

Environmental Policy Promotion System

An environmental policy committee has been formed from management strategy meetings which takes decisions on environmental policy/principles and monitors the state of environmental policy promotion.

Environmental management system

In order to realize the environmental principles, the YKK Group has established an environmental management system (EMS) according to the international standard ISO 14001 for each business and promotes continuous environmental activities.

Environmental accounting

◆ Fiscal 2017 environmental conservation costs (total for YKK Group companies in Japan)

Unit: ¥1 million/year

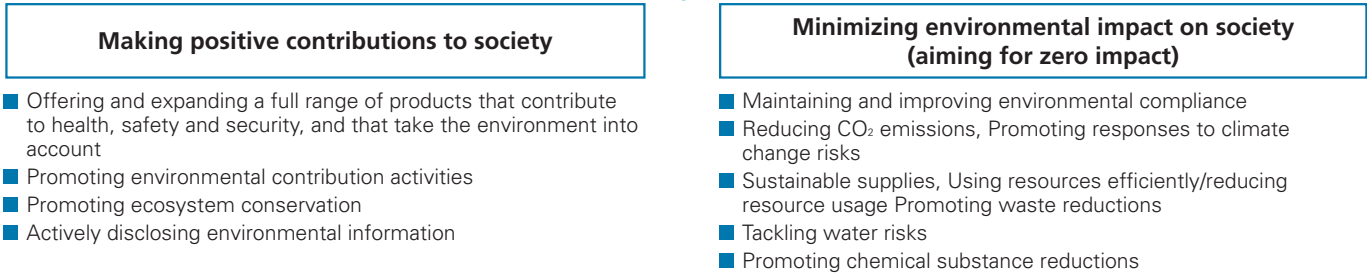
Item		Description of main initiatives	Equipment investment	Cost	
Costs within business area	Prevention of pollution	Operation, upgrading and maintenance of wastewater treatment facilities, and the treatment cost for minimal amounts of PCBs	332	1,052	
	Conservation of the global environment	Improvement of energy-saving efficiency, replacement of air conditioning and renewal of compressors and high efficiency boilers	771	224	
	Recycling of resources	Promotion of resource recycling and management of industrial waste	290	609	
Business area internal cost total			1,393	1,885	
Upstream/downstream costs		Disassembly of returned window waste and copper scrap, etc.	0	688	
Management activities costs		Maintenance of ISO certifications, participation in environment exhibits, information disclosure, environment-related analyses, tree planting and biodiversity protection	18	539	
R&D costs		Product development	13	3,164	
Social activities costs		Joint volunteer activities with local communities	0	35	
Environmental damage repair costs		Asbestos removal	0	42	
Other costs		Inspection/management of fire extinguishing equipment	49	15	
Total			1,473	6,366	
			Fiscal 2016	1,261	6,107
			Fiscal 2015	1,686	5,101
			Fiscal 2014	1,221	5,479
			Fiscal 2013	809	4,975

	Environmental equipment investment			Environmental costs		Sales (Unit: ¥100 million)	Total equipment investment (Unit: ¥100 million)
	(Unit: ¥100 million)	Ratio to sales (%)	Equipment investment ratio (%)	(Unit: ¥100 million)	Ratio to sales (%)		
Fiscal 2017	14.7	0.4	6.4	63.7	1.6	3,974	229
Fiscal 2016	12.6	0.3	4.2	61.1	1.6	3,904	298
Fiscal 2015	16.9	0.4	4.5	51.0	1.3	3,883	377
Fiscal 2014	12.2	0.3	4.1	54.8	1.4	3,844	295
Fiscal 2013	8.1	0.2	3.3	49.6	1.3	3,904	245

Environmental Targets and Results

The YKK Group formulates its Mid-Term Environmental Management Principles and Environmental Policy every four years in line with its Mid-Term Management Policy. Under the Fifth Mid-Term Environmental Management Principles from FY2017 to FY2020, which aim to contribute to creating a sustainable society, we set an action plan for environmental policy and goals achievement with the keywords of “creating a low carbon society through technology oriented value creation”, and with “Making positive contributions to society”, “Minimizing our environmental impact on society (zero impact target)” as the mainstay of our activities. Along with minimizing our environmental footprint from CO₂, waste, wastewater, chemicals etc., subject to our business activities, we will contribute to a sustainable society by accelerating activities good for society and ecosystems, such as enriching and expanding environmentally-friendly, safe, secure and healthy product ranges.

