

# Welcome to your CDP Climate Change Questionnaire 2022

## 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 markets and our products are sold in over 130 markets. We are also active in pharmaceutical and processed food business, 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 three main business units: Tobacco business: headquartered in Geneva, Switzerland since 2022, manufactures and offers tobacco products all over the world. Our leading brands are Winston, Camel, MEVIUS and LD in combustibles, as well as Ploom and Logic in RRP (Reduced-Risk Products). Pharmaceutical business: Our pharmaceutical business focuses on the R&D, manufacturing, and sale of prescription drugs, concentrating on three specific therapeutic areas: Cardiovascular, Renal and Metabolism (CVRM); immunology; and neuroscience. Processed food business: Our processed food business handles the frozen and ambient food business, mainly for frozen noodles, packaged cooked rice, and frozen okonomiyaki (Japanese savory pancakes); the seasonings business, focusing on seasonings including yeast extracts; and the bakery business through 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, 2021	December 31, 2021	No

### C0.3

**(C0.3) Select the countries/areas in which you operate.**

- Algeria
- Andorra
- Armenia

Austria  
Azerbaijan  
Bangladesh  
Belarus  
Belgium  
Bolivia (Plurinational State of)  
Brazil  
Bulgaria  
Cambodia  
Canada  
China  
Colombia  
Czechia  
Denmark  
Dominican Republic  
Egypt  
Ethiopia  
Finland  
France  
Georgia  
Germany  
Greece  
Hong Kong SAR, China  
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, 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**

A 90.1% of JT Group's revenue is dependent on tobacco. The remainder of the revenue comes from pharmaceuticals (3.5%), processed foods (6.3%) and others (0.1%). 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.

## C0.8

**(C0.8) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?**

Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier
Yes, an ISIN code	JP3726800000

## 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	<p>JT Group considers climate-related issues to be strategically important 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) of JT. This position reports directly to Representative Director and Executive Vice President of JT on corporate, sustainability management, pharmaceutical and processed food business. The Representative Director and Executive Vice President is Member of the Board also serving as Executive Officer. They are directly responsible for developing and implementing strategies and plans for Sustainability Management, including climate-related issues.</p> <p>Based on societal expectations, the board members determined that it is necessary to establish a long-term plan to tackle the environmental challenges we face as a company and the society. Also, to better understand long-term risks and opportunities from climate change, the board members decided that the business would carry out Climate Scenario Analysis and endorsed the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). In 2021, the board members decided to set our new net zero target, aiming to be net zero across our entire value chain by 2050.</p>

#### 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 Monitoring implementation and performance of objectives Monitoring and overseeing progress against goals and targets for addressing climate-related issues	Climate-related issues are discussed in Board level meetings 4 times a year as part of environmental planning. This includes the following:  1) Review of Annual and Strategic Planning (ASP) 2) Approving the annual operation plan, which includes the yearly environmental plan. 3) Review of previous year performance as part of the Board meeting in May 4) Review of Sustainability Strategy The governance mechanisms are implemented within the four processes above, which contribute to the oversight of climate-related issues.

## C1.1d

**(C1.1d) Does your organization have at least one board member with competence on climate-related issues?**

	Board member(s) have competence on climate-related issues	Criteria used to assess competence of board member(s) on climate-related issues
Row 1	Yes	Our board has members with expertise in the area of sustainability, environment and society including climate-related issues, and we have disclosed board member's skills matrix. This matrix is based on board members' past experience and the knowledge they have developed through this experience.

## 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
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Chief Sustainability Officer (CSO)	Both assessing and managing climate-related risks and opportunities	Quarterly
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## 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) is in charge of JTG Sustainability Management. This position reports directly to the Representative Director and Executive Vice President of JT who is directly responsible for developing and implementing strategies and plans, 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. In 2019, 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. In December 2020, the company also has endorsed the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). The Sustainability function monitors and assesses climate-related issues, coordinates activities, gathers data and provides information to the JTG's Board of Directors. In 2021, new net zero target was set, aiming to be net zero across our entire value chain by 2050. Climate-related management and performance are reported to the Board 4 times a year, so that the Board can provide supervisions with; Annual and Strategic Planning review, Annual operation plan approval, review of Sustainability Strategy 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	The remuneration for the directors who also serve as executive officers is composed of base salary, executive bonus, restricted stock remuneration plan and performance share unit plan (PSU). PSU is a performance-linked stock compensation system that aims to strengthen shared value with shareholders, to enhance company value over the mid to long term and to commit to achieving business results over the mid-term. For the performance evaluation period starting in 2022, we have decided to introduce an ESG-related index on top of profit as KPIs for PSU. This index is introduced in order for

		us (evaluatee) and shareholders (evaluator) to seek agreement on what is conducive to corporate value. In 2022, we adopted our progress on initiatives to realize net zero as ESG-related index, specifically target attainment rates to reduce GHG emissions.
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### 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 incentivized	Comment
Chief Executive Officer (CEO)	Monetary reward	Emissions reduction target	The remuneration for the directors who also serve as executive officers, including the CEO, is composed of base salary, executive bonus, restricted stock remuneration plan and performance share unit plan (PSU). PSU is a performance-linked stock compensation system that aims to strengthen shared value with shareholders, to enhance company value over the mid to long term and to commit to achieving business results over the mid-term. For the performance evaluation period starting in 2022, we have decided to introduce an ESG-related index on top of profit as KPIs for PSU. This index is introduced in order for us (evaluatee) and shareholders (evaluator) to seek agreement on what is conducive to corporate value. In 2022, we adopted our progress on initiatives to realize net zero as ESG-related index, specifically target attainment rates to reduce GHG emissions.
Chief Sustainability Officer (CSO)	Monetary reward	Emissions reduction target	The remuneration for the directors who also serve as executive officers is composed of base salary, executive bonus, restricted stock remuneration plan and performance share unit plan (PSU). PSU is a performance-linked stock compensation system that aims to strengthen shared value with shareholders, to enhance company value over the mid to long term and to commit to achieving business results over the mid-term. For the performance evaluation period starting in 2022, we have decided to introduce an ESG-related index on top of profit as KPIs for PSU. This index is introduced in order for us (evaluatee) and shareholders (evaluator) to seek agreement on what is conducive to corporate value. In 2022, we adopted our progress on initiatives to realize net zero as ESG-related index, specifically target attainment rates to reduce GHG emissions. Additionally, our CSO is individually



			evaluated on achievement of their performance targets through execution of their duties that will lead to our sustainable profit growth. Performance targets are set through interviews with the Group CEO at the beginning of the fiscal year and evaluated at the end of the year. These targets include climate-related issues such as GHG emission reduction. The base salary for the following fiscal year is set within a certain range reflecting the individual performance evaluations.
Business unit manager	Monetary reward	Emissions reduction target	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.

## 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.**

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### **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 of our manufacturing sites and have identified concerns that the sites further analysed and addressed. 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 tobacco business in 2021 an annual cost was about 220 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 77% 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, equipment manufacturers 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. JTI set up the cross-functional Sustainability Program Team (SPT) to identify risks relating to our clients and customers, to set up clear strategy and execution plan. Furthermore there have been the identified set of targets to reduce the environmental impact of our products and packaging through design solutions, facilitating responsible collection and disposal, and consumer awareness and education.

## 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	<p>JT Group operates across many countries globally and reviews current regulation in those countries.</p> <p>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, organizations 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.</p> <p>Company specific example: in Europe, our 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.</p>
Emerging regulation	Relevant, sometimes included	<p>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.</p> <p>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,</p>

		Ukraine, Indonesia, Turkey, amongst others. This will likely have financial impact and bring additional compliance obligations for our business and are therefore considered in our risk assessments.
Technology	Relevant, always included	We are actively investigating and monitoring renewable energy technology which reduces our carbon footprint and our energy spend. It has become even more important given JTG commitment to use only renewable sourced energy by 2050.
Legal	Relevant, always included	Legal risks are included in our climate scenario analysis, in our water risk assessments and in our Enterprise Risk Management approach, be it with respect to the potential impact of business on climate change and water safety (e.g. compliance with regulatory requirements or conventional objectives), or to the potential impact that climate-related risks may have on the business (e.g. heat stress or extreme weather events impacting JTI employees or contractors). If climate-related risks are not properly managed and appropriate mitigation measures put in place, this could potentially represent a legal risk.
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, overall trends in climate/weather are taken into consideration when discussing and aligning best agronomic practices and best timings for leaf production stages. 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.

		<p>During 2020 we have conducted country-specific climate scenario analysis in relation to our operations in Brazil, Tanzania &amp; Bangladesh. In 2021 we conducted the same analysis on a further 5 countries that we operate in, the Philippines, Zambia, USA, Turkey and Indonesia. This has included modelling future acute physical risks such as extreme weather and flooding that could impact our operations. Business functions are responsible for providing information relevant for company-wide risk assessment.</p>
Chronic physical	Relevant, always included	<p>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.</p> <p>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.</p> <p>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.</p> <p>During 2020 we have conducted country-specific climate scenario analysis in relation to our operations in Brazil, Tanzania &amp; Bangladesh. In 2021 we conducted the same analysis on a further 5 countries that we operate in, the Philippines, Zambia, USA, Turkey and Indonesia. This has included modelling future chronic physical risks such as future heatwaves and coastal flooding that could impact our operations.</p> <p>Business functions are responsible for providing information relevant for company-wide risk assessment.</p>

## 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 / tCO<sub>2</sub>e. According to IEA World Economy Outlook 2018, the level of carbon tax in developed countries in 2040 is anticipated to be 140 USD/tCO<sub>2</sub> 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)**

650,000,000

**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. In the 4C scenario, the calculation was made assuming the EU and Canada as the affected areas (105,502 tCO<sub>2</sub>e x 6,026 yen / tCO<sub>2</sub>e + 3,468 tCO<sub>2</sub>e x 4,565 yen / tCO<sub>2</sub>e = 650 million yen). In the 2C scenario, the calculation was made assuming developed and developing countries (245,004 tCO<sub>2</sub>e x 20,962 yen / tCO<sub>2</sub>e + 119,810 tCO<sub>2</sub>e x 19,684 yen / tCO<sub>2</sub>e = 7.5 billion yen).

