Welcome to your CDP Climate Change Questionnaire 2020

C0. Introduction

C0.1

(C0.1) Give a general description and introduction to your organization.

JT Group is a leading global tobacco company operating in over 70 countries/regions. Our products are sold in over 130 countries/regions and our internationally recognized brands include Winston, Camel, MEVIUS and LD. We are also active in pharmaceutical and processed food businesses and we expect them to establish a foundation for future profit contribution, as we strive for sustainable growth. Headquartered in Tokyo, JT is listed on the Tokyo Stock Exchange and our company comprises four main business units: Japanese domestic tobacco business: We are the leader in Japan, which is one of the largest markets in the world, with around 60% ready-made cigarettes market share mainly driven by MEVIUS. Our Japanese domestic tobacco business continues to be a significant profit contributor to JT Group, generating about one third of our consolidated adjusted operating profit. International tobacco business: JTI (Japan Tobacco International), headquartered in Geneva, Switzerland, is JT Group's profit growth engine, accounting for around 60% of the Group's consolidated adjusted operating profit. Looking ahead, we expect it will further increase its contribution, enabling JT Group to continue achieving sustainable top- and bottom-line growth in the mid- to long-term period. Pharmaceutical business: Our pharmaceutical business focuses on the research and development, manufacturing and sale of prescription pharmaceuticals. Its mission is to build an R&D-led business, aiming at first-in-class internationally competent compounds, to increase our market presence. Processed food business: Our processed food business primarily engages in frozen and ambient food (mainly staple food products such as frozen noodles, frozen rice, packed cooked rice and frozen baked bread), seasonings (including yeast extracts and oyster sauce), and bakery chain outlets mainly in the Tokyo metropolitan area.

C0.2

(C0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date	Indicate if you are providing emissions data for past reporting years
Reporting year	January 1, 2019	December 31, 2019	No

C0.3

(C0.3) Select the countries/areas for which you will be supplying data.

Algeria
Andorra

Armenia
Austria
Azerbaijan
Bangladesh
Belarus
Belgium
Bolivia (Plurinational State of)
Brazil
Bulgaria
Cambodia
Canada
China
China, Hong Kong Special Administrative Region
Colombia
Czechia
Denmark
Dominican Republic
Egypt
Ethiopia
Finland
France
Georgia
Germany
Greece
Hungary
Indonesia
Iran (Islamic Republic of)
Ireland
Italy
Japan
Jordan
Kazakhstan
Kyrgyzstan
Lebanon
Lithuania
Malawi
Malaysia
Mexico
Mongolia
Morocco
Myanmar
Netherlands
Nigeria
Norway
Philippines
Poland
Portugal

Republic of Korea
Republic of Moldova
Romania
Russian Federation
Serbia
Singapore
Slovakia
South Africa
South Sudan
Spain
Sudan
Sweden
Switzerland
Taiwan, Greater China
Tajikistan
Thailand
Tunisia
Turkey
Ukraine
United Arab Emirates
United Kingdom of Great Britain and Northern Ireland
United Republic of Tanzania
United States of America
Viet Nam
Zambia

C0.4

(C0.4) Select the currency used for all financial information disclosed throughout your response.

JPY

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.

Operational control

C-AC0.6/C-FB0.6/C-PF0.6

(C-AC0.6/C-FB0.6/C-PF0.6) Are emissions from agricultural/forestry, processing/manufacturing, distribution activities or emissions from the consumption of your products – whether in your direct operations or in other parts of your value chain – relevant to your current CDP climate change disclosure?

	Relevance

Agriculture/Forestry	Elsewhere in the value chain only [Agriculture/Forestry/processing/manufacturing/Distribution only]
Processing/Manufacturing	Both direct operations and elsewhere in the value chain [Processing/manufacturing/Distribution only]
Distribution	Both direct operations and elsewhere in the value chain [Processing/manufacturing/Distribution only]
Consumption	Yes [Consumption only]

C-AC0.6b/C-FB0.6b/C-PF0.6b

(C-AC0.6b/C-FB0.6b/C-PF0.6b) Why are emissions from agricultural/forestry activities undertaken on your own land not relevant to your current CDP climate change disclosure?

Row 1

Primary reason

Evaluated but judged to be unimportant

Please explain

JT Group partially owns a small amount of land but emissions related to these activities are not material to our overall emissions

C-AC0.7/C-FB0.7/C-PF0.7

(C-AC0.7/C-FB0.7/C-PF0.7) Which agricultural commodity(ies) that your organization produces and/or sources are the most significant to your business by revenue? Select up to five.

Agricultural commodity

Tobacco

% of revenue dependent on this agricultural commodity

More than 80%

Produced or sourced

Sourced

Please explain

An 88.4% of JT Group's revenue is dependent on tobacco. The remainder of the revenue comes from Pharmaceuticals (4.1%), Processed Foods (7.3%) and Others (0.3%). Tobacco accounts for a significant proportion of revenue and accounts for the majority of emissions and so will be the only commodity presented in this response.

C1. Governance

C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes

C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual(s)	Please explain
Director on board	JT Group considers climate change to be a strategically important issue for our business. As such, high-level board oversight is critical. The person directly responsible for climate-related issues is the Chief Sustainability Officer (CSO), Director on Board (called “Member of the Board” in JTG) and Senior Vice President of JT. This position reports directly to Representative Director and Executive Vice President of JT on Compliance, Sustainability Management and General Affairs. This person is a member of the Executive Committee and the Board of Directors. They are directly responsible for developing and implementing strategies and plans for Sustainability Management, including climate-related issues. Based on societal expectations, our CSO determined that it is necessary to establish a long-term plan to tackle with environmental challenges we face as a company and the society. Also, to better understand long-term risks and opportunities from climate change, our CSO decided to conduct a Climate Scenario Analysis.

C1.1b

(C1.1b) Provide further details on the board’s oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain
Scheduled – some meetings	Reviewing and guiding strategy Reviewing and guiding major plans of action Reviewing and guiding annual budgets Reviewing and guiding business plans Setting performance objectives	Climate-related issues are included in Board level meetings 4 times a year as part of environmental planning. This includes the following: 1) JTG’s Board of Directors verify environmental practice at the Mid-Year Review 2) Review of Annual and Strategic Planning (ASP)

	Monitoring implementation and performance of objectives Monitoring and overseeing progress against goals and targets for addressing climate-related issues	3) Approving the annual operation plan, which includes the yearly environmental plan. 4) Review of previous year performance as part of the Board meeting in May The governance mechanisms are implemented within the four processes above, which contribute to the oversight of climate-related issues.

C1.2

(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues
Chief Sustainability Officer (CSO)	Both assessing and managing climate-related risks and opportunities	Quarterly

C1.2a

(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).

1) The Chief Sustainability Officer (CSO), in charge of JTG Sustainability Management, is a Member of the Board and is also responsible for Compliance and General Affairs. They report directly to the Representative Director and Executive Vice President of JT who is directly responsible for developing and implementing strategies and plans for Legal, Corporate Strategy, Digitalization, Human Resources, Operation Review & Business Assurance, Pharmaceutical Business and Food Business, including Climate-related issues.
2) We recognize climate-related issues are an important management issue to us as well as our stakeholders and this is why responsibility for these issues lies at such a senior level. 3) CSO is responsible for climate-related issue management and more broadly, sustainability management. Last year, among other responsibilities, CSO had oversight of the establishment of the renewed JTG Environment Plan, including the setting of a science-based GHG emission reduction target subsequently validated by SBTi. The Sustainability function monitors and assesses climate-related issues, coordinates activities, gathers data and provides information to the JTG's Board of Directors. Climate-related management and performance are reported to the Board 4 times a year, so that the Board can provide supervisions with; Mid-Year Review on environmental practices, Annual and Strategic Planning review, Annual operation plan approval, and Board meeting in May to review previous year performance.

C1.3

(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	One of our key policies for our executive remuneration is to link it to company's value in the mid-to long-term. Shares are granted to our CEO as part of CEO remuneration, and the value of the shares is linked to the mid-to long-term company value. Pursuing environmental initiatives such as GHG emissions reduction targets or reporting on our progress will improve our ESG ratings, which in turn would have positive impact on our share price. In the short- and mid-term, CEO annual bonus and the Performance Share Unit are linked to the result of the group profit target stipulated in our annual /strategic business plan, which includes targets for emissions reduction, water withdrawal and waste generation.

C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

Entitled to incentive	Type of incentive	Activity inventivized	Comment
Chief Executive Officer (CEO)	Monetary reward	Emissions reduction target	One of our key policies for our executive remuneration is to link it to company's value in the mid-to long-term. Shares are granted to our CEO as part of CEO remuneration, and the value of the shares is linked to the mid-to long-term company value. Pursuing environmental initiatives such as GHG emissions reduction targets or reporting on our progress will improve our ESG ratings, which in turn would have positive impact on our share price. As such, the monetary reward is linked to the continuous improvement of environmental performance of our company. In 2020, new executive remuneration structure was introduced to further enhance the mid- to long-term company value. Our CEO now has two kinds of stock grant plans; restricted stock remuneration plan (transfer restriction is lifted when CEO retires from the company) and performance share unit plan which is linked to the commitment to achieving business results over the mid-term. In the short- and mid-term, CEO

			annual bonus and the Performance Share Unit are linked to the result of the group profit target stipulated in our annual/strategic business plan, which includes targets for emissions reduction, water withdrawal and waste generation.
Chief Sustainability Officer (CSO)	Monetary reward	Emissions reduction target	One of our key policies for our executive remuneration is to link it to company's value in the mid-to long-term. Shares are granted to our CSO as part of CSO remuneration, and the value of the shares is linked to the mid-to long-term company value. Pursuing environmental initiatives such as GHG emissions reduction targets or reporting on our progress will improve our ESG ratings, which in turn would have positive impact on our share price. The monetary reward is therefore linked to the continuous improvement of environmental performance of our company. There are now two kinds of stock grant plans for the CSO; restricted stock remuneration plan (transfer restriction is lifted when the executive retires from the company) and performance share unit plan which is linked to the commitment to achieving business results over the mid-term. Additionally, the basic salary of the CSO is linked to the performance targets and their delivery. Targets are set annually through interview with the CSO. In the short-and-mid-term, CSO annual bonus and performance share unit is linked to the result of the group profit target stipulated in our annual business plan, which includes targets for emissions reduction, water withdrawal and waste generation.
Business unit manager	Monetary reward	Emissions reduction target	Achievement of environmental targets including GHG reduction targets. Managers and staff members, who are responsible for conducting strategies on climate change, have individual performance targets based on the strategies. Their performance targets vary from overall program operations at a group level to specific GHG reduction targets at a facility level. Accomplishments of their own targets are incorporated into their individual annual performance appraisals, and are reflected in their salary adjustments and promotion prospects. In the short- and mid-term, Business unit manager annual bonus and the Performance Share Unit are is linked to the result of the group profit target stipulated in our annual/strategic business plan, which includes targets for emissions reduction, water withdrawal and waste generation.

C2. Risks and opportunities

C2.1

(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?

Yes

C2.1a

(C2.1a) How does your organization define short-, medium- and long-term time horizons?

	From (years)	To (years)	Comment
Short-term	0	3	Consistent with the business' 3-year annual planning cycle
Medium-term	3	15	Consistent with the JT Group Environment Plan; the plan currently in place is from 2015 to 2030.
Long-term	15	30	We have longer term commitments which are aligned with climate change scenarios up to 2050 and with the Paris Agreement

C2.1b

(C2.1b) How does your organization define substantive financial or strategic impact on your business?

The JTG definition for substantive impact focuses on 3 key areas (which can be considered in isolation or combination):
i) Financially: a materiality threshold of anything with an impact or estimated impact of 1 billion Yen. Financial risk is judged by combining the following two factors: "magnitude of possible impact" on our business and "likelihood of its occurrence."
ii) Attention in the mainstream media (national or international outlets, such as press, television, etc.).
iii) Attention from shareholders who have a 1% or larger share in the business.

C2.2

(C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.

Value chain stage(s) covered

Direct operations
Upstream
Downstream

Risk management process

Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment

More than once a year

Time horizon(s) covered

Short-term
Medium-term
Long-term

Description of process

i) The JTG process for identifying risks and opportunities in our direct operations that may have a material financial impact or strategic impact is embodied in the Group's Enterprise Risk Management (ERM) process. Business critical risks are identified as part of JT Group's ERM processes, in which various business functions are involved, e.g. Corporate Strategy, Sustainability Management, Tobacco Business Planning, Processed Food Business Planning, Pharma Business Planning, etc. We identify risks that could have impacts on the business, based on internal knowledge, regulations and results of scenario analysis. Each function reviews the list of potential risks and assesses whether they exceed the threshold for the definition of "substantive impact on the business". In relation to climate related risks, the risk response and management process incorporates plans to mitigate, transfer, accept or control climate related-risks and to capitalize on opportunities. Where we can materially impact a risk, we decide to either mitigate that risk or transfer the risk via insurance policy. In relation to opportunities, these are typically developed into business cases which if approved are incorporated into our Annual and Strategic Planning process.

ii) A case study of how the process has been applied to Physical risks and opportunities: Climate-related risks, such as water availability, water stress, extreme weather events etc., are further considered in our water risk assessment process of our manufacturing sites. We have completed a water risk assessment at 95% of our manufacturing sites to date and have identified concerns that the sites assessed. We consider flood risk through water risk assessments and insurance. We decide if we can control or mitigate the flood risk through technical or procedural measures, e.g. in our factory in Turkey in 2017 we installed additional drainage ditches to mitigate increasing flood risk. However, in cases where this is not possible, we adapt to the risk using flood insurance, for example for International tobacco business in 2019 an annual cost was about 200 million Yen.

iii) A case study of how the process has been applied to transitional risks and opportunities: To address Article 8 of the EU Energy Efficiency Directive and the compliance risk, we established a regional approach to energy audits. In many countries, carbon tax schemes and/or further regulations on refrigerants are being discussed. In order to avoid a significant increase in the business cost, we implement energy reduction activities across all sites in the group, look to use more renewable energy and install more energy efficient facilities and/or move to the use of non-fluorocarbon systems. One of the examples is our Sweden factory that minimizes emissions and energy consumption by combining green energy alternatives and cost-

effective energy-saving projects. It sources a bio-steam from a nearby facility and uses a steam-to-hot-water conversion system to heat the office, which contributed to a total reduction of 91% of GHG emissions for this factory since 2009.

iv) Time horizon applied to the risk management process and frequency of assessment:
To ensure sustainable business growth, we conducted a climate scenario analysis with a long-term horizon (15-30 years), which identified the implications of the risks that we need to consider in the medium term. This allows us to establish objectives and targets that we need to achieve in the medium term to mitigate and adapt to identified risks. A recent example is our Group Environment Plan. For achieving those objectives and targets, we consider initiatives that need to be implemented in the short term.
All the above processes, as well as 1) Annual and Strategic Plan (short-term), 2) Performance progress/results and 3) Initiatives, are reviewed by the Board at least 4 times a year. We have board oversight of other climate related issues, e.g. when an extreme weather event occurs. Our ERM process, reviewed by the Board, identifies climate-related risks in the short to medium-term, so that we can proactively address those risks.

v) Other value chain stages
We identify, assess and respond to risks in the upstream stage of the value chain by asking our key suppliers of leaf, logistics and non tobacco materials to respond to CDP Supply Chain. The risks identified are analysed and mitigation measures developed accordingly.

