opportunity to support initiatives that promote the benefits for mitigating climate change of the chain of custody of the livestock. The Company has a distinct opportunity to become a market leader regarding environmental practices and climate change management in its operations worldwide. JBS intends to continue its pioneering initiatives regarding carbon markets as well as a special care for product stewardship. The Company is conscious of its responsibilities	Wider social benefits	Up to 1 year	Indirect (Supply chain)	Virtually certain	Medium-high	The financial implications are not measurable but is estimated to result in increased income for JBS.	JBS is developing mechanisms to support initiatives that promote the certification of chain of custody of the livestock. JBS supports the sustainable growth of the Brazilian livestock sector with the Sustainable Livestock Program. The program raises awareness and trains suppliers on social and environmental issues, food safety and animal welfare. To facilitate these trainings, JBS signed a partnership with EMBRAPA. The Sustainable Livestock Program offers free technical support and assistance to providers of JBS through a specialized technical team.	Approximately R\$ 1,715,000 (BRL) are spent per year with the social and environmental monitoring system, considering the costs with third parties (geographic monitoring, preparation of Easy Map project system, advanced analysis and integration of systems), audits, travel for training and meetings with involved employees.

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	regarding stakeholder engagement, especially cattle ranchers. The Sustainable Livestock program offers advisory for cattle ranchers for pasture management, pointing out the best practices available for sustainable ranching. This program promotes several indirect benefits for mitigating climate change, such as more sustainable and intensive use of the land, avoiding expansion of pasture areas, contributing substantially to the reduction of deforestation and, consequently, emissions related to changes in land use in Brazil.							According to internal company information in 2012.15 (fifteen) lectures, with about 450 (four hundred and fifty) participants, were conducted in order to inform the participants about animal welfare, feeding, training of employees, verification of medicines (read the package insert for the drug), preservation of vaccines and medicines, health management, JBS requirements for purchase of cattle, among others.	
Other drivers	Opportunity for improvement -	Increase in capital	3 to 6 years	Direct	Likely	Low-medium	The financial implications	In order to measure climate change	JBS spent approximately

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>Internal Management of Greenhouse Gas Emissions: The Company is studying the feasibility of creating a global mechanism for internal management of its GHG emissions. The Company has several operations spread throughout the world. Each country has its own system of regulation and where applicable, emission targets. This mechanism is a way to manage and develop individual goals for emissions reduction projects in different countries and ways to use international offsets to supplement the allowances allocated where appropriate. The feasibility of such an engine tends to</p>	availability					are not measurable but is estimated to result in increased income for JBS.	<p>impacts due to JBS's activities, since 2009 JBS performs annually Inventory Emissions of GHG, which is an instrument of corporate management of the company to measure the emissions of greenhouse gases from its operations in Brazil, related to the period analyzed, which accounts for direct and indirect emissions. From the year 2012, JBS expanded this measurement to the operations all over the world. In 2013, JBS became a member of the Brazilian GHG Protocol Program, through the publication of its Inventory of Emissions of GHG in the Public Registry of Emissions Platform. The company also participates in other voluntary initiatives for reporting information regarding GHG emissions and the</p>	300,000 in the mentioned initiates related to Internal Management of Greenhouse Gas Emissions.

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>increase as the rules and regulations of an American market are better drawn. Currently, the Company does not intend to establish internal voluntary emissions targets, but this mechanism could serve as starting platform.</p>							<p>management and strategy related to climate change, as CDP in the modules Climate Change, Forests, Water and Supply Chain, and the Carbon Efficient Index (ICO2) of BM&FBOVESPA. Besides, It also participates in Technical Working Groups, such as the GT – Scope 3 of the Brazilian GHG Protocol Program, for further discussion and development of an auxiliary tool for calculating emissions from its employees' air travel. JBS also participated in the Agricultural GHG Protocol, which aims to develop and offer a tool with a new metric for calculating carbon emissions by the agribusiness sector, aiming to adapt the indicators used worldwide (countries of temperate climate) in the agribusiness sector to the Brazilian</p>	

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								reality.	

CC6.1d

Please explain why you do not consider your company to be exposed to opportunities driven by changes in regulation that have the potential to generate a substantive change in your business operations, revenue or expenditure

CC6.1e

Please explain why you do not consider your company to be exposed to opportunities driven by physical climate parameters that have the potential to generate a substantive change in your business operations, revenue or expenditure

CC6.1f

Please explain why you do not consider your company to be exposed to opportunities driven by changes in other climate-related developments that have the potential to generate a substantive change in your business operations, revenue or expenditure

Further Information

Module: GHG Emissions Accounting, Energy and Fuel Use, and Trading

Page: CC7. Emissions Methodology

CC7.1

Please provide your base year and base year emissions (Scopes 1 and 2)

Base year	Scope 1 Base year emissions (metric tonnes CO2e)	Scope 2 Base year emissions (metric tonnes CO2e)
Tue 01 Jan 2013 - Tue 31 Dec 2013	3877792.27	1478012.92

CC7.2

Please give the name of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions

Please select the published methodologies that you use
Brazil GHG Protocol Programme
IPCC Guidelines for National Greenhouse Gas Inventories, 2006
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

CC7.2a

If you have selected "Other" in CC7.2 please provide details of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions

