



Environment



Environmental issues are of increasing societal concern and have brought many challenges to our society. Today we are facing the consequences of climate change such as melting ice caps, rising sea levels, and changing weather patterns. We all need to address these issues and, as a global organization, we recognize that we have a key role to play in reducing our environmental impact.

As with most industries, the environment has a direct impact on our business. We also know that our operations impact the environment, through resource usage, emissions, and waste generation, but we strive to minimize this impact.

By implementing sustainable business practices, we are able to conserve resources, protect biodiversity, reduce waste, manage costs, and meet the growing consumer demand for more sustainable products – bringing benefits to both the environment and our business.

This approach is explained in [the JT Group Environment Policy](#).

Environmental management

Environment and our operations

Environment and our products

Environmental data / External verification

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Our JT Group Environment Plan 2030 sets objectives and targets to address our key environmental risks and opportunities across three focus areas: Energy and Emissions, Natural Resources, and Waste.

It considers not only our operations, but also our value chain. The plan contains longer-term objectives for energy and emissions, along with quantified targets to achieve by 2030.

We have recently strengthened our targets for “Energy and Emissions” and aim to be Carbon Neutral for own operations by 2030. Moreover, we commit to accelerate our efforts to reduce GHG emissions across our entire value chain and achieve Net-Zero GHG emissions by 2050.

We will track performance and progress towards our objectives and targets, and we will revisit the plan periodically to ensure that it remains relevant to our business and stakeholders.

JT Group Environment Plan 2030

OUR CHOICE. OUR FUTURE.

Energy and emissions

	Energy	Emissions
Objective	JT Group will transition all of its energy use to zero carbon energy by 2050.	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.
Targets	We will increase the proportion of renewable electricity that we use to 50% by 2030 and 100% by 2050.	<p>We commit to reduce absolute Scope 1 & 2 GHG emissions by 47% in line with a 1.5 degree reduction pathway by 2030 from a 2019 base year.</p> <p>We commit to reduce absolute Scope 3 GHG emissions associated with purchased goods and services by 28% by 2030 from a 2019 base year.</p>

Natural resources

	Water	Forestry
Objective	Support global water stewardship by reducing our water withdrawal and by encouraging water risk management in our supply chain.	Ensure a sustainable wood supply for our product supply chains and further contribute to forest conservation and rehabilitation.
Targets	<p>We will reduce water withdrawal associated with our tobacco business by 15%.</p> <p>To better understand water risk and use in our supply chain, by 2022, we will implement a water risk management process in our manufacturing supply chain.</p>	<p>To further focus our efforts on sustainable forest management, we have assessed the drivers for deforestation and forest degradation in communities where we source tobacco and are implementing the resulting action plans in relation to improved wood resource use, forest conservation, and forest rehabilitation.</p> <p>We will replace all wood from natural forests used in the tobacco curing process of our directly contracted growers with renewable fuel sources.</p>

Waste

	Waste
Objective	Further reduce the environmental impacts of waste associated with our processes and products.
Targets	<p>We will reduce the environmental impact of our products and packaging through:</p> <ul style="list-style-type: none">■ Design solutions■ Facilitating responsible collection and disposal■ Consumer awareness and education <p>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. In total, recycled content will account for 20% of our tobacco business packaging by 2025.</p> <p>We will reduce waste associated with our tobacco business by 20%.</p>

Baseline year for targets is 2015 and target year is 2030 unless stated otherwise. The overall plan is to be reviewed every five years.

Read more about our progress toward targets [here](#)  .



Environmental management

In our more complex operations, we align our approach to environmental management with the internationally recognized standards ISO 14001 and ISO 50001.* In our smaller and less complex operations in Japan, we have implemented our own 'JT Green System', which promotes a simple and consistent approach.

ISO 14001 encourages businesses to think more broadly about environmental issues – not only those associated with their direct operations, but throughout their entire value chains. ISO 50001 provides a framework for our energy management system and helps us to continually improve our energy performance.

We are also working to streamline and better integrate our environmental and energy management

systems with other business considerations, such as quality, occupational health and safety, and business continuity.

To objectively review our approach to environmental management and our overall performance, we use external disclosures and ratings agencies, such as CDP and the Dow Jones Sustainability Indices (DJSI).

ISO 14001 certification

We use ISO 14001 as the framework for our environmental management systems to manage significant environmental aspects, mitigate risks, and optimize opportunities. We track the proportion of our cigarette and tobacco-related factories that are certified to ISO 14001. Data for the current and past certification of our factories can be found [here](#).

*ISO 14001 and ISO 50001 are the internationally recognized standards for environmental management systems and energy management systems, respectively. These standards do not prescribe absolute performance requirements. Rather, they provide us with a framework to help build effective management systems that deliver continual improvement in environmental and energy performance.

CDP A List and Supplier Engagement Leader

In 2021, we achieved a place on CDP's prestigious 'A List' for tackling climate change as well as acting to safeguarding water security for the third consecutive year. In addition, CDP recognized us as a global leader in engaging our supply chain in addressing climate change. This marks our third recognition for CDP Supplier Engagement Leader.



We are delighted to be included in the CDP's 'Climate A List' and 'Water A List' for the third consecutive year. This clearly reflects our continued efforts to reduce our environmental footprint

and expand our
transparency in
disclosing information.

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Kazuhito Yamashita

Member of the board,
Chief Sustainability Officer,
Compliance and General Affairs
(As of 31 December, 2021)



CLIMATE WATER

You can find submissions here: [CDP Climate 2022](#)  , [CDP Water 2022](#)  .

A greener approach to procurement

Green procurement is critical to improving environmental performance. We have established a Sustainable Procurement Department. The purpose of this department is to lead sustainability related initiatives, mainly for packaging and other relevant categories, support sustainability activities to achieve the JT Group Sustainability targets, and engage with suppliers on sustainability

topics through close collaboration.

In our Japanese operations, we have green procurement guidelines to ensure that the products and services we purchase cause minimal environmental impact. These guidelines include lists of green products and services, such as stationery, computers, and transportation services. We review and update the guidelines periodically, based on the availability of new products and services, and monitor how many of the listed products and services we purchase.

Our green procurement approach is not only about purchasing goods and services. We also encourage and work with our suppliers to improve their overall environmental management and performance. Energy efficiency is one of the key criteria for the purchase of goods and services in our Global Supply Chain division. In 2021, we launched the Green Mobility Program in our Tobacco Business. The purpose of the program is to help decarbonize our fleet and reduce emissions associated with work-related and private travel. The program is supported by our Green Mobility Handbook and communications campaigns across the business.

Building environmental awareness and expertise

Across the Company, we strongly believe in the importance of raising awareness of environmental issues among all employees. To do this, we run training and awareness campaigns every year, and we regularly publish articles and updates on our Company intranet.

To improve the environmental performance of our operations, we have appointed personnel responsible for environmental management at each of our business sites. These employees are trained in environmental management systems and the relevant regulatory requirements. We also offer a more advanced course for staff who are responsible for internal auditing and reporting environmental data.

In addition, our internal auditors go through a certification process to ensure that we apply a consistent approach across the JT Group.

As a further step to raise awareness of environmental issues and our sustainability initiatives, we hold regular 'Sustainability Days'. One of the focus areas is the environment: there are always many activities and events at a global and local level, including information sessions on emissions, resources, and waste.

Related links

Environment

Environmental management

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Environment and our operations

Energy, emissions, and climate change

Natural resources

Waste

Case studies



We strive to further reduce the environmental impact of our operations, focusing on the most significant environmental risks and opportunities for our business and stakeholders. These currently include climate change, the sustainable use of resources, and responsible waste management.

Energy, emissions, and climate change

Climate change is the biggest environmental challenge facing society and our business. The effects of climate change, such as global warming and changing weather patterns, could have serious implications for our supply chain given our products are mainly agriculture-based and also for our own operations.

We are committed to tackling this issue and we are reducing our greenhouse gas (GHG) emissions to support global action on global climate change, with the longer-term aim of achieving net zero carbon emissions from our operations.