YKK Group Fifth Mid-Term Environmental Management Principles (FY2017 to FY2020)



YKK Group Fifth Mid-Term Environmental Policy & Targets (FY 2017 to FY 2020)

	Environmental Policy	Environmental Targets by 2020
Making positive contributions to society	Offering and expanding a full range of products that contribute to health, safety and security, and that take the environment into account	<ul style="list-style-type: none"> • Develop / expand environmentally-friendly products • Win prize at external environmental award system, and use to good effect • Create Life-cycle assessment (LCA) standards obtainment of a third-party approval
	Promoting environmental contribution activities	<ul style="list-style-type: none"> • Implement environmental activities for children aimed at the next generation • Implement YKK/AP sponsored environmental commendation awards and support
	Promoting ecosystem conservation	<ul style="list-style-type: none"> • Cooperate with NPOs, NGOs etc. to conserve ecosystems
	Actively disclosing environmental information	<ul style="list-style-type: none"> • Renew environment website, create/distribute environmental promotional material • Enrich and expand dialogue with stakeholders
Minimizing environmental impact on society (aiming for zero impact)	Maintaining and improving environmental compliance	<ul style="list-style-type: none"> • Improve each company’s environmental management level through self-checks • Boost the level of environmental management audits
	Reducing CO ₂ emissions, Promoting responses to climate change risks	<ul style="list-style-type: none"> • Devise and implement schemes to reduce and minimize CO₂ emissions (further Group-wide promotion of low and energy-saving initiatives) Japan: Reduce CO₂ emissions 20% by 2020 compared with the fiscal year 2013 Overseas: set target to reduce the annual rate of consumption by over 1% Group: curb the increase in CO₂ emissions to 8% from 2013 levels by 2020 • Work with supply chains to reduce both direct and indirect CO₂ emission levels
		<ul style="list-style-type: none"> • Identify climate-change driven environmental risks, and implement countermeasures at all YKK Group plants
	Sustainable supplies	<ul style="list-style-type: none"> • A procurement society • Lower procurement risk by promoting better sourcing which considers environmentally-friendly factors
	Using resources efficiently/reducing resource usage Promoting waste reductions	<ul style="list-style-type: none"> • Promote improvement in product design and yield in order to mitigate resource use • Japan: Increase resource reuse rate by 4% compared with 2013
		<ul style="list-style-type: none"> • Overseas: Reduce landfill waste by 8% compared with 2013 through reuse, recycling of resources, reprocessing and treatment/disposal.
Tackling water risks	<ul style="list-style-type: none"> • Identify regional water risks in all Group plants, and implement countermeasures. 	
Promoting chemical substance reductions	<ul style="list-style-type: none"> • Reduce PRTR substances by 30% compared with 2013 through substitute goods, process improvements etc. 	