CC7.3

Please give the source for the global warming potentials you have used

Gas	Reference
CH4	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	IPCC Fourth Assessment Report (AR4 - 100 year)
HFCs	IPCC Fourth Assessment Report (AR4 - 100 year)
PFCs	IPCC Fourth Assessment Report (AR4 - 100 year)
SF6	IPCC Fourth Assessment Report (AR4 - 100 year)
CO2	IPCC Fourth Assessment Report (AR4 - 100 year)

CC7.4

Please give the emissions factors you have applied and their origin; alternatively, please attach an Excel spreadsheet with this data at the bottom of this page

Fuel/Material/Energy	Emission Factor	Unit	Reference
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Fuel/Material/Energy	Emission Factor	Unit	Reference
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Further Information

Attachments

[https://www.cdp.net/sites/2014/30/9730/Investor CDP 2014/Shared Documents/Attachments/InvestorCDP2014/CC7.EmissionsMethodology/Emission Factors.zip](https://www.cdp.net/sites/2014/30/9730/Investor%20CDP%202014/Shared%20Documents/Attachments/InvestorCDP2014/CC7.EmissionsMethodology/Emission%20Factors.zip)

Page: CC8. Emissions Data - (1 Jan 2013 - 31 Dec 2013)

CC8.1

Please select the boundary you are using for your Scope 1 and 2 greenhouse gas inventory

Operational control

CC8.2

Please provide your gross global Scope 1 emissions figures in metric tonnes CO₂e

3877792.27

CC8.3

Please provide your gross global Scope 2 emissions figures in metric tonnes CO₂e

1478012.92

CC8.4

Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?

No

CC8.4a

Please provide details of the sources of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure

Source	Relevance of Scope 1 emissions from this source	Relevance of Scope 2 emissions excluded from this source	Explain why the source is excluded
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CC8.5

Please estimate the level of uncertainty of the total gross global Scope 1 and 2 emissions figures that you have supplied and specify the sources of uncertainty in your data gathering, handling and calculations

Scope 1 emissions: Uncertainty range	Scope 1 emissions: Main sources of uncertainty	Scope 1 emissions: Please expand on the uncertainty in your data	Scope 2 emissions: Uncertainty range	Scope 2 emissions: Main sources of uncertainty	Scope 2 emissions: Please expand on the uncertainty in your data
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Scope 1 emissions: Uncertainty range	Scope 1 emissions: Main sources of uncertainty	Scope 1 emissions: Please expand on the uncertainty in your data	Scope 2 emissions: Uncertainty range	Scope 2 emissions: Main sources of uncertainty	Scope 2 emissions: Please expand on the uncertainty in your data
More than 2% but less than or equal to 5%	Other: Published Emissions Factors Data Management	In general, the IPCC factors have an uncertainty of 5% for carbon dioxide (GHG most representative). It was not possible to associate uncertainties related to the parameters quantification, because the data was collected aggregately in each unit by independent systems of information management.	More than 2% but less than or equal to 5%	Other: Published Emissions Factors Data Management	The emission factor was estimated based on the energy generation and fuel consumption available. However, the National Operator System (Brazilian Institution) has a strict control of the power plants, therefore we consider that the uncertainty is relatively low.

CC8.6

Please indicate the verification/assurance status that applies to your reported Scope 1 emissions

No third party verification or assurance

CC8.6a

Please provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements

Type of verification or assurance	Attach the statement	Page/section reference	Relevant standard	Proportion of reported Scope 1 emissions verified (%)

CC8.6b

Please provide further details of the regulatory regime to which you are complying that specifies the use of Continuous Emissions Monitoring Systems (CEMS)

Regulation	% of emissions covered by the system	Compliance period	Evidence of submission
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CC8.7

Please indicate the verification/assurance status that applies to your reported Scope 2 emissions

No third party verification or assurance

CC8.7a

Please provide further details of the verification/assurance undertaken for your Scope 2 emissions, and attach the relevant statements

Type of verification or assurance	Attach the statement	Page/Section reference	Relevant standard	Proportion of Scope 2 emissions verified (%)
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CC8.8

Please identify if any data points other than emissions figures have been verified as part of the third party verification work undertaken

Additional data points verified

Comment

CC8.9

Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization?

Yes

CC8.9a

Please provide the emissions from biologically sequestered carbon relevant to your organization in metric tonnes CO2

2251296.34

Further Information

Page: CC9. Scope 1 Emissions Breakdown - (1 Jan 2013 - 31 Dec 2013)

CC9.1

Do you have Scope 1 emissions sources in more than one country?

Yes

CC9.1a

Please break down your total gross global Scope 1 emissions by country/region

Country/Region	Scope 1 metric tonnes CO2e
Brazil	696259.97
South Africa	2138.55
Germany	80.97
Australia	410635.32
China	8042.86
Mexico	61.52
Paraguay	16071.82
Uruguay	36968.53
Argentina	22420.52
United States of America	2685112.51

CC9.2

Please indicate which other Scope 1 emissions breakdowns you are able to provide (tick all that apply)

- By business division
- By GHG type
- By activity

CC9.2a

Please break down your total gross global Scope 1 emissions by business division

Business division	Scope 1 emissions (metric tonnes CO2e)
Beef Division - Brazil	328055.35
Leather Division - Brazil	26676.16
Chicken Divison - Brazil	177405.38
New Business - Brazil	160552.00
Beef, Porks and Carrier Division - USA	1027937.57
Fiver Rivers - USA	1060479.18
Beef, Porks and Lamb - Australia	410635.31
Mercosul (Argentina, Uruguay e Paraguay)	70302.18
China - Leather	8042.86
Zenda	7439.43
Head office	3571.08
Pilgrim's USA	596695.77