Net-Zero Commitment

We committed to be Carbon Neutral for own operations by 2030, with the aim to achieve Net-Zero Greenhouse Gas emissions for our entire value chain, no later than 2050. In support of this, we have set more ambitious 2030 science-based reduction targets, for which we will seek SBTi validation. We also aim to obtain validation for our longer-term Net-Zero target.

We will meet our social responsibility to help create a decarbonized society, through tangible and concrete reduction measures, building on infrastructure and technological advancements globally.

Task Force on Climate-related Financial Disclosures (TCFD)

The potential for financial impact associated with climate change is now well known, and concern is growing about its mid to long-term impact on business operations and financial market stability. We officially endorsed the recommendations of The Task Force on Climate-related Financial Disclosures (TCFD) in December 2020.

A key aspect of the TCFD recommendations relates to the identification, assessment and management of climate-related risks and their integration into overall risk management. With this in mind, in 2019, we began conducting climate scenario analysis. Our first round of analysis was based on two scenarios: a global temperature increase of two and four degrees Celsius. The two-scenario approach is in-line with the expectations of the TCFD. However, as modelling of risks from a 1.5 degree Celsius scenario becomes more established, we will review potential climate-related risks to our business to consider this scenario also.

Governance

Climate-related issues are of strategic importance to our business. Through our business-wide Enterprise Risk Management process, we have identified climate-related risk as one of our Enterprise Level Risks for our Tobacco Business, which also needs to be considered in local risk inventories and assessment processes. Board oversight is critical and climate-related issues and potential impacts on business strategy are discussed in quarterly Board-level meetings.

Read more on [Corporate governance](#).

Strategy

Through climate scenario analysis performed in 2019, we identified two main risks: 'potential cost increases due to governments raising carbon taxes to further reduce GHG emissions' and 'the impact on leaf tobacco growing due to changes in environmental conditions'. Our plan is to mitigate these risks by continuing to implement climate-related initiatives across our value chain and address areas for improvement.

Risk Management

We consider climate-related risks and identify risk mitigation and management approaches through our Enterprise Risk Management (ERM) process. We also include these risks in local risk inventories, assessment processes, and action plans, which are partly based on our ongoing country-level climate scenario analysis. We will compare business-wide risks from local assessments and identify the most critical ones.

Metrics and Targets

Our Group Environment Plan 2030 includes a commitment to reduce GHG emissions from our own operations by 47% (2030 versus 2019). We have also set a longer-term GHG emission reduction target, as well as targets for renewable electricity, backed by our Group-wide climate scenario analysis.

Read more on [Environmental data / External verification](#).

Details of Climate Scenario Analysis

We reviewed various risk factors with the potential to have a substantive financial or strategic impact on our business. This process identified two main risks:

- 1 Potential cost increases due to the raising of carbon taxes by governments to further reduce GHG emissions
- 2 The impact on leaf tobacco growing due to changes in environmental conditions

Our conclusion was that we could mitigate both risks by continuing to implement climate-related initiatives and programs across our value chain. This would mean that our business operations would not be materially disrupted by financial impacts.

Transitional Risks

Category	Risk name	Parameter	Time horizon	Magnitude of impact
Policy	Emerging regulation Carbon pricing	Carbon tax	Long-term	Medium-low

Explanation of impact / Impact (100 million yen) /Description of responses

Explanation of impact

Increased carbon tax may increase the procurement cost of tobacco leaf and other materials and services. It may also lead to additional company expenditure 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 the JT Group will bear the additional cost and/or transfer this to the raw material price.

Impact (100 million yen)

7~75

Description of responses

- Reducing our energy consumption through capital investment
- Energy saving and renewable energy programs
- Introducing green vehicles and engaging with suppliers to understand their climate-related risks.

Physical Risks

Category	Risk name	Parameter	Time horizon	Magnitude of impact
Chronic	Change in growing environment of tobacco leaf	Change in yield of tobacco leaves by climate change	Long-term	Medium

Explanation of impact

Changes in environmental conditions for leaf growing, including CO2 levels in the atmosphere, shifts in the prevalence and presence of tobacco crop pests and diseases related to climate change, generally higher than average temperatures and precipitation patterns, together with water scarcity 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. As a result, the cost of sourcing tobacco leaf could increase.

Impact (100 million yen)

323~367

Description of responses

- Shifting leaf growing regions based on identified climate-related impacts
 - Implementing climate change adaptation measures
 - Smart agriculture and breeding
 - Improving yield in growing regions
-

Country-Based Climate Scenario Analysis

To further understand climate-related issues and potential risks at a more granular level, we have a program of country-level climate scenario analysis in our tobacco business.

In this initial phase, we have completed climate scenario analyses for eight countries. We have prioritized countries where we have a combination of leaf sourcing, manufacturing and markets.

We assess potential exposure and vulnerability to climate-related issues. We assess potential exposure using climate modelling based on scientific research and literature, and assess vulnerability through interviews with local functions.

The outputs from country-level scenario analysis help inform local risk inventories and assessments, as part of our Enterprise Risk Management process.

Climate change has been identified as an Enterprise Level Risk (ELR) for the tobacco business. Each ELR has an owner at ExCom level, who has oversight and overall responsibility for assessment and management of the risk. Ultimate accountability for the ELRs rests with the CEO.

Greenhouse gas emissions from our own operations

In our Group Environment Plan 2030, we have committed to reduce greenhouse gas (GHG) emissions. Recently we have strengthened our target to reduce emissions from our own operations by 47% (2030 versus 2019) and achieve Net-Zero GHG emissions across our entire value chain by 2050. We expand sustainability ambition across entire value chain and accelerate its efforts to reduce GHG emissions. To date, this is through a combination of energy and emissions reduction initiatives, increasing the proportion of the energy we use that comes from renewable sources and production impacts. Going forward, the main programs to achieve the target relate to further improvements in energy efficiency, renewable energy, and vehicle fuel type and efficiency.

As part of our efforts to meet our energy and emissions target, we will increase the proportion of renewable electricity that we use to 50% by 2030, in support of our goal of reaching 100% by 2050.

In our direct operations, the renewable electricity target will be achieved through on-site generation and the sourcing of third-party renewable energy.

We are continuously working to identify renewable energy opportunities. Where possible, and where it makes business sense, we have invested in renewable energy generation opportunities and will continue to invest in opportunities that increase our use of renewable resources. Renewable energy opportunities are included in our business planning and in our feasibility study for achieving Carbon Neutral in own operations by 2030 and Net-Zero GHG emissions across entire value chain by 2050. We also identify and apply the options to purchase zero or low-carbon energy tariffs, green energy certificates and conclude a Power Purchase Agreement for renewable energy.

Progress toward quantitative target

By the end of 2021, 30% of electricity used in our tobacco business came from renewable sources (either purchased or generated on-site), and 23% of the electricity we used in JT group in 2021 came from renewable sources. Moving forward, we have plans in place which will further increase the proportion of renewable electricity we use.

