

Environment

Striving for the ideal of a global environment that supports lives of vibrancy.



'Shiseido' comes from a phrase in the Chinese classical text, I Ching: 'Praise the virtues of the Earth, which nurtures new life and brings forth significant values.' Respect for the planet, society and people has been embedded in our culture since our foundation in 1872. In everything we do — from development and procurement to production — we work to preserve the global environment that we all depend on. That is how we create sustainable value. In this chapter, we report on the strategic actions we have taken to contribute to the health of our planet.

1. Reducing Our Environmental Footprint

Across all areas of our business and value chains, we are promoting initiatives that reduce the environmental impact of our activities, such as reducing carbon dioxide (CO₂) emissions and ensuring the sustainable use of resources. The impact of climate change is becoming more apparent around the world. It is important that companies make strong sustainability commitments and take actions toward solving environmental issues. We fully understand and support the "1.5°C scenario" *. Last year we disclosed our medium-to-long-term targets for the reduction of CO₂ emissions — which account for the majority of greenhouse gas (GHG) emissions — as well as the reduction of water consumption and waste.

* The 1.5°C scenario refers to the long-term temperature goal to hold global warming to 1.5°C above preindustrial levels.

KPIs

- CO₂: Carbon neutral by 2026
- Water: Water consumption Δ 40% (vs. 2014)^{*1} by 2026
- Waste: Zero landfill use^{*2} by 2022

*1 : At all business sites of Shiseido, per unit of sales

*2 : only at Shiseido factories

2. Developing Sustainable Products

"Let the product speak for itself." These words from Shiseido's founder and first president are reflected in our corporate mission and product development goals. We believe our products can convey the message that we aim to work sustainably, such as how we procure raw materials, and our commitment to reducing, reusing, and recycling. We aim to provide consumers with products that demonstrate our sustainability beliefs, from the moment of purchase, upon every use, and at disposal or reuse. In addition, through design and usability, our products also communicate the "art and science" aspect of our DNA. Based on the unique Japanese spirit of Mottainai*, we strive to minimize the use of natural resources and promote activities that allow for reuse. In consideration of the environment, we have also been cultivating formulas and ingredients that comply with high safety and quality standards. By living in harmony with the planet, we can contribute to the realization of a more sustainable world.

* Mottainai: a Japanese word that expresses a sense of regret over waste, and is a call for gratitude and respect. It is also a concept used by environmentalists to encourage people to reduce, reuse, and recycle.

KPIs

- Packaging : 100% sustainable packaging by 2025 *

* For selling products with plastics packaging

3. Promoting Sustainable and Responsible Procurement

It is no secret that the world's natural resources are limited. At Shiseido, we place the utmost importance on the responsible procurement of raw materials and the reduction and reuse of resources. We operate from the perspective of a circular economy, and view environmental conservation and biodiversity as the key to a more sustainable world. In all our activities, from procurement to production, we also seek ways to strengthen our response to human rights issues. Sustainable and responsible procurement requires close collaboration with all of our partner companies and suppliers. In 2020, we disclosed our medium-term target for the procurement of raw materials (palm oil and paper) in consideration of both the environment — such as forest conservation — and human rights. In addition, we expanded our supplier assessment program globally and made efforts to resolve existing issues.

KPIs

- Palm oil: 100% sustainable palm oil usage by 2026
- Paper: 100% sustainable paper (e.g. certified paper, recycled paper)^{*} by 2023

* only for products

Reducing Our Environmental Footprint

Across all areas of our business and value chains, we are promoting initiatives that reduce the environmental impact of our activities, such as carbon dioxide (CO₂) emissions and ensuring the sustainable use of resources.

The impact of climate change is becoming more apparent around the world. It is important that companies' make strong sustainability commitments and take actions toward solving environmental issues.

We fully understand and support the "1.5°C scenario"*. Last year we disclosed our medium- to long-term targets for the reduction of CO₂ emissions — which account for the majority of greenhouse gas (GHG) emissions — as well as the reduction of water consumption and waste.

* The 1.5°C scenario refers to the long-term temperature goal outlined in the Paris Climate Agreement to hold global warming to 1.5°C above preindustrial levels.

Reducing CO₂ Emissions

At Shiseido, we have been focused on the issue of global warming for a long time. In 1990, we completely abolished chlorofluorocarbons (CFCs). In 1997, we published our environmental targets for the first time — including the reduction of greenhouse gas (GHG) emissions. And in 2020, we announced our commitment to achieving carbon neutrality* by 2026.

By carefully reviewing and redesigning the manufacturing process at both new and existing factories, we were able to strengthen our efforts to accelerate the reduction of CO₂ emissions, including by using renewable energy and improving energy efficiency. As a result, CO₂ emissions were reduced by 12% of total emissions in 2020 (compared to 2019).

Following the transfer and joint venture of our Personal Care business, absolute emissions from the product life cycle will be significantly decreased. In addition, we have introduced group wide efforts to contribute to a carbon-free society by further reducing CO₂ emissions in such areas as procurement, production, and use.

* CO₂ emissions of scope 1 & 2

Renewable Energy

Switching from fossil-derived energy, which emits large amounts of CO₂, to renewable energy is one of our important environmental initiatives.

We have been increasing the use of renewable energy at our offices and factories, the latter of which are known for their high power consumption. As a result, our combined ratio of renewable energy from hydropower and solar power increased by 95% in 2020 (versus 2019). In total, renewable energy accounts for 33% of electricity consumed at our sites.

In addition to our East Windsor factory (USA), our Nasu factory (Japan), which began operations in 2019, has replaced 100% of its electricity with renewable energy.

Renewable energy is also used at our offices across three European countries, while 100% of the electricity used at our facilities in Italy and the UK is derived from renewable sources.

● Solar Power

Our solar power efforts continue to grow, with systems installed at factories and buildings worldwide. Since 2007, our East Windsor factory (USA) has been equipped with a fixed-tilt solar power system, while a solar-tracking solar power system was installed in 2010.



Solar panels at the Kakegawa factory
(Japan)

In addition, solar power systems are installed at such sites as the Liyuan Cosmetics Co., Ltd. factory (China), the Kakegawa factory (Japan), and the Global Innovation Center (Japan).

In Taiwan, solar panels have been installed at our Hsinchu factory, generating electricity used also by the local community.

● Water Power

Japan experiences a lot of rainfall due to its geographical conditions. However, the steep topography makes it difficult to collect and use the water resource effectively because it quickly flows out to sea. Therefore, dams have been used for flood control and water collection, as well as for generating renewable energy, for many years.

Four of our factories in Japan — Osaka, Kakegawa, Kuki, and Nasu — are actively using renewable energy from CO₂-free hydroelectric power. The Nasu factory uses the CO₂-free Tochigi Furusato Electric program, which is supplied by hydroelectric power plants in Tochigi Prefecture, to achieve 100% renewable electricity.