Risks relating to our clients and customers: There is an ongoing growth in consumer interest and demand for products produced ethically and in an environmental and sustainable way. Company specific example: Recent JTG consumer research shows increasing interest in the environmental impact of our products. Should the JTG's stakeholders have the perception that we are not addressing issues such as climate change and sustainability, this could potentially have a negative impact on our business performance. The JTG has therefore set up a working group focused on finding ways to improve the sustainability of our products and packaging.

C2.2a

(C2.2a) Which risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	JT Group operates across many countries globally and reviews current regulation in those countries. Company specific example: The EU and national governments have mandated targets for GHG emissions reduction and have cap and trade schemes designed to achieve compliance with these targets in many of our operating areas. We participate in the schemes currently in locations affected by this legislation. The risk is that if schemes are

		modified rapidly or changed significantly, organisations such as ours risk being non-compliant if they do not adapt quickly enough. Global environment teams are responsible for feeding regulatory information into company-wide risk assessment. Company specific example: in Europe, our International Tobacco business is obligated by the European Union Energy Efficiency Directive (EED). The EED from 2012 established a set of measures to enable the EU to meet its 20% energy efficiency target by 2020 and it was updated in 2018 with a more stringent target and additional measures. We are tracking the implementation of the new Directive in the EU countries where we operate and the requirements of energy audits in buildings in countries where the legislation is yet to be updated. The risk is we could incur additional time and cost associated with complying with the updated legislation.
Emerging regulation	Relevant, sometimes included	JT Group operates across many countries globally and reviews emerging regulation in those countries. Global environment teams are responsible for feeding regulatory information into company-wide risk assessment. Company specific example: it is anticipated that there will be increasing carbon taxation and/or the introduction of carbon trading schemes in some countries where we operate, e.g. China, Brazil, Turkey. This will likely have financial impact and bring additional compliance obligations for our business and are therefore considered in our risk assessments.
Technology	Not relevant, explanation provided	Where we may face technology risk, that risk is not climate-related. For example, competition in relation to electronic cigarettes, tobacco vapour devices, etc. Technology is more applicable from an opportunity perspective. For example, we are actively investigating and implementing renewable energy technology which reduces our carbon footprint and our energy spend.
Legal	Not relevant, explanation provided	Given the relatively low climate change impact of our sector, we judge the potential for litigation in relation to climate-related issues to be low. Climate change litigation would, in our view, be more likely to target large emitters, rather than less carbon intensive sectors. Our direct footprint, at about 753,000 tonnes, is small in relation to fossil fuel and extractive companies.
Market	Relevant, always included	As a business JT Group is reliant on the availability and quality of a number of agricultural commodities that are affected by climate, such as tobacco and paper. Company specific example: Climate Change may cause the prices of raw materials and fuels to increase, which could increase the price of our products resulting in decreasing sales. On an annual basis, we plan for climate variations in our Leaf Sourcing Strategy and timing of our crop planting as well as monitoring energy markets.

		Business functions are responsible for providing information relevant for company-wide risk assessment.
Reputation	Relevant, always included	There is increasing stakeholder interest in climate-related issues which we factor in to our planning and reporting process. Company specific example: The JT Group's 4S model outlines the 4 key groups of stakeholders with interest in our business: Consumers, shareholders, employees, and wider society. There is increasing interest around climate related issues from all of our stakeholders and there is reputational risk if we do not appropriately manage these issues. We use CDP Climate Change as a vehicle to communicate JT Group climate governance to stakeholders. Business functions are responsible for providing information relevant for company-wide risk assessment.
Acute physical	Relevant, always included	From time to time, we experience acute physical events that impact our business. For example extreme weather events, typhoons, floods etc. Company specific example: in 2018, one of our factories in Africa was temporarily shut down due to extreme flooding. This resulted in operational impacts and additional cost. Business functions are responsible for providing information relevant for company-wide risk assessment.
Chronic physical	Relevant, always included	There are a number of chronic physical issues that could impact our business. For example: UN reports have established that one effect of climate change will be to increase the water stress of particular geographical areas; there will be an increased risk of drought depending on the area. Water related issues could cause damage to the JT Group as well as our suppliers and consumers, leading to disruption of our business and negatively impacting financial results. Company specific example: One of our operations in the Middle East is located in a water stressed area. Identification of this issue has allowed us to put in place mitigation measures to address the risk. Climate change could result in making the Middle East more water stressed, which impacts our operations with less water availability. Business functions are responsible for providing information relevant for company-wide risk assessment.

C2.3

(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.3a

(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Emerging regulation

Carbon pricing mechanisms

Primary potential financial impact

Other, please specify

Increased cost of products due to increased cost of raw materials and company tax increased

Company-specific description

Increased carbon tax may increase procurement cost of tobacco leaf and other materials and services as well as additional company expenditures due to tax increase for the Group's direct operations. If a carbon tax is imposed on raw or secondary materials or services used in each phase of the agricultural value chain (e.g. agricultural chemicals, agricultural machineries, processing machineries, storage and distribution), then JT Group will bear additional cost and/or transferred onto raw material price.

We monitor emerging carbon pricing related regulation such as carbon tax. It is likely that we will see increased carbon taxation levels in some countries where we operate, affecting our operating costs. For example, in Japan, where our group headquarters are located, the level is currently at 2.6USD / tCO2e. According to IEA World Economy Outlook 2018, the level of carbon tax in developed countries in 2040 is anticipated to be 140 USD/tCO2 under 2C scenario and when it is the case also in Japan, it will pose a significant cost increase to our business. This risk was identified through conducting a climate scenario analysis to identify long-term risks to 2050.

Time horizon

Long-term

Likelihood

Very likely

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

700,000,000

Potential financial impact figure – maximum (currency)

7,500,000,000

Explanation of financial impact figure

In our climate scenario analysis, we assumed that under a 4C scenario carbon tax will increase to 36-43 USD/ton of GHG emissions, and based on 2C scenario, to 125-140 USD per tons of GHG emissions in 2050, based on IEA World Economy Outlook 2018 We calculate financial impact by multiplying forecast GHG emissions in 2050 in regions where carbon tax may exist, by the carbon tax level in those locations. GHG emissions in 2050 are predicted taking into account expected emission reduction and the company's sales growth.

Cost of response to risk

396,760,000

Description of response and explanation of cost calculation

We manage this risk by reducing our energy consumption through capital investment and energy saving programs as well as renewable energy programs (onsite generation of renewable energy, green energy purchase). The cost of responding to the risk was calculated as 14,170 Yen / tCO2 saved (marginal abatement cost from 2019 capital investment projects to reduce carbon) * carbon reductions needed to 2030 to meet our environmental Plan 2030 GHG target (280,000t) / 10 years (for annual cost estimations) = 396,760,000 yen.

Case study: In 2019 we installed a new boiler and a new VSD compressor in our factory in Turkey which resulted in carbon savings. On our Canadian site, our water atomisation project saves 195 tCO2e annually; instead of using steam for humidification purposes on air handling units for conditioning, high pressure water injection is applied as part of the process, saving energy.

We are also introducing green vehicles and engaging with suppliers to understand their climate related risks and we develop mitigation measures.

Comment

Nothing further to disclose.

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Upstream

Risk type & Primary climate-related risk driver

Chronic physical

Other, please specify

Change in yield of tobacco leaf due to climate change

Primary potential financial impact

Increased direct costs

Company-specific description

Change in environmental conditions for leaf growing including CO2 level in atmosphere, shifts in prevalence and presence of tobacco crop pests and diseases related to climate change, the generally higher the average temperature, precipitation pattern and water could impact the availability and quality of key natural resources for JT Group, including tobacco leaf. This could occur in one or more of our tobacco sourcing countries, for example Bangladesh and Brazil from where we procure 27,3% of our total tobacco leaf volume. As a result, the cost of sourcing tobacco leaf can increase. This risk was identified through conducting a climate scenario analysis to identify long-term risks to 2050 and using a 4C and a 2C scenarios.

Time horizon

Long-term

Likelihood

Very likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

32,300,000,000

Potential financial impact figure – maximum (currency)

36,700,000,000

Explanation of financial impact figure

We assume, that based on 4C scenario tobacco leaf yield will change by -15.3% to +1.8%, and based on a 2C scenario by -13.7% to +6%. We calculate financial impact by multiplying the procurement cost by country in 2018 by production growth rate and by the cost change rate assuming fluctuation of yield by country where we source leaf.

Cost of response to risk

1,900,000,000

Description of response and explanation of cost calculation

We manage this risk by developing action plans to reduce financial impact to our business which could include shifting leaf growing regions based on identified climate-related impacts, implementing climate change adaptation measures, e.g. smart agriculture and breeding, as well as measures to improve yield in growing regions, so as to mitigate potential decrease in procurement volumes and increased costs.

Primarily, to date we have managed this risk via building strong relationships with our suppliers and having a geographically diversified supply chain (for example, the JT Group source tobacco leaf from over 30 different countries). Most importantly, the JT Group regards growers and key suppliers as one of its most important partners. For example, within the international tobacco business, we support growers to manage climate risk and other forms of risk through selecting tobacco varieties with disease resistance relevant to local conditions, financial assistance during incidents of natural disaster and via reforestation / sustainable tree planting programs. In addition, we promote efficient use of materials by continuously reviewing the manufacturing process and product specifications where possible. Moreover, in Japan we operate the financial support system to compensate tobacco farmers' incomes, which pays money to domestic tobacco leaf growers whose tobacco plants/crops suffer from natural disasters, based on the degree of the damages. The system offers financial support to tobacco growers so that they are not forced to cease production and hence contribute to a stable farm system.
The primary financial costs for managing these risks come from Grower Support Programs. In 2019, the JT Group spent about 1.9 billion Yen globally on Grower Support Programs.

Comment

Nothing further to disclose.

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Acute physical
Increased severity and frequency of extreme weather events such as cyclones and floods

Primary potential financial impact

Decreased revenues due to reduced production capacity

Company-specific description

Some of our facilities are located in areas, for example, MENA countries, which could be exposed to change in precipitation patterns that may cause increased frequency/severity of flooding. This could lead to loss of production capacity which in turn could lead to losses in sales and therefore revenue. Company specific example: In

2018 our factory in Sudan had a significant flood event due to heavy rainfall. The increased intensity of rainfall has been attributed to changing climate in the region.

Time horizon

Long-term

Likelihood

More likely than not

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

1,600,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Financial impact was calculated based on potential loss of production capacity of a typical factory due to flooding resulting in loss of sales. Assuming 30 finish goods factories in our International tobacco business which had a revenue of 1,253,022 million yen in 2019. As such for the purposes of risk calculation, assuming a typical factory is shut down for 14 days due to flooding, the potential estimated financial impact is approximately 1.6 billion yen. (1,253,022 / 30 / 365 * 14)

Cost of response to risk

215,340,000

Description of response and explanation of cost calculation

As part of our water risk assessments of factories we consider changing flood risks which could be as a result of climate change. The outputs of these assessments are used to determine our mitigation measures. These include, for example, business continuity plans, physical flood mitigation infrastructure and insurance coverage. For example, in 2017 in our factory in Turkey we installed high capacity drainage channels in order to reduce the risk of loss of production capacity. Cost of management includes cost associated with water risk assessment (14.34 million yen), physical flood mitigation infrastructure (1 million yen) and flood insurance premiums (200 million Yen). Total cost to mitigate the risk is 14 340 000 + 1 000 000 + 200 000 000 = 215 340 000.

Comment

Nothing further to disclose.

Identifier

Risk 4

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Reputation

Shifts in consumer preferences

Primary potential financial impact

Decreased revenues due to reduced demand for products and services

Company-specific description

The JT Group produces tobacco, processed food and pharmaceutical products. There is an ongoing growth in consumer interest and demand for products produced ethically and in an environmental and sustainable way. For example, “the State of Sustainability Initiatives Review 2014” (IIED) found the average annual growth rate of certified production across all commodity sectors (excluding biofuels) in 2012 was a 41%, outpacing growth of 2% in the corresponding conventional commodity markets. Company specific example: Perception by JTG consumer and JTG external stakeholders that we are not addressing issues such as climate change and sustainability could lead to reduced demand for our products leading to loss of revenue. Recent JTG consumer research (e.g. in Russia, South Korea and UK) shows increasing interest in the environmental impact of our products.

Time horizon

Long-term

Likelihood

About as likely as not

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

1,000,000,000

Potential financial impact figure – maximum (currency)

3,000,000,000

Explanation of financial impact figure

It is difficult to estimate financial implications of changing consumer behaviour across our diverse product range and markets. However, if a 0.05-0.15% reduction in consumer

demand and sales of our products occurred, it would result in a reduction in revenues of approximately 1-3 billion yen.

Cost of response to risk

2,097,600,000

Description of response and explanation of cost calculation

We provide information on JT Group's commitment to the environment and managing climate change related issues via our website and in external publications. In addition, we continue to implement a range of environment related community investment programs and projects (e.g. improved access to safe water in Myanmar). We also support and promote sustainable agricultural practices within our value chain – especially with local growers. We have undertaken Life Cycle Assessment (LCAs) on some of our products to identify (and communicate where necessary) any reductions in the environmental footprint of our products.

The costs associated with our annual Integrated Report 32.3 million yen and our environment-related community investment programs were approximately 92.7 million yen in 2019. To date, costs of our Grower Support Programs are 1900 million yen and costs for undertaking our LCA projects are approximately 72.6 million yen to date (32.3 + 92.7 + 1900 + 72.6 = 2097.6 million).