RENEWABLE ENERGY

RENEWABLE ENERGY GENERATED

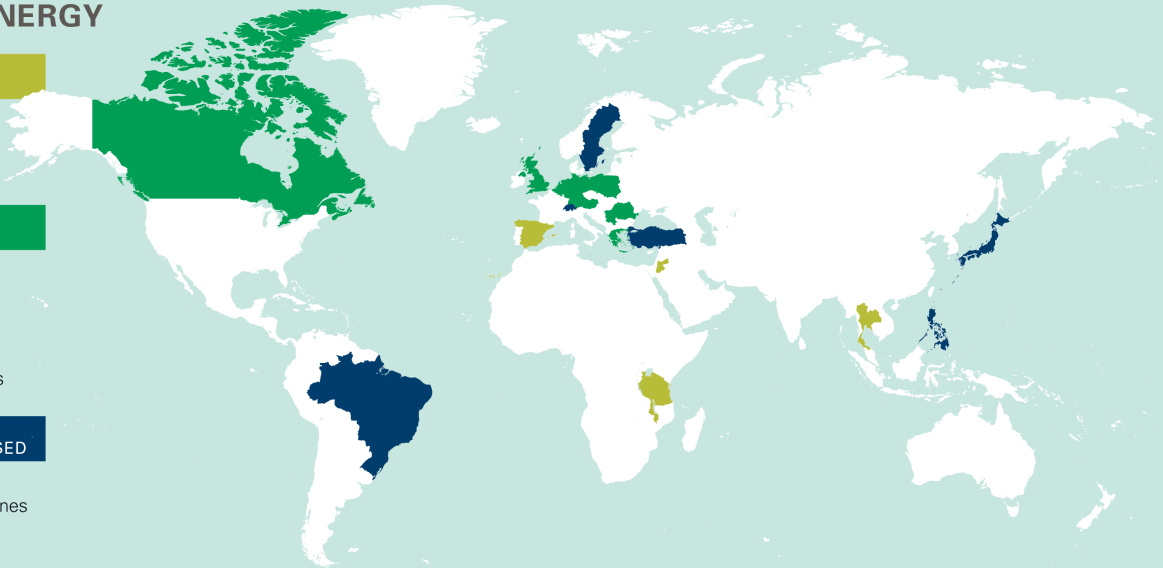
Jordan	Tanzania
Malawi	Thailand
Spain	

RENEWABLE ENERGY PURCHASED

Austria	Poland
Belgium	Romania
Canada	Serbia
Germany	Greece
U.K.	Netherlands

RENEWABLE ENERGY GENERATED AND PURCHASED

Brazil	Sweden
Japan	The Philippines
Switzerland	Turkey



Through our Environment Opportunities Scheme, our factories have identified over 250 no- or low-investment projects between 2015 and 2021. These avoid almost 8,000 tons of GHG emissions and represent a cost saving of over 1.8 million U.S. dollars, with an average payback of three months.

Vehicle emissions are another important consideration for us, and we encourage all of our locations to select alternative, more environmentally friendly fleet vehicles and change the way how the travels are planned, improve style of employees' driving and commuting etc. Within our tobacco business, we have launched our Green Mobility Program, designed to reduce emissions associated with our fleet.

Greenhouse gas emissions in our supply chain

As part of the JT Group Environment Plan 2030, we are committed to reduce GHG emissions associated with our supply chain. We recently updated our absolute Scope 3 GHG emissions target: to reduce our GHG emissions associated with purchased goods and services by 28% between 2019 and 2030 and to achieve Net-Zero for our entire value chain by 2050.

We continue focusing our efforts on improving curing efficiency, through barn furnace upgrades and new heat exchange designs. These not only optimize tobacco leaf quality, but also reduce wood fuel consumption. In addition, we are addressing the production of wood resources required for tobacco curing through dedicated agroforestry programs and tree-growing initiatives in Tanzania and Zambia, for instance.

In Japan, we have a long-standing relationship with tobacco growers, which brings benefits to our suppliers, our business and our planet. By working closely with leaf growers and a machinery supplier, we developed an innovative new drying machine to improve fuel efficiency in the tobacco curing process. This has had a positive effect on our environmental impact, as it helps to reduce greenhouse gas emissions and non-renewable energy use. It also helps growers to save costs and

improve quality, directly impacting our business and improving the environmental impact associated with our tobacco value chain. By the end of 2021, our leaf growers were using a total of 825 drying machines across Japan. In future, we will expand the program by implementing a new curing system to make the process even more sustainable.

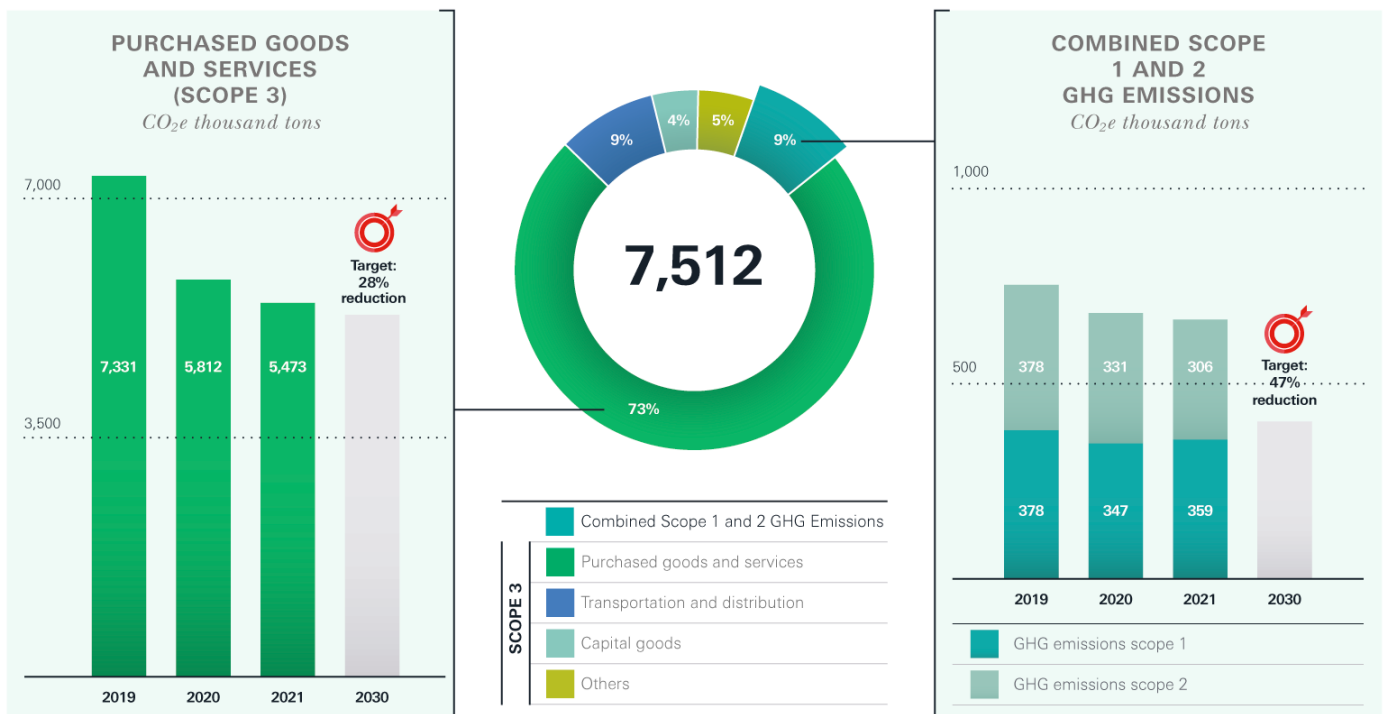
Another initiative to reduce leaf-related emissions is further optimizing the use and management of resources in crop production and improving yield. This includes a set of best agronomic practices which are tailored to produce a customized crop while optimizing the use of crop inputs such as fertilizers. We will also be working with suppliers to reduce the amount of packaging associated with our non-tobacco materials.

Progress toward quantitative target

In 2021 GHG emissions related to Purchase Goods and Services decreased by 25%. This is mainly driven by lower emissions associated with purchased indirect leaf as well as emissions associated with Non-Tobacco Materials. Although the business is making good progress against its 2030 targets, we anticipate that the reduction achieved may lessen in FY2022 due to volume and sourcing drivers.

GHG EMISSIONS IN OUR VALUE CHAIN IN 2021

CO₂e thousand tons





Science Based Targets (SBT)

The 2030 GHG emissions reduction targets that we set in 2019 were validated by the Science Based Targets initiative (SBTi). We will also be seeking validation of our new, strengthened science-based reduction targets announced in 2022.

Read the [press release](#)  (February 2019)

Natural resources

Water

Societal demand for water is increasing globally and water-related issues such as availability, quality, flooding, drought, or regulatory changes can have a major impact on society and our business.

Our tobacco and food manufacturing activities all use water. However, for our main operation, the tobacco business, the water that is required for tobacco crops comes predominantly from rainfall, while tobacco processing and manufacturing are not water-intensive.