To maximize the use of renewable energy in order to mitigate climate change as much as possible, we also utilize power generated by small-scale local power companies for the grid. We also strive to make our production activities more sustainable on a local scale by collaborating with local communities.

Improving Energy Efficiency

We are working to reduce CO₂ emissions by improving energy efficiency at all of our factories. Efforts include introducing high-efficiency equipment and switching to energy sources with a lower environmental impact. So far, we have achieved significant improvements in energy efficiency.

In 2020, we introduced a new energy management system (EMS)* at our Kakegawa factory (Japan). In order to reduce wasteful power consumption, we have increased the number of observation points for electricity usage to more than 400— allowing for a more detailed visualization of usage status. By optimizing energy usage this way, we expect to reduce CO₂ emissions by approximately 7% of the total annual emissions at our Kakegawa factory.

Going forward, we will install EMS at all our factories and aim to increase our investment in equipment as well as introduce more initiatives to improve energy efficiency, all of which will further reduce the environmental impact of the entire Shiseido Group.

* A system that realizes efficient use of energy such as energy saving and load leveling by visualizing the energy usage status using information and communication technology.

CO₂ Reduction During Transportation

We are promoting the reduction of CO₂ emissions by increasing the efficiency of transportation within and between regions. In Japan and Hong Kong, we work with key business partners to optimize delivery frequencies, increase truck utilization, and reduce operating vehicle numbers.

For sea transportation in Japan and the USA, we have improved container utilization, and reduced the number of operating containers and shipments by consolidating cargo and optimizing loading efficiency.

In 2020, progress in transportation optimization has contributed to a 17% reduction in CO₂ emissions from Japan's factories to distribution centers compared to 2019.

Assessing Climate Risks and Opportunities

We recognize that climate change is not only an environmental issue, but a real issue that will affect our business strategies and financial plans over the medium to long term. As such, various factors related to climate change, such as regulations, natural disasters, and consumer perceptions should be considered.

We strive to mitigate the climate-related risks which influence both our business and the wider society, and turn them into opportunities. Therefore, in 2020, we disclosed our target of achieving carbon neutrality by 2026 through the reduction of Scope 1*1 and Scope 2*2 CO₂ emissions. We also committed to accelerate our plans to analyze climate-related risks and opportunities, and integrate them into our group-wide actions.

*1 Scope 1 relates to the CO₂ emissions generated from fuel consumption in our sites.

*2 Scope 2 relates to the CO₂ emissions generated from energy consumption by 3rd parties such as grid power.

Governance

The Shiseido Sustainability Committee discusses management decisions concerning sustainability issues. The committee is chaired by a Representative Director and consists of executive officers in charge of Corporate Strategy, Social Value Creation, R&D, Supply Network, Corporate Communications, Brands, and Corporate Auditors. In 2020, in addition to the Committee, significant issues were discussed at the Executive Committee, the Innovation Committee, and the Board of Directors for a total of 12 meetings. At the Committee, mid- to long-term targets related to CO₂ emissions, water, waste, packaging, and sustainable procurement of, for example, palm oil and paper, were also discussed — to proactively tackle the environmental issues related to these topics. As those targets impact our corporate direction, they were raised with the Board of Directors as well. Due to the importance of change-related issues, the Board of Directors stressed that what we work to achieve should reflect our stakeholders' expectations (Consumers, Business Partners, Employees, Shareholders, Society and the Earth), and encouraged us to commit to ambitious targets.

Strategy (Scenario Analysis)

We conducted our scenario analysis for both the transitional and the physical risks/opportunities in terms of the 1.5/2°C and 4°C scenarios, respectively, based on the Representative Concentration Pathways (RCPs) and Shared Socioeconomic Pathways (SSPs) provided by the Intergovernmental Panel on Climate Change (IPCC).

Regarding risk analysis, in the 1.5/2°C scenario, the elements associated with the transition to a decarbonized society — such as policy, regulation, technology, market, and consumer perceptions - were considered. In the 4°C scenario, which includes no proactive measures against climate change, the physical factors related to the acute or chronic phenomena caused by the rise in temperature were analyzed — such as, for example, floods and water shortages.

As for the opportunities, in the 1.5/2°C scenario, high awareness by consumers means there is a market for sustainable brands and products. Similarly, the 4°C scenario identifies sales opportunities for products that can help people to live with high temperatures. At Shiseido, we aim to leverage these findings — by mitigating risks and by making the most of the opportunities to provide sustainable products to consumers and promote our beauty innovations.

We identified carbon taxes, changes in the market and consumer perceptions, floods, and water shortages as the influential risk factors, and quantified their financial impacts in 2030.

Risk Management

In 2020, we assessed and identified the impactful risks by a holistic approach. "Natural and Human-Made Disasters", and "ESC (Environment, Society, and Culture)", are listed as the categories related to sustainability.

Climate-related risks are analyzed based on scientific and socio-economic evidence and integrated into the enterprise risk management system as one of the elements related to natural disasters or ESC. The Group's risks assessment and countermeasures are also periodically reviewed by the Global Risk Management & Compliance Committee, headed by the Group CEO and composed of regional CEOs and executive officers as well as the Executive Committee.

Metrics and Targets

In order to mitigate the physical risks, we use the ratio of our CO₂ emissions as the standard metric. Physical risks are tracked and monitored every year. In particular, we set the target to achieve carbon-neutral operations by 2026 for Scope 1 and Scope 2 emissions. In terms of mitigating market risks and creating opportunities in the 1.5/2°C scenario, we support the concept of a circular economy, and aim to reduce CO₂ emissions and to eliminate single-use plastics with the target of switching to 100% sustainable packaging by 2025. To manage the risk of water shortage in the 4°C scenario, we selected water consumption at our business sites as an indicator and set a target of reducing it by 40% by 2026. As for other physical risks, we will examine appropriate metrics from the viewpoint of long-term risk management.

Roadmap for Disclosure

In April 2019, we announced our support for the Task Force on Climate-related Financial Disclosures (TCFD) and started disclosing the results of climate-related risk analysis based on the TCFD framework. In addition to the results of the qualitative analysis of risks and opportunities which we disclosed in 2020, we also released our quantitative risk analysis and identified major areas where we will take action.

We will make dedicated efforts to mitigate risks by planning actions in cooperation with our businesses, and integrating them into our management and business strategies. In addition, we will disclose initiatives that lead to new opportunities as well as risk mitigation through our value chain. At the same time, we will also improve our analysis based on the latest scientific evidence.