Comment

Nothing further to disclose.

C2.4

(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.4a

(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Opp1

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Resource efficiency

Primary climate-related opportunity driver

Use of more efficient production and distribution processes

Primary potential financial impact

Reduced indirect (operating) costs

Company-specific description

There are a number of different drivers creating opportunities for further improvements in resource efficiency and therefore cost efficiency. For example, greater societal awareness of climate change risks has created demand for innovation, which is driving down cost of technology enabling resource use reduction. We also consider that the regulatory drivers can become opportunity drivers for the JT Group. Rising of fuel /energy prices as a result of taxes may become a risk in an initial phase, but if we respond to the risks, we can gain bigger benefits than the initial phases. The JT Group is engaging in energy-saving initiatives with a group-wide cooperation, which include implementation of capital investment projects at our facilities and promotion of sustainability and carbon reduction across our value chain. By these efforts, we can reduce our future operational costs and gain competitive advantage. Our International Tobacco Business has initiated the development of formalized energy management systems with subsequent certification to ISO50001 across all manufacturing facilities. The overall objective is to deliver a further 5% reduction in absolute carbon emissions (on top of that achieved through capital investment projects) by 2020. In Europe, our International Tobacco business is obligated by the introduction of The European Union Energy Efficiency Directive (EED). The EED (updated in 2018) establishes a set of measures to enable the EU to meet its 32.5% energy efficiency target by 2030. Article 8 of the EED requires large enterprises in member countries to undertake energy audits every 4 years to identify potential energy reduction opportunities. Through the combination of expanding geographical footprint (for example, our recent acquisitions in Bangladesh, Ethiopia, Indonesia and Russia) and developments in technology, we anticipate greater opportunities in resource efficiency.

Time horizon

Medium-term

Likelihood

Virtually certain

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

40,000,000

Potential financial impact figure – maximum (currency)

50,000,000

Explanation of financial impact figure

Introduction of fuel/energy taxes is generally predicted to lead to increase in energy costs. However, we expect that, by implementing energy-saving project/activities, our future financial implications by this opportunity in terms of energy and cost savings will result in the opposite results. We anticipate that the outcome of the energy audits in EU Markets and development of formalized energy management systems with subsequent certification to ISO50001 are anticipated to deliver savings of approximately 40-50 million Yen annually across 37 of the international tobacco production factories and EU markets based on a circa 1% energy cost saving.

Cost to realize opportunity

5,000,000

Strategy to realize opportunity and explanation of cost calculation

Realizing these opportunities will primarily come through the identification and implementation of energy reduction measures with associated cost savings. We reduce energy consumption at all our sites by capital investment, behavioural / process change and energy saving, through promotion of the EAP (Environment Annual Plan) and operating the EMS (Environmental Management System) of the JT Group.

We are continuously investing in fuel and energy reduction activities. The costs associated with developing formalized energy management systems with subsequent certification to ISO50001 are minimal and mainly relate to management time, training, certification and additional metering and measurements. Costs to date in relation to the EED mainly relate to internal time and external expenditure to establish our compliance strategy. We estimate this to be approximately 5 million Yen.

There are several examples of such initiatives implemented in 2019: in Indonesia factory we optimized AHU & Chiller running hours (245 tCOe, immediate payback) and shut down central UPS (70 tCO2e, immediate payback), in Canada in we reduced pressure of compressed air on weekends (0.04 tCO2e, immediate payback), in Tenerife we installed heat pump (4.78 tCO2e, 7.7 years payback).

Comment

Costs presented exclude CAPEX costs such as those associated with the specific examples.

Identifier

Opp2

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Energy source

Primary climate-related opportunity driver

Use of lower-emission sources of energy

Primary potential financial impact

Reduced indirect (operating) costs

Company-specific description

There are a number of different drivers creating opportunities for the use of renewable energy. For example, greater societal awareness of climate change risks has created a demand for innovation, and the cost of renewable energy generation is falling. We believe that regulatory drivers can become opportunity drivers for JT Group. Increase in carbon taxation may become a risk initially, but the way we respond to the risk may give us an opportunity; by increasing the proportion of renewable energy we buy or generate ourselves. Already, the JT Group purchase renewable energy and low carbon energy in Switzerland, Canada, Germany, Serbia, Philippines, Japan, Poland, Romania, Sweden and generate renewable energy in the Philippines, Nigeria, the Netherlands, Turkey, Jordan. We are also looking for new opportunities to use renewable energy; currently, we have a commitment to use 100% renewable electricity in our operation by 2050 (as at the end of 2019 we were at 14%).

Time horizon

Long-term

Likelihood

Very likely

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

1,509,000,000

Potential financial impact figure – maximum (currency)

5,868,000,000

Explanation of financial impact figure

Introduction of carbon taxes is generally predicted to lead to an increase in operational cost. We assumed that under a 4C scenario, carbon tax will increase to 36-43 USD/ton of GHG emissions, and based on 2C scenario, to 125-140 USD per tons of GHG emissions in 2050, based on IEA World Economy Outlook 2018. JTG has a commitment to use 100% of renewable electricity by 2050. We calculate financial impact by multiplying current GHG emissions from electricity (384,459 tCOe) by predicted tax in 2050. (36*384 459*109.03=1 509 032 331.72, 140*384 459*109.03=5 868 459 067.8) (109.03 exchange rate USD/Yen).

Cost to realize opportunity

567,000,000

Strategy to realize opportunity and explanation of cost calculation

Realizing these opportunities will primarily come through the purchase and generation of renewable energy. In the Philippines in 2018, we completed our photovoltaics installation. This reduces our grid electricity reliance by 5,400 MWh and annual GHG emissions by approximately 50% (2,600 tonnes), with a payback under 4 years. Since 2016 we have invested almost 2.2 billion Yen in renewable energy. We are continuously investing in renewable energy projects. Average annual cost associated with these initiatives (2016-2019) are 5200 000 USD (566 956 000 yen) (total spend for 4 years divided by 4).

Comment

Nothing further to disclose.

Identifier

Opp3

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Products and services

Primary climate-related opportunity driver

Shift in consumer preferences

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

The JT Group produces tobacco, processed food and pharmaceutical products. Through stakeholder engagement which we conducted a few years ago to identify our material issues, we have identified increasing consumer interest and demand for products produced ethically and sustainably. Therefore, by differentiating our products from competitors by promoting our sustainable agriculture activities and by continuing to reduce the environmental impact in our own operations, we could increase revenue and market share of our existing products. Regarding sustainable agricultural practises, an example is our Matope barns, promoted to our growers in Zambia, which are a more fuel-efficient type of curing barn. These barns lower wood-consumption and Greenhouse Gas emissions accordingly by up to 75%.

Time horizon

Long-term

Likelihood

About as likely as not

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

1,000,000,000

Potential financial impact figure – maximum (currency)

3,000,000,000

Explanation of financial impact figure

It is difficult to estimate financial implications of changing consumer behaviour across our diverse product range and markets. However, if a 0.05-0.15% increase in consumer demand for our products and sales occurred, it would result in an increase in revenues of approximately 1-3 billion yen.

Cost to realize opportunity

2,097,600,000

Strategy to realize opportunity and explanation of cost calculation

We provide information on our commitment to the environment and managing climate change related issues via our website and in external publications. In addition, we continue to implement a range of environment-related community investment programs and projects. We also manage this opportunity by supporting and promoting sustainable agricultural practices within our value chain – especially with local growers. We have undertaken Life Cycle Assessment (LCAs) on some of our products to identify (and communicate where necessary) reductions in the environmental footprint of our products.

The costs associated with our annual Integrated Report 32.3 million yen and our environment-related community investment programs were approximately 92.7 million yen in 2019. To date, costs of our international Grower Support Programs are 1.9 billion yen and costs for undertaking our LCA projects are approximately 72.6 million yen to date. An example of our response to changing consumer preference for more sustainable products is our 2016 acquisition of Natural American Spirit. (32.3 + 92.7 + 1 900 + 72.6 = 2 097.6).

Comment

Cost presented exclude those associated with the acquisition of Natural American Spirit (560 billion yen).

C3. Business Strategy

C3.1

(C3.1) Have climate-related risks and opportunities influenced your organization's strategy and/or financial planning?

Yes

C3.1a

(C3.1a) Does your organization use climate-related scenario analysis to inform its strategy?

Yes, qualitative and quantitative

C3.1b

(C3.1b) Provide details of your organization's use of climate-related scenario analysis.

Climate-related scenarios and models applied	Details
2DS RCP 4.5 IEA Sustainable development scenario Nationally determined contributions (NDCs) Other, please specify IPCC "Special Report on Climate Change and Land" (2019), World Bank Data : Agricultural land (sq.km) (2016), ILO "Working on a warmer planet: The impact of heat stress on labour productivity and decent work" 2019	i) In 2019, we conducted a climate-related scenario analysis for our Tobacco business whose revenue is an 88.4% of the group total, involving our Directors on Board throughout the process at key milestones. The process was aligned with the Technical Supplement of TCFD recommendations. As the first step, we assessed the materiality of climate-related risks for the group, listing 21 potential risk drivers, out of which we selected 6 risk items for the analysis in 2019 based on their relevance to our Tobacco business. Secondly, we identified and defined the range of scenarios for each selected item based on various external references, e.g. IEA, IPCC, GAEZ, ILO and Ministry of Environment of Japan. Our objective was to illustrate what the world will look like in 2050 under both 2C and 4C scenarios. When selecting scenarios, we firstly reviewed a number of reports issued by well recognized international organizations, so as to cover all of the countries where we operate and procure tobacco, i.e. more than 130 countries, then we specified most representative parameters for each risk item. For example, for the risk item, 'Change in the environment of tobacco growing regions', we selected as the parameter 'Change in yield of tobacco leaves by climate change' modelled in GAEZ. As the third step, we evaluated the business impacts based on the scenarios from various references and our internal knowledge/assumptions, e.g. the emissions, leaf procurement volume/cost and business revenue in the future. As the fourth step, we identified potential responses to the major risks identified based on the third step. ii) The time horizon for our 2019 climate-related scenario analysis was 2050 which was the most referenced year as the

	longest key milestone. iii) The area for climate-related scenario analysis conducted in 2019 was our Tobacco business, as it was the most representative business segment of the group. We plan to conduct a climate-related scenario analysis for our Processed Food business in 2020, as it sources various raw materials, for which the impacts from climate change are also deemed significant. iv) In the 2019 analysis, we identified two major risks from climate change: “potential cost increase from carbon tax increase in the countries where we operate” and “impact on tobacco growing from changes in environmental conditions”. Our conclusion was that we could mitigate these risks by improving our existing climate-related initiatives and programs across our value chain, so that our business operations would not be materially disrupted by climate change. On the other hand, the analysis was for group level impacts, not for country level. We recognize there may be other risks which materially impact on country-level operations. As such, we also decided to conduct a climate-related scenario analysis at some of the countries where we operate to better understand the risks to the group. v) We examined the consistency of business objectives/strategy and the results of scenario analysis. Our conclusion was that our approach for mitigation measures for climate-related impacts was appropriate to make the business resilient. However, the results also emphasized there were areas for improvement in the measures, especially considering the risks beyond 2030. vi) The risk related to increased carbon taxation reaffirmed that the current JTG GHG emission strategy is correct, in that the emission reduction targets established and validated by the SBTi will deliver carbon reductions needed to address the risk from currently anticipated increase in carbon taxation. An example for achieving the target is to use more renewable energy onsite through e.g. gird procurement and onsite generation system introduction. This will help the business to avoid the impacts from carbon taxation and also stimulate the

	renewable energy market collectively with other companies in the world.
RCP 6 IEA NPS Nationally determined contributions (NDCs) Other, please specify ILO “Working on a warmer planet: The impact of heat stress on labour productivity and decent work” 2019	i) In 2019, we conducted a CSA for our Tobacco business whose revenue is an 88.4% of the group total, involving our Directors on Board throughout the process at key milestones. The process was aligned with the Technical Supplement of TCFD recommendations. Firstly, we assessed the materiality of climate-related risks for the group, listing 21 potential risk drivers, out of which we selected 6 risk items based on their relevance to our Tobacco business. Secondly, we identified and defined the range of 2C and 4C scenarios for each selected item based on various external references, e.g. IEA, IPCC, GAEZ, ILO and Ministry of Environment of Japan. When selecting scenarios, we reviewed several reports issued by well recognized international organizations, to cover all of the countries where we operate and procure tobacco (more than 130 countries), then specified most representative parameters for each risk item. For example, for the risk item, ‘Change in the environment of tobacco growing regions’, we selected as the parameter ‘Change in yield of tobacco leaves by climate change’ modelled in GAEZ. Thirdly, we evaluated the business impacts of the scenarios from various references and our internal knowledge/assumptions, e.g. the emissions, leaf procurement volume/cost and business revenue in the future. Finally, we identified potential responses to the major risks identified. ii) The time horizon for our 2019 climate-related scenario analysis was 2050 which was the most referenced year as the longest key milestone. iii) The area for climate-related scenario analysis conducted in 2019 was our Tobacco business, as it was the most representative business segment of the group. We plan to conduct a CSA for our Processed Food business in 2020, as it sources various raw materials which may be significantly impacted by climate change. iv) In the 2019 analysis, we identified two major risks from climate change: “potential cost increase from carbon tax increase in the countries where we operate” and “impact on tobacco growing from changes in environmental conditions”. Our conclusion was that we could mitigate these risks by improving our existing climate-related initiatives and programs across our value chain to prevent material disruption to the business. However, we recognize that the CSA was at group-

	level rather than at country-level, and other risks could materially impact country-level operations. As such, we decided to conduct a CSA for some countries where we operate. v) We examined the consistency of business objectives/strategy and the results of CSA. Our conclusion was that our approach and measures to mitigate climate-related impacts were appropriate to make the business resilient. However, the results also emphasized there were areas for improvement in the measures, especially considering the risks beyond 2030. vi) Under 4C scenario, we identified two main climate-related risks in tobacco growing regions: i) change in yield and quality of tobacco from heat, ii) reduced productivity in growing regions due to high temperature during day time. To make tobacco products, we blend various types of tobacco to ensure the same taste and quality all the time for a specific product, which is critical to our business. Although we are experienced in the blending technique, changes in tobacco quality and yield due to increased temperatures require this technique to be adapted. This is one area of consideration to fulfil our business objectives. Also, we directly contract tobacco growers in some countries where we source tobacco. We have implemented some standards (Agricultural Labor Practice and Minimum Agronomy Standards) in those regions to maintain a good labor practice, and yield and quality of tobacco. The identified climate-related risks could potentially impact the health and safety of the contracted growers as well as the yield, integrity and quality of tobacco. Therefore, those standards must also be adapted to the risks.