CC9.2b

Please break down your total gross global Scope 1 emissions by facility

Facility	Scope 1 emissions (metric tonnes CO2e)	Latitude	Longitude
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CC9.2c

Please break down your total gross global Scope 1 emissions by GHG type

GHG type	Scope 1 emissions (metric tonnes CO2e)
CO2	1637213.78
CH4	86621.11
N2O	227.99
HFCs	2.01
PFCs	0.01

CC9.2d

Please break down your total gross global Scope 1 emissions by activity

Activity	Scope 1 emissions (metric tonnes CO2e)
Direct stationary combustion	1274706.23
Direct mobile combustion	404638.36
Wastewater treatment and Sludge Disposal	1012374.58
Agricultural activities	1171700.85
Fugitive emissions	7841.58
Industrial process	6530.67

CC9.2e

Please break down your total gross global Scope 1 emissions by legal structure

Legal structure	Scope 1 emissions (metric tonnes CO2e)
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Further Information

Page: **CC10. Scope 2 Emissions Breakdown - (1 Jan 2013 - 31 Dec 2013)**

CC10.1

Do you have Scope 2 emissions sources in more than one country?

Yes

CC10.1a

Please break down your total gross global Scope 2 emissions and energy consumption by country/region

Country/Region	Scope 2 metric tonnes CO2e	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low carbon electricity, heat, steam or cooling accounted for CC8.3 (MWh)
Brazil	162154.09	1722536.63	861394
South Africa	3671.38	4224.83	0
Germany	205.33	430.46	0
Australia	167287.27	203265.21	0
China	4943.60	6470.68	0
Mexico	102.78	228.4	0
Paraguay	30.22	15108.42	0
Uruguay	5076.60	31126.35	0
Argentina	21769.45	5518.39	0
United States of America	1111629.79	2307006.09	0

CC10.2

Please indicate which other Scope 2 emissions breakdowns you are able to provide (tick all that apply)

By business division

CC10.2a

Please break down your total gross global Scope 2 emissions by business division

Business division	Scope 2 emissions (metric tonnes CO2e)
Beef Division - Brazil	57924.39
Leather Division - Brazil	8190.86
Chicken Divison - Brazil	93472.40
New Business - Brazil	2343.67
Beef, Porks and Carrier Division - USA	502211.74
Fiver Rivers - USA	19946.68
Beef, Porks and Lamb - Australia	167287.27
Mercosul (Argentina, Uruguay e Paraguay)	22517.64
China - Leather	4943.60
Zenda	9480.53
Head office	222.78
Pilgrim's USA	589471.37

CC10.2b

Please break down your total gross global Scope 2 emissions by facility

Facility	Scope 2 emissions (metric tonnes CO2e)
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CC10.2c

Please break down your total gross global Scope 2 emissions by activity

Activity	Scope 2 emissions (metric tonnes CO2e)
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CC10.2d

Please break down your total gross global Scope 2 emissions by legal structure

Legal structure	Scope 2 emissions (metric tonnes CO2e)
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Further Information

Page: CC11. Energy

CC11.1

What percentage of your total operational spend in the reporting year was on energy?

More than 0% but less than or equal to 5%

CC11.2

Please state how much fuel, electricity, heat, steam, and cooling in MWh your organization has purchased and consumed during the reporting year

Energy type	MWh
Fuel	7976025559.49
Electricity	4133332.56
Heat	0
Steam	162582.89
Cooling	0

CC11.3

Please complete the table by breaking down the total "Fuel" figure entered above by fuel type

Fuels	MWh
Biogas	195862.77
Diesel/Gas oil	1050220210.53
Liquefied petroleum gas (LPG)	713833.99
Motor gasoline	49957898.65
Natural gas	6762590644.39
Residual fuel oil	105465914.66
Waste oils	41426.32
Wood or wood waste	5477853.41
Other: Ethanol	28768.89
Other: Sugar Cane Bagasse	934470.56
Other: Coal	175195.26
Other: Paunch	127907.50
Other: Tallow	44058.58

Fuels	MWh
Other: NGV	764.86
Other: Shale Oil	38942.50
Other: HBO-80 oil	9126.11
Other: Other Petroleum Products	2611.88
Other: Others	68.61

CC11.4

Please provide details of the electricity, heat, steam or cooling amounts that were accounted at a low carbon emission factor in the Scope 2 figure reported in CC8.3

Basis for applying a low carbon emission factor	MWh associated with low carbon electricity, heat, steam or cooling	Comment
Grid connected low carbon electricity generation owned by company, instruments created and retired by company	90736	Energy generated using Sugar cane bagasse
Other	770658	Grid connected low carbon electricity generation not owned by the company – energy purchased from the Brazilian Free Market.

Further Information

JBS has the Biolins TPP, located in São Paulo, which produces electricity from sugar cane bagasse. With installed capacity of 28,000 kW, it produces enough electricity to power the industrial park of JBS in Lins (SP) and sell the surplus to other energy companies in the region. In 2013 the Biolins generated 128,286.81 MWh, of which 37,550.77 MWh were sold to the Brazilian Interconnected System.

Page: CC12. Emissions Performance

CC12.1

How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to the previous year?