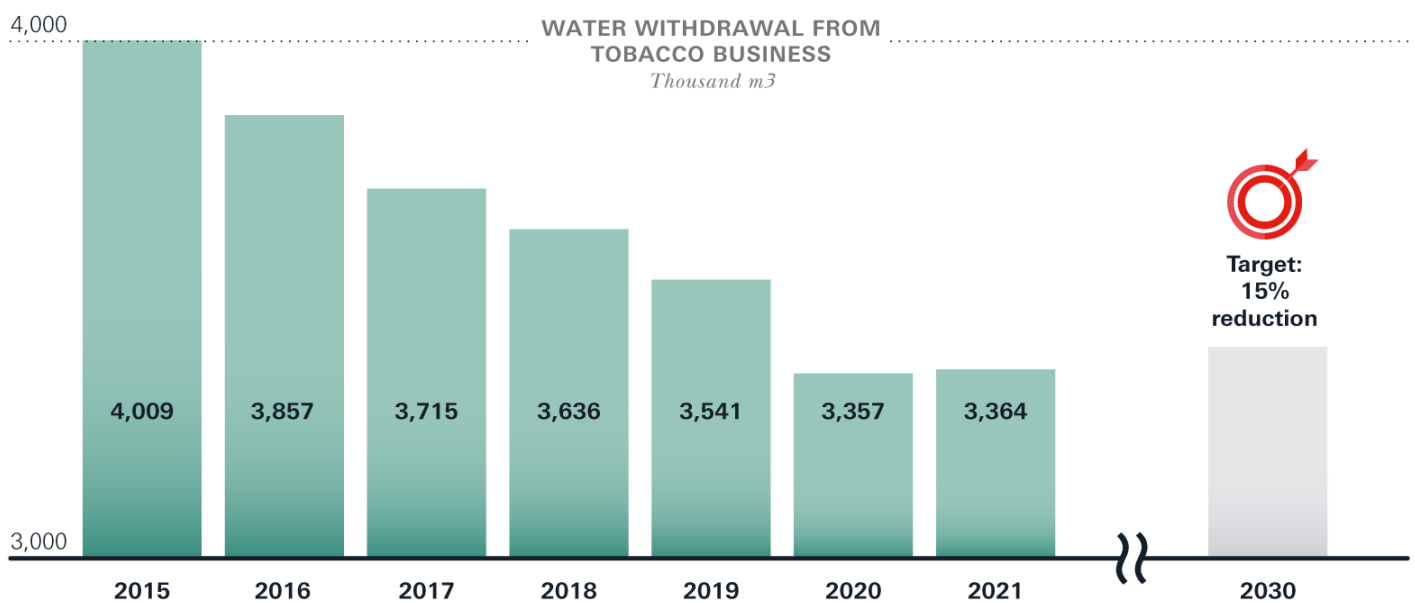
As part of our approach to good water stewardship, we committed to carry out water risk assessments at 100% of our factories. In 2020, we completed the first risk assessments at all of our factories and we are now working on our program of re-assessments. Our water risk assessments consider water availability and quality, changing legislation, natural disasters such as flood and drought, and future water stress. From the assessments, we develop action plans to reduce risk and improve overall water management and security.

In the JT Group Environment Plan 2030, we commit to supporting global water stewardship by reducing our water use and encouraging water risk management in our supply chain. We have set a target to reduce our tobacco business-associated water withdrawal by 15% by 2030 vs 2015.

We plan to achieve the target by using less freshwater for factory site irrigation, reducing water use in our processes, improving leak control, using more recycled water, and improving cleaning practices.

Progress toward quantitative target

Based on 2021 results, we successfully achieved our water withdrawal target ahead of our schedule. Since 2015, we have reduced water withdrawal associated with our tobacco business by 16%. We achieved this by implementing water efficiency improvement programs and changing production volumes.



Water risk in our supply chain

Many of our raw materials require water in their production, and water is an important resource for many of our suppliers. To better understand water usage and water-related risk in our supply chain across the Group, we plan to implement a water risk management process by 2022.

We are developing comprehensive approach to assess and manage ESG risks in our supply chain including water related issues.

Forestry

Ensuring a sustainable wood supply and contributing to conserving and rehabilitating forests are key objectives set out in [the JT Group Environment Plan 2030](#). Our focus is to establish and monitor woodlots with higher productivity and usability, securing a sufficient, renewable supply of wood for tobacco production while also reducing wood consumption through improved curing efficiency.



Our Agroforestry Programs address sustainable forestry, wood use, and management. In Malawi and Zambia, the local teams encourage growers to build 'live barns' by planting trees that will form the main structure of a Burley curing barn within four years. This contributes to conserve vital wood resources and reduces grower barn maintenance effort and costs.

In Brazil, Tanzania, and Zambia, where the local market teams contract growers that require wood as a fuel source for curing, the teams promote best forestry practices, validated through dedicated forestry Research and Development, striving to achieve 100% renewable wood supply by 2030.

In these countries, we estimate the wood production requirements at small-scale farm level and verify the progress of our forestry targets in terms of renewable wood production. This is done through a remote-sensing, high-resolution satellite imagery monitoring platform. Data is captured at field level by our Agronomy Technicians via the AgroMobility mobile application and then uploaded to the monitoring platform.

To further understand and quantify the relevance of wood resources for a more

sustainable tobacco production, our teams have assessed the drivers of deforestation and forest degradation in communities where the local business sources and produces tobacco in Tanzania and Zambia. Quantitative and qualitative results from these surveys confirmed that our efforts to address the drivers of deforestation and forest degradation in our direct leaf supply chain are in the right direction. We focus our efforts on high-impact measures aligned with our tobacco business sustainability strategy such as improving tobacco production, improving curing efficiency and producing renewable wood resources.

In 2021, across Tanzania and Zambia, it was the first time that all woodlots established in a crop year were captured by Agronomy Technicians using the Agroforestry Functionality (mobile application) in AgroMobility (AGRM). Forestry data such as tree species, transplanting date, number of trees planted and woodlot boundaries coordinates using GPS offers greater transparency and reliability of forestry data and better tracking of woodlot growth over the years.

Also, in 2021, the team in Zambia successfully implemented the first commercial woodlots in Zambia, with approximately 160 hectares of woodlots established.

Our approach

Live Barns

Our Agroforestry Programs address sustainable forestry, wood use, and management. In Malawi and Zambia, the local teams encourage growers to build 'live barns' by planting trees that form the

main structure of a Burley curing barn within four years. This contributes to conserve vital wood resources and reduces grower barn maintenance effort and costs. In Malawi, there are 1,965 fully operational live barns and well on track to reach 100% operational live barns by 2024.

Renewable wood resources as fuel for curing

In Brazil, Tanzania, and Zambia, JTI contract growers that require wood as a fuel source for curing. Our target is to achieve 100% renewable wood supply by 2030. In Brazil, this target has already been achieved as there is a consistent supply of renewable wood resources for tobacco production. In Tanzania and in Zambia, there is positive progress to achieving our target by 2030, ensuring any potential pitfalls are addressed in renewable wood production requirements through the establishment of dedicated JTI sponsored woodlots or commercial woodlots. Also, our best forestry practices are validated through dedicated forestry R&D. These are then incorporated into Minimum Forestry Standards (MFS) for both wood production and for live barn establishment.

Progress toward quantitative target

Improvements in tree planting and wood production

- In Brazil, a 100% sustainable renewable wood supply (either growers' own tree planting or purchased from commercial woodlots) has been achieved.
- Tanzania and Zambia, 72% and 68% of our tree planting targets to meet wood requirements for curing by 2028 have been achieved.
- We focused on improving tree seedling production and woodlot establishment by growers (increased survival rates and +kg/m³ wood).
- In Zambia, commercial Eucalyptus woodlots were established to secure a supply of renewable wood for curing by 2028.