C3.1d

(C3.1d) Describe where and how climate-related risks and opportunities have influenced your strategy.

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	How have climate-related risks influenced the strategy: The JT Group has ongoing projects within the business to reduce the carbon impact of our product and packaging. Case study and time horizon: Our Environment Plan 2030

		(EP 2030) includes a target that by a time horizon of 2020, we will have targets and action plans relating to the appropriate use and responsible disposal of materials, including plastics, used in our products and packaging. The targets and action plan are currently in development and on schedule to be launched as planned. We have already launched various initiatives to minimize environmental impact of our product and packaging. JTG has dedicated R&D team with focus on improving the sustainability of packaging, whether it be through reduction, simplification or substitution, to improve reuse and recyclability, and to reduce the overall amount of fossil-fuel derived plastic that we use in our packaging as well as reduce carbon footprint of our packaging. In 2019 we screened and assessed over 130 new materials based on these criteria. As an example, in the Germany market, we recently launched new containers for our Winston Make Your Own offering, which reduce plastic used in the boxes by between 10% and 16%, which enable us to save 78 tons of plastics per year and also reduces the carbon impact of each box.
Supply chain and/or value chain	Yes	How have climate-related risks influenced the strategy: JT Group decided to include Scope 3 (supply chain) emissions reduction targets in our JTG Environment Plan 2030 and the tobacco business Sustainability Strategy with time horizon to 2030. Case study: In the JTG Tobacco Sustainability Strategy we now have a target related to emissions reduction associated with purchased goods and services. We will reduce emissions associated with our purchased goods and services by 23%. This will be achieved through a 40% reduction from our direct leaf supply chain and reductions in our non-tobacco materials, such as packaging. Each of our direct leaf sourcing origins has developed an action plan to help achieve the 2030 target.
Investment in R&D	Yes	How have climate-related risks influenced the strategy: JTG now gives increased consideration to the carbon impacts in product and packaging design and materials, in line with our commitment in our JTG Environment Plan 2030 to further reduce the environmental impacts of waste associated with our processes and products. Time horizon is 2030, in line with our JTG Environmental Plan. Case study: in 2019 Our tobacco business R&D function invested in a pilot project to build an LCA model to better understand the carbon impacts of our cigarette packaging and to identify the focus areas to reduce emissions associated with tobacco product packaging. Going forward,

		R&D is implementing measures related to hotspots identified and is expanding the use of LCAs to other packaging types. The next phases of this work are planned for the next three years.
Operations	Yes	How have climate-related risks influenced the strategy: JT Group revisited targets for emission reductions and renewables in the JTG Environment Plan 2030: We will reduce greenhouse gas emissions from our own operations by 32% by 2030 compared to 2015 and we will double the proportion of renewable electricity that we use to 25% by 2030 and 100% by 2050. We plan to achieve these targets by time horizon of 2030 through energy reduction initiatives, renewable energy generation and purchase as well GHG emission reduction from our fleet vehicles e.g. procurement of green fleet vehicles. Case Study: Through our Energy Opportunities Scheme, our factories have identified and invested in more than 200 projects with total investment of 36 million Yen. Total savings amounted to 160 million Yen. This had an overall simple payback of approximately 3 months. The total carbon saved is approximately 7,900 tCO2e per annum.

C3.1e

(C3.1e) Describe where and how climate-related risks and opportunities have influenced your financial planning.

	Financial planning elements that have been influenced	Description of influence
Row 1	Revenues Direct costs Capital expenditures Acquisitions and divestments Assets	The description of influence for each financial planning elements (including case study and time horizon) are as below: 1) Revenues Flood insurance within JT Group includes lost revenue. Insurance premiums are factored into annual operating costs. One of our third-party manufacturers previously experienced a flood at the factory which affected production in 2018. JT Group revenues were impacted for 7 months with estimated impact of 300 million yen. This was an insured loss. We view the potential magnitude of this impact to be medium. 2) Direct costs Costs associated with EU-ETS and cap and trade schemes, as with other operating costs, are included in the Annual and Strategic Plans (ASP) of relevant factories. For example, 38.8 million yen was included in the ASP plans for our German facility. If operating costs arise from the identification of risks, budget can be requested and approved through

		the BAP (Business Approval Process) system. We view the potential magnitude of this impact to be low. 3) Capital expenditures If capital expenditures arise from the identification of risks, budget can be requested and approved through the BAP (Business Approval Process) system. We also seek to identify opportunities that reduce carbon emissions and cost at the same time. One of the examples is our factory in Jordan. Thanks to solar steam generation, the factory can cover the majority of its thermal energy demands for tobacco processing, and convert part of the solar energy into energy for building heating and for cooling. This significantly reduces the factory's carbon footprint and the project is anticipated to save approximately 10% of the factory's annual GHG emissions and 18% of its annual energy costs, with a payback of approximately eight years. Although the direct financial impact for the Company is low, the environmental impact is viewed as medium and hence through improved reputation there is a potential for indirect financial impact to be medium. 4) Acquisitions and divestments Factored into the JT Group business integration planning processes, the costs for which are captured and approved through the BAP (Business Approval Process) system. In particular, we are expanding our geographical footprint and this could increase our carbon footprint. As the company is committed to tackling climate-related issues, we also consider how to reduce emissions at those acquired operations through our financial planning process. In addition, we specifically consider sustainability issues within our due diligence processes. In one of our recent acquisitions, we specifically considered and assessed climate-related risks (including natural disasters). For this particular acquisition it was viewed as a high impact. For the business overall it is viewed as medium impact. 5) Assets Some of JT Group's assets are at risk from climate-related flooding. We insure against this risk. The annual cost of insuring our direct operations against flooding is factored into our financial planning. In 2019, the cost of flood-specific insurance was 200 million yen. We view the potential magnitude of this impact to be medium.

C3.1f

(C3.1f) Provide any additional information on how climate-related risks and opportunities have influenced your strategy and financial planning (optional).

Nothing further to disclose.

C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?

Absolute target

C4.1a

(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.

Target reference number

Abs 1

Year target was set

2018

Target coverage

Company-wide

Scope(s) (or Scope 3 category)

Scope 1+2 (market-based)

Base year

2015

Covered emissions in base year (metric tons CO2e)

879,459.26

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)

100

Target year

2030

Targeted reduction from base year (%)

32

Covered emissions in target year (metric tons CO2e) [auto-calculated]

598,032.2968

Covered emissions in reporting year (metric tons CO2e)

753,259.11

% of target achieved [auto-calculated]

44.8429491492

Target status in reporting year

Underway

Is this a science-based target?

Yes, this target has been approved as science-based by the Science-Based Targets initiative

Please explain (including target coverage)

Our SBT has been validated by the SBTi. The SBT is included in our Environment Plan 2030. The time frame is aligned with Science Based Targets criteria. Although our SBT was validated in 2019, we set the target as the group in 2018.

Target reference number

Abs 2

Year target was set

2018

Target coverage

Company-wide

Scope(s) (or Scope 3 category)

Scope 3: Purchased goods & services

Base year

2015

Covered emissions in base year (metric tons CO2e)

5,685,945.07

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)

100

Target year

2030

Targeted reduction from base year (%)

23

Covered emissions in target year (metric tons CO2e) [auto-calculated]

4,378,177.7039

Covered emissions in reporting year (metric tons CO2e)

6,197,377.34

% of target achieved [auto-calculated]

-39.1072818651

Target status in reporting year

Underway

Is this a science-based target?

Yes, this target has been approved as science-based by the Science-Based Targets initiative

Please explain (including target coverage)

Our SBT has been validated by the SBTi. The SBT is included in our Environment Plan 2030. The time frame is aligned with Science Based Targets criteria. Although our SBT was validated in 2019, we set the target as the group in 2018. Increase in emissions was expected and we remain on track to meet our 2030 target.

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?

Target(s) to increase low-carbon energy consumption or production

C4.2a

(C4.2a) Provide details of your target(s) to increase low-carbon energy consumption or production.

Target reference number

Low 1

Year target was set

2018

Target coverage

Company-wide

Target type: absolute or intensity

Absolute

Target type: energy carrier

Electricity

Target type: activity

Consumption

Target type: energy source

Renewable energy source(s) only

Metric (target numerator if reporting an intensity target)

Target denominator (intensity targets only)

Base year
2015

Figure or percentage in base year
3

Target year
2030

Figure or percentage in target year
25

Figure or percentage in reporting year
14

% of target achieved [auto-calculated]
50

Target status in reporting year
Underway

Is this target part of an emissions target?
Yes- Abs2

Is this target part of an overarching initiative?
No, it's not part of an overarching initiative

Please explain (including target coverage)
We will achieve proportion of renewable electricity we use 25% by 2030 and 100% by 2050.

C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.

Yes

C4.3a

(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	16	0
To be implemented*	42	4,091
Implementation commenced*	51	12,454

Implemented*	74	4,931
Not to be implemented	3	0

C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

Initiative category & Initiative type

Energy efficiency in buildings

Other, please specify

Building controls

Estimated annual CO2e savings (metric tonnes CO2e)

93.36

Scope(s)

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

21,260,000

Investment required (unit currency – as specified in C0.4)

2,180,000

Payback period

4-10 years

Estimated lifetime of the initiative

11-15 years

Comment

A number of these types of energy efficiency projects were implemented at our production sites.

Initiative category & Initiative type

Energy efficiency in buildings

Heating, Ventilation and Air Conditioning (HVAC)

Estimated annual CO2e savings (metric tonnes CO2e)

103.66

Scope(s)

Scope 2 (market-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
6,760,000

Investment required (unit currency – as specified in C0.4)
149,800,000

Payback period
1-3 years

Estimated lifetime of the initiative
11-15 years

Comment
A number of these types of energy efficiency projects were implemented at our production sites.

Initiative category & Initiative type
Energy efficiency in buildings
Lighting

Estimated annual CO2e savings (metric tonnes CO2e)
103.66

Scope(s)
Scope 2 (market-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
550,000

Investment required (unit currency – as specified in C0.4)
4,360,000

Payback period
4-10 years

Estimated lifetime of the initiative
11-15 years

Comment
A number of these types of energy efficiency projects were implemented at our production sites.

Initiative category & Initiative type

Energy efficiency in buildings

Other, please specify

Machine replacement

Estimated annual CO2e savings (metric tonnes CO2e)

22.95

Scope(s)

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

870,000

Investment required (unit currency – as specified in C0.4)

3,820,000

Payback period

4-10 years

Estimated lifetime of the initiative

16-20 years

Comment

A number of these types of energy efficiency projects were implemented at our production sites.

Initiative category & Initiative type

Energy efficiency in buildings

Maintenance program

Estimated annual CO2e savings (metric tonnes CO2e)

146.86

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

2,340,000

Investment required (unit currency – as specified in C0.4)

39,250,000

Payback period

16-20 years

Estimated lifetime of the initiative

21-30 years

Comment

A number of these types of energy efficiency projects were implemented at our production sites.

Initiative category & Initiative type

Energy efficiency in buildings

Maintenance program

Estimated annual CO2e savings (metric tonnes CO2e)

46.48

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

2,510,000

Investment required (unit currency – as specified in C0.4)

13,630,000

Payback period

4-10 years

Estimated lifetime of the initiative

21-30 years

Comment

A number of these types of energy efficiency projects were implemented at our production sites.

Initiative category & Initiative type

Energy efficiency in production processes

Compressed air

Estimated annual CO2e savings (metric tonnes CO2e)

258.77

Scope(s)

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

9,070,000

Investment required (unit currency – as specified in C0.4)

79,050,000

Payback period

4-10 years

Estimated lifetime of the initiative

16-20 years

Comment

A number of these types of energy efficiency projects were implemented at our production sites.

Initiative category & Initiative type

Energy efficiency in production processes

Other, please specify

Heat recovery

Estimated annual CO2e savings (metric tonnes CO2e)

211.42

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

7,410,000

Investment required (unit currency – as specified in C0.4)

20,820,000

Payback period

1-3 years

Estimated lifetime of the initiative

16-20 years

Comment

A number of these types of energy efficiency projects were implemented at our production sites.

Initiative category & Initiative type

Energy efficiency in production processes

Other, please specify

Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)

867.5

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

1,930,000

Investment required (unit currency – as specified in C0.4)

61,600,000

Payback period

4-10 years

Estimated lifetime of the initiative

11-15 years

Comment

A number of these types of energy efficiency projects were implemented at our production sites.

Initiative category & Initiative type

Other, please specify

Other, please specify

ISO50001 activities

Estimated annual CO2e savings (metric tonnes CO2e)

1,604.05

Scope(s)

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

0

Investment required (unit currency – as specified in C0.4)

0

Payback period

<1 year

Estimated lifetime of the initiative

3-5 years

Comment

Over 15 production sites were involved in ISO50001 and general energy savings activities.

Initiative category & Initiative type

Energy efficiency in buildings

Other, please specify

Refrigeration

Estimated annual CO2e savings (metric tonnes CO2e)

27.01

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

650,000

Investment required (unit currency – as specified in C0.4)

3,490,000

Payback period

4-10 years

Estimated lifetime of the initiative

11-15 years

Comment

A number of these types of energy efficiency projects were implemented at our production sites.

Initiative category & Initiative type

Energy efficiency in buildings

Other, please specify

Equipment replacement

Estimated annual CO2e savings (metric tonnes CO2e)

219

Scope(s)
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
4,000,000

Investment required (unit currency – as specified in C0.4)
40,000,000

Payback period
4-10 years

Estimated lifetime of the initiative
11-15 years

Comment
A number of these types of energy efficiency projects were implemented at our production sites.

Initiative category & Initiative type
Energy efficiency in buildings
Lighting

Estimated annual CO2e savings (metric tonnes CO2e)
48

Scope(s)
Scope 2 (market-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
1,320,000

Investment required (unit currency – as specified in C0.4)
2,100,000

Payback period
1-3 years

Estimated lifetime of the initiative
11-15 years

Comment
A number of these types of energy efficiency projects were implemented at our production sites.

Initiative category & Initiative type

Energy efficiency in buildings
Lighting

Estimated annual CO2e savings (metric tonnes CO2e)

419

Scope(s)

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

12,930,000

Investment required (unit currency – as specified in C0.4)

72,670,000

Payback period

4-10 years

Estimated lifetime of the initiative

11-15 years

Comment

A number of these types of energy efficiency projects were implemented at our production sites.