### **Cost of response to risk**

1,068,456,828

### **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 146,76 Yen / tCO<sub>2</sub>e saved (marginal abatement cost from 2020 capital investment projects to reduce carbon) \* carbon reductions needed to 2030 to meet our environmental Plan 2030 GHG target (72,803 tCO<sub>2</sub>e) / 10 years (for annual cost estimations) = 1,068,456,828 yen.

#### Case study:

There are several examples of initiatives implemented in 2021. In our Poland factory we installed a heat recovery system which allows us to reduce GHG emissions by 211 tCO<sub>2</sub>e annually. We calculated an estimated payback period on our investment by dividing the total CAPEX requirement by the annual monetary saving – this resulted in an estimate of 5 years for this project. In Greece we replaced old hot water boilers for heating with more efficient ones which helped us to reduce emissions by 207 tCO<sub>2</sub>e annually and are estimated to breakeven on our investment within 9 years. Additionally, the installation of solar systems in Tanzania and Tenerife reduced emissions by 322 tons CO<sub>2</sub>e annually with payback periods of 6 and 7 years respectively

We are also introducing green vehicles through our Green mobility program launched in tobacco business in 2021 and engaging with suppliers to understand their climate related risks and we develop mitigation measures.

### **Comment**

Nothing further to disclose.

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### **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 37% 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% by 2050, and based on a 2C scenario by -13.7% to +6% by 2050. 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. The main target countries are Brazil, the United States, India, Tanzania, Malawi, Japan and Indonesia. The financial impact in the 4C scenario was 36.7 billion

yen, and in the 2C scenario it was 32.3 billion yen. The main countries due to the cost increase were Brazil (4C: 15.9 billion, 2C: 14.2 billion) and India (4C: 7.1 billion, 2C: 4.4 billion).

**Cost of response to risk**

204,500,000

**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 since 2012. In addition, we promote efficient use of materials by continuously reviewing the manufacturing process and product specifications where possible. Moreover, in Japan, since 1978 we have operated a financial support system to compensate tobacco farmers' incomes whose tobacco plants/crops have suffered 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 therefore improves the stability of our supply chain.

The primary financial costs for managing these risks come from Grower Support Programs. In 2021, the JT Group spent about 204.5 million Yen globally on Grower Support Programs.

**Comment**

Nothing further to disclose.

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**Identifier**

Risk 3

**Where in the value chain does the risk driver occur?**

Direct operations

**Risk type & Primary climate-related risk driver**

Acute physical

Other, please specify

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 2021 our factory in Turkey 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)**

1,670,000,000

**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 tobacco business which had a revenue of 1,306,233million yen in 2021. As such for the purposes of risk calculation, assuming a typical factory is shut down for 14 days per year due to flooding, the potential estimated financial impact is approximately 1.67 billion yen.  $(1306233 / 30 / 365 * 14)$

**Cost of response to risk**

259,748,000

**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 2021 in our factory in Turkey we installed a new drain system and reinforced existing drain channels. Going forward, these improvements will reduce the risk of flooding and therefore reduce any potential impacts on production capacity. Cost of management includes cost associated with water risk assessment (6.748 million yen), physical flood mitigation infrastructure (33 million yen) and flood insurance premiums (220 million Yen). Total cost to mitigate the risk is  $6,748,000 + 33,000,000 + 220,000,000 = 259,748,000$ .

### Comment

Nothing further to disclose.

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### 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. “the State of Sustainable Markets 2018” (IISD) concluded that certified and 3rd party verified products are growing rapidly, and at a pace that outstrips conventional commodities.

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 across ten key markets shows the increasing importance of sustainable solutions in their product choices. For instance, based on that research online consumer conversation around sustainability has increased by 194% from 2017-2020. Euromonitor Lifestyles Surveys indicate increase in number of consumers globally that felt they could make a difference to the world through their choices and actions up from 45% in 2015 to 54% in 2020.

### 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**

424,800,000

**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 at least on annual basis. By being transparent in these external communication channels, our customers and shareholders are able to view information on our environmental progress to date and future environmental priorities.

We continue to implement a range of environment-related community investment programs and projects, key details of which are communicated publicly on our website. For example, in 2019, we set up the global JTI Water, Sanitation and Hygiene (WASH) program to support communities in developing markets with reliable access the world's most precious resource. Current WASH programs are executed in partnership with local NGOs Swiss contact, Habitat for Humanity Bangladesh, Habitat for Humanity Mexico and Habitat for Humanity Ethiopia. We also support and promote sustainable agricultural practices within our value chain – especially with local growers. Separately, we have undertaken Life Cycle Assessment (LCAs) on some of our products to identify (and communicate publicly where necessary) any reductions in the environmental footprint of our products in 2020-2021.

The costs associated with our annual Integrated Report 41.2 million yen and our environment-related community investment programs were approximately 90.4 million yen in 2021. To date, costs of our Grower Support Programs are 204.5million yen and costs for undertaking our LCA projects are approximately 88.7 million yen to date (41.2 + 90.4 + 204.5+ 88.7= 424.8 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 tobacco business has initiated the development of formalized energy management systems with subsequent certification to ISO50001 across all manufacturing facilities. The overall objective was to deliver a further 5% reduction in absolute carbon emissions (on top of that achieved through capital investment projects) by 2020. Overall, we reduced emissions by 24% (2015-2021). In Europe, our 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 tobacco production factories and EU markets. This estimation is based on a circa 1% energy cost saving on our total energy cost.

**Cost to realize opportunity**

6,000,000

**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 ISO 50001 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. In 2021 we conducted assessment against ISO 50001 at 9 locations, which cost us about 6 million Yen. For next 3 years we plan to spend about 19 million Yen for energy management system assessments.

There are several examples of such initiatives implemented in 2021: in Poland we installed a heat recovery system on production equipment (saving 211 tCO<sub>2</sub>e annually, with an estimated payback period of 5 years). In Greece, we replaced hot water boilers for heating (saving 207 tCO<sub>2</sub>e annually, 9 years payback). In Bangladesh, we installed a new energy monitoring system at one of our sites which is estimated to save 98 t CO<sub>2</sub>e annually and has an estimated payback period of 7 years. In Japan, we switched the fuel used in the boiler of the food business factory, reducing emissions by 456 t CO<sub>2</sub>e annually with an estimated payback period of 7.6 years.

#### **Comment**

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

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#### **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 Austria, Belgium, Brazil, Greece, UK, Turkey, Switzerland, Canada, Germany, Serbia,



Philippines, Japan, the Netherlands, Poland, Romania, Sweden and generate renewable energy in Brazil, the Philippines, Turkey, Tanzania, Jordan, Thailand, Sweden, Japan, Malawi. We are also looking for new opportunities to use renewable energy; currently, we have a commitment to use 50% of renewable electricity in our operation by 2030 and 100% by 2050 (as at the end of 2021 we were at 23%).

**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)**

1,212,000,000

**Potential financial impact figure – maximum (currency)**

4,713,000,000

**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 (306,294 tCO<sub>2</sub>e) by predicted tax in 2050 (Minimum impact =  $36 \times 306,294 \times 109.9 = 1,211,821,582$ , maximum impact =  $140 \times 306,294 \times 109.9 = 4,712,639,484$ ) (109.9 exchange rate USD/Yen).

**Cost to realize opportunity**

39,990,000

**Strategy to realize opportunity and explanation of cost calculation**

Realizing these opportunities will primarily come through the purchase and generation of renewable energy. In November 2021, we completed the installation of a photovoltaic system on the roof of one of our Tenerife sites. This installation provides up to 200kW of electricity from 452 panels across 800m<sup>2</sup> of roof area. This reduces the consumption of grid electricity and avoids 128 t CO<sub>2</sub>e per year. This system is in addition to a number of other solar installations across our global sites such as those already installed in Tanzania and the Philippines. Renewable electricity cost in 2021 represented 303,177 USD (33,320,000 yen). We are continuously investing in renewable energy generation

projects. The CAPEX cost associated with these initiatives in 2021 was 60,717 USD (about 6,670,000 yen).

**Comment**

Nothing further to disclose.

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**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 our research into consumer understanding of sustainability we have confirmed that there is increasing consumer interest and demand for products produced ethically and sustainably including lower carbon. 33% of consumers confirmed that products and processes that use / create minimal or no carbon is a consideration in their decision-making. 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 practices, an example is Market Match, promoted to our growers in Zambia and Malawi, which encourages seasonal crop rotations by matching our growers to viable global market off-takers of non-tobacco commodity crops e.g. groundnuts, maize, or soya. The benefits of this are additional income, improved food security, and soil conservation.

**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. For context, our total revenue in 2021 was 2,324,838 MM Yen.

#### **Cost to realize opportunity**

1,045,800,000

#### **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 on annual basis. 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) in 2020-2021 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 41.2 million yen and our environment-related community investment programs were approximately 90.4 million yen in 2021. To date, costs of our international Grower Support Programs are 825.5 million yen and costs for undertaking our LCA projects are approximately 88.7 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. (41.2 + 90.4 + 825.5 + 88.7 = 1045.8).

#### **Comment**

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

## **C3. Business Strategy**

### **C3.1**

**(C3.1) Does your organization's strategy include a transition plan that aligns with a 1.5°C world?**

**Row 1**

**Transition plan**

Yes, we have a transition plan which aligns with a 1.5°C world

**Publicly available transition plan**

Yes

**Mechanism by which feedback is collected from shareholders on your transition plan**

We have a different feedback mechanism in place

**Description of feedback mechanism**

We have the opportunity to meet with each of our various shareholders throughout the year to collect feedback on our environmental goals and initiatives, including our transition plan.

