ISO 26000: The Environment

Lessening environmental impact

The JT Group has established a wide range of policies and initiatives that limit the environmental impact of its commercial activities.

Working towards sustainability

The JT Group's environmental agenda is to operate in a sustainable and efficient manner over the long-term.

The JT Group utilizes agricultural products worldwide and recognizes that its global activities have an environmental impact. From the procurement of raw ingredients and materials, to the manufacturing and distribution of products, the aim is to lessen this impact by promoting sustainability.

Minimizing the environmental impact, and the promotion of the efficient use of resources, is achieved through focusing activities on lowering greenhouse gas (GHG) emissions and reducing water consumption and waste generation. Biodiversity conservation and consideration of local ecosystems are also addressed in a number of ways.

The JT Group's environmental principles and policies are set out in its Environmental Charter, which has led to the implementation of numerous programs that reduce environmental impact across the entire value chain.

Meeting the challenges of environmental management

Environmental Charter and Environmental Action Plan

The JT Group has established an Environmental Charter which defines the approach to preserving the environment. A series of practical steps have been designed to limit environmental impact, and are contained in an Environmental Action Plan (EAP) which outlines the planning, implementation and management of environmental programs. Activities and goals in the EAP are tailored to the individual challenges and circumstances of the Group's factories, offices and other sites.

The EAP targets for GHG emissions, water consumption and waste generation, covering the medium term plan of 2009 – 2012, were all attained except for the GHG emissions per million cigarettes. The global recession and an increase in taxes in Japan, contributed to a lower than planned emission reduction per million cigarettes.

JT Group EAP[1]: Reduction Targets and Results

Index		Medium-Term Target (FY2009 - 2012)[2]	FY2012 Results[2]
Greenhouse gas (GHG) emissions[3]		10% reduction by FY2012	Reduced by 10%
	Tobacco product factories	11% reduction in GHG emissions per million cigarettes by FY2012	Reduced emissons per million cigarettes by 6%
Water consumption		12% reduction by FY2012	Reduced by 31%
Waste generation		15% reduction by FY2012	Reduced by 21%

[1]Amongst the JT Group, 55 major entities are monitored for EAP assessment.
[2]Reference year for the medium-term target and the FY2012 results is FY2007.
[3]GHG emissions indicated in the table above, cover Scope 1 and Scope 2 set in the GHG Protocol.

When calculating CO_2 emissions in relation to electricity usage, we use conversion factors set in the 2005 GHG Protocol for domestic operations in Japan, and the 2003 Protocol on a country by country basis for the international operations.

Reducing greenhouse gas emissions

JTI factory in Trier, Germany

The JT Group aims to reduce GHG emissions through efficient energy use and a shift to low carbon fuels. In 2012, the scope of measuring GHG emissions was expanded across its entire value chain to monitor the environmental effects of energy use. The Group continually assesses ways to integrate low-energy methods and processes into its operations. This includes measuring, recording and reporting energy efficiency across functions, from R&D and manufacturing to marketing and sales. For example, the introduction of energy-saving equipment and the operational optimization of machines are widely observed in production sites. Additionally, the Group has made significant efforts to increase transportation efficiencies, utilizing vehicles that consume less fuel. In some of the factories and offices co-generation systems are in place and the conversion from standard fuels into low-carbon fuels is also encouraged.

In Japan, energy-saving vending machines have been installed on various sales sites. Additionally, the switch to LED lighting in offices is now widespread, as traditional light bulbs are replaced with LED bulbs as part of the regular office equipment renewal cycle.

As a result of these initiatives, GHG emissions have decreased by 10% compared with 2007.

Observing the GHG Protocol

In order to better understand its environmental impact, and so that it can measure reductions over the long-term, the JT Group has begun calculating the amount of GHG emissions it generates throughout its entire value chain. Measurements are in line with Scope 3 set in the GHG Protocol: an international guideline for calculating emissions.