Initiative category & Initiative type

Energy efficiency in production processes
Reuse of steam

Estimated annual CO2e savings (metric tonnes CO2e)

100

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

2,300,000

Investment required (unit currency – as specified in C0.4)

3,350,000

Payback period

1-3 years

Estimated lifetime of the initiative

11-15 years

Comment

A number of these types of energy efficiency projects were implemented at our production sites.

Initiative category & Initiative type

Energy efficiency in buildings

Other, please specify

Machine/equipment replacement

Estimated annual CO2e savings (metric tonnes CO2e)

210

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

3,500,000

Investment required (unit currency – as specified in C0.4)

12,600,000

Payback period

4-10 years

Estimated lifetime of the initiative

11-15 years

Comment

A number of these types of energy efficiency projects were implemented at our production sites.

Initiative category & Initiative type

Energy efficiency in production processes

Fuel switch

Estimated annual CO2e savings (metric tonnes CO2e)

360

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

7,700,000

Investment required (unit currency – as specified in C0.4)

21,300,000

Payback period

1-3 years

Estimated lifetime of the initiative

11-15 years

Comment

A number of these types of energy efficiency projects were implemented at our production sites.

Initiative category & Initiative type

Energy efficiency in buildings

Insulation

Estimated annual CO2e savings (metric tonnes CO2e)

16

Scope(s)

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

400,000

Investment required (unit currency – as specified in C0.4)

1,500,000

Payback period

4-10 years

Estimated lifetime of the initiative

11-15 years

Comment

A number of these types of energy efficiency projects were implemented at our production sites.

C4.3c

(C4.3c) What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Compliance with regulatory requirements/standards	In Europe, our international tobacco business is now obligated by the introduction of The European Union Energy Efficiency Directive (EED). The EED (updated in 2018) establishes a set of measures to enable the EU to meet its 32.5% energy efficiency target by 2030. Article 8 of the EED requires large enterprises in member countries to undertake energy audits every 4 years to identify potential energy reduction opportunities.
Financial optimization calculations	The JT Group Business Approval Process (BAP) for CAPEX and OPEX requires detailed calculation of capital investment, associated project costs, savings and payback as well as for example impacts on utilities, energy and emissions.
Marginal abatement cost curve	To help compare various GHG reduction projects, in terms of anticipated emissions reduction, the cost of that reduction, and also project payback, we have adopted a tailored MACC tool. This helps us better plan and prioritize projects and focus our GHG reduction efforts.
Other Energy Opportunity Scheme	Through our Energy Opportunity Scheme, our factories have identified and invested over 200 projects with total investment of 36million Yen. Total savings amounted to 167 million Yen. This was paid back over a period of 3 months. The total carbon saved is 7,900 tCO2e per annum.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions?

No

C5. Emissions methodology

C5.1

(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).

Scope 1

Base year start

January 1, 2015

Base year end

December 31, 2015

Base year emissions (metric tons CO2e)

396,008.941

Comment

No further comment

Scope 2 (location-based)

Base year start

January 1, 2015

Base year end

December 31, 2015

Base year emissions (metric tons CO2e)

481,676.28

Comment

No further comment

Scope 2 (market-based)

Base year start

January 1, 2015

Base year end

December 31, 2015

Base year emissions (metric tons CO2e)

483,450.323

Comment

No further comment

C5.2

(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

Japan Ministry of the Environment, Law Concerning the Promotion of the Measures to Cope with Global Warming, Superceded by Revision of the Act on Promotion of Global Warming Countermeasures (2005 Amendment)

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

C6. Emissions data

C6.1

(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?

Reporting year

Gross global Scope 1 emissions (metric tons CO2e)

368,800.507

Comment

No further comment

C6.2

(C6.2) Describe your organization's approach to reporting Scope 2 emissions.

Row 1

Scope 2, location-based

We are reporting a Scope 2, location-based figure

Scope 2, market-based

We are reporting a Scope 2, market-based figure

Comment

No further comment

C6.3

(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?

Reporting year

Scope 2, location-based

458,678.591

Scope 2, market-based (if applicable)

384,458.598

Comment

No further comment

C6.4

(C6.4) 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

C6.5

(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

Evaluation status

Relevant, calculated

Metric tonnes CO2e

6,197,377.339

Emissions calculation methodology

We multiplied "annual procurement volume (in terms of mass or cost) by procurement item in 2019" by "emission factor of each item," then aggregated those calculation results. For tobacco leaf, we used the emission factor that we originally created from tobacco growers' primary activity data. For raw materials except tobacco leaf, we applied the data of third party databases such as CEDA ("Comprehensive Environmental Data Archive," an economic input-output database), Eco-invent, and "Database of GHG Emission Factors" of Japan's CFP Communication Program database.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

77

Please explain

For emissions associated with tobacco leaf, we used the emission factors that we calculated using Life-Cycle Assessments taking into account tobacco growers' primary activity data.

Capital goods

Evaluation status

Relevant, calculated

Metric tonnes CO2e

392,955.666

Emissions calculation methodology

We multiplied "annual capital investment amount by business unit in 2019" by "emission factors by business unit," then aggregated the calculation results. For emission factors, we used the data of the "3EID (Embodied Energy and Emission Intensity Data for Japan Using Input-Output Tables)" published by National Institute for Environmental Studies and one of “available third party databases" listed by GHG Protocol, the data of the "Fixed Capital Matrix (public/private)"

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

Based on published data. We do not collect data from suppliers or value chain partners related to this category.

Fuel-and-energy-related activities (not included in Scope 1 or 2)

Evaluation status

Relevant, calculated

Metric tonnes CO2e

118,810.992

Emissions calculation methodology

We multiplied "annual consumption amount by type of energy in 2019" by "emission factors," then aggregated the calculation results. For emission factors of electricity, we used country-specific emission factors, based on the table of "2009 Energy Balance" by IEA (International Energy Agency) including upstream generated emissions, and emissions from line losses. For other emission factors, we used the data from the "Database of GHG Emission Factors" of the CFP Communication Program; or the data from DEFRA 2019 (Department for Environment, Food and Rural Affairs of UK).

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

Based on published data. We do not collect data from suppliers or value chain partners related to this category.

Upstream transportation and distribution

Evaluation status

Relevant, calculated

Metric tonnes CO2e

337,155.346

Emissions calculation methodology

For the emissions associated with transportation by “distributors within the JT Group,” they were not included in this Category 4 of Scope 3, as those emissions are included in the categories of Scope 1 and Scope 2 emissions. Therefore, the calculation scope we covered in this category is the emissions associated with transportations by “distributors outside of the JT Group” in 2019. - Distribution for procurement: For the emissions associated with transportations by distributors outside of the JT Group, we applied primary logistic data provided by distributors, or the average transportation scenario created by the JT Group, then calculated the emissions by using the ton-kilometer method. We used the emission factors of the "Database of GHG Emission Factors" of the CFP Communication Program; or the data of DEFRA 2019 and the method of "The Revised Energy Conservation Law".

Percentage of emissions calculated using data obtained from suppliers or value chain partners

8

Please explain

For the emissions associated with transportation by distributors outside of the JT Group, we applied primary logistics data provided by distributors.

Waste generated in operations

Evaluation status

Relevant, calculated

Metric tonnes CO2e

24,237.818

Emissions calculation methodology

We collected data on amount of production waste generated, recycled and waste disposed from our sites in 2019, then multiplied them by "emission factors referring to the materials published by MOE, or "emission factors for waste recycled and waste sent to landfill" taken from DEFRA 2019.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

Based on published data. We do not collect data from suppliers or value chain partners related to this category.

Business travel

Evaluation status

Relevant, calculated

Metric tonnes CO2e

222,900.705

Emissions calculation methodology

(a) Tobacco business (in Japan): We aggregated payments for business travel expenses of each company in the JT Group excluding our international tobacco business in 2019, then calculated the emissions by multiplying "the calculation results" by "emission factors per money amount". We used the emission factors of the "3EID" by National Institute for Environmental Studies, and the RFI figure, “2.7,” from the report (1999) by IPCC (Intergovernmental Panel on Climate Change).
(b)Tobacco business (except Japan): Emissions from air travels were calculated by identifying the total km per business travel, and then by multiplying them by the emission factors for short-, medium- and long-haul flights extracted from DEFRA 2019. Due to data availability constraints, the data on rail and road (hired vehicles and taxis) are not included this time, however, we plan to include them in future calculations.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

Based on published data. We do not collect data from suppliers or value chain partners related to this category.

Employee commuting

Evaluation status

Relevant, calculated

Metric tonnes CO2e

46,644.88

Emissions calculation methodology

(a) The Tobacco business (in Japan): We calculated by multiplying total payment for commuter pass and gasoline in 2019 and "corresponded emission factors." We used the emission factors of the "3EID" by National Institute for Environmental Studies.
(b) The Tobacco Business (except Japan) and the Processed food business: We calculated the emissions by making respective scenario (the average commuting times, types of vehicles and distances) by the means of commuting at each business location. For emission factors, we mainly used the data from the "Database of GHG Emission Factors" of the CFP Communication Program, or the data of DEFRA 2019.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

Based on published data. We do not collect data from suppliers or value chain partners related to this category.

Upstream leased assets

Evaluation status

Relevant, calculated

Metric tonnes CO2e

636.518

Emissions calculation methodology

The leased assets that the JT Group uses are outside warehouses. We calculated the emissions associated with the outside warehouses, by multiplying “the emissions per the JT Group’s warehouse” by “the spaces of the outside warehouses.”

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

Based on published data. We do not collect data from suppliers or value chain partners related to this category.

Downstream transportation and distribution

Evaluation status

Relevant, calculated

Metric tonnes CO2e

286,195.228

Emissions calculation methodology

"The emissions associated with transportation and sales" in 2019 is calculated by multiplying the ton-km figure and emission factors.
(a) Transportation: Outside of the JT Group, the ton-km figure is primary logistic data provided by distributors, or the average transportation scenario. This figure is used to calculate the emissions by applying emission factors from DEFRA 2019 or CFP
(b) Sales: We calculated the emissions associated with sales both in vending machines and in stores, which when combined, account for the majority of our total sales amount.
(b)-1: For the emissions associated with sales in vending machines owned by the JT Group, we first determined the expected annual consumption per vending machine based on internal research and the expected number of vending machines used per quantity of products sold to market. By multiplying the annual consumption per vending machine and the number of vending machine in 2019, we were able to determine, expected electricity consumption. This can then be applied to relevant grid consumption factors taken from the IEA and the world data bank to determine emissions. We have assumed vending machines owned by 3rd parties operate to a similar standard of efficiency as those owned by the JT Group.
(b)-2: For the emissions associated with sales in stores, we calculated the consumption associated with the operation of the spaces that our tobacco products occupy based on data from the Japanese market. We applied this consumption intensity to the number of products sold to market.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

2

Please explain

For the emissions associated with transportation by distributors outside of the JT Group, we use the ton.km figure provided by distributors as primary logistics data.

Processing of sold products

Evaluation status

Relevant, calculated

Metric tonnes CO2e

1,011.092

Emissions calculation methodology

This category covers the followings:
(a) The emissions from processing of sold tobacco leaf in operations outside of our international tobacco business. Firstly, we assumed that these factories have similar energy intensity per unit of production as do factories within our international tobacco business. Then we multiplied the total amount of leaf sold to third parties in the reporting year by the energy intensity of factories within our international tobacco business.
(b) The emissions associated with products for business use which are provided by the processed food business. We excluded this activity from the calculation, because of the difficulty in collection data etc.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

Based on published data. We do not collect data from suppliers or value chain partners related to this category.

Use of sold products

Evaluation status

Relevant, calculated

Metric tonnes CO2e

42,326.934

Emissions calculation methodology

This category covers the emissions associated with cooking of household products provided by the processed food business. We multiplied "energy consumption amount by using typical cooking method of each product" by "emission factors". We firstly calculated the emissions from the top three products for the sales amount in 2019 among each product group, then extrapolated those calculation results to emission volumes of each product group. In the case that there are multiple typical cooking methods, we selected one cooking method which emits the most from among the typical methods.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

Based on published data. We do not collect data from suppliers or value chain partners related to this category.

End of life treatment of sold products

Evaluation status

Relevant, calculated

Metric tonnes CO2e

108,400.313

Emissions calculation methodology

(a) In Japan, we used the data from the “Law for Promotion of Sorted Collection and Recycling of Containers and Packaging” for annual disposal volumes by type of wastes in 2019, then multiplied them by "emission factors by type of wastes". We originally created the emission factors the emission factors by referring to the materials published by MOE.
(b)We multiplied annual disposal volume of each Non Tobacco Material item (i.e. cigarette butts, cigarette cartons, bulk packaging) by the relevant emission factor. For the emission factors, we made some assumptions on % and weight of product used / disposed based on our research, and the emission factors for different types of materials sent to landfill or disposed of (taken from DEFRA 2019).

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

Based on published data. We do not collect data from suppliers or value chain partners related to this category.

Downstream leased assets

Evaluation status

Relevant, calculated

Metric tonnes CO2e

1,223.462

Emissions calculation methodology

The JT Group owns buildings and leases part of them to other companies. We aggregated annual energy consumption amount in 2019 and calculated the emissions by multiplying "the aggregated energy consumption amount" by "emission factors".

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

We gather energy consumption data from those leased buildings.

Franchises

Evaluation status

Relevant, calculated

Metric tonnes CO2e

4,601.503

Emissions calculation methodology

This category includes emissions from the operation of licensees. For the emissions associated with manufacturing and distributions of tobacco by such licensees, we assumed that a licensee has the same energy intensity per unit of production as does our operations at full capacity. We firstly calculated the emission factor per unit production for the year, and then calculated the licensees' emissions by multiplying the emission factor by the "number of cigarettes produced by licensees".

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

We do not collect data from suppliers or value chain partners related to this category, we use our internal company data

Investments

Evaluation status

Not relevant, explanation provided

Please explain

We exclude this category from the calculation. To judge exclusion or inclusion of this category, we have checked whether our investment destinations, that are applicable to our Scope 3, have relation to JT's business or not, by referring to Box 31:,"Relevance criteria for Scope 3 emissions sources" in "Guidance for companies reporting on climate change on behalf of investors & supply chain members 2014".
(a) "Size": Of our investment destinations, companies which have significant emissions in the Investment category (e.g. Japan Filter Technology, Ltd., Fuji Flavor Co., Ltd., etc.) were already included in our Scope 1 and 2 emissions. Thereby, we confirmed that those emissions do not contribute significantly to our total Scope 3 emissions.
(b) "Influence": For our investment destinations, many companies have little relation to JT's businesses (e.g. finance company and railroad company). For that reason, we confirmed that we have little potential to reduce such companies' emissions.