**Frequency of feedback collection**

More frequently than annually

**Attach any relevant documents which detail your transition plan (optional)**

 JTG\_Net-Zero.pdf

**C3.2**

**(C3.2) Does your organization use climate-related scenario analysis to inform its strategy?**

Use of climate-related scenario analysis to inform strategy	
Row 1	Yes, qualitative and quantitative

**C3.2a**

**(C3.2a) Provide details of your organization’s use of climate-related scenario analysis.**

Climate-related scenario	Scenario analysis coverage	Temperature alignment of scenario	Parameters, assumptions, analytical choices
Physical climate scenarios RCP 8.5	Other, please specify Business wide, Country/area		We have conducted country specific physical climate modelling on 8 countries during 2020 & 2021. For modelling we focused on operations within each country and conducted RCP2.6 and RCP8.5 scenario modelling with a timeframe up to 2040. Analysis was qualitative & quantitative looking at the changes in: extreme rainfall, coastal flooding, heatwaves & water stress, and the occurrence of extreme weather.

Transition scenarios IEA SDS	Company-wide		We conducted a scenario analysis in the tobacco and processed food businesses, which account for more than 95% of our sales. We selected the rising price of carbon taxes as one of the transition risks affecting the business. Based on the IEA SDS scenario, we quantitatively analyzed the impact on our business by assuming a carbon price in 2050.
Physical climate scenarios RCP 6.0	Company-wide		We conducted a scenario analysis in the tobacco and processed food businesses, which account for more than 95% of our sales. We selected changes in leaf tobacco yield as one of the physical risks affecting the business. Based on the RCP 6.0 scenario, we quantitatively analyzed the impact on our business by assuming the tobacco leaf yield in 2050.

## C3.2b

**(C3.2b) Provide details of the focal questions your organization seeks to address by using climate-related scenario analysis, and summarize the results with respect to these questions.**

### Row 1

#### Focal questions

JTI country specific modelling

The country specific modelling has been focused on assessing if and how our operations could be impacted by climate change in the future for both a 2C world as well as a +4C scenario. We have prioritized countries that are our largest sources for directly contracted growers and third party sourced leaf.

The second question was understanding which stage of our operations (leaf growing, our factories, or our markets) had the highest exposure to physical climate change in each country.

Our third primary focal question is how resilient our operations currently are and the adaptation options available to us where the modelling has identified physical climate change could impact us materially.

#### Results of the climate-related scenario analysis with respect to the focal questions

JTI country specific modelling:

Since 2020 we have completed scenario modelling in 8 countries across 4 continents (North America, South America, Africa and Asia). Through these scenarios we have

identified which physical climate risks have the potential to impact our operations by 2040. For example, we identified that sea-level rise will, for the most part, not impact our operations in either a 2C or +4C scenario. The modelling has helped us to understand this risk has the potential to affect one south-east Asian country and within this country sea level rise is projected to affect less than a third of our operational sites.

The modelling has also helped us understand which risks affect which stage of our operations most per risk and in each country. For example, we understand that hurricanes pose greatest threat to tobacco growers in North America while heat stress is more likely to impact our factories and markets in Africa and Asia.

Finally, we used the results to consult with local teams and understand what mitigation options are being looked at or currently implemented to understand resilience. An example of resilience in our operations through risk mitigation can be found at one of our factories in North America. The factory is currently installing a new roof which has been designed to withstand higher winds and rainfall caused by extreme storms than currently occur. Equally, we've found that in multiple countries the warehouses & offices our market functions use are flexible geographically could be relocated to new premises less likely to be impacted by climate impacts such as river flooding or typhoons.

### C3.3

**(C3.3) 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 carbon impact of our product and packaging. Case study and time horizon: In 2021 we introduced new Target in our Environment Plan 2030 in relation to product and packaging waste: we will reduce the environmental impact of our products and packaging through: Redesigning our products and packaging, facilitating responsible collection and disposal of used products and packaging, encouraging consumers to dispose of our products and packaging responsibly. More specifically, we will reduce our packaging (including plastic) and ensure that the remaining is 88% reusable or recyclable by 2025, rising to 100% by 2030, and, in total, recycled content accounts for 20% of our tobacco business packaging by 2025. JTG has a cross-functional Sustainability Program Team

		<p>(SPT) in tobacco business, dedicated to revisit the way it approaches development and marketing of products &amp; services and aimed to minimize their environmental impact. In 2021 SPT created initiatives roadmap to help fulfill targets across whole portfolio. In 2021 focus has been given to roll out of four global initiatives.</p> <p>Firstly, we began to replace aluminum inner liners in cigarette packaging with paper liners. It improves recyclability and helps to reduce emissions associated with packaging materials purchased. Secondly, another launched project aims to reduce the volume of cardboard used in our packaging, which reduces emissions by approximately 1800 tons. With third initiative we have reduced the thickness of polypropylene overwraps, it enables us to reduce our use of fossil-based plastic as well as reducing emissions by up to 563 tons. With fourth initiative we are focusing on using 100% recycled content in shipping cases for transportation within domestic markets and 70% for export markets for our products across JTI factories and markets by 2025. It contributes to reduction of carbon impact of each shipping case we use.</p> <p>Another example, in five markets we launched new containers for our Winston Make Your Own product, which enable us to save 182 tons of plastics per year and reduces the carbon impact of each box. In addition, we continue conducting series of LCAs to identify hot spots and further opportunities for carbon impact reduction across our product and packaging mix.</p>
<p>Supply chain and/or value chain</p>	<p>Yes</p>	<p>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.</p> <p>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. Currently we already achieved 22% reduction in scope 3 category 1 emissions against a 2015 baseline.</p>

Investment in R&D	Yes	<p>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.</p> <p>Case study: in 2019-2021 our tobacco business R&amp;D function invested in building an LCA model to better understand the carbon impacts of our conventional and reduced risk product packaging and to identify the focus areas to reduce emissions associated with tobacco product packaging. Going forward, R&amp;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 currently underway and are planned to be completed by 2023.</p>
Operations	Yes	<p>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. Currently we already achieved 23%.</p> <p>Case Study: Through our Environment Opportunities Scheme, our factories have identified and invested in more than 250 projects with total investment of 52 million Yen. Total savings amounted about 200 million Yen. This had an overall simple payback of approximately 3 months. The total carbon saved is almost 8,000 tCO<sub>2</sub>e per annum.</p>

### C3.4

**(C3.4) 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	The description of influence for each financial planning elements (including case study and time horizon) are as below:



<p>Capital expenditures Acquisitions and divestments Assets</p>	<p>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. This is considered over a short &amp; medium time horizon.</p> <p>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, 303 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. This is considered over a short time horizon.</p> <p>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 reduces the factory's annual carbon footprint over 100 tons and energy cost. 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. This is considered over a short &amp; medium &amp; long-time horizon</p> <p>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.</p> <p>5) Assets Some of JT Group's assets are at risk from climate-related flooding. We</p>
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		insure against this risk. The annual cost of insuring our direct operations against flooding is factored into our financial planning. In 2021, the cost of flood-specific insurance was about 220 million yen. We view the potential magnitude of this impact to be medium. This is considered over a short & medium time horizon.
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## C3.5

**(C3.5) In your organization’s financial accounting, do you identify spending/revenue that is aligned with your organization’s transition to a 1.5°C world?**

No, but we plan to in the next two years

## 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.**

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**Target reference number**

Abs 1

**Year target was set**

2018

**Target coverage**

Company-wide

**Scope(s)**

Scope 1

Scope 2

**Scope 2 accounting method**

Market-based

**Scope 3 category(ies)**

**Base year**

2015

**Base year Scope 1 emissions covered by target (metric tons CO<sub>2</sub>e)**

394,555.68

**Base year Scope 2 emissions covered by target (metric tons CO<sub>2</sub>e)**

497,998.35

**Base year Scope 3 emissions covered by target (metric tons CO<sub>2</sub>e)**

**Total base year emissions covered by target in all selected Scopes (metric tons CO<sub>2</sub>e)**

892,554.03

**Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1**

100

**Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2**

100

**Base year Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)**

**Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes**

100

**Target year**

2030

**Targeted reduction from base year (%)**

32

**Total emissions in target year covered by target in all selected Scopes (metric tons CO<sub>2</sub>e) [auto-calculated]**

606,936.7404

**Scope 1 emissions in reporting year covered by target (metric tons CO<sub>2</sub>e)**

358,720.45

**Scope 2 emissions in reporting year covered by target (metric tons CO<sub>2</sub>e)**

306,293.93

**Scope 3 emissions in reporting year covered by target (metric tons CO<sub>2</sub>e)**

**Total emissions in reporting year covered by target in all selected scopes (metric tons CO<sub>2</sub>e)**

665,014.37

**% of target achieved relative to base year [auto-calculated]**

79.6659264986

**Target status in reporting year**

Underway

**Is this a science-based target?**

Yes, and this target has been approved by the Science Based Targets initiative

**Target ambition**

2°C aligned

**Please explain target coverage and identify any exclusions**

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.

**Plan for achieving target, and progress made to the end of the reporting year**

Targets to increase the proportion of renewable electricity that we use to 50% by 2030 and 100% by 2050. In 2021, 23% renewable electricity was used. There has been a 25% decrease in S1&2 emissions since 2015.

**List the emissions reduction initiatives which contributed most to achieving this target**

---

**Target reference number**

Abs 2

**Year target was set**

2018

**Target coverage**

Company-wide

**Scope(s)**

Scope 3

**Scope 2 accounting method**

**Scope 3 category(ies)**

Category 1: Purchased goods and services

**Base year**

2015

**Base year Scope 1 emissions covered by target (metric tons CO2e)**

**Base year Scope 2 emissions covered by target (metric tons CO2e)**

**Base year Scope 3 emissions covered by target (metric tons CO2e)**

7,997,575.66

**Total base year emissions covered by target in all selected Scopes (metric tons CO2e)**

7,997,575.66

**Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1**

**Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2**

**Base year Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)**

83

**Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes**

83

**Target year**

2030

**Targeted reduction from base year (%)**

23

**Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]**

6,158,133.2582

**Scope 1 emissions in reporting year covered by target (metric tons CO2e)**

**Scope 2 emissions in reporting year covered by target (metric tons CO2e)**

**Scope 3 emissions in reporting year covered by target (metric tons CO2e)**

5,473,483.29

**Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)**

5,473,483.29

**% of target achieved relative to base year [auto-calculated]**

137.2205168006

**Target status in reporting year**

Achieved

**Is this a science-based target?**

Yes, and this target has been approved by the Science Based Targets initiative

**Target ambition**

2°C aligned

**Please explain target coverage and identify any exclusions**

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.