Fig 1. Risks and Opportunities Identified by the Scenario Analysis

		Risks	Opportunities			
Transition (Seen mainly in the 1.5/2°C scenario)		<ul style="list-style-type: none"> • Carbon tax could increase☑ • Fuel price could increase • Tighter regulations/requirements ☑ 	<ul style="list-style-type: none"> • Improve energy efficiency • Boost consumer awareness of, and demand for, sustainable and ethical products 			
	Physical (Seen mainly in the 4°C scenario)	<table border="1"> <tr> <td>Acute</td> <td> <ul style="list-style-type: none"> • Natural disasters could stop operations (e.g. typhoons, floods) ☑ • Natural disasters could disrupt logistics </td> </tr> <tr> <td>Chronic</td> <td> <ul style="list-style-type: none"> • Changes in rainfall conditions could impact the cost of procuring raw materials derived from crops • Water shortages could stop operations☑ </td> </tr> </table>	Acute	<ul style="list-style-type: none"> • Natural disasters could stop operations (e.g. typhoons, floods) ☑ • Natural disasters could disrupt logistics 	Chronic	<ul style="list-style-type: none"> • Changes in rainfall conditions could impact the cost of procuring raw materials derived from crops • Water shortages could stop operations☑
Acute	<ul style="list-style-type: none"> • Natural disasters could stop operations (e.g. typhoons, floods) ☑ • Natural disasters could disrupt logistics 					
Chronic	<ul style="list-style-type: none"> • Changes in rainfall conditions could impact the cost of procuring raw materials derived from crops • Water shortages could stop operations☑ 					

☑ Risk factor analyzed qualitatively and quantitatively.

Reducing Water consumption

Quality water allows us to produce quality products. It supports every aspect of our cosmetics business, including the development of water-containing products such as lotions; the growth of plants as raw materials; temperature control; and equipment cleaning at production sites.

Post-production, water is essential for rinsing during hair and face washing. It also plays a key role in the disposal and recycling process.

In early 2020, we set a target of reducing our group-wide water consumption by 40%* by 2026. In order to achieve this target and ensure sustainable use of water, we are proceeding with efforts based on careful analysis of water usage.

At factories, which consume a large amount of water, we have been engaged in water-saving activities since the start of operations. This involves the use of automatic cleaning equipment at manufacturing facilities, and setting up equipment-cleaning locations for efficient water use.

We are also introducing water reclamation equipment at our factories that enables water to be recycled and reused. As a result of our ongoing efforts, water consumption was reduced by 16% in 2020 (compared to 2014).

* intensity per sales, compared to consumption in 2014

Water Saving Initiatives

We are working to reduce water consumption at all our factories. At our Osaka factory (Japan), we reconsidered existing cooling methods and remodeled certain equipment. By introducing a circulation-type system that can recycle used water, we reduced water consumption by 8% per year. At our Kuki factory (Japan), we have introduced a water-saving washer for cleaning tanks and drums used for cosmetics storage and transportation. The machine uses a flexible nozzle and automatic controls, while cleaning patterns can be optimized according to residue and container type. This allows for 90% water reduction per cleaning. At the same factory, we have also developed a new cleaning agent for sunscreen products that are difficult to remove from storage tanks and manufacturing equipment. The new cleaning agent ensures a reduction in both cleaning times and water consumption.



Water saving equipment
at the Nasu factory (Japan)

Finally, at our Gien factory (France), we switched from water to alcohol for cleaning our fragrance product manufacturing equipment and resin skids. All alcohol used in the process is recycled. This has enabled us to use water more efficiently, leading to an 81% reduction in water consumption at this factory compared to 2009.

Groundwater

Water is a shared resource, jointly managed by various stakeholders at different stages of the river basin. In collaboration with local stakeholders, we promote "water stewardship"* as a common property through drainage methods and secondary use.

We use the abundant, high-quality groundwater for manufacturing processes and as a raw material for cosmetics. At our Nasu factory (Japan), we are working to recycle groundwater by supplying clean, treated wastewater to local agriculture.

*Using water in a way that is socially equitable, environmentally sustainable, and economically beneficial

Reducing Waste

While waste management and processing methods differ by country or region, the culture of effectively recycling or reusing resources has been nurtured at all Shiseido factories. We have been working on recycling and reusing waste for many years, promoting thorough waste management with careful sorting of materials before disposal.

Waste Reduction in Factories

We achieved zero emissions* at our domestic factories in 2003, and zero landfill in all 12 factories worldwide in 2020. This was made possible by continuous recycling of resources and careful separation and collection of waste.

In our Osaka factory (Japan), we contribute to resource circulation by using plastic compactors to convert waste plastics into recyclable materials. At our Kuki factory (Japan), we changed the dehydration method to reduce the amount of sludge discharged by wastewater treatment, switching from a drying method to a screw-pressing method that helps to save energy and reduce 250 tons of waste. We also manage our stock effectively by improving our estimations of demand and using excess stock.

*Recycled waste: 99.5% or higher

Employee training

In 2020, we held online seminars for all managers and employees in charge of industrial waste in Japan. The aim was to share knowledge and ensure understanding and compliance with laws and regulations. A total of 164 employees attended these seminars.

With the help of our original compliance checklist, each participant can identify how to effectively manage waste. As a result of these activities, there were no accidents or legal violations associated with waste in 2020.

The Report of Climate-related Financial Disclosure

2021. 7. 9

1. Background

Task Force on Climate-related Financial Disclosures (TCFD) was established by the Financial Stability Board at the request of G20 to examine how climate-related information should be disclosed, and how should financial institutions respond. TCFD published its final report¹⁾ in June 2017, and recommends companies to assess, manage, and disclose risks and opportunities related to climate change with corporate management perspective. The draft of corporate governance code published in April 2021 emphasized the necessity of disclosure along with the TCFD framework. Managing the climate-related risks/opportunities is becoming essential as ESG disclosure. The importance of forecasting uncertain mid- and long-term future risks by scenario analysis and taking countermeasures is recognized as common sense.

Table 1 TCFD Recommendations and supporting recommended disclosures

Governance: Disclose the organization's governance around climate-related risks and opportunities.
<ol style="list-style-type: none"> 1. Describe the board's oversight of climate-related risks and opportunities. 2. Describe management's role in assessing and managing climate-related risks and opportunities.
Strategy: Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material.
<ol style="list-style-type: none"> 1. Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term. 2. Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning. 3. Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2° C or lower scenario.
Risk Management: Disclose how the organization identifies, assesses, and manages climate-related risks.
<ol style="list-style-type: none"> 1. Describe the organization's processes for identifying and assessing climate-related risks. 2. Describe the organization's processes for managing climate-related risks. 3. Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.
Metrics and Targets: Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.

1. Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.
2. Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.
3. Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.

The Global Risks Report²⁾ published by the World Economic Forum indicates climate-related factor as the most significant risk to the global market. It is important to accurately analyze climate-related risks and opportunities and respond to them in advance to ensure sustainable business growth considering the recent severe damage caused by disasters.