Fiscal 2017 Environmental Policy and Environmental Action Plan

	Environmental Policy	Fiscal 2017 Environmental Action Plan	Fiscal 2017 Results
Making positive contributions to society	Offering and expanding a full range of products that contribute to health, safety and security, and that take the environment into account	<ul style="list-style-type: none"> Further promotion of value propositions and high levels of insulation through high added-value windows Applied to and won prize at external environmental award system Addressed harmful substances in products, and submitted information on response 	<ul style="list-style-type: none"> Winner of OEKO-TEX® Grand-prix Award, Green Purchasing Grand Prize, Ministry of Economy, Trade and Industry award, etc. Identified substitutes for harmful substances and submitted plans Formulated LCA third-party certification criteria for AP Products
	Promoting environmental contribution activities	<ul style="list-style-type: none"> Expand environmental activities for children 	<ul style="list-style-type: none"> Implemented environmental learning program for employees' families and children
	Promoting ecosystem conservation	<ul style="list-style-type: none"> Cooperate with NPOs and NGOs, etc. and engage in ecosystem conservation programs 	<ul style="list-style-type: none"> Implemented environmental learning initiatives in collaboration with local NPOs
	Actively disclosing environmental information	<ul style="list-style-type: none"> Create draft plan for renewal of environmental website Implement communication with stakeholders at manufacturing sites 	<ul style="list-style-type: none"> Created sections of social responsibilities and revisions on our website Implemented stakeholder dialogue in Kurobe
Minimizing environmental impact on society (aiming for zero impact)	Maintaining and improving environmental compliance	<ul style="list-style-type: none"> Confirm environmental management level through company-wide self-checks Reinforce confirming environmental compliance using environmental management audits 	<ul style="list-style-type: none"> Confirmed environmental activities through self-checks and surveys Implemented environmental management cross-audits in each region
	Reducing CO ₂ emissions Promoting responses to climate change risks	<ul style="list-style-type: none"> F: Base Year Fiscal 2016 (Japan) Reduce energy consumption by 1% and CO₂ emissions intensity by 1% (Overseas) Reduce energy consumption by 1% and CO₂ emissions intensity by 1% AP: Base Year Fiscal 2013 (Japan) Reduce energy consumption by 7% and CO₂ emissions by 14% (Overseas) Reduce energy consumption by 7% and CO₂ emissions by 7% Investigation and identification of climate change risks at all YKK Group plants 	<ul style="list-style-type: none"> F: Compared with fiscal 2016 (Compared with fiscal 2013) (Japan) Reduced CO₂ emissions intensity by 6.8% (14.3%) (Overseas) Reduced CO₂ emissions intensity by 1.8% (5.1%) AP: Compared with fiscal 2013 (Japan) Reduced energy consumption by 7.0% and CO₂ emissions intensity by 14%, applied for SBT certification Machinery: Reduced energy use by 5.9% compared with fiscal 2016
	Sustainable supplies Using resources efficiently/ reducing resource usage Promoting waste reductions	<ul style="list-style-type: none"> Improve chemical substance management level including in the supply chain (Overseas) Understand the current situation towards improvement of waste recycling rate AP: (Japan) Reduce waste shipping intensity by 11% compared with fiscal 2013 Promote recycling of waste and conversion into valuable resources at sales bases 	<ul style="list-style-type: none"> Drafted content for each business's supplier surveys Data audit of overseas sites, recycling of landfill waste AP: (Domestic) Reduced waste shipping intensity by 12% compared with fiscal 2013
	Tackling water risks	<ul style="list-style-type: none"> Identify water risks in regions and implement countermeasures Guidance on wastewater treatment facility technology and implement periodic equipment assessments AP: Reduce water consumption per unit of sales by 16% compared with fiscal 2013 	<ul style="list-style-type: none"> Manufacturing bases' water risk extraction Strengthened water quality control standards at regional plants Implemented wastewater treatment analyses at overseas sites
	Promoting chemical substance reductions	<ul style="list-style-type: none"> F: Reduce emissions of PRTR substances by 3% compared with fiscal 2013 AP: Reduce emissions of PRTR substances by 22% compared with fiscal 2013 Machinery: VOC emissions Reduced by 20% compared with fiscal 2016 	<ul style="list-style-type: none"> F: Increased emissions of PRTR substances by 11.2% compared with fiscal 2013 AP: Reduced emissions of PRTR substances by 19% compared with fiscal 2013 Machinery: VOC emissions Reduced by 21% compared with fiscal 2016

F: Fastening Products Business

AP: Architectural Products Business

Machinery: Machinery & Engineering Group

Reinforcing YKK's global environmental management system

The YKK Group is working to reinforce its global environmental management system by carefully checking its environmental compliance and governance practices, with the ultimate goal of improving the quality of its environmental management.

●YKK Group environmental management audits (Japan/overseas)

The Environmental Policy Board Committee implements the YKK Group Environmental Management Principles and Environmental Policies as well as monitors the status of the environmental management system in order to maintain and enhance environmental compliance. In turn, improvements are made regarding any deficiencies. The heads of each region spearhead efforts to examine environmental activities and the legality of actions taken by each site within the region based on cultural differences and unique environmental laws and regulations in place. Through these efforts, environmental risks are mitigated and environmental compliance maintained and improved.

Conservation of biodiversity

The YKK Group continually monitors the impacts its business activities have on ecosystems. We strive to reduce these impacts while also adding to the biodiversity of ecosystems in the communities where we operate.

●Vegetation management based on IPM

Pesticides used to control vegetation are believed to have major impacts on the surrounding ecosystem. Given this, we have established the Pesticides used to control vegetation are believed to have major impacts on the surrounding ecosystem. Given this, we have established the YKK Group Pest Management Guidelines as a way of controlling vegetation at our bases based on integrated pest management (IPM) in order to mitigate the effects bases have on the surrounding environment. We will continue to promote this greening control technique based on IPM at Japanese and overseas sites going forward.

