

**Medium-Term Direction** **Enhancing Sustainability**

**Management Centered on Sustainability: The YKK Sustainability Vision 2050**


In 2020, YKK formulated the YKK Sustainability Vision 2050. Targets were set for five themes – climate change, material resources, water resources, chemical management, and respect people – and we are working toward the achievement of the related SDGs and climate neutrality by 2050.

In FY2021, we rolled out sustainability promotion systems in each region and country around the world and redoubled our efforts to tackle issues such as climate change and resource recycling. We are also actively investing in such areas as low-energy production facilities and solar power generation. We plan to invest 6.7 billion yen in sustainability-related investments in FY2022.

**Sustainability-related investment (capital investment)** **6.7 billion yen** (FY2022 business plan)
















**Working together as a member of society**

**Asako Yoshioka**  
Vice President,  
Sustainability Department



We can say that sustainability is encoded in YKK's very DNA, in the form of our Cycle of Goodness® philosophy and its proposition that “no one prospers without rendering benefit to others.” As a company that is a member of society, we make maximum use of our own resources and cooperate with external industry organizations to work actively on solving global environmental and social issues.

**YKK Sustainability Vision 2050 - Achievement of Climate Neutrality by 2050 -**

Theme	Goal	SDGs
 <b>climate change</b> Tackle GHG emissions Increase use of renewable energy	Reduce emissions of CO <sub>2</sub> and other greenhouse gases in our company and supply chain. • Scope 1, 2 50% reduction by 2030 (from a 2018 baseline year) • Scope 3 30% reduction by 2030 (from a 2018 baseline year)  Be carbon neutral by 2050.	 
 <b>material resources</b> Increase use of sustainable materials	By 2030, switch to 100% sustainable textile materials (recycled materials, naturally-derived materials, etc.)  By 2030, replace all vinyl/plastic packaging materials with sustainable packaging, including recyclable/reusable forms.  Reduce the amount of waste to be landfilled or incinerated at all production sites.  By 2030, increase the waste recycling rate to 90%.	
 <b>water resources</b> Reduce water use and manage wastewater	We will reduce our water intake through efficient usage, the development of new water saving production methods, and the increased recycling of wastewater.  Strictly manage wastewater at all manufacturing sites in accordance with Government regulations and YKK in-house standards established based on industry standards such as ZDHC (Zero Discharge of Hazardous Chemicals).	
 <b>chemical management</b> Manage and reduce chemical usage	Manage and further reduce the use of chemical substances in product manufacturing from input to output in accordance with our own standards (YKK Restricted Substance List), which was established based on industry standards such as ZDHC MRSL (Manufacturing Restricted Substances List)  Our finished products meet industry standards such as Standard 100 by OEKO-TEX® ensuring they are free of harmful substances.  Develop new production methods that reduce and eliminate the use of toxic chemicals.	 
 <b>respect people</b> Uphold human rights and ensure fair, safe work environments	By valuing diversity, being inclusive, respecting human rights, and improving the work environment, we will create better and safe workplaces throughout our supply chains. We will ensure that each individual can work with peace of mind, make the most of his or her individuality, and lead a healthy and happy life.  Implement YGCC audit (YKK Global Criteria of Compliance), a comprehensive standard based upon YKK's "Cycle of Goodness" philosophy and the ISO26000 guidelines, at YKK Group facilities. Periodic evaluations by 3rd party auditors are conducted to assure transparency and improvement of sustainable practices.	   

## Realizing our vision through partnerships

As the idea of sustainability, which seeks to realize a sustainable society, becomes an increasingly global trend, YKK cooperates with and contributes to sustainability efforts through international initiatives and membership in external industry organizations.

As well, we undertake self-assessments and external audits using the Higg Index, a suite of standards and module tools for assessing environmental and social impacts developed by the Sustainable Apparel Coalition (SAC). We post the results of Higg Index external audits for each of our locations on our website.