Table 2 Global risk landscape (Global Risks Report 2021)

	By likelihood	By impact
1	Extreme weather	Infectious diseases
2	Climate action failure	Climate action failure
3	Human environmental damage	Weapons of mass destruction
4	Infectious diseases	Biodiversity loss
5	Biodiversity loss	Nature resource crisis

We recognize that climate change is not only an environmental issue, but a real issue that will affect our business strategies and financial plans over the medium to long term. Various factors caused through climate change such as regulations, natural disasters, and change in consumers’ perception should be considered. We need to mitigate the climate-related risks which influence both our business and the wider society, and turn them into opportunities. For example, many of cosmetic raw materials are made from agricultural products such as palm oil. Stable climate conditions, including rain and temperature, are essential for our continuous business growth. If the weather condition changes due to climate change, it will cause water shortages and serious disasters, which will have significant impacts on society as well as our value chain, including our procurement, production, logistics, and sales activities.

Therefore, in 2020, we disclosed the target of achieving carbon neutrality by 2026 through the reduction of CO₂ emissions of the Scope 1 and Scope 2. We also committed to accelerate to analyze climate-related risks and opportunities, and integrate them into our company-wide actions.

The methodology and results of the analysis disclosed in this report were developed

and evaluated by the Sustainable Environment Department in the Social Value Creation Division. The analysis assumes a much longer time scale than that of normal business planning and risk management, the results contains a great deal of uncertainty and indeterminacy, which is an issue that needs to be improved in the future.

2. Governance

The Sustainability Committee discusses management decisions concerning sustainability issues. The committee is chaired by Representative Director and consists of executive officers in charge of Corporate Strategy, Social Value Creation, R&D, Supply Network, Corporate Communications, Brands, and Corporate Auditors. In 2020, In addition to the Committee, other significant issues were also discussed with the Executive Committee, the Innovation Committee, and the Board of Directors, for a total of 12 meetings. At the committee, mid- to long-term targets related to CO₂ emission, water, waste, packaging and, sustainable procurement (e.g. palm oil, paper) were discussed in order to tackle various environmental issues proactively. As those targets are impacting on corporate direction, they were raised to the Board of Directors. Considering the importance of the climate change issue, the Board of Directors pointed out the importance of reflecting stakeholders' expectation to a target rather than what we can achieve, and encouraged us to commit the ambitious targets.

3. Strategy (Scenario analysis)

On the basis of the Representative Concentration Pathways (RCPs) and the Shared Socioeconomic Pathways (SSPs) provided by Intergovernmental Panel on Climate Change (IPCC), the scenario analysis was conducted for both the transitional and the physical risks/opportunities in terms of the 1.5/2° C scenario where climate change will be suppressed due to global cooperation and the 4° C scenarios, respectively. A variety of factors and relationships among them are assumed to contribute to climate-related risks and opportunities. In the 1.5/2 ° C scenario, the elements associated with the transition toward decarbonized society such as policy, regulation, technology, market and reputation were considered. In the 4° C scenario without proactive mitigation countermeasures against climate change, the physical factors related to the acute or chronic phenomena caused by the temperature rising such as floods, and water shortages were analyzed. We selected carbon taxes, market and consumers' perception changes, floods, and water shortages as the influential risk factors in the supply chain, and quantified their financial

impacts in 2030.

In the 1.5/2° C scenario, where a decarbonized society will be formed, the impact of transition risk will be more pronounced, and in the 4° C scenario, where temperature will rise significantly, the physical risk will be more obvious. So, the corresponding risks are described in the following scenario analysis.

Table 3 Climate-related risks and opportunities

	Category	Factor	Natural phenomena	Impact to society	Impact to Shiseido	Countermeasure
1.5/2°C scenario (Transition risks/ Opportunities)	Policy, Regulation	Carbon tax		Energy cost rising	Procurement and operation cost rising	Introduce energy-saving facilities, Switch to renewable energy
		Circular economy, Green deal		Implement circular economy	Prohibit the use of single-use plastic	Develop circular-products/service
	Technology	Decarbonated fuel (H ₂ , NH ₃ etc.)		Switch fuel and boiler facility	Energy cost rising, Facility switching	Switch to decarbonated fuel
		Renewable energy		Expand renewable energy	Energy cost rising	Switch to renewable energy
	Market	Demand from investors		Enhance of non-financial disclosure from companies	Fall/rise in stock price, Change in financial plan	Improve system for non-financial disclosure
		Empathy for sustainable brands		Increase demand for ethical and sustainable Products	Ethical and sustainable product design	Develop ethical and sustainable brands/products
	Reputation	Demand for solving Env. and social issues				
	4°C scenario (Physical risks/ Opportunities)	Acute	Temperature rising	Extreme weather event, Floods	Increase flood damage, Insurance cost rising	Suspension of production, Disruption of logistics
Chronic		Sea level rising		Decline in property values in seaside areas	Surge damage to sites in coastal areas	Identify inundated areas
		Temperature rising		Spread of infectious diseases and heat stroke	Health hazards for employees	Support for vaccination, Improve work environment
		Rainfall increase		Destabilization of agricultural production	Procurement cost rising	Identify affected materials, Develop alternatives
		Rainfall decrease				
		Factors other than climate change		Population increase		

In the 1.5/2° C scenario, we analyzed the transition risk based on the SSP-1 scenario, in which global coordination and sustainability are emphasized with the assumption that a

society has successfully mitigated climate change. In such the society, awareness of consumer on environmental issues is so high, and a market has been established in which sustainability is as important as product's quality and price. In terms of regulations and policies, we assumed that public funds would be invested in decarbonization technologies such as Carbon Capture, Utilize and Storage (CCUS) and Direct Air Capture (DAC), and that a high level carbon tax would be introduced worldwide to fund these investments. As a result, upstream in the value chain, the introduction of the carbon tax would increase energy and raw material procurement costs. In order to mitigate or avoid such additional costs caused by the carbon tax, the introduction of energy conservation and renewable energy through improved production efficiency is highly significant, and we are proactively working on it. And in the downstream, the loss of sales opportunities for some products was considered a risk. In the decarbonized society, it is also expected that products that do not take sustainability into consideration will not be accepted by consumers due to their high awareness on environment. We aim to mitigate risks and create new opportunities by providing sustainable products with new solutions through innovation.

We tried to organize the major risk factors in each continent caused by climate change based on the 5th Assessment Report³⁾ published by IPCC in order to specify the risks we should focus on for 4° C scenario. The following phenomena was identified as the factors to be considered:

- (1) Floods caused by extreme weather event
- (2) Water shortage due to changes in weather conditions

The Flood risk and water shortage due to changes in climatic conditions was analyzed based on the scientific evidences published in the IPCC 5th assessment report, and focused on the river basin where our factories are located. As an approximation of flood risk in 2030, we used the flood frequency in the RCP 2.6 in 2100. As for the impact of water shortage due to climate change on operations, the relative precipitation change rate from 2011 to 2040 in the RCP 8.5 was used to assess the impact in 2030. In addition, a comparative study based on the RCP 4.5 and 6.0 was conducted to confirm the severity of the physical risk in 4° C scenario and the effect of mitigation.