(c) Rest of the Criteria: We confirmed that our investment destinations do not fall under any of the rest of the Criteria.

Other (upstream)

Evaluation status

Please explain

Other (downstream)

Evaluation status

Please explain

C-AC6.6/C-FB6.6/C-PF6.6

(C-AC6.6/C-FB6.6/C-PF6.6) Can you break down your Scope 3 emissions by relevant business activity area?

Yes

C-AC6.6a/C-FB6.6a/C-PF6.6a

(C-AC6.6a/C-FB6.6a/C-PF6.6a) Disclose your Scope 3 emissions for each of your relevant business activity areas.

Activity

Agriculture/Forestry

Scope 3 category

Purchased goods and services

Emissions (metric tons CO2e)

2,674,190.67

Please explain

We multiplied "annual procurement volume (in terms of mass or cost) by procurement item in 2019" by "emission factor of each item," then aggregated those calculation results. For tobacco leaf, we used the emission factor that we calculated using Life-Cycle Assessment taking into account tobacco growers' primary activity data. For raw materials except tobacco leaf, we applied the data of third party databases such as CEDA ("Comprehensive Environmental Data Archive," an economic input-output database), Eco-invent, and "Database of GHG Emission Factors" of Japan's CFP Communication Program database.

Activity

Distribution

Scope 3 category

Upstream transportation and distribution

Emissions (metric tons CO2e)

345,536.38

Please explain

We transport our products via a mix of air, land and sea transport. Relevant point to point, and road and shipping distances are calculated, multiplied by expected weights of transport units, and again by a corresponding emissions factor (e.g. DEFRA).

Activity

Distribution

Scope 3 category

Downstream transportation and distribution

Emissions (metric tons CO2e)

321,091.93

Please explain

Our products are distributed through third party retail space and vending machines. By taking a sample size of typical energy consumption used per unit of retail space and vending machine, we can uplift this factor to determine approximate energy figures throughout our business structure. By multiplying this by relevant country specific emissions factors, we can determine emissions.

Activity

Consumption

Scope 3 category

Use of sold products

Emissions (metric tons CO2e)

43,144.53

Please explain

Some of the products of our food business need to be warmed up consuming energy. When we calculate associated Scope 3 emissions, we multiply the following parameters: sales volume, designated length by product of warming up by pot or microwave, anticipated amount of water for boiling up, and energy conversion/emission factors for energy used which is provided by Japanese government and IEA.

Activity

Consumption

Scope 3 category

End of life treatment of sold products

Emissions (metric tons CO2e)

62,248.13

Please explain

We also track all relevant purchased goods by quantity. By taking these quantities and applying typical waste treatment rates (x% recycled) we can determine the total volumes of JTI product that will ultimately be recycled or landfilled. By multiplying these figures by relevant emissions factors, we can calculate the emissions shown here.

Activity

Processing/Manufacturing

Scope 3 category

Purchased goods and services

Emissions (metric tons CO2e)

15,338.64

Please explain

We outsource a small proportion of cigarettes manufactured to third parties. Emissions calculation involves taking the average cigarette manufacturing carbon intensity and multiplying by the number of cigarettes manufactured by third parties.

Activity

Processing/Manufacturing

Scope 3 category

Purchased goods and services

Emissions (metric tons CO2e)

1,042,895.83

Please explain

In addition to the agricultural components of JTI's purchased goods and services; JTI also uses other materials, such as cardboard, foil and wrapping. We multiplied annual procurement volume (in terms of mass or cost) for each material by the relevant emissions factor and then aggregated those calculation results. The relevant emission factors were sourced from third party databases such as CEDA ("Comprehensive Environmental Data Archive," an economic input-output database), Eco-invent, etc.

C-AC6.8/C-FB6.8/C-PF6.8

(C-AC6.8/C-FB6.8/C-PF6.8) Is biogenic carbon pertaining to your direct operations relevant to your current CDP climate change disclosure?

Yes

C-AC6.8a/C-FB6.8a/C-PF6.8a

(C-AC6.8a/C-FB6.8a/C-PF6.8a) Account for biogenic carbon data pertaining to your direct operations and identify any exclusions.

CO2 emissions from biofuel combustion (processing/manufacturing machinery)

Emissions (metric tons CO2)

81,884.114

Methodology

Field measurements

Please explain

One of our food business sites generates energy using rice husk and the figure stated is associated with the combustion.

CO2 emissions from biofuel combustion (other)

Emissions (metric tons CO2)

3.462

Methodology

Default emissions factors

Please explain

Bioethanol fuel consumption in our vehicles is multiplied by an emissions factor of 0.0054 kgCO2e per litre of fuel, as published by DEFRA/BEIS.

C-AC6.9/C-FB6.9/C-PF6.9

(C-AC6.9/C-FB6.9/C-PF6.9) Do you collect or calculate greenhouse gas emissions for each commodity reported as significant to your business in C-AC0.7/FB0.7/PF0.7?

Agricultural commodities

Tobacco

Do you collect or calculate GHG emissions for this commodity?

Yes

Please explain

We calculate GHG emissions associated with different tobacco leaf types in our supply chain, using emission factors calculated by Life-Cycle Assessments.

C-AC6.9a/C-FB6.9a/C-PF6.9a

(C-AC6.9a/C-FB6.9a/C-PF6.9a) Report your greenhouse gas emissions figure(s) for your disclosing commodity(ies), explain your methodology, and include any exclusions.

Tobacco

Reporting emissions by

Total

Emissions (metric tons CO2e)

4,591,033.376

Change from last reporting year

Higher

Please explain

We multiplied "annual procurement volume (in terms of mass or cost) by procurement item in 2019" by "emission factor of each item," then aggregated those calculation results. For tobacco leaf, we used the emission factor that we calculated using Life-Cycle Assessment taking into account tobacco growers' primary activity data. For raw materials except tobacco leaf, we applied the data of third party databases such as CEDA ("Comprehensive Environmental Data Archive," an economic input-output database), Eco-invent, and "Database of GHG Emission Factors" of Japan's CFP Communication Program database.

C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Intensity figure

0.35

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

753,259.1

Metric denominator

unit total revenue

Metric denominator: Unit total

2,175,626

Scope 2 figure used

Market-based

% change from previous year

1.4

Direction of change

Decreased

Reason for change

Reduction of emissions is higher than reduction in revenue (revenue reduced by 1%, but emissions reduced by 3%) because of implementation of emissions reduction activities, e.g. installation of LED lighting, energy efficient equipment, improvements in the management of compressed air, and increasing the proportion of renewable energy used on-site, e.g. increased proportion of green electricity purchased in Serbia, Poland.

Intensity figure

12.15

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

753,259.1

Metric denominator

full time equivalent (FTE) employee

Metric denominator: Unit total

61,975

Scope 2 figure used

Market-based

% change from previous year

0.09

Direction of change

Decreased

Reason for change

Reduction of emissions is slightly higher than reduction of FTE due to implementation of emissions reduction activities, e.g. installation of LED lighting, energy efficient equipment, improvements in the management of compressed air, and increasing the proportion of renewable energy used on-site, e.g. increased proportion of green electricity purchased in Serbia, Poland.

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?

Yes

C7.1a

(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	346,148.639	IPCC Fourth Assessment Report (AR4 - 100 year)
HFCs	22,651.868	IPCC Fourth Assessment Report (AR4 - 100 year)

C7.2

(C7.2) Break down your total gross global Scope 1 emissions by country/region.

Country/Region	Scope 1 emissions (metric tons CO2e)
Americas	14,486.456
Asia Pacific (or JAPA)	189,350.862
Eastern Europe	77,068.726
Western Europe	42,314.209
Other, please specify MENA	45,580.254

C7.3

(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

By business division
By facility
By activity

C7.3a

(C7.3a) Break down your total gross global Scope 1 emissions by business division.

Business division	Scope 1 emissions (metric ton CO2e)
Tobacco	257,423.431

Food	8,219.312
Pharma	98,137.199
Other	5,020.565

C7.3b

(C7.3b) Break down your total gross global Scope 1 emissions by business facility.

Facility	Scope 1 emissions (metric tons CO2e)	Latitude	Longitude
Tokyo	147,368.513	35.669706	139.745793
Geneva	221,431.994	46.222458	6.146093

C7.3c

(C7.3c) Break down your total gross global Scope 1 emissions by business activity.

Activity	Scope 1 emissions (metric tons CO2e)
Manufacturing	256,303.049
R&D	9,367.683
Use of company owned vehicles	91,152.27
Sales/office work	11,977.505

C-AC7.4/C-FB7.4/C-PF7.4

(C-AC7.4/C-FB7.4/C-PF7.4) Do you include emissions pertaining to your business activity(ies) in your direct operations as part of your global gross Scope 1 figure?

Yes

C-AC7.4b/C-FB7.4b/C-PF7.4b

(C-AC7.4b/C-FB7.4b/C-PF7.4b) Report the Scope 1 emissions pertaining to your business activity(ies) and explain any exclusions. If applicable, disaggregate your agricultural/forestry by GHG emissions category.

Activity

Processing/Manufacturing

Emissions (metric tons CO2e)

256,303.049

Methodology

Default emissions factor

Please explain

We capture energy, fuel and refrigerant data and calculate our Scope 1 emissions associated with these, in line with the GHG Protocol. The emissions are associated with our activities on manufacturing and processing operations, excluding vehicle related emissions. Relevant source data provided by our global manufacturing facilities is multiplied by the relevant emissions factor for the fuel type in question.

Activity

Distribution

Emissions (metric tons CO2e)

6,505.734

Methodology

Default emissions factor

Please explain

We capture fuel data and calculate our Scope 1 emissions associated with these, in line with the GHG Protocol. The emissions are associated with activities on our internal logistics companies, excluding external third party distribution and logistics.

C7.5

(C7.5) Break down your total gross global Scope 2 emissions by country/region.

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted for in Scope 2 market-based approach (MWh)
Americas	9,554.267	8,098.237	39,147.55	10,547.07
Asia Pacific (or JAPA)	313,943.487	289,869.674	597,493.09	24,363.18
Eastern Europe	90,057.046	53,803.285	203,711.38	59,173.02
Western Europe	28,393.478	4,645.835	114,816.17	0
Other, please specify MENA	16,730.313	28,041.567	61,232.84	30,909.05

C7.6

(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

By business division
By facility
By activity

C7.6a

(C7.6a) Break down your total gross global Scope 2 emissions by business division.

Business division	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Tobacco	297,697.741	224,768.177
Food	133,608.777	134,981.131
Pharma	19,111.136	16,746.299
Other	8,260.937	7,962.991

C7.6b

(C7.6b) Break down your total gross global Scope 2 emissions by business facility.

Facility	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Tokyo	266,937.577	258,504.068
Geneva	191,741.014	125,954.53

C7.6c

(C7.6c) Break down your total gross global Scope 2 emissions by business activity.

Activity	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Manufacturing	388,767.31	322,497.304
R&D	26,713.9	22,999.207
Warehousing/Logistics	5,954.293	5,770.766
Sales/Office work	37,243.088	33,191.321

C7.9

(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?

Decreased

C7.9a

(C7.9a) 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.

	Change in emissions	Direction of change	Emissions value (percentage)	Please explain calculation

	(metric tons CO2e)			
Change in renewable energy consumption	3,726.386	Decreased	0.48	JTG Increased proportion of renewable energy sourced in Poland and increasing proportion of generated solar energy as a proportion of total electricity used onsite in Turkey. Calculation: In 2019, JTI further increased the amount of green certificates purchased and green electricity generated . If this energy consumption had been accounted for at the average grid electricity emissions factor applied in the previous year, emissions would have been 3726 tCO2e higher (3726 / 778 157 in 2018=0.48% percentage GHG emissions avoidance).
Other emissions reduction activities	4,930.61	Decreased	0.63	JT Group continue to invest in emissions reductions activities in our operations. The result of these expenditures as well as operational changes delivered in 2019 direct emissions reductions equating to 4 931 tCO2e (4 931 tCO2e / 778 157 tCO2e in 2018 =0.63% percentage decrease).
Divestment	0	No change	0	
Acquisitions	0	No change	0	
Mergers	0	No change	0	
Change in output	16,240.74	Decreased	2.09	JT Group tobacco production volume decrease comparing to 2018 resulting in emissions reduction by 16 241 tCO2e. Emissions year on year change (16 241 tCO2e / 778 157 tCO2e in 2018 = 2.09 % percentage decrease).
Change in methodology	0	No change	0	
Change in boundary	0	No change	0	
Change in physical	0	No change	0	

operating conditions				
Unidentified	0	No change	0	
Other	0	No change	0	

C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Market-based

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?

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

C8.2

(C8.2) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	Yes
Consumption of purchased or acquired steam	Yes
Consumption of purchased or acquired cooling	Yes
Generation of electricity, heat, steam, or cooling	Yes

C8.2a

(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	LHV (lower heating value)	198,502.69	1,677,323.85	1,875,826.54
Consumption of purchased or acquired electricity		290,848.84	627,196.01	918,044.85
Consumption of purchased or acquired heat		2,154.7	11,905.85	14,060.55
Consumption of purchased or acquired steam		0	271.47	271.47
Consumption of purchased or acquired cooling		0	4,224.81	4,224.81
Consumption of self-generated non-fuel renewable energy		5,155.1		5,155.1
Total energy consumption		496,661.32	2,320,921.99	2,817,583.32

C8.2b

(C8.2b) Select the applications of your organization's consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	Yes
Consumption of fuel for the generation of heat	Yes
Consumption of fuel for the generation of steam	Yes
Consumption of fuel for the generation of cooling	Yes
Consumption of fuel for co-generation or tri-generation	Yes

C8.2c

(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

Fuels (excluding feedstocks)

Other, please specify

Wood or wood waste

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

29,840.66

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

0

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

0

Unit

metric tons CO2e per MWh

Emissions factor source

As JT Group is a global company, we work within multiple jurisdictions. We therefore use multiple emissions factors. As such, we have calculated a blended emission factor. Our key emission factor sources are IEA, Japanese governmental database as well as emission factors provided by our suppliers.