Increased

CC12.1a

Please identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined) and for each of them specify how your emissions compare to the previous year

Reason	Emissions value (percentage)	Direction of change	Comment
Emissions reduction activities	3	Decrease	Estimate decrease in scope 1+2 emissions, considering only the emissions reductions initiatives implemented in 2013 (question CC3.3b), in relation to the 2012 emissions.
Divestment			
Acquisitions	6	Increase	Acquisition of poultry and leathers units. Increase in Scope 1 and scope 2 combined. It is important to note that JBS' 2012 GHG emissions were recalculated and the revised emissions for scope 1 and 2 combined are 3,697,479.51 tCO2e.
Mergers			
Change in output			
Change in methodology			Increase in scope 1 emissions. Inclusion of emissions from enteric fermentation in international units. It is important to note that JBS' 2012 GHG emissions were recalculated and the revised emissions for scope 1 and 2 combined are 3,697,479.51 tCO2e.
Change in boundary	44	Increase	Increase in scope 1 emissions. Inclusion of emissions from enteric fermentation in international units. It is important to note that JBS' 2012 GHG emissions were recalculated and the revised emissions for scope 1 and 2 combined are 3,697,479.51 tCO2e.
Change in physical operating conditions			
Unidentified			
Other	45	Increase	Increase in scope 2 emissions. This significant increase in JBS Scope 2 emissions was not caused by the increase in energy consumption, but due to the increase of the Brazilian Electric System emission factor for the year 2013. This factor is related to the use of thermoelectric during the year (when the hydro plants are not sufficient to meet the demand, more thermal population are driven to meet this demand) and this consequently leads to increase in the emission of greenhouse gases.

CC12.2

Please describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tonnes CO2e per unit currency total revenue

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change
0.0000576	metric tonnes CO2e	unit total revenue	18	Increase	Increase in emissions due the JBS acquisitions, inclusion of enteric fermentation and increase in 2013 emission factor of Brazilian grid. It is important to note that JBS' 2012 GHG emissions were recalculated and the revised emissions for scope 1 and 2 combined is 3,697,479.51 tCO2e. Thus the 2012 intensity was recalculated to 0,0000488 tCO2e/ total revenue.

CC12.3

Please describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tonnes CO2e per full time equivalent (FTE) employee

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change
28.95	metric tonnes CO2e	FTE employee	11	Increase	ncrease in emissions due the JBS acquisitions, inclusion of enteric fermentation and increase in 2013 emission factor of Brazilian grid. It is important to note that JBS' 2012 GHG emissions were recalculated and the revised emissions for scope 1 and 2 combined are 3,697,479.51 tCO2e. Thus the 2012 intensity was recalculated to 26.11.

CC12.4

Please provide an additional intensity (normalized) metric that is appropriate to your business operations

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change
0.06	metric tonnes CO2e	unit of production	15	Decrease	This intensity was calculated considering only the emissions and production of the Beef Units (meatpackers' processing units) of JBS in Brazil. In 2013 R\$34.5 million were invested in Beef, Pork and Poultry units in projects related to wastewater treatment, waste management, air emissions and eco-efficiency projects, as water consumption reduction, energy recovery from waste, recovery of by-products, and other projects related to recovery of erosion and degraded areas, reforestation, operational improvements, among others. Many initiatives have been developed regarding these issues and JBS logistics operations (carrier) in order to reduce the carbon emissions of the company. In 2010, from a broad environmental assessment carried out in all their cattle processing plants in Brazil, JBS has established an environmental investments plan which includes over 270 projects with an estimated value of US\$ 48 million to be invested 2011 to 2013. This plan contemplates projects related to wastewater treatment, solid waste management, atmospheric and greenhouse gas emissions, optimizing water use and other topics. Moreover, specific guidelines for the management of water consumption and solid waste management through the development of eco-efficiency projects were established. For 2014 is planned 26 environmental projects with an estimated investment of R\$7.1 million and new Investment Plan of R\$17.7 million, contemplating the new units acquired by JBS.

Further Information

Page: **CC13. Emissions Trading**

CC13.1

Do you participate in any emissions trading schemes?

No, and we do not currently anticipate doing so in the next 2 years

CC13.1a

Please complete the following table for each of the emission trading schemes in which you participate

Scheme name	Period for which data is supplied	Allowances allocated	Allowances purchased	Verified emissions in metric tonnes CO2e	Details of ownership

CC13.1b

What is your strategy for complying with the schemes in which you participate or anticipate participating?

CC13.2

Has your organization originated any project-based carbon credits or purchased any within the reporting period?

Yes

CC13.2a

Please provide details on the project-based carbon credits originated or purchased by your organization in the reporting period

Credit origination or credit purchase	Project type	Project identification	Verified to which standard	Number of credits (metric tonnes of CO2e)	Number of credits (metric tonnes CO2e): Risk adjusted volume	Credits cancelled	Purpose, e.g. compliance
Credit Origination	Methane avoidance	Project 2610 : Project JBS S/A – Slaughterhouse Wastewater Aerobic Treatment – Vilhena Unit http://cdm.unfccc.int/Projects/DB/TUEVSUED1243507454.91/view	CDM (Clean Development Mechanism)	29239	29239	No	Voluntary Offsetting
Credit Origination	Methane avoidance	Project 2609 : Project JBS S/A – Slaughterhouse Wastewater Aerobic Treatment – Barra do Garças Unit http://cdm.unfccc.int/Projects/DB/TUEVSUED1243498760.08/view	CDM (Clean Development Mechanism)	43154	43154		Voluntary Offsetting