Higg Index external audit: Scores by location  
<https://www.ykkfastening.com/sustainability/higg.html>

## Organization Memberships/Initiatives, etc.

- Joined the Sustainable Apparel Coalition (SAC) **September 2018**
- Signed the Fashion Industry Charter for Climate Action **March 2020**
- Signed the Net-Zero Recovery statement **May 2020**
- Acquired 1.5°C Target commitment certification under the Science Based Targets initiative (SBTi) **March 2021**
- Joined the Japan Sustainable Fashion Alliance **September 2021**
- Joined the Ellen MacArthur Foundation Network **April 2022**

Progress (FY2021 Results)	Plans for FY2022 and Beyond
Scope 1, 2 GHG emissions: 471,672 t (18.2% reduction from 2018 baseline) Scope 3 GHG emissions: 737,783 t (15.1% reduction from 2018 baseline)	Scope 1, 2 GHG emissions FY2022: 480,000 t or less (16.8% or more reduction from 2018 baseline) Scope 3 GHG emissions FY2022: 782,000 t or less (10% or more reduction from 2018 baseline)
Proportion of sustainable materials: 13% (up 7 points year-on-year)	Proportion of sustainable materials FY2022: 24%
Switch to sustainable packaging materials: 3.3%, all companies • YKK Vietnam Co., Ltd. (Nhon Trach Plant): 19.2% • JAPAN Company (Kurobe Manufacturing Center): 38.9%* *Switched to full use for main inner packaging by July 2022.	
Landfill waste: 6,806 t (down 272 t year-on-year)	Convert landfill waste into resources and limit waste generation
Waste recycling rate: 87.0% (up 3.7 points year on year)	Ongoing review of waste disposal methods, consider introducing recycling methods with lower environmental impacts Move forward target year from 2030 to 2025 for Waste recycling rate of 90%
Water intake: 10.564 million t (down 859,000 t from 2018)	Water intake FY2022: 14% reduction (compared to FY2018)
To ensure thorough wastewater management, we manage wastewater using voluntary control standards stricter than government regulations Violations of wastewater management standards: 1 case	Introduction of industry standards such as Zero Discharge of Hazardous Chemicals (ZDHC) into wastewater management
Request to all suppliers to comply with our in-house standards (YKK RSL) Revision of YKK RSL and communication of same to operating companies in Japan and overseas	Annual revision of YKK RSL and communication of same to suppliers Based on this, thorough control of chemical substance use from entry to exit
Development of paints that reduce the use of toluene and xylene Periodic renewal of OEKO-TEX® certification	Enhanced management of restricted substances when developing new products or changing materials Periodic renewal of OEKO-TEX® certification
Expansion of lineup of products made with AcroPlating® technology, a new plating technology for brass Sales share of products made with this technology: 5% (snap & button products)	Expand range of products made with AcroPlating® technology
Implementation of YGCC self-checks at all applicable locations	Through YGCC implementation, continue to identify/assess human rights risks as required by UNGP

## YKK Sustainability Vision formulation process

In recent years, there has been a rapid growth in interest amongst customers and in society in climate change and circularity, and this is expected to have an increasing impact on business. For some time now, stakeholders have been focused on social and labor issues such as regulatory compliance, safety and disaster prevention, and human rights. Now, in addition to this, environmental issues such as carbon emissions reductions, water resource management, and chemical substance management are growing in importance.

In response to these changes in social trends, in the YKK Sustainability Vision 2050 formulated in October 2020, YKK identified five themes as “Materiality” (priority issues) covering society, labor, and the environment. These were climate change, material resources, water resources, chemical management, and respect people. We have set targets under each of these five themes and are working toward the related SDGs.

## Sustainability promotion structure

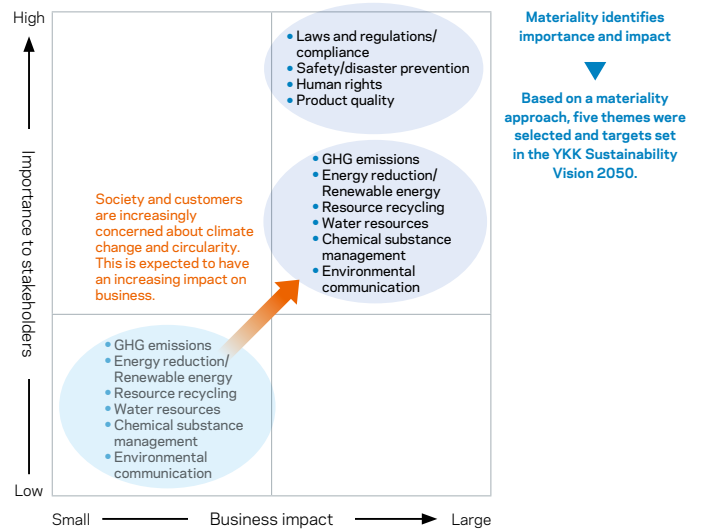
A YKK Sustainability Committee chaired by the president of YKK is established. Working groups are created for each theme that work to solve issues as we aim to achieve the targets of the YKK Sustainability Vision 2050. Overseas, Sustainability Committees for each region have been established since FY2021 in response to the committee structure at Headquarters, in order to disseminate and implement Headquarters’ sustainability policies and measures, thereby establishing a global promotion system.