**Plan for achieving target, and progress made to the end of the reporting year**

**List the emissions reduction initiatives which contributed most to achieving this target**

Leaf supplier engagement program.  
Renewable fuel sources

---

**Target reference number**

Abs 3

**Year target was set**

2021

**Target coverage**

Company-wide

**Scope(s)**

Scope 1  
Scope 2

**Scope 2 accounting method**

Market-based

**Scope 3 category(ies)**

**Base year**

2019

**Base year Scope 1 emissions covered by target (metric tons CO2e)**

377,599.63

**Base year Scope 2 emissions covered by target (metric tons CO2e)**

378,293.64

**Base year Scope 3 emissions covered by target (metric tons CO2e)**

**Total base year emissions covered by target in all selected Scopes (metric tons CO2e)**

755,893.27

**Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1**

100

**Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2**

100

**Base year Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)**

**Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes**

100

**Target year**

2030

**Targeted reduction from base year (%)**

47

**Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]**

400,623.4331

**Scope 1 emissions in reporting year covered by target (metric tons CO2e)**

358,720.45

**Scope 2 emissions in reporting year covered by target (metric tons CO2e)**

306,293.93

**Scope 3 emissions in reporting year covered by target (metric tons CO2e)**

**Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)**

665,014.37

**% of target achieved relative to base year [auto-calculated]**

25.5802464946

**Target status in reporting year**

Underway

**Is this a science-based target?**

Yes, we consider this a science-based target, and the target is currently being reviewed by the Science Based Targets initiative

**Target ambition**

1.5°C aligned

**Please explain target coverage and identify any exclusions**

Based on the SBTi criteria, a more ambitious GHG emissions target has been set in 2021. This target has also been applied to the SBT Initiative for SBT certification.

**Plan for achieving target, and progress made to the end of the reporting year**

Targets to increase the proportion of renewable electricity that we use to 50% by 2030 and 100% by 2050. In 2021, 23% renewable electricity was used. There has been a 12% decrease in S1&2 emissions since 2019.

**List the emissions reduction initiatives which contributed most to achieving this target**

---

**Target reference number**

Abs 4

**Year target was set**

2021

**Target coverage**

Company-wide

**Scope(s)**

Scope 3

**Scope 2 accounting method**

**Scope 3 category(ies)**

Category 1: Purchased goods and services

**Base year**

2019



**Base year Scope 1 emissions covered by target (metric tons CO<sub>2</sub>e)**

**Base year Scope 2 emissions covered by target (metric tons CO<sub>2</sub>e)**

**Base year Scope 3 emissions covered by target (metric tons CO<sub>2</sub>e)**

7,331,195.29

**Total base year emissions covered by target in all selected Scopes (metric tons CO<sub>2</sub>e)**

7,331,195.29

**Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1**

**Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2**

**Base year Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)**

82

**Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes**

82

**Target year**

2030

**Targeted reduction from base year (%)**

28

**Total emissions in target year covered by target in all selected Scopes (metric tons CO<sub>2</sub>e) [auto-calculated]**

5,278,460.6088

**Scope 1 emissions in reporting year covered by target (metric tons CO<sub>2</sub>e)**

**Scope 2 emissions in reporting year covered by target (metric tons CO<sub>2</sub>e)**

**Scope 3 emissions in reporting year covered by target (metric tons CO<sub>2</sub>e)**

5,473,483.29

**Total emissions in reporting year covered by target in all selected scopes (metric tons CO<sub>2</sub>e)**

5,473,483.29

**% of target achieved relative to base year [auto-calculated]**

90.4993722284

**Target status in reporting year**

Underway

**Is this a science-based target?**

Yes, we consider this a science-based target, and the target is currently being reviewed by the Science Based Targets initiative

**Target ambition**

1.5°C aligned

**Please explain target coverage and identify any exclusions**

Based on the SBTi criteria, a more ambitious GHG emissions target has been set in 2021. This target has also been applied to the SBT Initiative for SBT certification.

**Plan for achieving target, and progress made to the end of the reporting year**

To achieve there is a focus on leaf supplier engagement to reduce emissions for purchased leaf. Emissions have decreased 25% since 2019.

**List the emissions reduction initiatives which contributed most to achieving this 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  
Net-zero target(s)

## 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**

2021

**Target coverage**

Company-wide

**Target type: energy carrier**

Electricity

**Target type: activity**

Consumption

**Target type: energy source**

Renewable energy source(s) only

**Base year**

2019

**Consumption or production of selected energy carrier in base year (MWh)**

141,047.72

**% share of low-carbon or renewable energy in base year**

13

**Target year**

2030

**% share of low-carbon or renewable energy in target year**

50

**% share of low-carbon or renewable energy in reporting year**

23

**% of target achieved relative to base year [auto-calculated]**

27.027027027

**Target status in reporting year**

New

**Is this target part of an emissions target?**

Yes

**Is this target part of an overarching initiative?**

No, it's not part of an overarching initiative

**Please explain target coverage and identify any exclusions**

Company-wide, no exclusions

**Plan for achieving target, and progress made to the end of the reporting year**

Purchase and generate more renewable electricity. In 2021, 23% renewable electricity was used.

**List the actions which contributed most to achieving this target**

---

**Target reference number**

Low 2

**Year target was set**

2021

**Target coverage**

Company-wide

**Target type: energy carrier**

Electricity

**Target type: activity**

Consumption

**Target type: energy source**

Renewable energy source(s) only

**Base year**

2019

**Consumption or production of selected energy carrier in base year (MWh)**

141,047.72

**% share of low-carbon or renewable energy in base year**

13

**Target year**

2050

**% share of low-carbon or renewable energy in target year**

100

**% share of low-carbon or renewable energy in reporting year**

23

**% of target achieved relative to base year [auto-calculated]**

11.4942528736

**Target status in reporting year**

New

**Is this target part of an emissions target?**

Yes

**Is this target part of an overarching initiative?**

No, it's not part of an overarching initiative

**Please explain target coverage and identify any exclusions**

Company-wide, no exclusions

**Plan for achieving target, and progress made to the end of the reporting year**

Purchase and generate more renewable electricity. In 2021, 23% renewable electricity was used.

**List the actions which contributed most to achieving this target**

---

**Target reference number**

Low 3

**Year target was set**

2018

**Target coverage**

Company-wide

**Target type: energy carrier**

Electricity

**Target type: activity**

Consumption

**Target type: energy source**

Renewable energy source(s) only

**Base year**

2015

**Consumption or production of selected energy carrier in base year (MWh)**

35,465.33

**% share of low-carbon or renewable energy in base year**

3

**Target year**

2030

**% share of low-carbon or renewable energy in target year**

25

**% share of low-carbon or renewable energy in reporting year**

23

**% of target achieved relative to base year [auto-calculated]**

90.9090909091

**Target status in reporting year**

Revised

**Is this target part of an emissions target?**

Yes

**Is this target part of an overarching initiative?**

No, it's not part of an overarching initiative

**Please explain target coverage and identify any exclusions**

Company-wide, no exclusions

**Plan for achieving target, and progress made to the end of the reporting year**

Purchase and generate more renewable electricity. In 2021, 23% renewable electricity was used.

**List the actions which contributed most to achieving this target**

## C4.2c

**(C4.2c) Provide details of your net-zero target(s).**

---

**Target reference number**

NZ1

**Target coverage**

Company-wide

**Absolute/intensity emission target(s) linked to this net-zero target**

Abs1

Abs2

**Target year for achieving net zero**

2050

**Is this a science-based target?**

Yes, we consider this a science-based target, and the target is currently being reviewed by the Science Based Targets initiative

**Please explain target coverage and identify any exclusions**

JT Group will reduce its emissions and commits to be Carbon Neutral for its own operations by 2030 and achieve Net-Zero Greenhouse Gas emissions across its entire value chain by 2050.

**Do you intend to neutralize any unabated emissions with permanent carbon removals at the target year?**

Yes

**Planned milestones and/or near-term investments for neutralization at target year**

47% reduction in Scope 1&2 emission and 28% reduction in Scope 3 Category 1 emissions by 2030 comparing to 2019.

**Planned actions to mitigate emissions beyond your value chain (optional)**

**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.**

	<b>Number of initiatives</b>	<b>Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)</b>
Under investigation	13	25,000
To be implemented*	30	15,214
Implementation commenced*	41	6,706
Implemented*	18	3,409
Not to be implemented	0	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  
Heating, Ventilation and Air Conditioning (HVAC)

**Estimated annual CO2e savings (metric tonnes CO2e)**

48.23

**Scope(s) or Scope 3 category(ies) where emissions savings occur**

Scope 1

**Voluntary/Mandatory**

Voluntary

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

138,474

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

1,890,280

**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 production processes

Automation

**Estimated annual CO2e savings (metric tonnes CO2e)**

238.06

**Scope(s) or Scope 3 category(ies) where emissions savings occur**

Scope 1

**Voluntary/Mandatory**

Voluntary

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

219,800

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

1,789,739

**Payback period**

4-10 years

**Estimated lifetime of the initiative**

3-5 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

Combined heat and power (cogeneration)

**Estimated annual CO2e savings (metric tonnes CO2e)**



189.28

**Scope(s) or Scope 3 category(ies) where emissions savings occur**

Scope 2 (location-based)

**Voluntary/Mandatory**

Voluntary

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

1,131,359

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

10,187,730

**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  
Compressed air

**Estimated annual CO2e savings (metric tonnes CO2e)**

97.97

**Scope(s) or Scope 3 category(ies) where emissions savings occur**

Scope 1

**Voluntary/Mandatory**

Voluntary

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

468,473

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

7,682,010

**Payback period**

16-20 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  
Machine/equipment replacement