Under the GHG Protocol, three scopes have been set to calculate and report on GHG emissions:

- Scope 1: All direct GHG emissions from corporate activities, such as burning of fossil fuels at factories;
- Scope 2: Indirect GHG emissions from consumption of purchased electricity, heat or steam;
- Scope 3: Other indirect emissions (divided into 15 categories). This includes the extraction and production of purchased materials and fuels, transport-related activities in vehicles not owned or controlled by the reporting entity, electricity-related activities not covered in Scope 2, outsourced activities, waste disposal and more.

The total Scope 3 GHG emissions of the JT Group in FY2012, is currently being verified and is expected to comprise the major portion of the total GHG emissions of the Group's entire value chain. This reaffirms the importance of efforts to reduce emissions across the chain.

The Group is set to reduce its GHG emissions by continuously monitoring environmental performance across its entire chain of business operations.

Combating resource depletion through forestation and conservation

One way in which the JT Group limits its environmental impact is through forest regeneration and conservation programs.

Replanting trees and preserving areas of existing woodlands support biodiversity within ecosystems and aids farming communities in particular. Additionally, trees hold soil in place, thus preventing soil erosion and reducing the flood vulnerability of local communities. This also makes sense from a business perspective as the JT Group will continue to use wood from forests as a resource in the future.

Investing in a secure future for growers and their communities by planting trees today

In many of the countries where the JT Group sources tobacco, people depend upon wood for building, cooking and the heat needed to cure tobacco leaf. Over time, increasing populations have placed pressure on tree resources, resulting in large areas of deforestation. While the amount of wood used in producing tobacco is a small portion of the total used each year, the JT Group is focused on renewing these natural resources as part of its broad approach to sustainable agriculture. Therefore, the Group has reforestation programs in Malawi, Zambia and Tanzania, operated in partnership with Washington State University, with the aim of restoring deforested areas. Training farmers to plant a mix of native, exotic and naturalized species of trees helps ensure that there is fuel and timber today, and for future generations of growers and their communities. These carefully managed wood lots also contribute to a better habitat for wildlife, while protecting soil and water resources.

Curbing deforestation in Malawi with Live Barns

Live Barns is an initiative launched in Malawi in February 2013, aimed at avoiding deforestation and contributing to soil conservation in tobacco growing communities.

The Malawi tobacco industry has traditionally used wood-based barns in the curing and storage of tobacco green leaf from the field. The JT Group is in the process of phasing out this old barn system, because it cannot be sustained within the context of Malawi's high rate of deforestation.

The Live Barns concept eliminates the need for wood or timber and the cutting of trees. Conventional barns use poles for their construction and maintenance, while Live Barns are built in the wood lot using live trees. Seedlings are planted right where the barn will stand, and a barn is erected once they are fully grown.

Seedlings of different kinds of fast-growing naturalized tree species are used, which can support a roof after three or four years of growth. The roof is thatched from natural grasses and is protected with a watertight covering to keep out the rain. The Live Barns project will initially involve approximately 300 farmers, who will grow 65,000 trees in the first year before extending the initiative to 15 other districts. Ultimately, over 14,000 barns will be established and over three million trees planted.

A Live Barn in practice

The Live Barns initiative complements the JT Group's forestation program, which is developed in partnership with Washington State University and Total LandCare, a non-profit organization (NPO) that aims to improve the livelihoods of local communities.

Protecting water sources

Water is an essential element used in manufacturing many of the JT Group's products. Consequently, the Group is focused on reducing the amount of water it uses, while increasing water recycling methods.