From FY2022, a CDP Working Group (WG) to strengthen information disclosure based on social demands and a Scope 3 reduction team to reduce greenhouse gas emissions under Scope 3 have been newly established in the Sustainability Committee’s working groups. The entire company will continue to work together to achieve the vision.

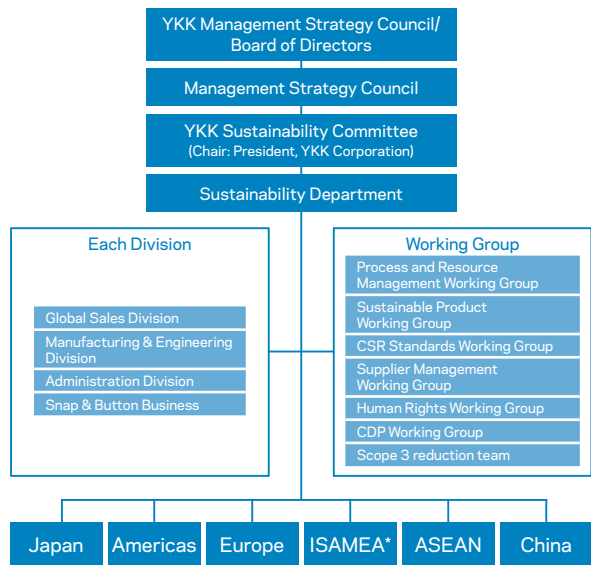
## Sustainability Committee Meetings and Actions

The Sustainability Committee convened four times in FY2021. It heard reports and held discussions about various issues and measures to solve them, in communication activities and within the five working groups established under the Sustainability Committee (Process and Resource Management WG, Sustainable Product WG, CSR Standards WG, Supplier Management WG, and Human Rights WG).

## Materiality Analysis (Identifying Priority Issues)



## Sustainability promotion structure



\* India/South Asia/Middle East/Africa

Meeting	Month	Content
1st	May 2021	Reports from working groups (WG)/ discussions
2nd	July 2021	WG reporting and initiatives reporting from regional Sustainability Committees (China and Europe Groups)
3rd	October 2021	WG reporting and initiatives reporting from regional Sustainability Committees (China and ASEAN Groups)
4th	March 2022	WG reporting and reports from newly established CDP WG and Scope 3 reduction team. Also, reports on overseas climate change initiatives (China, ASEAN, and Europe Groups)

## Initiatives Toward Achievement of YKK Sustainability Vision 2050

climate  
change



1.5°C target  
Obtained  
SBTi  
certification

18%  
reduction  
Scope 1, 2 GHG  
emissions  
(from FY2018 baseline)

11 global  
locations  
Plants running on  
100% renewable  
energy

\*ICP scheme: A mechanism to promote corporate action on climate change. A proprietary carbon price is set internally and converted into costs for carbon emissions. These costs can be used as an incentive to reduce GHG emissions, to identify profit opportunities and risks, and as a guideline for investment decision making.

In FY2021, amidst the effects of the global coronavirus (COVID-19) pandemic, production volume increased year-on-year, but the YKK Group still met the GHG emissions target of a 12.6% reduction for FY2021 compared to FY2018 (actually, 18.2% reduction from FY2018). At the same time, we promoted energy conservation activities by introducing new production methods, updating production facilities, introducing high-efficiency equipment, and more. We added one more plant to the list of plants using 100% renewable energy, meaning that 11 of our global plants are now powered by 100% renewable energy. We are also pushing to reduce GHG emissions by purchasing renewable energy certificates. In FY2021, our reusable energy ratio was 13.4% (including certificates). In addition, by promoting the use of recycled

### Introduction of the Internal Carbon Pricing Scheme

In the previous fiscal year, YKK introduced an Internal Carbon Pricing (ICP)\* for in-house capital investment.

By using ICP to convert carbon emissions from new facilities into costs, and using them as a factor in investment decisions, we can encourage low-carbon investment, such as introducing low-energy facilities and renewable energy, and thereby promote GHG emission reductions in our business activities. In addition to introducing solar power facilities in 19 of our locations, we are pursuing low-energy strategies in our infrastructure and production facilities.