**Estimated annual CO<sub>2</sub>e savings (metric tonnes CO<sub>2</sub>e)**

437.24

**Scope(s) or Scope 3 category(ies) where emissions savings occur**

Scope 1

**Voluntary/Mandatory**

Voluntary

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

1,030,564

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

7,354,727

**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**

Low-carbon energy generation  
Solar PV

**Estimated annual CO<sub>2</sub>e savings (metric tonnes CO<sub>2</sub>e)**

321.69

**Scope(s) or Scope 3 category(ies) where emissions savings occur**

Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

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

1,044,050

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

6,672,804

**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

Fuel switch

**Estimated annual CO2e savings (metric tonnes CO2e)**

403

**Scope(s) or Scope 3 category(ies) where emissions savings occur**

Scope 1

**Voluntary/Mandatory**

Voluntary

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

1,600,000

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

1,900,000

**Payback period**

1-3 years

**Estimated lifetime of the initiative**

6-10 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)**

456

**Scope(s) or Scope 3 category(ies) where emissions savings occur**

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)**

26,700,000

**Payback period**

4-10 years

**Estimated lifetime of the initiative**

6-10 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  
Machine/equipment replacement

**Estimated annual CO2e savings (metric tonnes CO2e)**

507

**Scope(s) or Scope 3 category(ies) where emissions savings occur**

Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

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

16,400,000

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

145,000,000

**Payback period**

4-10 years

**Estimated lifetime of the initiative**

6-10 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  
Machine/equipment replacement

**Estimated annual CO2e savings (metric tonnes CO2e)**

360

**Scope(s) or Scope 3 category(ies) where emissions savings occur**

Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

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

40,900,000

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

585,000,000

**Payback period**

11-15 years

**Estimated lifetime of the initiative**

6-10 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  
Machine/equipment replacement

**Estimated annual CO2e savings (metric tonnes CO2e)**

351

**Scope(s) or Scope 3 category(ies) where emissions savings occur**

Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

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

10,600,000

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

444,200,000

**Payback period**

>25 years

**Estimated lifetime of the initiative**

6-10 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 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 250 projects with total investment of 52 million Yen. Total savings amounted to 200 million Yen. This was paid back over a period of 3 months. The total carbon saved is 8,000 tCO <sub>2</sub> e per annum.

### C4.5

**(C4.5) Do you classify any of your existing goods and/or services as low-carbon products?**

No

## C5. Emissions methodology

### C5.1

(C5.1) Is this your first year of reporting emissions data to CDP?

No

### C5.1a

(C5.1a) Has your organization undergone any structural changes in the reporting year, or are any previous structural changes being accounted for in this disclosure of emissions data?

Row 1

Has there been a structural change?

No

### C5.1b

(C5.1b) Has your emissions accounting methodology, boundary, and/or reporting year definition changed in the reporting year?

Change(s) in methodology, boundary, and/or reporting year definition?	
Row 1	No

### C5.2

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

Scope 1

**Base year start**

January 1, 2015

**Base year end**

December 31, 2015

**Base year emissions (metric tons CO<sub>2</sub>e)**

394,555.68

**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)**

459,241.27

**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)**

497,998.35

**Comment**

No further comment

**Scope 3 category 1: Purchased goods and services**

---

**Base year start**

January 1, 2015

**Base year end**

December 31, 2015

**Base year emissions (metric tons CO2e)**

7,997,575.66

**Comment**

No further comment

**Scope 3 category 2: Capital goods**

---

**Base year start**

January 1, 2015

**Base year end**

December 31, 2015

**Base year emissions (metric tons CO2e)**

390,647.01

**Comment**

No further comment



### Scope 3 category 3: Fuel-and-energy-related activities (not included in Scope 1 or 2)

---

**Base year start**

January 1, 2015

**Base year end**

December 31, 2015

**Base year emissions (metric tons CO2e)**

121,293.93

**Comment**

No further comment

### Scope 3 category 4: Upstream transportation and distribution

---

**Base year start**

January 1, 2015

**Base year end**

December 31, 2015

**Base year emissions (metric tons CO2e)**

318,969.34

**Comment**

No further comment

### Scope 3 category 5: Waste generated in operations

---

**Base year start**

January 1, 2015

**Base year end**

December 31, 2015

**Base year emissions (metric tons CO2e)**

27,326.63

**Comment**

No further comment

### Scope 3 category 6: Business travel

---

**Base year start**

January 1, 2015

**Base year end**

December 31, 2015

**Base year emissions (metric tons CO<sub>2</sub>e)**

264,782.36

**Comment**

No further comment

**Scope 3 category 7: Employee commuting**

---

**Base year start**

January 1, 2015

**Base year end**

December 31, 2015

**Base year emissions (metric tons CO<sub>2</sub>e)**

61,803.42

**Comment**

No further comment

**Scope 3 category 8: Upstream leased assets**

---

**Base year start**

January 1, 2015

**Base year end**

December 31, 2015

**Base year emissions (metric tons CO<sub>2</sub>e)**

486.53

**Comment**

No further comment

**Scope 3 category 9: Downstream transportation and distribution**

---

**Base year start**

January 1, 2015

**Base year end**

December 31, 2015

**Base year emissions (metric tons CO<sub>2</sub>e)**

309,334.68

**Comment**

No further comment

**Scope 3 category 10: Processing of sold products**

---

**Base year start**

January 1, 2015

**Base year end**

December 31, 2015

**Base year emissions (metric tons CO<sub>2</sub>e)**

2,223.56

**Comment**

No further comment

**Scope 3 category 11: Use of sold products**

---

**Base year start**

January 1, 2015

**Base year end**

December 31, 2015

**Base year emissions (metric tons CO<sub>2</sub>e)**

31,673.26

**Comment**

No further comment

**Scope 3 category 12: End of life treatment of sold products**

---

**Base year start**

January 1, 2015

**Base year end**

December 31, 2015

**Base year emissions (metric tons CO<sub>2</sub>e)**

94,114.8

**Comment**

No further comment

**Scope 3 category 13: Downstream leased assets**

---

**Base year start**

January 1, 2015

**Base year end**

December 31, 2015

**Base year emissions (metric tons CO<sub>2</sub>e)**

825.83

**Comment**

No further comment

**Scope 3 category 14: Franchises**

---

**Base year start**

January 1, 2015

**Base year end**

December 31, 2015

**Base year emissions (metric tons CO<sub>2</sub>e)**

1,782.47

**Comment**

No further comment

**Scope 3 category 15: Investments**

---

**Base year start**

January 1, 2015

**Base year end**

December 31, 2015

**Base year emissions (metric tons CO<sub>2</sub>e)**

0

**Comment**

No further comment

**Scope 3: Other (upstream)**

---

**Base year start**

January 1, 2015

**Base year end**

December 31, 2015

**Base year emissions (metric tons CO<sub>2</sub>e)**

0

**Comment**

No further comment

**Scope 3: Other (downstream)**

---

**Base year start**

January 1, 2015

**Base year end**

December 31, 2015

**Base year emissions (metric tons CO<sub>2</sub>e)**

0

**Comment**

No further comment

## C5.3

**(C5.3) 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 CO<sub>2</sub>e?**

**Reporting year**

---

**Gross global Scope 1 emissions (metric tons CO<sub>2</sub>e)**

358,720.45

**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 CO<sub>2</sub>e?**

**Reporting year**

---

**Scope 2, location-based**

442,801.97

**Scope 2, market-based (if applicable)**

306,293.93

**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

**Emissions in reporting year (metric tons CO<sub>2</sub>e)**

5,473,483.29

**Emissions calculation methodology**

Supplier-specific method

Average product method

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

78

**Please explain**

For emissions associated with tobacco leaf, we used the emission factor derived from Life Cycle Assessments (LCAs) that used tobacco farmers' primary activity data.

### Capital goods

---

**Evaluation status**

Relevant, calculated

**Emissions in reporting year (metric tons CO<sub>2</sub>e)**

310,746.49

**Emissions calculation methodology**

Spend-based method

**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

**Emissions in reporting year (metric tons CO2e)**

122,166.36

**Emissions calculation methodology**

Fuel-based method

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

59

**Please explain**

For the emissions associated with fuel-and energy-related activities, we applied primary data.

**Upstream transportation and distribution**

---

**Evaluation status**

Relevant, calculated

**Emissions in reporting year (metric tons CO2e)**

379,270.39

**Emissions calculation methodology**

Fuel-based method

Distance-based method

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

69

**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

**Emissions in reporting year (metric tons CO2e)**

21,280.77

**Emissions calculation methodology**

Waste-type-specific method

**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

**Emissions in reporting year (metric tons CO2e)**

51,324.24

**Emissions calculation methodology**

Distance-based method

**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

**Emissions in reporting year (metric tons CO2e)**

45,294.37

**Emissions calculation methodology**

Hybrid method  
Spend-based method

**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

**Emissions in reporting year (metric tons CO2e)**

358.47

**Emissions calculation methodology**

Asset-specific method

**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

**Emissions in reporting year (metric tons CO2e)**

292,502.89

**Emissions calculation methodology**

Average data method  
Distance-based method

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

3

**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

**Emissions in reporting year (metric tons CO2e)**

1,493.63

**Emissions calculation methodology**

Asset-specific method

**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

**Emissions in reporting year (metric tons CO2e)**

56,313.2

**Emissions calculation methodology**

Average product method

**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

**Emissions in reporting year (metric tons CO2e)**

87,121.87

**Emissions calculation methodology**

Waste-type-specific method

**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

### Emissions in reporting year (metric tons CO2e)

61.2

### Emissions calculation methodology

Asset-specific method

### 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

### Emissions in reporting year (metric tons CO2e)

6,020.4

### Emissions calculation methodology

Franchise-specific method

### 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-AC6.8/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)

87,477.87

##### 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)

3.9

**Methodology**

Default emissions factors

**Please explain**

Bioethanol fuel consumption in our vehicles is multiplied by an emissions factor of 0.0054 kgCO<sub>2</sub>e 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 CO<sub>2</sub>e)**

4,074,352.75

**Change from last reporting year**

Lower

**Please explain**

For leaf sourced from third party, non-integrated suppliers we multiplied "annual procurement volume (in terms of mass or cost) by procurement item in 2021" by "emission factor of each item," then aggregated those calculation results. For vertically-integrated sourced leaf we multiplied "procurement volume based on crop year 2021" by "emission factor for each item", then aggregated them with the non-vertically integrated sourced leaf calculation results. For tobacco leaf, we used the emission factor that we

calculated using Life-Cycle Assessment taking into account tobacco farmers' primary activity data. For raw materials except tobacco leaf, we applied supplier specific emission factors and 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 CO<sub>2</sub>e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.**

---

**Intensity figure**

0.29

**Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO<sub>2</sub>e)**

665,014.37

**Metric denominator**

unit total revenue

**Metric denominator: Unit total**

2,324,838

**Scope 2 figure used**

Market-based

**% change from previous year**

11.8

**Direction of change**

Decreased

**Reason for change**

Despite of increase in revenue, emissions have reduced (revenue increased by 11%, but emissions reduced by 2%) 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 Brazil.