Further Information

Page: **CC14. Scope 3 Emissions**

CC14.1

Please account for your organization's Scope 3 emissions, disclosing and explaining any exclusions

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using primary data	Explanation
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Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using primary data	Explanation
Purchased goods and services	Relevant, not yet calculated				
Capital goods	Not relevant, explanation provided				Capital goods required for the company's operations do not contribute to their exposure to risks related to climate change and are not considered critical by stakeholders, and especially those associated with the life cycle emissions can not be significantly influenced by the company. Furthermore, compared to emissions associated with purchased goods (mainly animals and meat), these emissions would be negligible.
Fuel-and-energy-related activities (not included in Scope 1 or 2)	Not relevant, explanation provided				The company's activities do not require anything special in relation to the extraction / production and transport of fuels and energy. Thus, the emissions associated with these activities would be negligible forward to the emissions associated with purchased animals and meat, which are what the company can influence more and more attract the attention of stakeholders.
Upstream transportation and distribution	Relevant, calculated	375611.79	GHG Protocol	100.00%	Emissions from transport and distribution of products purchased or acquired by the organization. Are included the road and rail transports contracted by JBS.
Waste generated in operations	Relevant, calculated	129801.40	GHG Protocol	100.00%	Emissions from external treatment of wastewater from the organization's operations
Business travel	Relevant, calculated	11378.44	The methodology applied is the Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting.	100.00%	The emissions described refer to the air travels of JBS staff.
Employee commuting	Relevant, calculated	20035.61			Emissions from this category are partially reported.
Upstream leased assets	Not relevant, explanation provided				Upstream leased assets required for the company's operations do not contribute to their exposure to risks related to climate change and are not considered critical by stakeholders, and especially those associated with the life cycle emissions can not be significantly influenced by the company. Furthermore,

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using primary data	Explanation
					compared to emissions associated with purchased goods (mainly animals and meat), these emissions would be negligible.
Downstream transportation and distribution	Relevant, calculated	315102.37	GHG Protocol	100.00%	Emissions from transport and distribution of products sold by the organization. Emissions from road and rail transports contracted by the JBS are included.
Processing of sold products	Not relevant, explanation provided				The vast majority of sales are now to the end consumer, not needing subsequent processing steps.
Use of sold products	Not relevant, explanation provided				The use of goods sold consists of the consumption of meat and processed to meet nutritional needs. The only emissions associated would be the use of energy (or fuel) for cooking / preparation and refrigeration products and fugitive emissions related to refrigerants.
End of life treatment of sold products	Not relevant, explanation provided				The term treatment of end of life cycle does not properly apply to products sold, since these, except in cases where they fail and become unfit for consumption must be discarded, are ingested by consumers. However, you can make this assessment on packaging in which products are sold, as they do, they can result in some issue if they are disposed of in landfills or incinerated.
Downstream leased assets	Not relevant, explanation provided				Compared to the owned units themselves, the leased plants are not relevant.
Franchises	Not relevant, explanation provided				Not applicable to JBS operations.
Investments	Not relevant, explanation provided				Emissions of investments are not significant in comparison with the other scope 3 emissions.
Other (upstream)	Not relevant, calculated	35.07	GHG Protocol	100.00%	Emissions related to the fertigation in third party area.
Other (downstream)					

CC14.2

Please indicate the verification/assurance status that applies to your reported Scope 3 emissions

No third party verification or assurance

CC14.2a

Please provide further details of the verification/assurance undertaken, and attach the relevant statements

Type of verification or assurance	Attach the statement	Page/Section reference	Relevant standard	Proportion of Scope 3 emissions verified (%)

CC14.3

Are you able to compare your Scope 3 emissions for the reporting year with those for the previous year for any sources?

Yes

CC14.3a

Please identify the reasons for any change in your Scope 3 emissions and for each of them specify how your emissions compare to the previous year

Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment
Upstream transportation & distribution	Other: improvement on third party data collection	537	Increase	The increase in this category emission is related to the acquisitions of poultry and leathers units and to the improvement thirty parties on data collection. It is important to note that JBS' 2012 GHG emissions for this scope 3 category were recalculated and the revised emissions is 58,927.28 tCO2e.
Waste generated in operations	Acquisitions	3	Increase	The increase in this category emission is related to the acquisitions of poultry and leathers units.
Business travel	Acquisitions	76	Increase	The increase in this category emission is related to the acquisitions of poultry and leathers units.
Downstream transportation and distribution	Other: improvement on third party data collection	444	Increase	The increase in this category emission is related to the acquisitions of poultry and leathers units and to the improvement thirty parties on data collection. It is important to note that JBS' 2012 GHG emissions for this scope 3 category were recalculated and the revised emissions is 57,938.01 tCO2e.