**Internal Carbon Prices**  
9,000 yen/t of CO<sub>2</sub> (global common price)

**Scheme Targets**  
Capital investment that impacts GHG emissions from business activities

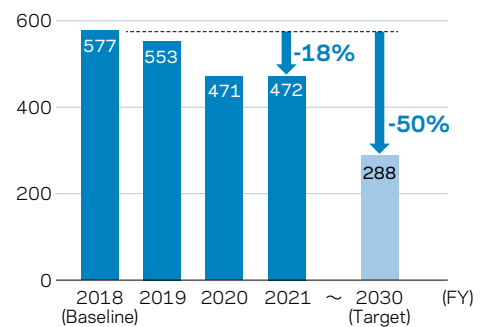
**Method**  
Our internal carbon prices are applied to GHG emissions in capital investment plans and technology development plans, and the resulting costs are factored into investment decisions.

polyester materials through increased sales of the NATULON® series products and other means, we expect to reduce GHG emissions by about 11,300 tons, compared to using virgin materials, thus contributing to a reduction in Scope 3 GHG emissions.

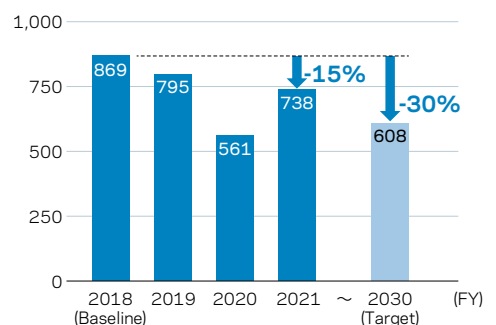
With an eye toward FY2022, in FY2021 we introduced a new Internal Carbon Pricing (ICP) scheme, and we will make further investments to reduce GHG emissions.

### GHG Emissions Over Time (all YKK)

<GHG emissions: Scope 1+2>  
(1,000 t CO<sub>2</sub>)



<GHG emissions: Scope 3>  
(1,000 t CO<sub>2</sub>)



Example of solar power installation  
Anaheim Plant, YKK (U.S.A.) Inc.

**material resources**



NATULON® cumulative sales account for waste recycling of **about 170 million\*** plastic bottles  
\*As of the end of March 2022.  
 Based on 29 g/bottle (500 ml size)

**13%** Proportion of sustainable materials (Total meters) (FY2021 figures)

**87.0%** Waste recycling rate

**Sustainable Materials for Fastening Products**

All over the world, major fastening products are being switched one after the other to the NATULON® zippers made with recycled materials. In FY2021, sales of the NATULON® zipper series jumped 224% year-on-year. We are now also bringing to market the NATULON Plus® zipper line, with an even higher ratio of recycled materials, and the ratio of products using sustainable materials has reached 13% of all product sales.

We aim to be using 100% sustainable textile materials for fastening products by 2030. In FY2022, we will switch to the NATULON® zipper for more core zipper products, and we will also begin promoting sales of NATULON Plus®, NATULON® Ocean Sourced™ (made from ocean bound plastic), and partially plant-derived GreenRise® zippers. We will also be promoting a switch to the SOFIX® NATULON® snap button for our SOFIX® snap button products and taking other measures to boost the share of products using sustainable materials to 24%.

**Switch to Sustainable Packaging Materials**

We are promoting a switch to sustainable packaging containing 100% recycled polyethylene materials at YKK Vietnam Co., Ltd. (Nhon Trach Plant) and 30% biomass material at the JAPAN Company (Kurobe Manufacturing Center). In FY2021 the switchover ratio was 19.2% and 38.9%, respectively.

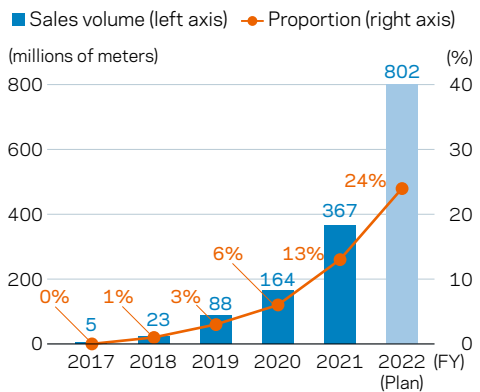
In July 2022 at the JAPAN Company (Kurobe Manufacturing Center), the switch to biomass material for inner plastic packaging for fastening products was completed for main inner packaging.