---

**Intensity figure**

12.01

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

665,014.37

**Metric denominator**

full time equivalent (FTE) employee

**Metric denominator: Unit total**

55,381

**Scope 2 figure used**

Market-based

**% change from previous year**

3.15

**Direction of change**

Increased

**Reason for change**

Reduction of emissions is slightly lower than reduction of FTEs due to organizational changes within JTG.

## 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	336,668	IPCC Fourth Assessment Report (AR4 - 100 year)
HFCs	22,052.44	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	12,497.06
Asia Pacific (or JAPA)	174,775.34
Eastern Europe	74,128.04
Western Europe	43,646.26
Middle East and North Africa (MENA)	53,673.75

### 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	260,550.78
Food	87,439.8
Pharma	6,289.88
Other	4,439.98

#### 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	134,243.5	35.665069	139.74537
Geneva	224,476.95	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	261,151.42
R&D	9,502.9
Use of company owned vehicles	81,964.17
Sales/office work	6,101.95



## 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)

261,151.42

### 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)

6,300.72

### 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)
Americas	8,101.83	4,116.57
Asia Pacific (or JAPA)	284,697.07	238,200.41
Eastern Europe	99,123.73	39,207.76
Western Europe	22,731.42	2,733.93
Middle East and North Africa (MENA)	28,131.85	22,035.26

## 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	306,762.89	178,667.95
Food	120,068.59	115,184.98
Pharma	12,438.47	9,258.45
Other	3,515.96	3,182.55

### 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	226,303.1	207,813.99
Geneva	216,498.87	98,479.94

### 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	383,574.46	257,333.02
R&D	25,258.27	18,316.11
Warehousing/Logistics	6,026.22	5,653.02
Sales/Office work	27,943.02	24,991.78

## 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 (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	13,101.16	Decreased	1.93	JT Group continues to green the electricity used for its business activities. As a result, we achieved a direct emission reduction of 13,101.16 tCO2e (13,101.16 tCO2e / 678,668 tCO2e (total Scope 1 and 2 emissions in 2020) = 1.93% percentage decrease).
Other emissions reduction activities	3,409	Decreased	0.5	JT Group continue to invest in emissions reductions activities in our operations. The result of these expenditures as well as operational changes delivered in 2020 direct emissions reductions equating to 3,409 tCO2e (3,409tCO2e / 678,668 tCO2e (total Scope 1 and 2 emissions) in 2021 =0.50% percentage decrease).
Divestment	0	No change	0	
Acquisitions	0	No change	0	
Mergers	0	No change	0	

Change in output	15,747.15	Increased	2.32	JT Group tobacco production volume increase comparing to 2020 resulting in emissions increase by 15,747.15 tCO <sub>2</sub> e. Emissions year on year change (15,747.15 tCO <sub>2</sub> e / 678,668 tCO <sub>2</sub> e in 2020 = 2.32 % percentage increase).
Change in methodology	0	No change	0	
Change in boundary	0	No change	0	
Change in physical operating conditions	12,890.59	Decreased	1.9	Emissions from vehicles which had been declining due to the COVID-19 increased, but several factories closed in the Japanese food business, resulting in emissions reduction by 12,890.59 tCO <sub>2</sub> e (12,890.59 tCO <sub>2</sub> e / 678,668 tCO <sub>2</sub> e in 2020 = 1.90 % percentage decrease).
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)	237,086.93	1,647,379.91	1,884,466.84
Consumption of purchased or acquired electricity		223,152.56	681,424.93	904,577.49
Consumption of purchased or acquired heat		0	9,605.21	9,605.21
Consumption of purchased or acquired steam		335.72	0	335.72
Consumption of purchased or acquired cooling		0	11.07	11.07
Consumption of self-generated non-fuel renewable energy		6,374.64		6,374.64
Total energy consumption		466,949.85	2,338,421.12	2,805,370.96

## 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.**

### Sustainable biomass

**Heating value**

LHV

**Total fuel MWh consumed by the organization**

234,255.74

**MWh fuel consumed for self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

234,255.74

**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

**Comment**

## Other biomass

---

**Heating value**

LHV

**Total fuel MWh consumed by the organization**

0

**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

**Comment**

## Other renewable fuels (e.g. renewable hydrogen)

---

**Heating value**

LHV

**Total fuel MWh consumed by the organization**

0

**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

**Comment**

## Coal

---

**Heating value**

LHV

**Total fuel MWh consumed by the organization**

17,346.99

**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

**Comment**

## Oil

---

**Heating value**

LHV

**Total fuel MWh consumed by the organization**

536,128.4

**MWh fuel consumed for self-generation of electricity**

2,715.76

**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

**Comment**



## Gas

---

### Heating value

LHV

### Total fuel MWh consumed by the organization

1,076,666.58

### MWh fuel consumed for self-generation of electricity

0

### MWh fuel consumed for self-generation of heat

14,202.68

### MWh fuel consumed for self-generation of steam

0

### MWh fuel consumed for self-generation of cooling

9,468.45

### MWh fuel consumed for self- cogeneration or self-trigeneration

20,489.44

### Comment

## Other non-renewable fuels (e.g. non-renewable hydrogen)

---

### Heating value

LHV

### Total fuel MWh consumed by the organization

20,069.13

### 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

### Comment

**Total fuel**

**Heating value**

LHV

**Total fuel MWh consumed by the organization**

1,884,466.84

**MWh fuel consumed for self-generation of electricity**

2,715.76

**MWh fuel consumed for self-generation of heat**

248,458.42

**MWh fuel consumed for self-generation of steam**

0

**MWh fuel consumed for self-generation of cooling**

9,468.45

**MWh fuel consumed for self- cogeneration or self-trigeneration**

20,489.44

**Comment**

**C8.2d**

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

	<b>Total Gross generation (MWh)</b>	<b>Generation that is consumed by the organization (MWh)</b>	<b>Gross generation from renewable sources (MWh)</b>	<b>Generation from renewable sources that is consumed by the organization (MWh)</b>
Electricity	118,798.91	116,988.91	6,374.64	6,372.83
Heat	899,939.2	885,195.88	176,575.03	176,575.03
Steam	33,603.39	33,603.39	33,603.39	33,603.39
Cooling	17,978.69	3,235.37	0	0

**C8.2e**

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

**Sourcing method**

Green electricity products from an energy supplier (e.g. green tariffs)

**Energy carrier**

Electricity

**Low-carbon technology type**

Hydropower (capacity unknown)

**Country/area of low-carbon energy consumption**

Germany

**Tracking instrument used**

GO

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

31,795.59

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

Germany

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

**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 from an energy supplier (e.g. green tariffs)

**Energy carrier**

Electricity

**Low-carbon technology type**

Renewable energy mix, please specify  
Wind, Hydropower, Solar, Biomass

**Country/area of low-carbon energy consumption**

Romania

**Tracking instrument used**

GO

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

16,676.15

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

Romania

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

**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 from an energy supplier (e.g. green tariffs)

**Energy carrier**

Electricity

**Low-carbon technology type**

Hydropower (capacity unknown)

**Country/area of low-carbon energy consumption**

Sweden

**Tracking instrument used**

GO

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

1,590.8

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

Sweden

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

**Comment**

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

---

**Sourcing method**

Green electricity products from an energy supplier (e.g. green tariffs)

**Energy carrier**

Electricity

**Low-carbon technology type**

Hydropower (capacity unknown)

**Country/area of low-carbon energy consumption**

Canada

**Tracking instrument used**

GO

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

10,227.1

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

Canada

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

**Comment**

Hydro power based supply in Canada

---

**Sourcing method**

Unbundled energy attribute certificates (EACs) purchase

**Energy carrier**

Electricity

**Low-carbon technology type**

Hydropower (capacity unknown)

**Country/area of low-carbon energy consumption**

Serbia

**Tracking instrument used**

GO

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

4,606.05

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

Serbia

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

**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 (EACs) purchase

**Energy carrier**

Electricity

**Low-carbon technology type**

Solar

**Country/area of low-carbon energy consumption**

Philippines

**Tracking instrument used**

I-REC

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

42,035.01

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

Philippines

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

**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 (EACs) purchase

**Energy carrier**

Electricity

**Low-carbon technology type**

Renewable energy mix, please specify  
Wind, Hydropower, Solar, Biomass

**Country/area of low-carbon energy consumption**

Poland

**Tracking instrument used**

GO

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

67,109.81

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

Poland

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

**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 (EACs) purchase

**Energy carrier**

Electricity

**Low-carbon technology type**

Wind

**Country/area of low-carbon energy consumption**

Greece

**Tracking instrument used**

GO

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

5,179.48

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

Greece

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

**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

**Energy carrier**

Heat, steam and cooling combined

**Low-carbon technology type**

Sustainable biomass

**Country/area of low-carbon energy consumption**

Sweden

**Tracking instrument used**

No instrument used

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

335.72

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

Sweden

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

**Comment**

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

---

**Sourcing method**

Unbundled energy attribute certificates (EACs) purchase

**Energy carrier**



Electricity

**Low-carbon technology type**

Sustainable biomass

**Country/area of low-carbon energy consumption**

Japan

**Tracking instrument used**

Other, please specify

Certified by JQA (Japan Quality Assurance)