Table 4 Key risk factors reported by IPCC and Shiseido's activity area

Area	Key Risk Factor	Procurement	Manufacturing	Distribution
Asia	1. Flood 2. Heat-related mortality 3. Water shortage	●	●	●
Europe	1. Flood 2. Water shortage 3. Extreme heat event	●	●	●
North America	1. Wildfire 2. Heat-related mortality 3. Flood	●	●	●
South America	1. Flood 2. Food production 3. Infections	●		●
Oceania	1. Coral reef system 2. Flood 3. Sea-level-rise ranges	●		●
Africa	1. Water shortage 2. Food production 3. Infections	●		

Changes in weather conditions are also expected to have a significant impact on our raw materials procurement. We created a logic tree starting from the natural conditions and demographic changes to the end points such as effect on plant operations and procurement in order to understand the relationship between each factor.

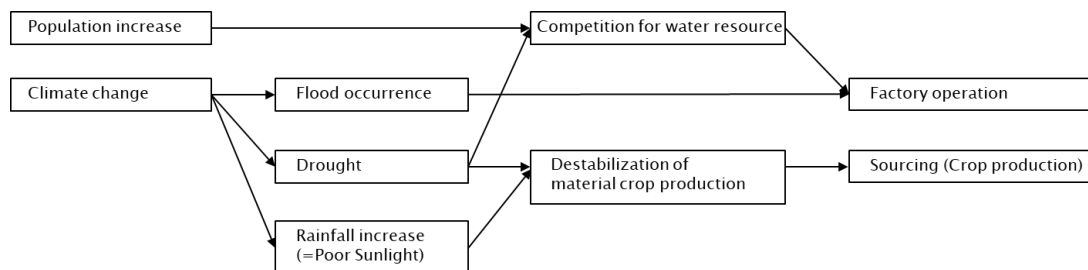


Fig. 2 Relationship between physical risks and impacts

Based on that, we evaluated the financial impact due to the flooding and drought on our plant operations. As for the impact on raw materials procurement because of changes

in weather conditions, we tried to identify the crops and regions which tend to be affected.

3.1 1.5/2° C scenario

(1) Carbon tax

Carbon tax will be introduced globally to secure the budget for the implementation of climate change mitigation policies and compensation for climate disasters. We calculated the impacts on our operations and procurement based on the IEA 450 scenario which anticipates the budget for implementing climate change mitigation policies to achieve the 2° C target and sets \$100 per 1 ton of CO₂ emissions as the tax rate.

Shiseido is making efforts to improve energy efficiency and introduce renewable energy. If we switch the electric power consumed in our factories to renewable energy, the financial impacts will decrease by 30%. The impacts will be estimated to decrease by 60% if we can switch 100% of electric power consumed in all our sites. Furthermore, carbon tax will have impacts on our procurement cost. It is estimated that about 4 to 11 times our direct burden will be taxed on economic activities upstream of our supply chain. Reducing Scope 3 emissions through collaboration with business partners will be effective in mitigating the impact. In addition, the impacts of various scenarios based on the environmental and economics report^{4,5)} about social cost of carbon, including the case where the society will aggressively aims to implement decarbonization solutions to achieve the 1.5° C target and the case where the carbon tax is used to compensate for climate disaster damage , were also estimated.

For this reason, we have positioned CO₂ emissions of Scope 1 and 2, and related to raw material procurement as one of the metrics for climate risk management, and are working to reduce them.

(2) Opportunities for sustainable products

Based on the SSP-1, in which a society is formed in which global cooperation and sustainability are emphasized in order to achieve the 1.5° C or 2° C target, we assumed a market where consumers have extremely high level knowledge and sensitivity to environmental issues. In such the society, the marine plastic problem will be solved from the viewpoint of environmental aspects such as sustainable resource consumption and climate change prevention, as well as social system design, mainly in developing countries. Sales opportunities for ethical or sustainable brands and products will expand. On the other hands, products with high CO₂ emissions and what are not in line with the circular economy concept will not only lose consumers' support but will likely be excluded from the

market by regulations.

Among the Shiseido Group's products developed by the Global Innovation Center, products that are difficult to switch to reusable or recyclable packaging because of technical issues will lose sales opportunities in regions where regulations are scheduled to be introduced. The negative impact was estimated small because we expect that most of our products will be able to switch to sustainable packaging which are meet with the circular economy. Also, the number of countries or regions where strict regulations are scheduled to be introduced is small.

In the meantime, with the introduction of the EU taxonomy in Europe, public and private funds are expected to be concentrated in the market of sustainability. It is expected that the implementation of circular economy policies in the European market will be a great opportunity for Shiseido, which has been providing refillable products for many years since the first launch of the refillable white powder in 1926.

3.2 4° C scenario

(1) Operation stop with natural disaster

The impact of large-scale floods due to temperature increase was evaluated. For the flood frequency in future, we used the return period of large-scale flood in the RCP 8.5 scenario reported by Hirabayashi *et al.*⁶⁾ As for the current frequency, we adopted the average number of floods per unit area by country for the decade from 2000 to 2019 based on the Emergency Events Database of the Catholic University of Louvain⁷⁾. The ratio of the reciprocal of return period in 2020 and 2100 was used for the increase rate of flood occurrence. The reported data are evaluated at a resolution of 0.25 degrees in latitude and longitude. Therefore, the results may differ significantly due to slight differences in location information. For this reason, we calculated the average score for each river basin and used them in this analysis. The amount of damage was calculated based on the assumption that factory operations would be suspended for one month when a large-scale flood will hit the factory area. As a result, the increase in the flood frequency is limited as of 2030, and the risk is assessed to be small. However, the impact is expected to increase toward the end of this century, and the importance of taking measures such as developing a business continuity plan, and predicting flooding from a long-term perspective was pointed out.

Such the extreme weather events have a significant impact not only on shipping from out factories but also on logistics. Therefore, we started to investigate the flood risk of our important distribution centers. First, we have carried out the analysis based on the same methodology for our distribution centers in Japan, and confirmed that the flood risk is low

according to the hazard maps published by the local governments. We plan to conduct a more reliable risk analysis on the facilities in our factories and the other distribution centers.