CC14.4

Do you engage with any of the elements of your value chain on GHG emissions and climate change strategies? (Tick all that apply)

Yes, our suppliers
Yes, our customers

CC14.4a

Please give details of methods of engagement, your strategy for prioritizing engagements and measures of success

JBS sustainability strategy is to focus on its supply chain prioritizing initiatives that promote sustainable best practices on its cattle supplier and avoiding deforestation from its value chain. JBS is a founding member of the Committee and the Executive Council of the Global Roundtable for Sustainable Beef in US - and currently board member of the Brazilian Roundtable on Sustainable Livestock. Through these institutions and EMBRAPA, maintains frequent dialogue with its

suppliers, non-governmental organizations, such as ICV, and the government. JBS believes that we can only manage what is measured and the Good Practices assist the producer accordingly helping to cultivate transparency between the company and its cattle suppliers to promote the strengthening of value chain. One of JBS public commitments is the engagement in combating deforestation. Therefore practical actions have also been applied in policy and in livestock sector of our cattle supply. The company prepared internal guidelines on cattle purchase from Amazon biome, pledging to purchase cattle only from farms that are in regularity with social, environmental and land standards. The company's supplier list is frequently updated with the official list of IBAMA, which indicates that there are farms in environmental non-compliance, and with Ministry of Labor and Education, which indicates farms analogous to slave and/or child labor. If one falls within any of the list, trade relations are immediately canceled with suppliers. Besides these controls, the company performs satellite monitoring, where suppliers are located in Amazon biome. If deforestation is identified in conservation areas, the trade is canceled, thus preventing acquisition of raw materials from deforestation. This action aims to ensure our raw material source, but also serves to aid reduction of deforestation in Amazon Biome, and therefore lower CO2 emissions from forest degradation. JBS monitors its 60,000 cattle suppliers, which 37,000 are located in Amazon.

JBS and Center of Life Institute (ICV) have partnered to support sustainable livestock farming in Amazonia biome by showing that livestock farming can be profitable even within a framework of rigorous environmental controls. The project, called Low Carbon Integrated Livestock Farming, selected 10 farms that set aside a certain amount of land to be monitored by ICV's technical staff for 15 months. Livestock farmers received help to refurbish degraded pasture, institute integrated management practices for pasture land and increase the number of cattle the property could handle. The results were that not only farm incomes rose, but the properties automatically started to implement a more environmentally responsible production model. The application of best practices techniques allowed the number of head per hectare to rise from 1 to 3, increasing efficiency without the need to create additional farmland, therefore less the need to deforest new land. Beneficiated farms already are more than five times more productive than state average. In order to encourage farmer's participation JBS promised to purchase animals from this first phase of the program and is currently developing a specific bonus protocol for livestock farmers. The idea is to create an award for farmers who can ensure that animals sold through the company offer both quality and sustainability, giving to end consumers sustainable products that stand out. The project is expected to grow, and the model to be replicated at other properties in Amazon.

JBS also participates in the Brazilian GHG Protocol Program, a platform that provides tools and quality standards for GHG emissions accounting and publication. In addition, JBS also attends to WG (articulated by GHG Protocol and WRI) to discuss issues of specific sectors, such as cattle, in order to establish a consistent framework for understanding the sources of emissions that should be included in the inventory, at corporate level and suppliers. The project will provide technical assistance to these companies for use of technical resources and development of emission reduction strategies that can be incorporated into practices.

Regarding its customer, JBS has been engaged with different customers, as KFC, McDonald's and WallMart, regarding sustainability best practices. In 2014, a case study from JBS has been awarded an international sustainability award by KFC. The project proved the economic and environmental feasibility of producing sufficient clean energy to run an industrial plant, using chicken processing waste to replace traditional fossil fuels. Furthermore, JBS won in two categories of "Best of Sustainable Supply 2014", a global award from McDonald's chain for suppliers. The company won the "Climate Change and Energy" and "Water" categories, presenting cases that had generated major production process efficiency gains in Brazil, helping to further increase sustainability of the company's products.

CC14.4b

To give a sense of scale of this engagement, please give the number of suppliers with whom you are engaging and the proportion of your total spend that they represent

Number of suppliers	% of total spend	Comment
60000	85.7%	Social and environmental monitoring of JBS suppliers

CC14.4c

If you have data on your suppliers' GHG emissions and climate change strategies, please explain how you make use of that data

How you make use of the data	Please give details
Use in supplier scorecards	The Company follows closely a list continuously audited by IBAMA (Brazilian Environmental Institute) that points out farms that are not in accordance with national regulation, immediately interrupting commercial relationships with those suppliers, which guarantees the provenance of all cattle shipped.

CC14.4d

Please explain why you do not engage with any elements of your value chain on GHG emissions and climate change strategies, and any plans you have to develop an engagement strategy in the future

Further Information

JBS gives the sequence its commitment to sustainably produce proteins and provides the market with the report of the independent audit performed on your purchases to ensure sustainable source of raw material used in its production. The audit concluded that JBS has met the terms of the agreements entered into, no evidence that threaten the fulfillment of commitments have been identified. The audit was held between February 28 and March 27, 2014. 12,135 purchase transactions the JBS in 2013, from the Amazon Biome were analyzed. This number represents 15 % of total purchases realized by the company originated in this region, a percentage that ensures a solid basis for statistical analysis. After checking the data, JBS showed a compliance rate of 99.75 %, with only 0.25 % of non-conformities . Non-compliances identified are mainly due to adjustments made in the environmental monitoring of suppliers of the company system. Throughout 2013, JBS changed many processes in order to improve the system and make it even safer. However, during the transition from one system to another, there was a delay in updating some documents, which led to noncompliance. Despite having achieved a high level of compliance, JBS works to further improve its performance. The company remains committed to continuous improvement of processes, with the goal of achieving the rate of 100 % and continue offering more sustainable products to your customers.

Module: Sign Off

Page: CC15. Sign Off

CC15.1

Please provide the following information for the person that has signed off (approved) your CDP climate change response

Name	Job title	Corresponding job category
Márcio Nappo	Sustainability Director	Other: Sustainability Director

Further Information

Module: FBT

Page: FBT1. Agriculture

FBT1.1

Are agricultural activities, whether in your direct operations or elsewhere in your value chain, relevant to your climate change disclosure?