Improvements in tree seedling production

An improved adoption of our Minimum Forestry Standards (MFS) has already shown results in enhanced tree seedling quality and uniformity. Quality tree seedlings are the basis for a successful woodlot establishment and optimized tree growth potential.

Commercial woodlots in Zambia

In Zambia, commercial woodlots were successfully established with survival rates of over 90%. This is part of JTI's effort to secure a renewable wood supply by 2030, and address any potential

shortcomings due to new contracted growers or varying tobacco volumes (wood production is planned according to forecast tobacco volumes to be cured).

A new approach to forestry data capture

In Tanzania and Zambia, 2021 was the first time that Agronomy Technicians captured all woodlots established during the crop year, using the Agroforestry Functionality (mobile app) in AgroMobility (AGRM). Forestry data such as tree species, transplanting date, number of trees planted and woodlot boundaries coordinates with GPS enable us to increase transparency and the reliability of forestry data, and to track and monitor woodlot growth over the years. Data captured with the mobile application is uploaded to a high-resolution satellite imagery monitoring platform.

Assessment of deforestation and degradation risks

To identify and quantify tobacco-related drivers of deforestation and forest degradation, the local teams carried out a one-time baseline study in communities where our local operations source tobacco in Tanzania and Zambia. Quantitative and qualitative results from these surveys confirmed that the right drivers in our direct leaf supply chain are being addressed. Our efforts are focused on high-impact measures aligned with our tobacco business sustainability strategy, such as:

- Improving tobacco production (which significantly lowers the risk of land clearance for agriculture)
- Improving curing efficiency (which reduces in order to reduce wood consumption)
- Producing renewable wood resources.

All of these actions assist to prevent or reduce the risk of deforestation, while contributing to better management of natural resources and environmental protection.

Biodiversity

For JTG, responsible management of biodiversity is important. Our focus is on conservation of biodiversity during tobacco growing, where our biggest impact is. One of the JT Group Principles in Leaf Tobacco Production is to reduce environmental impact and ensure efficient use of natural resources while striving to conserve biodiversity. Biodiversity is also included as a focus area in the

Leaf Sustainability Framework.

Read more on [Supply Chain](#).

We deploy appropriate responses, such as good agricultural practices, initiatives on soil management, sustainable wood and water conservation, and natural forest restoration.

In Brazil we implemented a project that promotes environmental conservation and biodiversity production at small-scale farm level. It involves both agronomy technicians and farmers. With technical support from the NGO SPVS (Society for Wildlife Research and Environmental Education), JTI Bio has developed a dedicated biodiversity inventory and monitoring protocol that helps farmers put nature first whilst observing sustainable practices.

The Araucaria Connection Project aims at the ecological restoration of 335 hectares in the state of Paraná.

Restoration work started in 2018 in Floresta Nacional de Piraí do Sul with 35 hectares and in the following year another area was included totalizing 47 restored hectares in this Conservation Unit. In 2020, a partnership was signed with the municipality of Rio Azul (PR) for the restoration of 10 hectares in the Salto da Pedreira Environmental Park. Right now the seedlings that were planted in this area are being monitored by SPVS (Wildlife Research and Environmental Education Society) and to ensure the success of the restoration.

At the moment, more than 190 ha of ecological restoration have been implanted in Permanent Preservation Areas (APP) in 164 small farms, by using 91,100 seedlings of native species and installing 20,160 meters of fences to protect the seedlings settings on the properties. Only 6 ha remain to complete the restoration goal on rural properties.

Also in 2022, ecological restoration is planned to happen on 75 ha in Meia Lua Natural Reserve, in the city of Ponta Grossa (PR).

The Project is scheduled to be completed/finished by May 2023, but it is expected that by the end of 2022 all fieldwork will be complete.

The Shishamba Forest Livelihoods Project in Zambia is an initiative for the sustainable management of Miombo woodland. It includes, amongst other things, the promotion of woodland conservation practices such as fire management and assisted natural regeneration. Also, empowerment of local communities to use and manage resources from Shishamba Forest responsibly and sustainably. JTG participates in the Keidanren Biodiversity Initiative, a compilation of ambitious action policies for and specific activities on biodiversity taken by member companies and organizations.

We are currently reviewing our company approach to biodiversity.

Waste

From a societal and stakeholder perspective, waste, and particularly plastic waste, is of increasing concern. From a business perspective, all waste has a direct cost (handling and disposal) and an

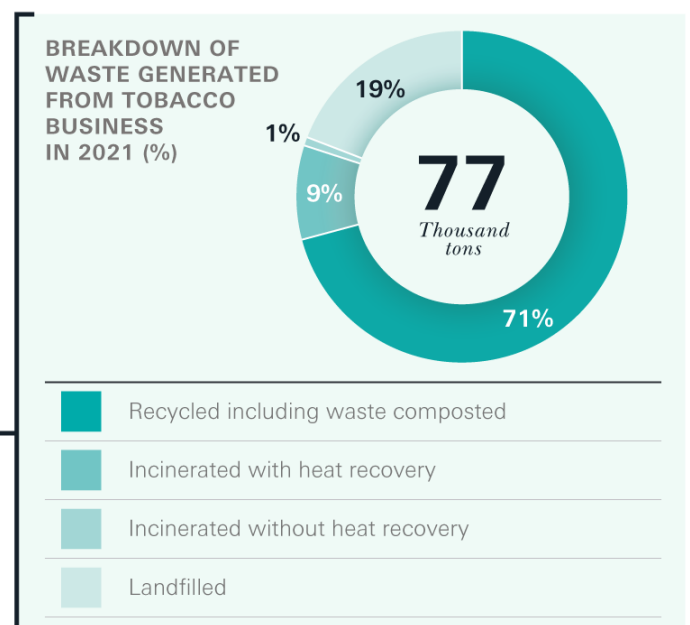
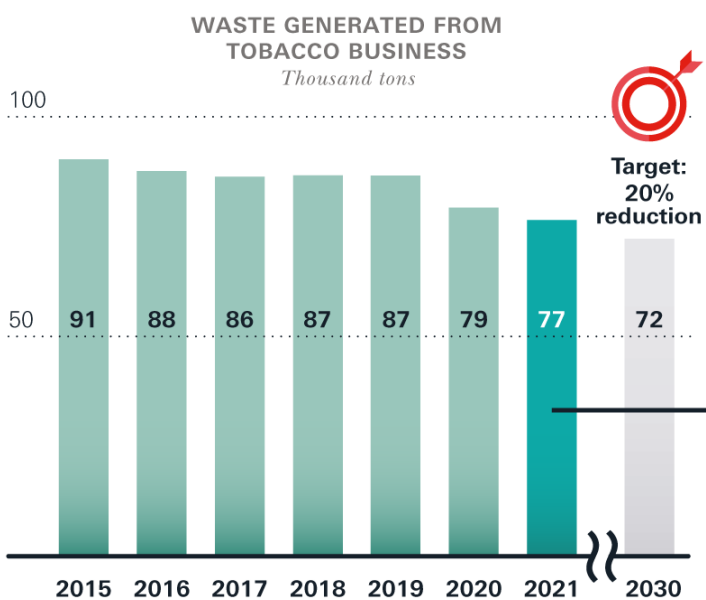
indirect cost (e.g. resource and processing costs).

We consider waste impacts on each stage of our operations from receiving materials and services to post-consumer waste of our product and packaging. That's why waste management is a key component of our Environment Plan 2030. Across the JT Group we apply a 'Reduce, Reuse, Recycle' approach. We have also set targets for waste reduction as reducing waste helps to conserve resources, which in turn helps to minimize our environmental impact and cut business costs.

By 2030, we will reduce waste associated with our tobacco business by 20% vs 2015. We will do this by improving resource efficiency and rolling out innovative solutions across different sites.

Progress toward quantitative target

Based on the 2021 results, we are on track to achieve our waste reduction target, thanks to waste improvement initiatives in manufacturing sites as well as materials reuse program. Since 2015, we have reduced waste associated with our tobacco business by 15%. Going forward, we are working on further reducing secondary packaging and tobacco waste, along with other waste-reduction initiatives such as reusing materials (e.g. tobacco packaging) and yield improvements.