(2) Operation stop due to water shortage

The impact on factory operation due to water shortage, which will be caused by climate change. Rainfall projections were based on the relative precipitation change from 2011 to 2040 under the RCP 8.5 scenario, reported by Hanasaki *et al.*⁸⁾ The reported data are evaluated at a resolution of 0.25 degrees in latitude and longitude. Therefore, the results may differ significantly due to slight differences in location information. For this reason, we calculated the average score for each river basin and used them in this analysis. The amount of damage was calculated based on the assumption that factory operations would be suspended depending on the severity of the water shortage. In addition, the demographic change of the country or region where the factory is located was adopted as one of the explanatory variables based on the medium scenario of the United Nations demographic projections⁹⁾ because access to water resources is also affected by the population. The effect of demographic change is weighted 1/9 compare to the effect of precipitation change.

The financial impact due to the suspended factory operation was calculated by the risk function which can S-shaped curve in response to the risk factors such as rainfall reduction or population increase between the thresholds where the impact becomes apparent and where the impact is maximized because the effect of the fluctuation and the buffer effect of infrastructure should be taken into consideration.

As a result, the risk of water shortage in 2030 was assessed to be limited. However, the impact is expected to increase toward the end of this century, as is the flood risk. In order to manage water risk from a long-term perspective, we have selected water consumption at our business sites as a metrics and set a target of reducing by 40% by 2026. We will work to mitigate the risk and reduce the impact on the watershed environment by reducing water consumption through the introduction of water-saving and reclaimed water facilities, especially at factories that use a lot of water.

(3) Procurement cost increase for crops-derived materials due to rain condition change

Many of the cosmetic raw materials purchased by Shiseido are made from plants. The precipitation change due to the climate changes also affects the raw material production that derived from agricultural harvesting. Based on our actual raw material procurement result in 2019, we have analyzed how much and in which regions water resources were used to grow raw material crops in the basis of water footprint¹⁰⁾ methodology.

The sustainability of the water consumption was analyzed by the precipitation change until 2100 and the demographic projections for each country used in the previous chapter. As a result, we identified the material crops and location whose cultivation would be significantly affected by climate change. These crops may make procurement itself impossible as well as significant cost rising. We will take measures to avoid or mitigate the risk by changing the materials and diversifying the production areas for the material crops suggested to be severely affected.

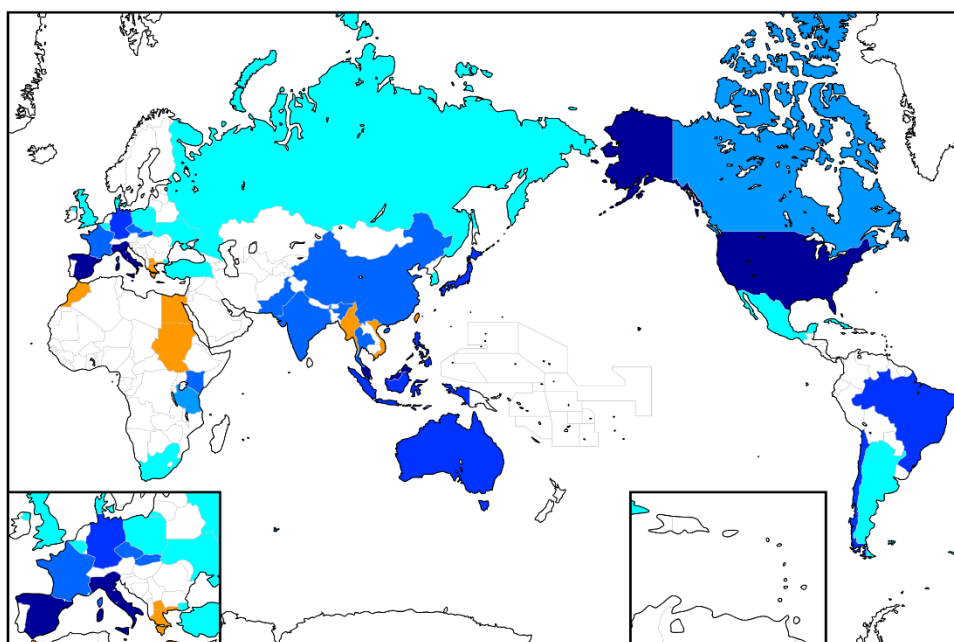


Fig. 4 Water consumption of agriculture for raw material production

(4) Opportunities due to climate change

In a 4° C scenario with a significant temperature rising, sales opportunities for products used in the summer will expand. Shiseido has elucidated the mechanism by which cool-touch ingredients such as menthol influence more effectively and continuously through researching the structure of the cell surface¹¹⁾. Cool-touch products based on these findings and technologies are expected to expand the opportunities not only in Japan and Asia, but also in Europe, where heat waves have caused significant damage in recent years.

Furthermore, the Japan Agency for Marine-Earth Science and Technology (JAMSTEC) has announced that UV exposure in the mid-latitudes of the Northern Hemisphere is expected to increase toward the end of this century due to various environmental factors including climate change¹²⁾. The Northern Hemisphere mid-latitudes have many large

cities with concentrated populations such as Tokyo and Beijing. The increase in UV radiation is expected to lead to make opportunities for sunscreen products.

4. Risk Management

In 2020, Shiseido adopted a holistic approach to assessing risks, and the six most impactful risks (Threats and Opportunities) for 2021 in relation to our WIN 2023 Key Strategies are identified: “Innovation Risks”, “Changes in Consumer Values,” “Business Structure Transformation”, “Speed of Digital Shift”, “Natural and Human-Made Disasters”, and “ESC (Environment, Society, and Culture) Unique to Shiseido”. Climate-related risks are analyzed based on scientific and socio-economic evidence and integrated into the enterprise risk management as one of the elements related to natural disasters or ESC. The Group’s risks assessment and countermeasures are also periodically reviewed by the Global Risk Management & Compliance Committee, headed by the Group CEO and composed of regional CEOs and executive officers as well as the Executive Committee.

5. Metrics and Targets

In order to mitigate the physical risks, we use the ratio of our CO₂ emissions as the metrics and track and monitor them every year. Especially, we set the target to achieve carbon-neutral operations by 2026 for the Scope 1 and 2 emissions. In terms of mitigating market risks and creating opportunities in the 1.5/2° C scenario, we set the ratio of either reusable, recyclable, or biodegradable packaging as a metrics, and set the target to shift to 100% sustainable packaging by 2025. To manage the risk of water shortage in the 4° C scenario, we selected water consumption at our business sites as an indicator and set a target of reducing it by 40% by 2026. As for other physical risks, we will examine appropriate metrics from the viewpoint of long-term risk management.

6. Roadmap for Disclosure

In April 2019, Shiseido announced its support for the Task Force on Climate-related Financial Disclosures, we started disclosing the result of climate related risk analysis based on TCFD framework. In addition to the results of the qualitative analysis of risks and opportunities disclosed in 2020, this year we also disclose the quantitative risk analysis and major areas for response actions. We will make efforts to mitigate risks by planning response actions in cooperation with our businesses and integrating them into our

management and business strategies. In addition, we will disclose initiatives that lead to new opportunities as well as risk mitigation through the value chain. At the same time, we will also improve our analysis based on the latest scientific evidence.