●Initiatives for WET testing

Water discharged from our main bases in Japan is in full compliance with the water quality standards set forth in the Water Pollution Control Act, by local government ordinances, and per agreements with local governments. However, we did not fully understand the impacts on the environment caused by chemicals not included in water quality standards or by the reaction of chemicals. As a result, we conducted WET(Whole Effluent Toxicity) testing and aquatic life surveys on the water we discharged into rivers and determined that none of the water discharged from our bases has an impact on ecosystems.

●Furusato no Mori (Hometown Forest)

At Kurobe Manufacturing Center, YKK Group's technology headquarter have developed a Furusato no Mori (Hometown Forest) and Furusato no Mizube (Hometown Waterside) aimed at regenerating our vanishing nature. With seedlings native to the Kurobe River alluvial fan, preparations began in 2006, and from 2008, with help from locals and employees' families, about 20,000 of 20 different kinds of trees were planted. Today, 6 mammal species, 40 bird, 210 insect, 7 fish and 24 species of benthic organisms, which include 16 rare and endangered species of wildlife are confirmed to inhabit the area. In August 2016 at YKK Center Park, we were awarded SEGES (Growing Green Spaces Category) Excellent Stage 3 certification, the highest grade for first evaluations.

*SEGES is the only green space evaluation system set up as part of the Ministry for Transport and the Environment's specified policy

Tackling water risks

On top of our world-wide production operations, YKK Group are progressing conservation activities to protect our precious freshwater resources. While of course we are reducing and recycling water in our manufacturing processes, we're also carrying out rain and ground water etc. conservation activities tailored to the local area.

●Water risk assessments

In all our domestic factories and abroad, we've implemented water risk assessments using World Resources Institute (WRI) AQUEDUCT Water Risk Atlas indicators. No imminent threat has been confirmed to date but from now on, we intend to clarify our thoughts on current onsite problems and take steps to lower water risk.

Resource recycling

The YKK Group considers waste to be a resource and thus recycles it where possible. All of our bases around the world are working to achieve the goal of zero net emissions of waste. In fiscal 2005, our production bases in Japan achieved zero net emissions of waste. Going forward, we will continue to reduce the total amount of waste we generate and improve the quality of recycling methods.

●Social responsibilities of waste generators

We have introduced an electronic manifest system in order to manage and dispose of waste using appropriate means. 100% of our production bases used the electronic manifest system in fiscal 2016. Also, every year we systematically visit waste processing providers at their place of business to examine items such as their handling of contracts and manifests, storage and processing of waste, environmental and risk management measures, and their relationship with the local community following a check list.

●Waste recycling(domestic)

The YKK Group proactively recycles waste in order to build a resource-circulation society. The waste resource recycling ratio for fiscal 2017 is 98.6%.

●Resource recycling of overseas waste (overseas)

We're also tackling reductions in landfill waste overseas through improving reuse and recycling of resources, while keeping current national and local situations in mind.

Risk management of chemical substances

The YKK Group strives to not only comply with laws and agreements, but also mitigate environmental risks by appropriately managing chemical substances, preserving the local environment, including soil, groundwater, air, and water, and taking steps to prevent environmental accidents before they occur. In addition, the YKK Group properly manages and disposes of fluorocarbons, asbestos, soil pollutants and PCBs as one of its most important environmental liabilities.

●Initiatives to tackle ozone depletion and global warming

The YKK Group has established guidelines stipulating renewal deadlines for specific fluorocarbons (such as CFC, HCFC) among products that use fluorocarbons. Fluorocarbons contain substances that can destroy the ozone layer and they have a major negative impact on global warming. The entire YKK Group will continue to work toward reducing emissions of fluorocarbons while also systematically renewing equipment.

●Domestic PCB disposal

In 2008 we began disposal of appliances containing a high concentration of PCBs (Polychlorinated Biphenyls) and by fiscal year 2016 we'd completed the disposal of 667 appliances. We also finished treating 509 appliances containing minimal amounts of PCBs. We are aiming for early disposal of the capacitors in current use by 2020.

●Overseas environmental liabilities

YKK Groups is reviewing the possible link to health problems as we strive to understand our environmental liabilities in overseas locations. We are promoting disposal while taking each country's circumstances into account, while conducting proper storage and disposal in every location.