Comment

No further comment

Fuels (excluding feedstocks)

Other, please specify

Rice husk

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

165,198.62

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

165,198.62

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

0

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

0

Unit

metric tons CO2e per MWh

Emissions factor source

As JT Group is a global company, we work within multiple jurisdictions. We therefore use multiple emissions factors. As such, we have calculated a blended emission factor. Our key emission factor sources are IEA, Japanese governmental database as well as emission factors provided by our suppliers.

Comment

No further comment

Fuels (excluding feedstocks)

Coal

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

12,842.57

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

0

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

0.35

Unit

metric tons CO2 per MWh

Emissions factor source

As JT Group is a global company, we work within multiple jurisdictions. We therefore use multiple emissions factors. As such, we have calculated a blended emission factor. Our key emission factor sources are IEA, Japanese governmental database as well as emission factors provided by our suppliers.

Comment

No further comments

Fuels (excluding feedstocks)

Other, please specify

Thermal energy

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

10,117.05

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

0

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

0.184

Unit

metric tons CO2 per MWh

Emissions factor source

As JT Group is a global company, we work within multiple jurisdictions. We therefore use multiple emissions factors. As such, we have calculated a blended emission factor. Our key emission factor sources are IEA, Japanese governmental database as well as emission factors provided by our suppliers.

Comment

No further comments

Fuels (excluding feedstocks)

Diesel

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

55,387.52

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

0

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

2.603

Unit

kg CO2 per liter

Emissions factor source

As JT Group is a global company, we work within multiple jurisdictions. We therefore use multiple emissions factors. As such, we have calculated a blended emission factor.

Our key emission factor sources are IEA, Japanese governmental database as well as emission factors provided by our suppliers.

Comment

No further comments

Fuels (excluding feedstocks)

Liquefied Petroleum Gas (LPG)

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

78,884.1

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

0

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

0.062

Unit

metric tons CO2e per GJ

Emissions factor source

As JT Group is a global company, we work within multiple jurisdictions. We therefore use multiple emissions factors. As such, we have calculated a blended emission factor. Our key emission factor sources are IEA, Japanese governmental database as well as emission factors provided by our suppliers.

Comment

Fuels (excluding feedstocks)

Natural Gas

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

627,933.05

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

0

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

0.184

Unit

metric tons CO2 per MWh

Emissions factor source

As JT Group is a global company, we work within multiple jurisdictions. We therefore use multiple emissions factors. As such, we have calculated a blended emission factor. Our key emission factor sources are IEA, Japanese governmental database as well as emission factors provided by our suppliers.

Comment

No further comments

Fuels (excluding feedstocks)

Motor Gasoline

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

216,590.17

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

0

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

2.494

Unit

kg CO2e per liter

Emissions factor source

As JT Group is a global company, we work within multiple jurisdictions. We therefore use multiple emissions factors. As such, we have calculated a blended emission factor. Our key emission factor sources are IEA, Japanese governmental database as well as emission factors provided by our suppliers.

Comment

No further comments

Fuels (excluding feedstocks)

Other, please specify

Unknown fuel for vehicles

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

1,797.55

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

0

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

2.887

Unit

kg CO2e per liter

Emissions factor source

As JT Group is a global company, we work within multiple jurisdictions. We therefore use multiple emissions factors. As such, we have calculated a blended emission factor. Our key emission factor sources are IEA, Japanese governmental database as well as emission factors provided by our suppliers.

Comment

No further comments

Fuels (excluding feedstocks)

Other, please specify

Diesel fuel

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

136,152.08

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

0

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

2.627

Unit

kg CO2 per liter

Emissions factor source

As JT Group is a global company, we work within multiple jurisdictions. We therefore use multiple emissions factors. As such, we have calculated a blended emission factor. Our key emission factor sources are IEA, Japanese governmental database as well as emission factors provided by our suppliers.

Comment

No further comments

Fuels (excluding feedstocks)

Kerosene

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

3,381.21

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

0

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

2.49

Unit

kg CO2e per liter

Emissions factor source

As JT Group is a global company, we work within multiple jurisdictions. We therefore use multiple emissions factors. As such, we have calculated a blended emission factor. Our key emission factor sources are IEA, Japanese governmental database as well as emission factors provided by our suppliers.

Comment

No further comments

Fuels (excluding feedstocks)

Liquefied Natural Gas (LNG)

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

360,472.71

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

20,495.1

MWh fuel consumed for self-generation of cooling

13,663.4

MWh fuel consumed for self-cogeneration or self-trigeneration

8,618.49

Emission factor

0.05

Unit

metric tons CO2e per GJ

Emissions factor source

As JT Group is a global company, we work within multiple jurisdictions. We therefore use multiple emissions factors. As such, we have calculated a blended emission factor. Our key emission factor sources are IEA, Japanese governmental database as well as emission factors provided by our suppliers.

Comment

No further comments

Fuels (excluding feedstocks)

Crude Oil

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

157,931.85

MWh fuel consumed for self-generation of electricity

3,697.96

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

0

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

2.71

Unit

kg CO2e per liter

Emissions factor source

As JT Group is a global company, we work within multiple jurisdictions. We therefore use multiple emissions factors. As such, we have calculated a blended emission factor. Our key emission factor sources are IEA, Japanese governmental database as well as emission factors provided by our suppliers.

Comment

No further comments

Fuels (excluding feedstocks)

Other, please specify

Used oil (biomass)

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

1,335.83

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

1,335.83

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

0

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

0

Unit

kg CO2e per liter

Emissions factor source

As JT Group is a global company, we work within multiple jurisdictions. We therefore use multiple emissions factors. As such, we have calculated a blended emission factor. Our key emission factor sources are IEA, Japanese governmental database as well as emission factors provided by our suppliers.

Comment

No further comments

Fuels (excluding feedstocks)

Compressed Natural Gas (CNG)

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

10,039.05

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

0

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

0.204

Unit

metric tons CO2e per MWh

Emissions factor source

As JT Group is a global company, we work within multiple jurisdictions. We therefore use multiple emissions factors. As such, we have calculated a blended emission factor. Our key emission factor sources are IEA, Japanese governmental database as well as emission factors provided by our suppliers.

Comment

No further comments

Fuels (excluding feedstocks)

Fuel Oil Number 1

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

2,271.91

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

0

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

0.285

Unit

metric tons CO2e per MWh

Emissions factor source

As JT Group is a global company, we work within multiple jurisdictions. We therefore use multiple emissions factors. As such, we have calculated a blended emission factor. Our key emission factor sources are IEA, Japanese governmental database as well as emission factors provided by our suppliers.

Comment

No further comments

Fuels (excluding feedstocks)

Gas Oil

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

1,523.03

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

0

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

0.296

Unit

metric tons CO2e per MWh

Emissions factor source

As JT Group is a global company, we work within multiple jurisdictions. We therefore use multiple emissions factors. As such, we have calculated a blended emission factor. Our key emission factor sources are IEA, Japanese governmental database as well as emission factors provided by our suppliers.

Comment

No further comments

Fuels (excluding feedstocks)

Other, please specify

Energy from vehicle consumption Bioethanol

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

3,579.55

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

0

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

0

Unit

metric tons CO2e per MWh

Emissions factor source

As JT Group is a global company, we work within multiple jurisdictions. We therefore use multiple emissions factors. As such, we have calculated a blended emission factor. Our key emission factor sources are IEA, Japanese governmental database as well as emission factors provided by our suppliers.

Comment

No further comments

Fuels (excluding feedstocks)

Other, please specify

Energy from vehicle consumption LPG

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

547.95

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

0

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

0.064

Unit

metric tons CO2e per MWh

Emissions factor source

As JT Group is a global company, we work within multiple jurisdictions. We therefore use multiple emissions factors. As such, we have calculated a blended emission factor. Our key emission factor sources are IEA, Japanese governmental database as well as emission factors provided by our suppliers.

Comment

No further comments

C8.2d

(C8.2d) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	116,990.36	116,988.91	5,155.1	5,153.64
Heat	761,384.61	742,868.12	167,295.66	167,295.66
Steam	29,840.66	29,840.66	29,840.66	29,840.66
Cooling	22,741.3	4,224.81	0	0

C8.2e

(C8.2e) Provide details on the electricity, heat, steam, and/or cooling amounts that were accounted for at a zero emission factor in the market-based Scope 2 figure reported in C6.3.

Sourcing method

Green electricity products (e.g. green tariffs) from an energy supplier, supported by energy attribute certificates

Low-carbon technology type

Hydropower

Country/region of consumption of low-carbon electricity, heat, steam or cooling

Germany

MWh consumed accounted for at a zero emission factor

27,549.16

Comment

JTG sites in Germany purchase electricity from third parties which are sourced from renewable generation sources backed by Guarantees of Origin

Sourcing method

Green electricity products (e.g. green tariffs) from an energy supplier, supported by energy attribute certificates

Low-carbon technology type

Other, please specify

Mixed renewables

Country/region of consumption of low-carbon electricity, heat, steam or cooling

Romania

MWh consumed accounted for at a zero emission factor

16,692.95

Comment

JTG sites in Romania purchase electricity from third parties which are sourced from renewable generation sources backed by Guarantees of Origin

Sourcing method

Green electricity products (e.g. green tariffs) from an energy supplier, supported by energy attribute certificates

Low-carbon technology type

Hydropower

Country/region of consumption of low-carbon electricity, heat, steam or cooling

Sweden

MWh consumed accounted for at a zero emission factor

1,469.89

Comment

JTG site in Sweden purchase electricity from third parties which are sourced from renewable generation sources backed by Guarantees of Origin

Sourcing method

Green electricity products (e.g. green tariffs) from an energy supplier, supported by energy attribute certificates

Low-carbon technology type

Hydropower

Country/region of consumption of low-carbon electricity, heat, steam or cooling

Canada

MWh consumed accounted for at a zero emission factor

10,547.07

Comment

Hydro power based supply in Canada

Sourcing method

Unbundled energy attribute certificates, Guarantees of Origin

Low-carbon technology type

Hydropower

Country/region of consumption of low-carbon electricity, heat, steam or cooling

Serbia

MWh consumed accounted for at a zero emission factor

3,085.95

Comment

JTG sites in Serbia purchase electricity from third parties and separately also purchase Guarantees of Origin which are retired on their behalf

---

Sourcing method

Unbundled energy attribute certificates, International REC Standard (I-RECs)

Low-carbon technology type

Solar

Country/region of consumption of low-carbon electricity, heat, steam or cooling

Philippines

MWh consumed accounted for at a zero emission factor

19,184.85

Comment

A JTG site in Asia Pacific purchases electricity from third parties which are sourced from renewable / low carbon generation sources backed by energy attribute certificates (iRECs/TIGRs)

Sourcing method

Unbundled energy attribute certificates, Guarantees of Origin

Low-carbon technology type

Other, please specify

Mixed renewables

Country/region of consumption of low-carbon electricity, heat, steam or cooling

Poland

MWh consumed accounted for at a zero emission factor

38,864.99

Comment

JTG sites Poland purchase electricity from third parties and separately also purchase Guarantees of Origin which are retired on their behalf

Sourcing method

Unbundled energy attribute certificates, Guarantees of Origin

Low-carbon technology type

Other, please specify

Mixed renewables

Country/region of consumption of low-carbon electricity, heat, steam or cooling

Greece

MWh consumed accounted for at a zero emission factor

838.79

Comment

JTG site in Greece purchase electricity from third parties and separately also purchase Guarantees of Origin which are retired on their behalf

Sourcing method

Heat/steam/cooling supply agreement

Low-carbon technology type

Biomass

Country/region of consumption of low-carbon electricity, heat, steam or cooling

Sweden

MWh consumed accounted for at a zero emission factor

271.46

Comment

Steam purchased by our site in Sweden generated from a renewable source.

Sourcing method

Unbundled energy attribute certificates, other - please specify

"Green energy certificates" in Japan

Low-carbon technology type

Biomass

Country/region of consumption of low-carbon electricity, heat, steam or cooling

Japan

MWh consumed accounted for at a zero emission factor

5,178.33

Comment

It is a certificate of the environmental value generated electricity and heat by renewable energy. It is certified by JQA(Japan Quality Assurance)

C9. Additional metrics

C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.

Description

Energy usage

Metric value

10,013,694,181.21

Metric numerator

MJ

Metric denominator (intensity metric only)

% change from previous year

1.61

Direction of change

Decreased

Please explain

Energy consumption was reduced due to a number of energy savings initiatives as well as production volume change.

Description

Waste

Metric value

125,829,538.7

Metric numerator

kg

Metric denominator (intensity metric only)

% change from previous year

2.75

Direction of change

Decreased

Please explain

Waste generated decreased in 2019 compared to the previous year, due to combination of waste reduction initiatives and production volume decrease.

C10. Verification

C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	Third-party verification or assurance process in place

C10.1a

(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.

Verification or assurance cycle in place

Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement

Independent Assurance Statement.pdf

Page/ section reference
All

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

C10.1b

(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.

Scope 2 approach
Scope 2 market-based

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement

Independent Assurance Statement.pdf

Page/ section reference
All

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

C10.1c

(C10.1c) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.

Scope 3 category
Scope 3: Purchased goods and services

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement

Independent Assurance Statement.pdf

Page/section reference
All

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
77

Scope 3 category
Scope 3: Business travel

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement

Independent Assurance Statement.pdf

Page/section reference

All

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

51

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?

Yes

C10.2a

(C10.2a) Which data points within your CDP disclosure have been verified, and which verification standards were used?

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C9. Additional metrics	Other, please specify Energy data	ISAE3000	JT Group obtained verification of its total energy consumption data for 2019
C9. Additional metrics	Other, please specify Waste data	ISAE3000	JT Group obtained verification of its total waste generated in operations data for 2019, which is used in relation to calculation of Scope 3 Category 5 emissions.

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?

Yes

C11.1a

(C11.1a) Select the carbon pricing regulation(s) which impacts your operations.

EU ETS

C11.1b

(C11.1b) Complete the following table for each of the emissions trading schemes you are regulated by.

EU ETS

% of Scope 1 emissions covered by the ETS

8.23

% of Scope 2 emissions covered by the ETS

0

Period start date

January 1, 2019

Period end date

December 31, 2019

Allowances allocated

3,295

Allowances purchased

45,000

Verified Scope 1 emissions in metric tons CO2e

30,366

Verified Scope 2 emissions in metric tons CO2e

0

Details of ownership

Facilities we own and operate

Comment

No further comment

C11.1d

(C11.1d) What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?