Product and packaging waste

One of our objectives in the JT Group Environment Plan 2030 is to reduce the environmental impacts of waste associated with our operations, products and services. Waste associated with our operations is described above. Waste associated with our products and services includes packaging. To improve the environmental credentials of our products and packaging, we follow a '3R' approach (reduce, reuse, recycle). We also have dedicated teams across the business working on packaging and product-related initiatives.

Read more on [Environment and our products](#).

Case studies

Sustainability is deeply embedded within our operations. We work hard to minimize our environmental impact by focusing on energy efficiency, GHG emission reduction, water efficiency, and waste reduction. Many programs and initiatives are already in place, both globally and locally. These include everything from the way we source raw materials to the way we ship finished products. Read more about our local and global activities:

[In our Japanese business operations \(Japanese website\)](#) 

[In our international tobacco business](#) 

Case study

Recognition for our greenhouse gas emissions reduction

Our efforts to address climate change are recognized externally. In 2021 we were included in the 'A List' by CDP Climate Change, in recognition of our leading position in managing climate related risks and opportunities.

The JT Kansai factory (tobacco manufacturing) received two awards from Kyoto City and the Kyoto prefecture government for its emission reduction initiatives. The factory is proactively tackling the reduction of greenhouse gas (GHG) emissions by implementing projects such as high-efficiency freezer installation and eco-friendly compressor use.

In December 2019, Nihon Syokuzai Kakou, a subsidiary of our processed food business, was selected as a leading company and awarded by the government of Miyazaki prefecture for its effort to reduce GHG emissions. The Japanese working philosophy known as *Kaizen*, which involves all employees, is based on an ethos of continual improvement, and which we believe helps us to achieve strong ongoing results.

Our factory in Jordan was awarded the 'Environmental Stewardship Award' by the World Bank, as the first tobacco factory in the world to use direct solar steam generation. A rooftop-mounted collector, steam storage, and a steam-driven absorption chiller provide the site with energy and building heating and cooling. The system covers 20% of the plant's annual steam consumption and helps reduce its CO2 emissions by over 100 tons a year, the equivalent of over 100 round-trip flights from Paris to New York. The factory's ultimate ambition is to be 100% carbon neutral.

We continuously strive to further reduce our environmental impact by combining technology-driven innovation with the Japanese philosophy of *Kaizen*, meaning 'continuous improvement'.

Case study

Studying best practice wood production at ADET BRAZIL

In Southern Brazil, Eucalyptus wood is the main energy source for curing tobacco. Sufficient data is available on woodlots established at a commercial scale. However, there is a significant lack of research and information on Eucalyptus productivity in small-scale farms, where woodlots are established in marginal areas usually unsuitable for agriculture. Our Eucalyptus woodlots in Brazil ADET (Agronomy Development and Extension Training Center) are designed to produce a renewable supply of wood fuel for curing tobacco trials, as well as to test and validate best forestry practices. Since 2012, several new studies have been developed at ADET by planting Eucalyptus woodlots, some in partnership with the Federal University of Santa Maria (UFSM) and University of Santa Cruz do Sul (Unisc). We highlight experiments with different Eucalyptus species (including clones and hybrids), different plant spacing, soil preparation, and management of weeds and forestry pests. Other studies relate to the usability of wood fuel and energy efficiency for tobacco curing.

The local team continues to establish woodlots in ADET to this day, in a continuous process of forestry R&D and, for older woodlots where trees have already been harvested, our focus is on post-harvest and regrowth management.

Case study

Monitoring woodlots at small-scale tobacco farms

In Brazil, it is usual practice to use Eucalyptus wood fuel for tobacco curing. However, there are few long-term initiatives and research to quantify and qualify Eucalyptus productivity at the small-scale farm level. In 2012, in partnership with the Federal University of Santa Maria, a program to monitor the inventory Eucalyptus woodlots was established on tobacco farms of integrated contracted growers.

The initiative involved a series of objectives, from monitoring woodlots annually to observing forestry techniques, identifying gaps and opportunities in technical assistance, and taking an inventory of pre-defined permanent plots within woodlots. The woodlots inventory allows for the estimation of wood production, and an understanding of which practices have an impact on woodlot productivity, and thus on the availability of wood fuel for tobacco curing. For this, permanent plots, with dimensions of 30x20m, were established and inventoried annually, until the cutting cycle finished. This enabled the local team to monitor the entire productive period of the woodlot. Throughout the monitoring process, the team on the ground sought to uniformly distribute the permanent plots across the company's operating regions considering the geographic distribution of the farmers.

The information obtained continues to be analyzed and serves as basis for developing strategies and research that allow woodlot productivity at small-scale farms to be increased. It also enables for the training of farmers regarding Minimum Forestry Standards and more effective technical assistance.

Related links

Environment

Environmental
management

Environment and
our operations

Environment and
our products

Environmental
data / External
verification



Environment and our products

We are constantly searching for ways to further reduce environmental impacts along our value chain (upstream and downstream). We do this through improved product design and development, responsible procurement, efficient delivery of our products and services, and by adopting innovative technologies and ways of working.

We will reduce the environmental impact of our products and packaging through:

- Design solutions
- Facilitating responsible collection and disposal
- Consumer awareness and education

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. In total, recycled content will account for 20% of our tobacco business packaging by 2025.

While reducing the environmental footprint of our products including downstream waste impacts is the goal set forth in the JT Group Environment Plan 2030 and a necessity, it also helps us to meet consumer expectations and ensure the long-term sustainability of our business.

For the goals set forth in the Tobacco Business Sustainability Strategy, Read about [Products and services \(Environment\)](#).

Progress to date

Across the Group, we have been focusing on embedding sustainability in product development for many years. To strengthen our commitment, in 2020 we created a Sustainability Program Team (SPT) in our international tobacco business.

Within this team we have colleagues from innovation, sustainability, supply chain and marketing, who are dedicated to revisiting the way we approach the development and marketing of our products & services with the aim of minimizing their environmental impact.

There are various factors that the team is looking into, to ensure that sustainability is built into our consumers (The word, consumers, used in the context of the tobacco business means adult consumers. Minimum legal age for smoking varies in accordance with the legislation in each country.) offerings. These include product and packaging materials revision and standardization, aligning with existing waste management infrastructures, assessing partnerships with current and new suppliers to drive materials innovations, assessing environmental regulation and certifications, and focusing on consumer insights to ensure that developed solutions and tools are consumer relevant.

Over the course of 2021, the SPT created a sustainable proposition development framework and an initiatives roadmap, to help fulfill identified targets across our whole portfolio. Focus has been given to the roll out of four global initiatives across our product and packaging portfolio. The SPT has also developed a consumer-facing strategy, so that sustainability is reflected into our brands' positioning and initiatives, to help educate consumers and further raise their awareness.

Case study

U.K. Enviromentum Project: “Doing loads more with tonnes less”

In 2020, our U.K. team launched a project called UK Enviromentum 2030. The aim: to reach specific targets relating to emissions, energy, waste, water and engagement by the end of the decade.

To support the plan, the team has put together a U.K. Task Force, who have already helped to make some positive changes. Environmental, Social and Governance (ESG) criteria is now included as standard within the tender process, and environmental benefits schemes are now part of our benefits package for U.K. employees. We have also started the roll-out of hybrid company cars, and we source our electricity supply through renewable energy sources. We have switched to paperless invoicing for U.K. independent trade customers.

Looking ahead, our U.K. team is planning further initiatives to:

- Go zero landfill for on-site waste disposal and with UK suppliers
- Improve the sustainability and recyclability of online sales packaging
- Improve the recycled content and recyclability of point of sale materials
- Introduce company car driver training to reduce fuel use and emissions
- Roll-out paperless invoicing across all trade customers
- Develop Scope 3 emissions reduction program for UK-related impacts

DO LOADS MORE
WITH TONNES LESS



UK
ENVIRO
MENTUM
2030

JTI

Responsible recycling and disposal schemes for Reduced-Risk Products

As alternatives to traditional combustible products, e-cigarettes (E-Vapor) and tobacco vapor products (T-Vapor) are gaining popularity with consumers around the world. Although our industry is changing, our commitment to consumer choice remains.