Yes

FBT1.1a

Please explain why agricultural activities are not relevant to your climate change disclosure

FBT1.2

Are agricultural emissions that you have identified as relevant produced on your own farm(s), elsewhere in your value chain, or both?

Both own farm(s) and elsewhere in value chain

FBT1.2a

Please explain why agricultural emissions from your own farms are not relevant

FBT1.3

Do you account for agricultural emissions produced on your own farm(s) as part of the global gross Scope 1 emissions figure reported in CC8.2 and/or the Scope 2 figure reported in CC8.3 of the core climate change questionnaire?

Yes

FBT1.3a

Please report these agricultural emissions produced on your own farm(s) and identify any exclusions in the table below

Scope	Emissions from agricultural activities (metric tonnes CO ₂ e)	Exclusions	Explanation	Comment
Scope 1	1171700.85		Considered emissions from enteric fermentation and manure management.	
Scope 2	20274.52		Considered the scope 2 emissions from confinement activities	

FBT1.3b

Please explain why you do not account for agricultural emissions produced on your own farm(s), and describe any plans for the collection of this data in the future

FBT1.4

Do you implement agricultural management practices on your own farm(s) with a climate change mitigation and/or adaptation benefit?

Yes

FBT1.4a

Please identify agricultural management practices undertaken on your own farm(s) with a climate change mitigation and/or adaptation benefit. Complete the table

Activity ID	Description of activity	Driver	Comment
1	Waste management for the production of fertilizers through aerobic composting	Emissions reductions	In Brazil, 71% of the total waste generated were sent to composting.

FBT1.4b

Does your implementation of these agricultural management practices have secondary impacts? Complete the table

Activity ID	Impact on yield	Impact on cost	Impact on soil quality	Impact on biodiversity	Impact on water	Other impact	Description of impacts	Management of impacts
1	No	Yes	Yes	Yes	Yes	Yes	Waste management for the production of fertilizers through aerobic composting generates positive impacts in cost, soil quality, biodiversity, water and climate change. The activity avoids the disposal in landfill and provides revenue through the fertilizer sale. Moreover, the fertilizer improves the soil quality and biodiversity. Other impact: GHG emissions reduction	

FBT1.4c

Do you have any plans to implement agricultural management practices in the future?

Yes

FBT1.4d

Please detail your plans to implement agricultural management practices in the future

JBS participated in the working Group of Agriculture GHG Protocol, which aimed to develop and offer a tool with a new metric for calculating carbon emissions by the agribusiness sector, seeking to adapt to the Brazilian reality the indicators used worldwide (countries of temperate climate) currently in agricultural measurement. The company intends to evaluate and test the developed tool in order to estimate its emissions based on the Brazilian production reality.

FBT1.5

Do you account for emissions from agricultural activities in your value chain as part of the Scope 3 category "Purchased goods and services" reported in CC14.1 of the core climate change questionnaire?

No

FBT1.6

Do you encourage your agricultural suppliers to undertake any agricultural management practices with a climate change mitigation and/or adaptation benefit?

Yes

FBT1.6a

Please identify agricultural management practices with a climate change mitigation and/or adaptation benefit that you encourage your suppliers to implement. Complete the table

Activity ID	Description of activity	Your role	Description of role	Driver	Comment
1	JBS and the Center of Life Institute (ICV) have partnered to support sustainable livestock farming in the Amazonia biome by showing that livestock farming can be profitable even within a framework of rigorous environmental controls. The project,	Procurement	The JBS role is to developed bonus protocols for purchase of cattle in the project area which comply with the criteria of quality and the basic requirements of Good Agricultural Practices. The idea is to create an award for farmers who can ensure	Emissions reductions and increasing resilience	Livestock farmers received help to refurbish degraded pasture, institute integrated management practices for pasture land and increase the number of cattle the property could handle. The results were that not only farm incomes rose, but the properties automatically

Activity ID	Description of activity	Your role	Description of role	Driver	Comment
	called Low Carbon Integrated Livestock Farming, selected 10 farms that set aside a certain amount of land to be monitored by ICV's technical staff for 15 months.		that animals sold through the company offer both quality and sustainability, giving to end consumers sustainable products that stand out. In addition, the company support the dissemination of results of Good Agricultural Practices through corporate videos, brochures, field days in conjunction with the ICV team and training of technical and ranchers regarding good practice.		started to implement a more environmentally responsible production model. The application of best practices techniques allowed the number of head per hectare to rise from 1 to 3, increasing efficiency without the need to create additional farmland, therefore less the need to deforest new land. Beneficiated farms already are more than five times more productive than the state average. In order to encourage farmer's participation.
2	Social and environmental monitoring system	Procurement	JBS prepared internal guidelines on the cattle purchase from the Amazon biome, pledging to purchase cattle only from farms that are in regularity with social, environmental and land standards. The company's supplier list is frequently updated with official list of IBAMA, which indicates farms in environmental non-compliance, and with the Ministry of Labor and Education, which indicates farms analogous to slave and/or child labor. Whether one falls within any of the list, trade relations are immediately canceled with suppliers. Besides these controls, JBS performs satellite monitoring, where suppliers are located in Amazon biome. If deforestation is identified in conservation areas, the trade is cancelled, thus preventing the acquisition of raw materials from deforestation.	Emissions reductions and increasing resilience	This action aims to ensure the source of our raw material, but also serves to aid the reduction of deforestation in Amazon Biome, and therefore lower CO2 emissions from forest degradation. The Social and Environmental Suppliers Monitoring System of JBS is annually audited, independently, to ensure compliance with the company's commitments to sustainability. With the fulfilment of the criteria JBS ensures that your entire value chain, including all products and by-products derived from cattle operations are sustainable.