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

8,948

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

Japan

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

**Comment**

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

---

**Sourcing method**

Green electricity products from an energy supplier (e.g. green tariffs)

**Energy carrier**

Electricity

**Low-carbon technology type**

Wind

**Country/area of low-carbon energy consumption**

Belgium

**Tracking instrument used**

GO

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

234.31

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

Belgium

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

**Comment**

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

---

**Sourcing method**

Green electricity products from an energy supplier (e.g. green tariffs)

**Energy carrier**

Electricity

**Low-carbon technology type**

Wind

**Country/area of low-carbon energy consumption**

Netherlands

**Tracking instrument used**

GO

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

171.03

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

Netherlands

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

**Comment**

JTG site in the Netherlands purchase renewable electricity from a third party which are backed by RECs

---

**Sourcing method**

Green electricity products from an energy supplier (e.g. green tariffs)

**Energy carrier**

Electricity

**Low-carbon technology type**

Hydropower (capacity unknown)

**Country/area of low-carbon energy consumption**

Austria

**Tracking instrument used**

GO

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

3,539.41

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

Austria

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

**Comment**

JTG site in Austria purchase renewable electricity from a third party which are backed by RECs

---

**Sourcing method**

Green electricity products from an energy supplier (e.g. green tariffs)

**Energy carrier**

Electricity

**Low-carbon technology type**

Hydropower (capacity unknown)

**Country/area of low-carbon energy consumption**

Switzerland

**Tracking instrument used**

GO

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

2,333.74

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

Switzerland

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

**Comment**

JTG site in Switzerland purchase renewable electricity from a third party which are backed by RECs

---

**Sourcing method**

Green electricity products from an energy supplier (e.g. green tariffs)

**Energy carrier**

Electricity

**Low-carbon technology type**

Wind

**Country/area of low-carbon energy consumption**

United Kingdom of Great Britain and Northern Ireland

**Tracking instrument used**

GO

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

2,393.74

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

United Kingdom of Great Britain and Northern Ireland

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

**Comment**

JTG site in the UK purchase renewable electricity from a third party which are backed by RECs

---

**Sourcing method**

Unbundled energy attribute certificates (EACs) purchase

**Energy carrier**

Electricity

**Low-carbon technology type**

Renewable energy mix, please specify  
Hydropower, Wind, Geothermal

**Country/area of low-carbon energy consumption**

Turkey

**Tracking instrument used**

I-REC

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

2,393.74

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

Turkey

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

**Comment**

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

---

**Sourcing method**

Unbundled energy attribute certificates (EACs) purchase

**Energy carrier**

Electricity

**Low-carbon technology type**

Hydropower (capacity unknown)

**Country/area of low-carbon energy consumption**

Brazil

**Tracking instrument used**

I-REC

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

14,200.62

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

Brazil

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

**Comment**

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

---

**Sourcing method**

Green electricity products from an energy supplier (e.g. green tariffs)

**Energy carrier**

Electricity

**Low-carbon technology type**

Hydropower (capacity unknown)

**Country/area of low-carbon energy consumption**

Sweden

**Tracking instrument used**

GO

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

1,590.8

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

Sweden

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

**Comment**

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

## C8.2g

**(C8.2g) Provide a breakdown of your non-fuel energy consumption by country.**

**Country/area**

Algeria

**Consumption of electricity (MWh)**

23.63

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

23.63

---

**Country/area**

Andorra

**Consumption of electricity (MWh)**

315.86

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

315.86

---

**Country/area**

Armenia

**Consumption of electricity (MWh)**

30.46

**Consumption of heat, steam, and cooling (MWh)**

3.96

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

34.42

---

**Country/area**

Austria

**Consumption of electricity (MWh)**

3,539.41

**Consumption of heat, steam, and cooling (MWh)**

2,217.06

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

5,756.47

---

**Country/area**

Azerbaijan

**Consumption of electricity (MWh)**

30.08

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

30.08

---

**Country/area**

Bangladesh

**Consumption of electricity (MWh)**

13,399.83

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

13,399.83

---

**Country/area**

Belarus

**Consumption of electricity (MWh)**

134.86

**Consumption of heat, steam, and cooling (MWh)**

226.24

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

361.1



---

**Country/area**

Belgium

**Consumption of electricity (MWh)**

234.31

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

234.31

---

**Country/area**

Bolivia (Plurinational State of)

**Consumption of electricity (MWh)**

76.33

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

76.33

---

**Country/area**

Brazil

**Consumption of electricity (MWh)**

15,356.94

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

15,356.94

---

**Country/area**

Bulgaria

**Consumption of electricity (MWh)**

145.07

**Consumption of heat, steam, and cooling (MWh)**

35.32

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

180.39

---

**Country/area**

Cambodia

**Consumption of electricity (MWh)**

570.49

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

570.49

---

**Country/area**

Canada

**Consumption of electricity (MWh)**

12,809.66

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

12,809.66

---

**Country/area**

Colombia

**Consumption of electricity (MWh)**

12.45

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

12.45

---

**Country/area**

Denmark

**Consumption of electricity (MWh)**

6.22

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

6.22

---

**Country/area**

Dominican Republic

**Consumption of electricity (MWh)**

1,109.98

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

1,109.98

---

**Country/area**

Egypt

**Consumption of electricity (MWh)**

2,189.9

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

2,189.9

---

**Country/area**

Ethiopia

**Consumption of electricity (MWh)**

3,087.08

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

3,087.08

---

**Country/area**

France

**Consumption of electricity (MWh)**

308.67

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

308.67

---

**Country/area**

Georgia

**Consumption of electricity (MWh)**

114.09

**Consumption of heat, steam, and cooling (MWh)**

8.88

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

122.97

---

**Country/area**

Germany

**Consumption of electricity (MWh)**

59,466.19

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

59,466.19

---

**Country/area**

Greece

**Consumption of electricity (MWh)**

5,547.21

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

5,547.21

---

**Country/area**

Hong Kong SAR, China

**Consumption of electricity (MWh)**

130.12

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

130.12

---

**Country/area**

Hungary

**Consumption of electricity (MWh)**

104.4

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

104.4

---

**Country/area**

Indonesia

**Consumption of electricity (MWh)**

13,997.14

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

13,997.14

---

**Country/area**

Iran (Islamic Republic of)

**Consumption of electricity (MWh)**

24,916.08

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

24,916.08

---

**Country/area**

Ireland

**Consumption of electricity (MWh)**

88.42

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

88.42

---

**Country/area**

Italy

**Consumption of electricity (MWh)**

116.62

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

116.62

---

**Country/area**

Japan

**Consumption of electricity (MWh)**

104.4

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

104.4

---

**Country/area**

Jordan

**Consumption of electricity (MWh)**

9,104.34

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

9,104.34

---

**Country/area**

Democratic People's Republic of Korea

**Consumption of electricity (MWh)**

174.07

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

174.07

---

**Country/area**

Lebanon

**Consumption of electricity (MWh)**

15.59

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

15.59

---

**Country/area**

Lithuania

**Consumption of electricity (MWh)**

67.22

**Consumption of heat, steam, and cooling (MWh)**

44.07

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

111.29

---

**Country/area**

Malawi

**Consumption of electricity (MWh)**

7,230

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

7,230

---



**Country/area**

Malaysia

**Consumption of electricity (MWh)**

358.23

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

358.23

---

**Country/area**

Mexico

**Consumption of electricity (MWh)**

38.25

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

38.25

---

**Country/area**

Republic of Moldova

**Consumption of electricity (MWh)**

45.22

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

45.22

---

**Country/area**

Morocco

**Consumption of electricity (MWh)**

74.2

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

74.2

---

**Country/area**

Myanmar

**Consumption of electricity (MWh)**

2,788.34

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

2,788.34

---

**Country/area**

Netherlands

**Consumption of electricity (MWh)**

171.03

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

171.03

---

**Country/area**

Nigeria

**Consumption of electricity (MWh)**

71.73

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

71.73

---

**Country/area**

Philippines

**Consumption of electricity (MWh)**

49,125.48

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

49,125.48

---

**Country/area**

Poland

**Consumption of electricity (MWh)**

67,602.99

**Consumption of heat, steam, and cooling (MWh)**

77.97

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

67,680.96

---

**Country/area**

Portugal

**Consumption of electricity (MWh)**

33.68

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

33.68

---

**Country/area**

Romania

**Consumption of electricity (MWh)**

17,721.66

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

17,721.66

---

**Country/area**

Russian Federation

**Consumption of electricity (MWh)**

97,585.01

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

97,585.01

---

**Country/area**

Serbia

**Consumption of electricity (MWh)**

2,834.49

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

2,834.49

---

**Country/area**

Singapore

**Consumption of electricity (MWh)**

207.04

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

207.04

---

**Country/area**

Slovakia

**Consumption of electricity (MWh)**

12.77

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

12.77

---

**Country/area**

South Africa

**Consumption of electricity (MWh)**

54.02

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

54.02

---

**Country/area**

Spain

**Consumption of electricity (MWh)**

6,762.26

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

6,762.26

---

**Country/area**

Sudan

**Consumption of electricity (MWh)**

16,271.92

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

16,271.92

---

**Country/area**

Sweden

**Consumption of electricity (MWh)**

1,704.46

**Consumption of heat, steam, and cooling (MWh)**

448.14

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

2,152.6

---

**Country/area**

Switzerland

**Consumption of electricity (MWh)**

11,658.42

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

11,658.42

---

**Country/area**

Taiwan, China

**Consumption of electricity (MWh)**

26,549.22

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

26,549.22

---

**Country/area**

United Republic of Tanzania

**Consumption of electricity (MWh)**

15,278.34

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

15,278.34

---

**Country/area**

Thailand

**Consumption of electricity (MWh)**

44.95

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

44.95

---

**Country/area**

Tunisia

**Consumption of electricity (MWh)**

32.55

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

32.55

---

**Country/area**

Turkey

**Consumption of electricity (MWh)**

40,761.57

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

40,761.57

---

**Country/area**

Ukraine

**Consumption of electricity (MWh)**

15,817.82

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

15,817.82

---

**Country/area**

United Arab Emirates

**Consumption of electricity (MWh)**

65.47

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

65.47

---

**Country/area**

United Kingdom of Great Britain and Northern Ireland

**Consumption of electricity (MWh)**



2,442.56

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

2,442.56

---

**Country/area**

United States of America

**Consumption of electricity (MWh)**

5,115.76

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

5,115.76

---

**Country/area**

Viet Nam

**Consumption of electricity (MWh)**

10.68

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

10.68

---

**Country/area**

Zambia

**Consumption of electricity (MWh)**

518.73

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

518.73

---

**Country/area**

Czechia

**Consumption of electricity (MWh)**

162.46

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

162.46

## C9. Additional metrics

### C9.1

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

---

**Description**

Energy usage

**Metric value**

10,012,334,927.13

**Metric numerator**

MJ

**Metric denominator (intensity metric only)**

**% change from previous year**

2.6

**Direction of change**

Increased

**Please explain**

Increase in energy usage due to volume increase as well as coming back to normal after Covid-19 pandemic .