7. Reference

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- 3) The 5th Assessment Report WG2, Impacts, Adaptation, and Vulnerability, Part A: Global and Sectoral Aspects (2013) IPCC
- 4) Cameron Hepburn *et al.* (2019) *Nature* (575) 87–97
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Developing Sustainable Products

"Let the product speak for itself." These words from Shiseido's founder and first president are reflected in our corporate mission and product development goals. We believe our products can convey the message that we aim to work sustainably, such as how we procure raw materials, and our commitment to reducing, reusing, and recycling. We aim to provide consumers with products that demonstrate our sustainability beliefs, from the moment of purchase, upon every use, and at disposal or reuse. In addition, through design and usability, our products also communicate the "art and science" aspect of our DNA.

Based on the unique Japanese spirit of *Mottainai**, we strive to minimize the use of natural resources and promote activities that allow for reuse. In consideration of the environment, we have also been cultivating formulas and ingredients that comply with high safety and quality standards. By living in harmony with the planet, we can contribute to the realization of a more sustainable world.

*Mottainai: a Japanese word that expresses a sense of regret over waste, and is a call for gratitude and respect. It is also a concept used by environmentalists to encourage people to reduce, reuse, and recycle.

Sustainable Packaging

In order to provide products with a smaller environmental footprint, we are promoting analysis based on the Life Cycle Assessment. For packaging, since the footprint at the procurement and disposal stages is large, we are promoting initiatives to "reduce," "reuse," "recycle," and "replace," which are effective ways of reducing the footprint. In 2020, we introduced our packaging development policy, "Shiseido 5Rs"*1 which includes "respect," the idea of respecting people, society and the environment, as the basis for these initiatives. To support the concept of a circular economy, we also disclosed our medium-term target: 100% Sustainable Packaging by 2025*2, which means we aim to make our cosmetics' plastic packaging either reusable, recyclable, or biodegradable.

Sustainable packaging accounted for 57% of all Shiseido packaging developed in Japan in 2020*3, a large portion of which included refillable packaging that also allows for the reduction and reuse of plastics, and mono-materials usage. In the same year, other sustainable packaging achievements included the development of packaging made from materials that decompose in water, and the introduction of refill services at our stores.

*1 In order to reduce our environmental footprint and support the concept of a circular economy, Shiseido defined 5Rs : Respect, Reduce, Reuse, Recycle Replace.

*2 For sale of products with plastic packaging

*3 Amount of plastic packaging used in Japan in 2020 (Including estimates): 14,000t

Reduce and Reuse

Refillable products have been attracting a lot attention in recent years, especially for their role in reducing the environmental impact and minimizing plastic usage throughout the product life cycle.

At Shiseido, refillable solutions have been part of our approach to product packaging for a long time. Since launching our first refillable powder compact in 1926, we have introduced a range of Refillable solutions to our skincare, makeup, and hair care categories. In 2020, we offered refillable packaging for 1,200 stock keeping units (SKUs) under 53 brands globally. At ELIXIR — one of our key global brands — consumers' choice in favor of refills resulted in an 83% reduction of plastics compared with the use of regular (primary) packaging. For example, we estimated that the use of refills for ELIXIR lotions and emulsions in Japan reduced our carbon footprint by 56%, based on the Life Cycle Assessment methodology. In 2021, we will continue to expand our Refillable solutions to other regions.

We also believe in sharing the importance of sustainability with our consumers. By opting for refillable solutions, they are able to contribute to reducing the environmental footprint of their product consumption, while acquiring personal beauty and economic benefits.

For cosmetics, packaging design and usability are important values. While leveraging almost 150 years of knowledge, we strive to accelerate innovation, considering materials, composition, processes, and business models from a circular economy perspective. By offering innovative packaging such as convenient, refillable products, we aim to turn commitment into action, communicating the importance of sustainability to our consumers around the world.

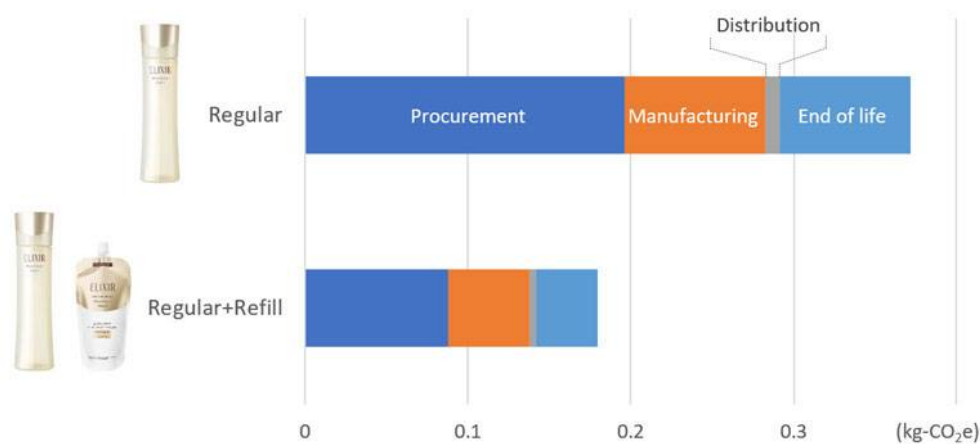


Fig.1 Carbon footprint of Elixir Lotion and Emulsion packaging

● Initiative for Reuse

To make more effective use of limited resources and minimize environmental impact, SHISEIDO introduced a new refilling service at its global flagship store in Japan. The service, called the Ultimune Fountain, encourages consumers to bring used packaging to the store for cleaning and refilling. We succeeded in introducing the service thanks to meticulous hygiene management compliant with the strict Japanese safety and quality standards related to refilling — especially for cosmetics due to their complicated content composition and long-term use.



The SHISEIDO ULTIMUNE FOUNTAIN

Looking ahead, we will use our knowledge and experience in reusing packaging to inspire further innovations. In addition, we join the reusable packaging program, Loop* in Japan in 2021.

*Loop is a circular shopping platform created by Terracycle (US) that replaces single-use disposable packaging with durable, reusable packaging. Loop is currently available in the UK, France, Canada and the USA, and is scheduled to launch in Japan in 2021.

Recycle

To realize a circular economy, it is important to select materials and design products that can be reused and recycled.

In order to reduce the number of single-use plastics, we develop mono-material packaging and packaging that can be easily disassembled and recycled after use. In 2020, 25% of the products developed at the Shiseido Global Innovation Center in Japan featured either mono-material or easy-to-disassemble designs. The majority of these were products with large sales volumes, such as SENKA face wash and TSUBAKI shampoo and conditioner.