Our strategy for complying with our responsibilities under EU ETS is twofold. Firstly, we have established internal systems and procedures to ensure compliance with the requirements of the scheme. Secondly, we retain external auditors to review and verify our processes, systems data and annual emissions reports, this verification work is scheduled to be concluded well ahead of compliance deadlines to ensure those deadlines are met. We have integrated our EU ETS systems and procedures into our ISO14001 environmental management system. This includes allocating responsibility for compliance to named individuals at site level as well as oversight at a group level through our internal audit process. The ISO14001 system is subject to external verification which in turn ensures compliance.

C11.2

(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?

No

C11.3

(C11.3) Does your organization use an internal price on carbon?

Yes

C11.3a

(C11.3a) Provide details of how your organization uses an internal price on carbon.

Objective for implementing an internal carbon price

Drive energy efficiency
Drive low-carbon investment

GHG Scope

Scope 1
Scope 2

Application

Carbon pricing via Marginal Abatement Cost analysis is applied to manufacturing sites in our international tobacco business. Each site has a range of carbon prices for potential reduction measures. We have answered “0” as to the “Actual price(s) used” because the range is large and changes with each assessment.

Actual price(s) used (Currency /metric ton)

0

Variance of price(s) used

Marginal abatement costs (MAC) vary based on the costs associated with reduction measures at our international tobacco business manufacturing sites. MAC values range from negative 10,000 Yen to positive 20,000 Yen depending on the status of reduction activities at our facilities.

Type of internal carbon price

Other, please specify
Marginal abatement cost

Impact & implication

Site specific MAC curves are used by all manufacturing sites within our international tobacco business as part of their annual planning process and to compare project investments. MAC curves enable them to consider trade-offs between various reductions measures to arrive at the optimal reduction approach. For example, at one of

our Western European sites, CAPEX-based reduction measures were seen to have a high cost and limited reduction potential, whereas a renewable electricity tariff had greater reduction impact at lower cost. Based on this information, the site switched to a renewable electricity tariff.

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?

Yes, our suppliers

Yes, other partners in the value chain

C12.1a

(C12.1a) Provide details of your climate-related supplier engagement strategy.

Type of engagement

Information collection (understanding supplier behavior)

Details of engagement

Collect climate change and carbon information at least annually from suppliers

% of suppliers by number

66

% total procurement spend (direct and indirect)

30

% of supplier-related Scope 3 emissions as reported in C6.5

62

Rationale for the coverage of your engagement

Within JT Group, leaf and Non-Tobacco Material suppliers of our international tobacco business have been engaged via CDP Supply Chain. These materials are, for example, tobacco leaf, paper and cardboard and cellulose based acetate tow. In order to have a representative number of suppliers, we selected these using a Pareto analysis to get close to 80% coverage based on procurement spend in these categories of materials suppliers.

Our international tobacco business engages with Leaf and other suppliers via CDP Supply Chain to better understand emissions management in our value chain and how climate change risks are being assessed and managed by suppliers. This does not include direct engagement with growers.

Our international tobacco business also engages with our supply chain through a range of initiatives; direct engagement with certain suppliers, and indirect engagement with a wider range of other suppliers. Our direct engagement activities include visiting each of

our contracted tobacco growers at least 7 times throughout each crop season to help them improve their agronomy practices and tobacco leaf curing efficiencies, and, through our Scope 3 engagement program, working together with our tier 1 suppliers to better understand mutually beneficial process improvements.
For tobacco farmers in Japan, we directly engage with them on various topics, including environmental data, for example, usage and cost of electricity, fuel, water. Based on the data, we conducted our LCA and identified a set of emission factors. Also, this data is fed into the discussion for leaf price between the farmers' association and the company.
Our strategy for prioritizing engagement favors direct engagement with suppliers where their contribution to our value chain emissions are most significant and where we believe we have the most influence to drive improvement. For suppliers that we have yet to engage directly with we follow an indirect engagement approach with third parties assisting us, such as the CDP Supply Chain team.

Impact of engagement, including measures of success

We seek to encourage more transparency and improved GHG management practices. Through the engagement with Japanese tobacco farmers, we have identified an opportunity to reduce fuel related emissions by introducing energy efficient leaf dryers on tobacco farms. This will result in cost reduction for farmers and subsequently could contribute to reductions in the price of tobacco we purchase.
Measure of success: Engagement resulting in our suppliers becoming more proactive and contacting the JT Group with efficiency ideas and data, rather than suppliers reacting to our requests. We are starting to see this occur. As an example, two of our logistics providers proactively contacted us with information on their environmental impact which better informs our decision making. We also have collaborative discussions with a number of our suppliers of goods in relation to mitigating climate change impacts.
Through the introduction of improved tobacco curing barns and curing processes in Zambia and Tanzania, our growers are reducing wood consumption and associated emissions, whilst improving tobacco yield, quality and revenues.
We will continue to measure success quantitatively through identification of potential emissions reduction opportunities across our value chain, and qualitatively through deeper and more active supplier engagement.

Comment

No further comment

C12.1d

(C12.1d) Give details of your climate-related engagement strategy with other partners in the value chain.

We own some buildings in Japan part of which are leased to our tenants. In order to reduce our Scope 3 emissions associated with leased assets (downstream) and comply with a Japanese regulation in place, we encourage our tenants to reduce energy consumption and emissions. In Japan, it is a regulatory requirement for building owners and tenants to monitor and report on energy consumption, aiming at reducing energy consumption of the building

where they settle. Our engagement strategy with our tenants is that we hold a discussion with our tenants, at least once a year, and we include a topic associated with energy savings and water conservation. This can raise their awareness on their impacts on the environment, including climate change. One of the examples is the group headquarters building located in Tokyo, in which we lease part of the building to some restaurants, businesses and the government. We have a close relationship as the owner and tenants, and discuss energy and water related issues, at least once a year. The measurement of success depends on the amount of energy savings achieved in our tenant areas, and we saw a 9% reduction in energy consumed per square meter in 2019 in the headquarters building.

C-AC12.2/C-FB12.2/C-PF12.2

(C-AC12.2/C-FB12.2/C-PF12.2) Do you encourage your suppliers to undertake any agricultural or forest management practices with climate change mitigation and/or adaptation benefits?

Yes

C-AC12.2a/C-FB12.2a/C-PF12.2a

(C-AC12.2a/C-FB12.2a/C-PF12.2a) Specify which agricultural or forest management practices with climate change mitigation and/or adaptation benefits you encourage your suppliers to undertake and describe your role in the implementation of each practice.

Management practice reference number

MP1

Management practice

Afforestation

Description of management practice

Tree growing initiatives. Each contracted tobacco grower is expected to plant a quantified number of trees and/or or ensure purchase of wood from sustainable sources, such as in Brazil, according to an average wood requirement for tobacco curing.
Minimum Forestry Standards - set of guidelines and technical recommendation on best forestry practices per production areas in VI Origin.
100% of leaf production team and 100% of contracted tobacco growers in countries where wood resources are used for tobacco production receive technical assistance on best forestry practices and wood production.

Your role in the implementation

Knowledge sharing

Explanation of how you encourage implementation

JTG is committed to promote wood resources production to achieve a renewable and sustainable supply of wood for tobacco production. Contracted tobacco growers either implement afforestation and adopt forestry best practices to increase wood production

and/or are required to purchase from sustainable and compliant sources. Forestry technical assistance and field days at demonstration plots. Regular trainings are conducted to build capacity amongst internal employees that provide technical assistance to the grower base. A clause in the contract between JTG and a grower requires that the grower must ensure wood for tobacco production comes from renewable and sustainable sources.

Climate change related benefit

Emissions reductions (mitigation)

Comment

No further comment

Management practice reference number

MP2

Management practice

Fertilizer management

Description of management practice

Good fertilizer management rests on the principles of using the correct fertiliser from the right source, at the right application rate, at the right time and with the right placement. Each production system/area has a specific fertilizer program to produce the targeted crop style and improve productivity. Research and development conducted at JTI's Agronomy, Development and Extension Training (ADET) centers provide fertilizer application recommendations. Validated recommendations following trials implemented in ADET (Agronomy Development and Extension Training centers). 100% of contracted growers receive technical assistance in this matter.

Your role in the implementation

Knowledge sharing

Explanation of how you encourage implementation

JTG is committed to encourage contracted growers to adhere to the Minimum Agronomic Standards (MAS) and implement best agronomy practices. This includes a specific section related to responsible and sustainable use and management of fertilizers. JTG provides technical assistance and training to contracted growers through dedicated visits and field days. JTG provides the recommended fertilizer quantities by type, required for each contracted grower’s crop

Climate change related benefit

Emissions reductions (mitigation)

Comment

No further comment

Management practice reference number

MP3

Management practice

Low carbon energy use

Description of management practice

Improved curing efficiencies, optimized use of crop inputs, including proper use of Crop Protection Agents (CPAS) are crop husbandry activities related to low carbon energy use. These are well addressed in our Good Agricultural Practices Protocol, Minimum Agronomic Standards (MAS) and Minimum Forestry Standards (MFS), which are a set of technical guidelines and recommendations, as well as best practice to which a contracted grower should adhere. 100% of contracted growers receive technical assistance in this matter.

Improving curing efficiency through innovation, development and enhancing curing barn facilities results in reduced wood consumption. Thus, it reduces the requirement of wood resources for tobacco production and curing, and consequently reduces emissions that come from sourcing wood from unsustainable sources.

Your role in the implementation

Knowledge sharing

Explanation of how you encourage implementation

JTG is committed to encourage contracted growers to adhere to the MAS (Minimum Agronomic Standard) and implement best agronomy practices. This includes specific sections related to responsible and sustainable use and management of wood resources, wood production, tobacco curing efficiency, responsible and appropriate use and management of crop inputs (fertilizers, Crop Protection Agents - CPAs etc.). JTG provides technical assistance and training to contracted growers through dedicated visits and field days.

Climate change related benefit

Emissions reductions (mitigation)

Comment

No further comment

C-AC12.2b/C-FB12.2b/C-PF12.2b

(C-AC12.2b/C-FB12.2b/C-PF12.2b) Do you collect information from your suppliers about the outcomes of any implemented agricultural/forest management practices you have encouraged?

Yes

C12.3

(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?

Other

C12.3e

(C12.3e) Provide details of the other engagement activities that you undertake.

The Japanese government has established the Joint Crediting Mechanism (JCM) with 17 partner countries to financially support the implementation of projects which reduce GHG emissions by utilizing leading low carbon technologies in developing countries. In return, this model enables the obtention of JCM credits to support the achievement of Japan's GHG emission reduction target. The participants must deliver at least fifty percent of the issued JCM credits to Japanese government. Discussions with the Japanese Ministry of Environment about double counting, which we understand we have to avoid, are ongoing due to different interpretation of Article 6 of the Paris Agreement.

In 2019, the JT Group participated to the development of the regional study "Brazilian Corporate contributions to Paris Agreement" with the aim to demonstrate the level of climate ambition of companies within the Brazilian private sector. The research for CDP was undertaken in partnership with WWF-Brazil and the Conselho Empresarial Brasileiro para o Desenvolvimento Sustentável (CEBDS), the Brazilian branch of the World Business Council for Sustainable development (WBSD).

C12.3f

(C12.3f) 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?

JTG has a dedicated environmental team in Tokyo which is responsible for coordination of activities related to climate change strategy and engagement, including the engagement with policy makers. This team ensures that climate-related engagements throughout the business are in line with the Environment Plan 2030, which reflects our overall climate change strategy.

C12.4

(C12.4) 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

In mainstream reports

Status

Complete

Attach the document

Integrated Report.pdf

Integrated Report.pdf

Page/Section reference

Governance: P30-31/Interview with our CSO, Strategy: P24～29/ Sustainability Strategy Overview, Risks & Opportunities: P63, P72/ Risk Factors, Improving Our Environmental Impact, Emissions figures: P58/ Non-Financial Performance Review, Emission targets: P26-29, P72/ Sustainability Strategy of Tobacco Business, Improving Our Environmental Impact

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment

Nothing further to disclose

C13. Other land management impacts

C-AC13.2/C-FB13.2/C-PF13.2

(C-AC13.2/C-FB13.2/C-PF13.2) Do you know if any of the management practices mentioned in C-AC12.2a/C-FB12.2a/C-PF12.2a that were implemented by your suppliers have other impacts besides climate change mitigation/adaptation?

Yes

C-AC13.2a/C-FB13.2a/C-PF13.2a

(C-AC13.2a/C-FB13.2a/C-PF13.2a) Provide details of those management practices implemented by your suppliers that have other impacts besides climate change mitigation/adaptation.

Management practice reference number

MP1

Overall effect

Positive

Which of the following has been impacted?

Biodiversity
Soil
Water
Yield
Other, please specify

Forests, Environmental regulation

Description of impacts

Biodiversity Inventory and Monitoring project in Brazil provides for an overview of biodiversity in tobacco farms, and most suitable conservation practices to be adopted by the growers to enhance and/or conserve ecosystem services. It also serves an important purpose in relation to farmers' awareness and education on environmental matters and impacts on agricultural productivity.

Have any response to these impacts been implemented?

Yes

Description of the response(s)

Achievements from Biodiversity Inventory and Monitoring are the development of a robust Biodiversity inventory and monitoring Protocol that is used by sample growers and adoption of necessary conservation actions at farm level to enhance and/or conserve biodiversity and natural resources; as well as attend to any environmental regulation required.

Management practice reference number

MP2

Overall effect

Positive

Which of the following has been impacted?

Biodiversity
Soil
Water
Yield

Description of impacts

Our Good Agricultural Practices Protocol, Minimum Agronomic Standards (MAS) and Minimum Forestry Standards (MFS); are a set of technical guidelines to sustainably and efficiently produce tobacco, live barns and woodlots. Principles from MAS can be applied to other crops thus also improving yield. MAS includes the minimum requirements a grower needs to adopt with regards to planning, land preparation, soil conservation and management practices, seedling production, cultivation, fertilization programs, the use and management of crop protection agents, topping, harvesting, curing, market preparation and leaf integrity.

Have any response to these impacts been implemented?

Yes

Description of the response(s)

Increase in yield and quality of leaf. Reduced impact on ecosystem services.

C15. Signoff

C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

C15.1

(C15.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Director and Senior Vice President, Chief Sustainability Officer	Director on board

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I am submitting to	Public or Non-Public Submission
I am submitting my response	Investors	Public

Please confirm below

I have read and accept the applicable Terms