**Description**

Waste

**Metric value**

123,704.85

**Metric numerator**

kg

**Metric denominator (intensity metric only)**

**% change from previous year**

2.53

**Direction of change**

Decreased

**Please explain**

JTG level waste generated decreased in 2021 compared to the previous year due to combination of process improvement initiatives and reuse program.

## 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\_Environment.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\_Environment.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\_Environment.pdf

**Page/section reference**

All

**Relevant standard**

ISO14064-3

**Proportion of reported emissions verified (%)**

95

## 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	Energy consumption	ISAE3000	JT Group obtained verification of its total energy consumption data for 2021.

C9. Additional metrics	Other, please specify Waste data	ISAE3000	JT Group obtained verification of its total waste generated in operations data for 2021, which is used in relation to calculation of Scope 3 Category 5 emissions.
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## 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**

100

**% of Scope 2 emissions covered by the ETS**

100

**Period start date**

January 1, 2021

**Period end date**

December 31, 2021

**Allowances allocated**

3.31

**Allowances purchased**

0

**Verified Scope 1 emissions in metric tons CO<sub>2</sub>e**

358,720.45

**Verified Scope 2 emissions in metric tons CO<sub>2</sub>e**

306,293.93

### **Details of ownership**

Facilities we own and operate

### **Comment**

We had a usage of 24,626 allowances for 2021.

## **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 which ensure our ongoing 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 annual verification work is scheduled to be concluded well ahead of compliance deadlines to ensure those deadlines are met.

Our internal systems and procedures to ensure compliance with our responsibilities under EU ETS have been integrated into our ISO14001 environmental management system (EMS). Our EMS has been in place since 1998, when it was first implemented at our Trier site, and procedures under EU ETS were first integrated once EU ETS was introduced. Our EMS allocates 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. We are monitoring compliance obligations on ongoing basis and changing approach if appropriate.

## **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 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 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 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**

Innovation & collaboration (changing markets)



### **Details of engagement**

Run a campaign to encourage innovation to reduce climate impacts on products and services

### **% of suppliers by number**

93

### **% total procurement spend (direct and indirect)**

56

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

67

### **Rationale for the coverage of your engagement**

Within JT Group, leaf and Non-Tobacco Material suppliers of our 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 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 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 is 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 innovation to reduce climate impacts on products and services. Through the engagement with Japanese tobacco farmers, we have identified an opportunity to reduce fuel related emissions by introducing innovative 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 implementation of innovation solutions such as updating curing barns.

Through the introduction of innovative 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 monitor amount of wood used to cure 1 kg of tobacco. In 2021 we reduce amount of wood used by 34% comparing to 2015. Our aim is to reduce wood consumption for curing by 75% in Zambia and by 56% in Tanzania.

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.**

Our other partners are other companies working together to reduce carbon emissions.

Case Study: JT Group recognizes the importance of engaging with other partners in the value chain. As part of its engagement strategy, JT G has joined the Japan Climate Initiative (JCI) and understands the importance of and support the Net-Zero commitment announced by the Japanese Government. To achieve this commitment an increase in renewable energy is required. Through the Japan Climate Initiative (JCI) and in conjunction with the other initiative members, JTG placed a statement to request the Japanese government to strengthen its renewable energy target for 2030 from 22-24% to 40-50%.

## C12.2

**(C12.2) Do your suppliers have to meet climate-related requirements as part of your organization's purchasing process?**

No, but we plan to introduce climate-related requirements within the next two years

## 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 (under contractual clause) 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. JTG also has dedicated Forestry Research and development at Agronomy Development & Extension Training (ADET) centers in Brazil and Zambia, focused in maximizing small-scale woodlot productivity.

**Climate change related benefit**

Emissions reductions (mitigation)

**Comment**

No further comment

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**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 fertilization program that contributes to the production of targeted crop style and improve productivity. Research and development conducted at JTI's Agronomy Development and Extension Training (ADET) centers validate 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 pre-finances and delivers crop inputs in a grower pack to contracted growers, that includes recommended fertilizers per type and quantity.

### **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 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 follow 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) Does your organization engage in activities that could either directly or indirectly influence policy, law, or regulation that may impact the climate?**

Row 1

**Direct or indirect engagement that could influence policy, law, or regulation that may impact the climate**

Yes, we engage directly with policy makers

**Does your organization have a public commitment or position statement to conduct your engagement activities in line with the goals of the Paris Agreement?**

Yes

**Attach commitment or position statement(s)**

 JTG\_Net-Zero.pdf

**Describe the process(es) your organization has in place to ensure that your engagement activities are consistent with your overall climate change strategy**

JT Group 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.

## C12.3a

**(C12.3a) On what policy, law, or regulation that may impact the climate has your organization been engaging directly with policy makers in the reporting year?**

---

**Focus of policy, law, or regulation that may impact the climate**

Other, please specify

Promote low-carbon investment

**Specify the policy, law, or regulation on which your organization is engaging with policy makers**

J-Credit Scheme

**Policy, law, or regulation geographic coverage**

National

**Country/region the policy, law, or regulation applies to**

Japan

**Your organization's position on the policy, law, or regulation**

Neutral

**Description of engagement with policy makers**

In 2021, we participated in a demonstration experiment conducted by the Ministry of the Environment of Japan to revitalize J-credit scheme using blockchain technology. The J-Credit Scheme is a system under which the Japanese government certifies as credits the amount of CO2 emission reductions achieved through the introduction of energy-saving equipment and the use of renewable energy, as well as the amount of CO2 absorbed through appropriate forest management. We believe this initiative is part of creating a sustainable mechanism for accelerating low-carbon investment and achieving Japan's and our greenhouse gas targets under the Paris Agreement.

**Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation**

**Have you evaluated whether your organization's engagement is aligned with the goals of the Paris Agreement?**

Yes, we have evaluated, and it is aligned

## 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

 JTG\_integrated\_report2021.pdf

### Page/Section reference

Governance: P88-111 / Sustainability: P30-33 / Risk factors: P80-83 / Non-financial performance review: P16-17 / Improving our environmental impact: P76-79 / Other elements of sustainability: P26-87

### 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. Biodiversity

### C15.1

**(C15.1) Is there board-level oversight and/or executive management-level responsibility for biodiversity-related issues within your organization?**

	<b>Board-level oversight and/or executive management-level responsibility for biodiversity-related issues</b>	<b>Description of oversight and objectives relating to biodiversity</b>
Row 1	Yes, both board-level oversight and executive management-level responsibility	Board and executive management have oversight of the Environment Plan 2030 which includes a target to replace all wood from natural forests used in the tobacco curing process of our directly contracted growers with renewable fuel sources. This includes protecting and restoring natural forests and researching best forestry and agricultural practices. JTI's environment policy, which has management-level and board oversight also focuses on "protecting the environment, minimizing use of natural resources and respecting people, communities and biodiversity".

### C15.2

**(C15.2) Has your organization made a public commitment and/or endorsed any initiatives related to biodiversity?**

	Indicate whether your organization made a public commitment or endorsed any initiatives related to biodiversity	Biodiversity-related public commitments	Initiatives endorsed
Row 1	Yes, we have made public commitments and publicly endorsed initiatives related to biodiversity	Adoption of the mitigation hierarchy approach Commitment to not explore or develop in legally designated protected areas Commitment to respect legally designated protected areas	SDG

### C15.3

**(C15.3) Does your organization assess the impact of its value chain on biodiversity?**

	Does your organization assess the impact of its value chain on biodiversity?
Row 1	Yes, we assess impacts on biodiversity in our upstream value chain only

### C15.4

**(C15.4) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?**

	Have you taken any actions in the reporting period to progress your biodiversity-related commitments?	Type of action taken to progress biodiversity-related commitments
Row 1	Yes, we are taking actions to progress our biodiversity-related commitments	Land/water protection Land/water management Education & awareness


### C15.5


**(C15.5) Does your organization use biodiversity indicators to monitor performance across its activities?**


	Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance
Row 1	Yes, we use indicators	Other, please specify Policy and management responses

### C15.6

**(C15.6) Have you published information about your organization's response to biodiversity-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).**

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located
In voluntary sustainability report or other voluntary communications	Other, please specify  Initiatives to secure biodiversity in our direct leaf supply chain	<ul style="list-style-type: none"> <li>• Responding to the challenge (<a href="https://www.jti.com/news-views/responding-challenge">https://www.jti.com/news-views/responding-challenge</a>): P1-6</li> <li>• Environment and our operations (<a href="https://www.jt.com/sustainability/environment/operations/index.html">https://www.jt.com/sustainability/environment/operations/index.html</a>): P8-14</li> </ul>  <sup>1, 2</sup>

 <sup>1</sup>Environment and our operations.pdf

 <sup>2</sup>Responding to the challenge.pdf

## C16. 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.**

### C16.1

**(C16.1) Provide details for the person that has signed off (approved) your CDP climate change response.**

	Job title	Corresponding job category
Row 1	Chief Executive Officer (CEO)	Chief Executive Officer (CEO)