TableMark's Uonuma Mizunosato Factory in Japan

Cooling boiled 'UDON' noodles as part of the production process

Maintaining water quality to reduce pollution

TableMark Co., Ltd., a subsidiary of JT, operates primarily in the processed food business in Japan. Its Uonuma Mizunosato Factory is located in Uonuma, in the Niigata prefecture. This is an area renowned for an abundance of high-quality water, and was officially selected as one of Japan's 100 Best Water Areas. The factory produces 21,000 units of frozen 'UDON' noodles and 6,000 packs of cooked rice every hour. The quality of the water used greatly enhances the flavor of the rice and noodle products, which are boiled in this water during the production process. To avoid water pollution and reduce impact on the environment, TableMark established a water quality monitoring committee together with the city of Uonuma and the local fishermen's association before making the factory operational. The Company also installed water purification equipment, such that TableMark not only meets local environment effluent regulations, but applies its own stricter criteria, which exceeds local regulations by a factor of ten.

Reducing, Reusing and Recycling

PET bottles in beverage production

The JT Group sets waste generation targets by adopting and promoting the 3R measures: Reduce, Reuse and Recycle.

Reducing the use of raw materials

In its beverage business, the JT Group procures from its suppliers plastic PET bottles as beverage containers which are produced using a reduced amount of raw materials. These PET bottles are still robust enough not to be affected by heat deformation or the effects of impact, while ensuring the quality of the contents.

The business has adopted different bottle sizes as part of its efforts to reduce the amount of plastic used. New 280ml and 500ml bottles have been introduced, resulting in savings on plastic amounting to 530 tons in FY2012.

Tobacco shipping cases

Reusing materials in the tobacco business

In 2007, JTI initiated a shipping case reuse program across its global supply chain, which reduced the purchase of new cases by 460,000 in 2011. The offset to JTI's cigarette production waste in 2012 is estimated at over 12%, with significant cost savings despite the additional logistics required to match supply with demand.

In Malawi, JTI reduced the amount of coal used in its boilers by 23% by burning woody tobacco stems, which also resulted in the reduction of CO_2 emissions. Additionally, tobacco waste that is not burned is being put to good use, after testing demonstrated it can improve soil. JTI continues to investigate further opportunities for redefining waste as a usable resource, including a current, factory-wide assessment of all its waste materials.

Innovating to limit waste

Helping a local farming community

Thai Foods International Co., Ltd. (TFI), a subsidiary of TableMark, is part of the processed food business that produces yeast extracts and other natural seasonings.

Yeast broth, a by-product of the manufacturing process, is rich in essential organic and inorganic substances. Identified as an aid to growing agricultural products, the broth has been supplied to local farmers as a fertilizer. Following the installation of a concentration facility, concentrated yeast broth can now be packaged and delivered to areas outside the immediate locale, so that even more farmers can benefit from this nutritious by-product.

The recycling of yeast broth as an organic fertilizer contributes to decreasing waste from TFI's production processes. It also reduces farmers' reliance on chemical fertilizers thus reducing the CO_2 emissions generated during the production of chemical fertilizers.

The Recycle Plaza JB disposal facility

Working with the beverage industry to recycle used beverage containers

Proper disposal and recycling of used drink containers is an ongoing problem within the beverage industry. The Japan Beverage (JB) group is part of the JT Group's beverage business, responsible for operating beverage vending machines throughout Japan. The Company has taken a proactive measure to ensure the appropriate disposal and recycling of containers, by establishing the JB Environment Network, comprised of 18 major beverage companies in Japan.

In 2003, the JB Environment Network created the Recycle Plaza JB, a core disposal facility for recycling used beverage containers. The facility takes care of the intermediate disposal of cans, bottles and PET containers from Tokyo and surrounding prefectures in Japan.

After separating the used containers, manually and with the aid of machinery, aluminum and steel cans are reprocessed by furnaces into high-purity aluminum and steel pellets. The purity of these recycled metals allows them to be sold to the metal industry and used as raw materials in the manufacturing of aluminum and steel products. Glass bottles are shipped to a glass processor, and PET bottles are sent to appropriate recycling companies.

In addition, JB has organized a broader Recycle Network consisting of over 180 third party waste disposal institutions and recycling companies across Japan.

In 2012, the annual throughput at Recycle Plaza JB was 8,869 tons, with a recycling rate of 87%. The total amount of throughput since 2003 has exceeded 71,500 tons.