**Waste Reduction/Waste Recycling**

With the recovery from the impact of COVID-19, growing production volumes led to increased waste volumes from FY2020. However, the amount of landfill waste decreased by 272 tons, thanks to improvements in waste treatment technology in the Asia region and increased waste recycling. The waste recycling rate was 87.0%, a big jump from the previous fiscal year's 83.3%. We will continue to promote waste recycling.

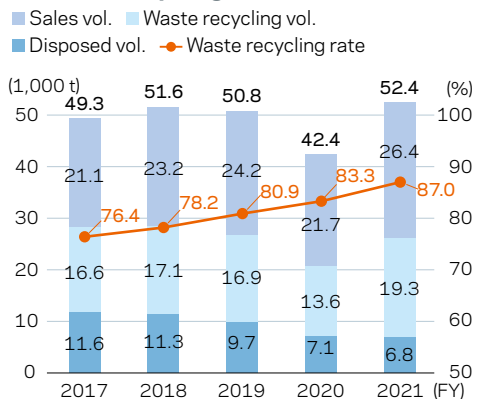


**Volume and Proportion of Sustainable Materials Sales**



At YKK Zipper (Shenzhen) Co., Ltd., in FY2021 the switch to bio-degradable biomass plastic material was completed for some outer bags.

**Changes in Waste Emissions, Waste Recycling**





**water resources**



**7.5% reduction**

Reduction rate of water intake by all manufacturing sites (from a FY2018 baseline)

Beginning in FY2019, each year we have been using our proprietary check lists to evaluate and ascertain water risks\* at every manufacturing location. To reduce water intake and wastewater volumes, we began designing dedicated wastewater recycling facilities optimized for YKK's manufacturing processes. This makes it easier to introduce wastewater recycling facilities at our plants. As well, in order to properly manage wastewater, head office specialists diagnose wastewater treatment facilities at overseas operating companies and provide online technical guidance on operation and management methods.

In FY2021 at the Kurobe Manufacturing Center, the BOD value of groundwater pumped within the factory increased because of the chemicals used for soil contamination countermeasures, and the value at the

discharge ports exceeded the value agreed with Kurobe City. We reassessed the volume of pumped groundwater and chemical usage methods and immediately brought the numbers back to within limits.

\*Water risk assessments are made with reference to the World Resources Institute's "Aqueduct," "Setting Site Water Targets Informed by Catchment Context" international water target guidelines, and others.



Wastewater diagnosis setup

**chemical management**



**1,204 companies**

Supplier surveys based on the YKK RSL

In FY2021, we looked at the regulations, laws, and industry standards pertaining to chemical substances in fastening products to make revisions to the YKK Restricted Substance List (YKK RSL) for the FY2022 edition. We also began undertaking survey of suppliers for their compliance with the YKK RSL. In addition, we standardized the process to check for chemical substance compliance when changing materials and developing new products and expanded the process to include our overseas companies. Also, in July 2021 we completed development of paints that reduce the use of toluene and xylene for use on main products, and we plan to switch to these paints in stages. In terms of the environment, we have collated historical data such as the location, method, and period of use of chemicals that could cause soil contamination.

With the broadening of scope of YKK RSL-based entry management in FY2022, we will make annual revisions based on changes and additions to chemical substance regulations and laws and industry standards. In terms of new manufacturing technology to eliminate hazardous substances, we have expanded our lineup of products made with the AcroPlating® technology, a new plating technology for brass that eliminates 100% of hazardous substances such as cyanide, chromium, and selenium. The sales volume of products made with this technology was up significantly in FY2021 by 148% for snap & button products and 175% for zippers, year-on-year. We are working to further reduce the environmental impact by rolling out the AcroPlating® technology for zipper parts other than sliders.

**respect people**



Building structures for **respecting human rights** based on international standards

In FY2021, we performed YGCC (YKK Global Criteria of Compliance) self-checks at all applicable locations. To reduce the risk of human rights violations on an ongoing basis, for each audit item we anticipated and correlated possible violation risks regardless of severity. Although there have been no incidents of human rights violations, as a result of the audits, we are now working in some countries to amend working hours that comply with domestic laws but deviate from international standards. For suppliers, as well as confirming that suppliers comply with our Basic Principles of Procurement in accordance with OECD guidelines, we carry out regular status checks and evaluations via CSR questionnaire surveys.

Going forward, we will continue to identify and evaluate human rights risks through YGCC implementation, promote the building of relief systems, and work to transition to structures that conform to UNGP\* and due diligence laws that will be enacted in the future in Europe.

\*United Nations Guiding Principles on Business and Human Rights



YGCC audit