Does the implementation of these agricultural management practices in your value chain have secondary impacts? Complete the table

Activity ID	Impact on yield	Impact on cost	Impact on soil quality	Impact on biodiversity	Impact on water	Other impact	Description of impacts	Management of impacts
1	Yes	Yes	Yes	Yes	Yes	Yes	The Low Carbon Integrated Livestock Farming aims to increase the farm profitability, improving soil quality, reducing the impact on biodiversity and water usage and Other Impact: GHG emissions reduction	
2	No	Yes	Yes	Yes	Yes	Yes	The social and environmental monitoring system aims to reduce deforestation in Amazon Biome, reducing consequently carbon emission. Other Impact: GHG emissions reductions and positive social impact (avoidance of slave/child labor)	

FBT1.6c

Do you have any plans to engage with your suppliers on their implementation of agricultural management practices?

Yes

FBT1.6d

Please detail these plans to engage with your suppliers on their implementation of agricultural management practices

JBS launched in 2013 the Easy Map, a tool developed to help the farmer to make the digital map of its property. With this tool, the farmer obtains simple, fast and free map of your property to make a better property management, as well as meet the future requirements of the new Code forest. To participate in the program, farmers should take to one of JBS unit the property documentation. Onsite, the digital map of the property is made by an official company, in the presence of the producer. The Easy Map will cover the states of the Amazon and should benefit nearly 25,000 suppliers in the region.

Further Information

Page: **FBT2. Processing**

FBT2.1

Are processing activities, whether in your direct operations or elsewhere in your value chain, relevant to your climate change disclosure?

Yes

FBT2.1a

Please explain why processing activities are not relevant to your climate change disclosure

FBT2.2

Are emissions from processing activities that you have identified as relevant produced in your direct operations, elsewhere in your value chain, or both?

Direct operations

FBT2.2a

Please explain why emissions from processing activities in your direct operations are not relevant

FBT2.3

Do you account for emissions from processing activities in your direct operations as part of the global gross Scope 1 emissions figure reported in CC8.2 and/or the Scope 2 figure reported in CC8.3 of the core climate change questionnaire?

Yes

FBT2.3a

Please report these emissions from processing activities in your direct operations and identify any exclusions in the table below

Scope	Emissions from processing activities (metric tonnes CO2e)	Exclusions	Explanation	Comment
Scope 1	2293611.48		Considered stationary combustion emissions, emissions of processing and residues and wastewater disposal/treatment	
Scope 2	1455960.21		Emissions from electric energy and steam purchased	

FBT2.3b

Please explain why you do not account for emissions from processing activities in your direct operations, and describe any plans for the collection of this data in the future

FBT2.4

Do you account for emissions from processing activities in your value chain as part of the Scope 3 category "Purchased goods and services" and/or "Processing of sold products" reported in CC14.1 of the core climate change questionnaire?

Further Information

Page: FBT3. Distribution

FBT3.1

Are distribution activities, whether in your direct operations or elsewhere in your value chain, relevant to your climate change disclosure?

Yes

FBT3.1a

Please explain why distribution activities are not relevant to your climate change disclosure

FBT3.2

Are emissions from distribution activities that you have identified as relevant produced in your direct operations, elsewhere in your value chain, or both?

Both direct operations and elsewhere in value chain

FBT3.2a

Please explain why emissions from distribution activities in your direct operations are not relevant

FBT3.3

Do you account for emissions from distribution activities in your direct operations as part of the global gross Scope 1 emissions figure reported in CC8.2 and/or the Scope 2 figure reported in CC8.3 of the core climate change questionnaire?

Yes

FBT3.3a

Please report these emissions from distribution activities in your direct operations and identify any exclusions in the table below

Scope	Emissions from distribution activities (metric tonnes CO2e)	Exclusions	Explanation	Comment
Scope 1	299442.98		Transportation of raw materials and finished product.	
Scope 2	1778.19		Emissions from electric energy purchased,	

FBT3.3b

Please explain why you do not account for emissions from distribution activities in your direct operations, and describe any plans for the collection of this data in the future

FBT3.4

Do you account for emissions from distribution activities in your value chain as part of the Scope 3 category "Upstream transportation and distribution" and/or "Downstream transportation and distribution" in CC14.1 of the core climate change questionnaire?

Yes

Further Information

Page: FBT4. Consumption

FBT4.1

Are consumption activities relevant to your climate change disclosure?

No

FBT4.1b

Please explain why consumption activities are not relevant to your climate change disclosure

The use of goods sold consists of the consumption of meat and processed to meet nutritional needs. The only emissions associated would be the use of energy (or fuel) for cooking / preparation and refrigeration products and fugitive emissions related to refrigerants.

FBT4.1a

Do you account for emissions from the consumption of your products as part of the Scope 3 category "Use of sold products" and/or "End of life treatment of sold products" in CC14.1 of the core climate change questionnaire?

Further Information

CDP 2014 Investor CDP 2014 Information Request