That's why we offer Reduced-Risk Products [Reduced-Risk Products are Products with the potential to reduce the risks associated with smoking] in many markets. In contrast to traditional combustible products, Reduced-Risk Products present new and specific challenges from an environmental perspective, such as electronic waste.

We take our responsibility to protect the environment very seriously, and we want our recycling and disposal schemes to meet the specific needs of each market. In 2019, we published internal guidelines for Waste Management and Recycling across the Company. This guidance helps markets to determine and implement appropriate initiatives.*E

To encourage consumers to safely recycle or dispose of our products, we offer convenient return schemes in some of our markets. These are adapted to local needs, as the following best practice examples show.

Case study

Ploom - Return scheme in Japan

In 2019, we collected around 400 kg of used Ploom devices, capsules, and cartridges by introducing convenient collection boxes at around 300 shops selling Ploom in Tokyo.

In 2020, this program was expanded to include the tobacco industry and we continue to be one of the participating companies, and it was successfully launched throughout Japan in 2021.



Key achievements since 2020

- We introduced around 1200 collection points in 47 prefectures in total.

Case study

Logic - Return scheme in Switzerland

In Switzerland, online customers can order a Logic box, made from FSC-certified paper, to collect their used pods. They can then send these boxes to us free of charge for disposal.

We also set up 'pod points' in shops selling Logic products across Switzerland, giving consumers the option to return their used products in person.

After collection, the items are disposed of properly according to Swiss Standards.



Key achievements: March - December 2020

- 1,992 individual boxes sent to consumers
- 754 boxes returned

Case study

Launching Ploom in the U.K.



When we introduced Ploom in the U.K. in November 2020, we decided to make the launch as sustainable as possible – from secondary packaging to merchandising and activation.

Our in-store product displays combined 100% recyclable metal with FSC certified wood, which has been confirmed as coming from sustainably managed forestry. The low-energy LED background lighting uses up to 90% less power than conventional lightbulbs.

All of the secondary packaging for Ploom procured within the UK is recyclable or made from recycled materials. This includes our online sales distribution boxes, presentation boxes, and bags. Featuring water-based ink, our online sales boxes contain no toxic chemicals and are 100% recyclable.

Our Ploom retail outlets are built as modular designs, which means they can be redeployed and reused in any setting, extending the lifecycle of our assets. The materials used are from recycled or sustainable sources where possible.

The launch was a great example of how we can exceed customers' expectations by blending style and quality with sustainability.

Reducing the environmental impact of Ready-Made Cigarettes

Litter from tobacco products is an issue that calls for collective action to educate adult* consumers to act responsibly. To approach this, we have rolled out various initiatives, including the following.

* Minimum legal age for smoking vary in accordance with the legislation in each country. In Japan, smoking is not permitted for those under 20 years of age.

Case study

'Pick up and you will love your city' in Japan

In Japan, we run the 'Pick up and you will love your city' campaign in collaboration with over 4,000 organizations, including local governments, NGOs, and volunteer groups, as well as local citizens.

Since the launch of this initiative in 2004, we have organized more than 2,000 litter-picking events, involving 1.9 million participants.

We want to change participants' mindsets to 'I will not throw anything away', through their experience of picking up litter.



Key achievements since 2004

- + 2,000 events
- + 1.9 million participants
- + 4,000 organizations

Case study

Tackling littering in Switzerland

Our partnership with IGSU/local interest group for a clean environment.

AMBASSADORS FOR A CLEAN
ENVIRONMENT TACKLE
ATTITUDES TO LITTERING IN
SWITZERLAND



Packaging

Read about reducing [the environmental impact of packaging](#) and [our approach](#) to the EU Single-Use Plastics Directive.

To reduce our environmental impact of our packaging, our Sustainability Program team is working closely with various other departments to implement four global initiatives:

1. Replacing aluminum inner liners

In 2021, we began to replace aluminum inner liners in cigarette packaging with more environmentally friendly paper liners. This contributes to our recyclability target and helps to reduce the greenhouse gas (GHG) emissions associated with the packaging materials we purchase. This global project is predicted to increase the overall recyclability of our packaging materials by 3% by 2025, and 8% by 2030.

2. Reducing board weight

Launched in 2021, another new project aims to reduce the volume of cardboard used in our packaging. Based on 2020 volumes, this could save up to 3,700 tons of pulp fiber packaging per year, and reduce our greenhouse gas emissions by approximately 1,800 tons of CO₂ equivalent.

3. Cutting back on plastic

To help us to reach our packaging materials target, we have reduced the thickness of the polypropylene overwraps we use. In 2021, this enabled us to reduce our use of fossil-based plastic by around 230 tons, as well as reducing our greenhouse gas emissions by up to 563 tons of CO₂ equivalent. We completed the global roll-out of this initiative in 2021. We continue looking into alternative solutions for polypropylene film substitution.

4. Using more recycled content

We are also focusing on using more recycled content in shipping cases for combustible items and Reduced-Risk Products. This initiative will be rolled out for all shipping cases used in JTI factories and markets. For transportation within domestic markets, our objective is for shipping cases to be made from 100% recycled content by 2025. For export markets, our target is 70% recycled content by 2025. This is to ensure that shipping case rigidity and product quality are not compromised during long-distance transportation.

Case study

Minimizing Winston packaging plastic waste in Germany

In Germany, our consumers can now purchase products that generate less plastic waste, thanks to a few big changes we made during 2020.

Our main focus was reducing the amount of plastic used in our Winston packaging. As a first step, we made the boxes thinner and slightly smaller. Secondly, we introduced refill packs. Finally, we removed the plastic handles from our boxes. Thanks to these steps, we significantly reduced our plastic use in 2020 compared to 2019. Following the successful launch of our thinner Winston boxes in Germany in 2020, we have introduced the same approach in France, the Netherlands, Spain and Switzerland in 2021.



Key achievements since 2020

- **164 tons** of plastic saved from Winston boxes
- **18 tons** of plastic saved by removing Winston box handles

Translation: 16% LESS PLASTICK? A GOOD START #FORREAL

Also in Germany, we launched our Winston Carton Mega Box pilot project in October 2021. Engineered in-house, this innovative packaging solution is made of 92% paper and 8% plastic. It uses 85% less plastic than the conventional Mega Box and is fully recyclable.



Case study

JTI UK – #IGiveAButt campaign

Research commissioned by JTI UK found that most smokers don't want to litter, but often don't know what to do with their cigarette butts. The #IGiveAButt campaign was devised to remind smokers to dispose of their litter responsibly in the nearest bin. Working alongside an award-winning design agency we also created the #IGiveAButt Stub Tidy, which is compact, easy to clean, and sustainable – designed to get cigarette butts from A to B when there is no bin in sight.

The campaign was piloted in September 2020 with a series of outdoor advertisements across London, and nationally in conjunction with the Daily Mail and the Metro – where online readers were able to request a free #IGiveAButt Stub Tidy.

A total of 14,616 #IGiveAButt Stub Tidies were given away as part of the pilot. We followed up with 5,000 recipients of the #IGiveAButt Stub Tidy and found that, as a result of the campaign, 60.5% had changed their behavior and no longer drop their cigarette butts on the ground.



Key achievements since 2020

- 60.5% of smokers less likely to drop their cigarette butts on the ground
- 14,616 #IGiveAButt Stub Tidies distributed as part of the UK pilot



Case study

Nordic Spirit - Sustainably made nicotine pouches and traditional snus

Nordic Spirit meets the growing consumer demand for nicotine pouches, along with the expectation for ever-more sustainable products.

Nordic Spirit is produced in Vargarda, Sweden, using 100% renewable energy sourced from external vendors. 4% of this energy is generated by a hydroelectric power plant on a local river. Nordic Spirit production also supports the local community – its rapid expansion has provided local job opportunities both at the manufacturing facilities and for sub-contractors.

Nordic Spirit's customer base includes many eco-conscious adults. The nicotine pouches offer these consumers a flexible and discreet nicotine experience that fits easily into their lifestyle.



Key achievements since 2020

- In Sweden, our entire Nordic Spirit portfolio is produced using 100% renewable energy.

Analyzing environmental impacts through Life Cycle Assessments

Life Cycle Assessments are an important part of our toolkit for embedding sustainability into our product development processes. These assessments enable us to analyze the environmental

impact of our products at every single stage of their life cycle, from extracting or processing the raw materials, to transportation, distribution, usage, and disposal (or recycling).

In 2021, we piloted a new Organizational Life Cycle Assessment for our Natural American Spirit products in Switzerland and Germany. The assessment covered both ready-made cigarettes and other tobacco products. We will use our findings to improve our products and packaging, and to develop a carbon-offsetting strategy for this brand.

Moving forward, we will continue to carry out regular Life Cycle Assessments, with the aim of minimizing our environmental impact across our portfolio. We are also creating an in-house assessment and further developing our expertise in interpreting the assessment results.

Notes: This section is intended only to explain the business operations of the JT Group, not to promote sales of tobacco or vaping products or encourage smoking or vaping among consumers.

About our reporting

Our referenced guidelines(GRI), notes on data (BoR), and scope of our data (*A-E).

[Read more >](#)

Related links

Environment

Environmental management

Environment and our operations

Environment and our products

Environmental data / External verification

Environmental data / External verification



Energy



GHG



Water



Waste



ISO 14001



Environment data verification statement

[Independent Assurance Statement for the JT Group](#)

Environmental data

Group-wide Scope 1 and 2 GHG data, some Scope 3 GHG data, energy, proportion of renewable electricity, water withdrawal, water discharge and waste-related data have been externally assured. The calculation methodology and scope are outlined in our [Basis of Reporting](#).

Energy

Energy Consumption (Terajoules)	2015	2016	2017	2018	2019	2020	2021
Fossil fuels purchased and consumed	6,217	6,466	6,283	6,104	6,133	5,665	5,928
Electricity (non-renewable) purchased	3,424	3,019	2,927	3,042	2,822	2,581	2,455
Steam / heating / cooling and other energy (non-renewable) purchased	134	104	78	78	70	68	45
Total renewable energy purchased or generated	735	942	1,106	1,174	1,374	1,560	1,690
- Total renewable electricity purchased or generated	128	271	420	462	508	714	833
- Total renewable energy purchased or generated excluding electricity	607	671	687	713	866	847	857
Total energy sold	-105	-107	-112	-114	-133	-116	-106
Total	10,406	10,423	10,283	10,284	10,265	9,758	10,012

Energy Consumption Breakdown (Terajoules)	2015	2016	2017	2018	2019	2020	2021
Non-renewable fuel consumed	6,189	6,410	6,205	6,029	6,124	5,665	5,928
Renewable fuel consumed	606	669	685	711	865	846	856
Electricity, heating, cooling and steam purchased for consumption	3,713	3,449	3,499	3,631	3,388	3,346	3,303
Self-generated electricity, heating, cooling and steam	2	2	5	26	21	17	32
Electricity, heating, cooling and steam sold	-105	-107	-112	-114	-133	-116	-106
Total	10,406	10,423	10,283	10,284	10,265	9,758	10,012

	2015	2016	2017	2018	2019	2020	2021
Electricity (nonrenewable) generated	402	492	490	494	519	411	410

Proportion of renewable electricity (%)	2015	2016	2017	2018	2019	2020	2021
Total	3%	7%	11%	12%	13%	19%	23%

GHG

GHG emissions (1,000 tons CO ₂ e)	2015	2016	2017	2018	2019	2020	2021
CO ₂	361	366	356	350	354	323	337
HFCs	33	37	32	28	23	24	22
Total (Scope 1)	395	402	388	378	378	347	359
Scope 2	498	437	397	401	378	331	306
Total (Scope 1 + 2)	893	839	785	779	756	679	665
Purchased goods and services	7,998	7,666	7,371	7,488	7,331	5,812	5,473
Direct leaf supply	1,624	1,534	1,826	1,609	1,854	1,530	1,776
Third-party tobacco materials	3,472	3,317	2,689	3,347	3,951	2,806	2,298
- Others	2,902	2,815	2,856	2,533	1,526	1,476	1,399
Capital goods	391	358	422	481	393	322	311
Fuel-and-energy-related activities (not included in Scope 1 or 2)	121	114	118	121	122	116	122
Upstream transportation and distribution	319	346	360	385	398	374	379
Waste generated in operations	27	25	29	29	27	22	21

GHG emissions (1,000 tons CO ₂ e)	2015	2016	2017	2018	2019	2020	2021
Business travel	265	264	242	232	223	65	51
Employee commuting	62	61	64	58	54	50	45
Upstream leased assets	0	0	1	1	1	0	0
Downstream transportation and distribution	309	262	293	321	288	301	293
Processing of sold products	2	2	2	1	1	1	1
Use of sold products	32	33	43	43	42	48	56
End of life treatment of sold products	94	80	111	111	78	90	87
Downstream leased assets	1	1	1	1	1	1	0
Franchises	2	1	1	2	5	5	6
Total (Scope 3)	9,623	9,212	9,057	9,273	8,963	7,210	6,847

Water

Water withdrawal by source (1,000 m ³)	2015	2016	2017	2018	2019	2020	2021
Fresh surface water	1,398	1,575	1,466	1,570	1,631	1,712	1,783
Brackish surface water/seawater	0	0	0	0	0	0	0
Rainwater	46	47	53	47	41	31	29
Groundwater	5,771	5,812	5,631	5,746	5,754	5,602	5,171
Produced/process water	0	0	0	0	0	0	0
Municipal supply	3,620	3,343	3,351	3,326	2,986	2,881	2,873
Wastewater from another organization	0	0	0	0	0	0	0
Total	10,835	10,777	10,500	10,690	10,411	10,227	9,856

Water discharge by destination (1,000 m ³)	2015	2016	2017	2018	2019	2020	2021
Fresh surface water	2,433	2,417	2,656	2,805	2,982	2,925	2,730
Brackish surface water/seawater	0	0	3	19	19	6	6
Groundwater	1	2	1	0	8	12	12
Municipal/industrial treatment plant	3,490	3,246	3,174	3,177	2,828	2,829	2,833
Wastewater from another organization	0	0	0	0	0	0	0
Total	5,924	5,665	5,834	6,002	5,838	5,772	5,581

Waste

Waste generation (1,000 tons)	2015	2016	2017	2018	2019	2020	2021
Recycled including waste composted	99	95	96	95	98	95	95
Incinerated with heat recovery	13	12	11	11	13	10	8
Incinerated without heat recovery	7	6	6	7	5	5	6
Landfilled	21	21	21	21	17	17	15
Total	140	134	133	134	133	127	124

Packaging

Reusable & Recyclable Packaging Weight breakdown (1,000 tons)							2021
Reusable & Recyclable Packaging Weight							198
Non Reusable & Recyclable Packaging Weight							31
Total							228

[tobacco business] Packaging Recycled Content breakdown (1,000 tons)	2015	2016	2017	2018	2019	2020	2021
Recycled Materials Weight							31
Non Recycled Materials Weight							166
Total							197

Packaging composition							2021
Reusable or Recyclable Packaging (%)							87%
Recycled Content (%) [tobacco business]							16%

ISO 14001 certified (Scope: Cigarette and tobacco-related factories (including Group factories))

	2015	2016	2017	2018	2019	2020	2021
Total factories	41	40	43	43	46	47	47
Certified factories	34	32	33	34	36	36	36
Certified (%)	83%	80%	77%	79%	78%	77%	77%

Related links

Environment

Environmental
management

Environment and
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Environmental
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