Drunk Elephant, a brand rooted in "clean beauty", aims to accelerate packaging recyclability, and is aiming to be recyclable materials by the end of 2021. Such initiatives are also being pursued by our other brands. And BAUM — our

skincare brand launched in 2020 — actively uses recycled glass in its packaging.

● In-store Collection and Recycling

To support recycling, Shiseido and its brands work closely with consumers, waste suppliers, and other stakeholders. We have been promoting in-store collection and recycling of used packaging at stores, while doing the same globally as an initiative to consider environmental issues together with consumers to contribute to their resolution.

In Japan, in 2021, Aeon Retail Co., Ltd. (Aeon) which takes leads in the collection bases, and TerraCycle Japan LLC, which handles the recycling and reuse services, are collaborating to launch the "Glam Beautique Recycling Program" together with Shiseido and other major cosmetics and daily necessities manufacturers (Kose Co. Ltd., L'Oreal Japan Co., Ltd. and P&G Japan G.K.). Used packaging from skincare, makeup, hair care and hair color products will be collected at 87 "Glam Beautique" stores operated by Aeon in Japan. They will then be recycled into plastic materials to be reused as new resources.

In addition, *SHISEIDO Professional* has introduced initiatives to collect used cosmetics and hair product packaging from salon customers at Shiseido Beauty Salons before recycling them to generate sustainable resources. In China, similar initiatives have been launched at department store counters under skincare brands *IPSA* and *AUPRES*.



Replace

At Shiseido, we are engaged in developing alternative plastics, biomaterials with low environmental impact, and packaging that biodegrades naturally. In 2020, SHISEIDO launched a new type of sustainable packaging in collaboration with Japanese material manufacturer KANEKA. Composed of 100% KANEKA biodegradable polymer Green Planet™, the new material is unlike conventional biomass materials. It is biosynthesized within the cells of microorganisms and can decompose in freshwater or seawater. As with all new materials, there are challenges to overcome — such as moldability and stability — but we believe this innovation is one possible solution to the problem of marine plastic waste.

Since 2011, we have also expanded the use of sugarcane derived polyethylene as a packaging material for some of our brands, including hair care brand TSUBAKI, suncare brand ANESSA, skincare brand ELIXIR and men's brand UNO — all of which boast high sales volumes. Sugarcane-derived polyethylene is made from molasses after the sugar has been refined. It is viewed as a cleaner alternative to petroleum-derived polyethylene, as its fibers can be used as fuel in the manufacturing process. Its usage contributes significantly to reducing CO₂ emissions.



SHISEIDO AquaGel Lip Palette, the world's first Green Planet™ cosmetics container

Sustainable Formula

We are committed to developing products and services that are safe and meet high quality standards. We aim to achieve this by using over a century's worth of extensive research and results from dermatological and material science — combined with the latest formulation technologies. Currently, we are conducting research and development at seven innovation centers around the world.

Naturally derived raw materials are widely used in cosmetics products. From an environmental perspective, their sustainable and responsible procurement and use are of the utmost importance. Our Global Innovation Center (Yokohama, Japan), which manages all regional centers, compiled a list of all ingredients used in our products to provide clarity from a sustainability perspective.

When selecting raw materials and ingredients, we strive to prioritize human safety, reduce our environmental footprint, and carefully consider ethics. Through our technologies and patents, we contribute to both the planet and society.

UV Care

As a result of climate change, the amount of UV radiation has been increasing*. UV exposure for people around the world is also expected to increase.

Exposure to UV rays over extended periods of time causes spots and wrinkles on skin, referred to as photoaging. Fortunately, cosmetics nowadays offer a variety of ways to protect against UV. However, while UV protection is essential to human health, it has been shown that some components in UV protective products may have an adverse effect on marine ecosystems such as coral.



SHISEIDO Ultimate Sun Protector Lotion

In response to this, we have been developing sunscreen that protects skin without negatively impacting the environment. In 2020, SHISEIDO released a new sun care product in the USA —Ultimate Sun Protector Lotion — which is free from ingredients that pose a risk of coral bleaching.

*JAMSTEC (Japan Agency for Marine-Earth Science and Technology) research results indicate that climate change influences atmospheric circulation (Hadley circulation) and increases the total amount of UV ray exposure in the middle latitudes.

Actions Toward Consumer Needs

In recent years, we have seen how natural environments and communities suffer as a result of exploitation and unsustainable activities. Consumers are reacting to this. More than ever before, they are holding brands and companies accountable when it comes to showing social responsibility and taking real action to reduce the environmental impact of their activities. This includes the use of raw materials.

At Shiseido, we wish to give consumers and all other stakeholders insight into how our products are produced. Therefore, we issued our sustainable product development policy, which reflects impact to human safety, environmental considerations, and ethics. We also exercise transparency in terms of corporate product development directions for each of our brands.

Clean beauty is important to us, and we respond to consumers' sustainability needs with brands such as Drunk Elephant, and BAUM— which was established in 2020 around the theme "coexistence with trees" and uses upcycled oak, bioPET plastics and recycled glass for its packaging, and is an advocate of product refills. These brands strive to satisfy consumer needs through sustainability actions such as raw material procurement, ingredients usage, and packaging.

License of Environmental Technology

In an attempt to solve environmental and social issues, the practice of licensing owned and patented technologies has become increasingly popular in recent years. Rather than monopolizing environment-related technology, companies are looking to one another for shared solutions.

In 2020, we were the first cosmetics company to join WIPOGREEN 2, an international technology exchange platform established by the World Intellectual Property Organization (WIPO), and have since registered several environment-friendly technologies in the WIPO GREEN database. Notably, these include technologies that achieve both excellent cleaning and water conservation during rinsing, which can be applied mainly to cleansing and hair care products, as well as technologies that concentrate and reduce energy consumption for manufacturing and transportation. We believe such technologies can contribute to tackling environmental issues such as drought and CO₂ emissions.

*WIPO GREEN was established by WIPO in 2013 as an international framework to promote innovation and diffusion of environment-related technologies and has gained the participation of more than 100 corporations around the world.

Our Environmental Approach

Striving for the ideal of a global environment that supports lives of vibrancy.

'Shiseido' comes from a phrase in the Chinese classical text, I Ching: 'Praise the virtues of the Earth, which nurtures new life and brings forth significant values.' Respect for the planet, society and people has been embedded in our culture since our foundation in 1872. In everything we do — from development and procurement to production — we work to preserve the global environment that we all depend on. That is how we create sustainable value. In this chapter, we report on the strategic actions we have taken to contribute to the health of our planet.

Since 1992, when Shiseido Eco Policy, a set of the company's principles on environmental considerations, was formulated, we have worked to preserve the global environment. Today, the inherited passion appears in "With Society and the Earth," one of the Shiseido Group Standards of Business Conduct and Ethics. Following this spirit, we praise and try to preserve the blessings of the Earth, and conduct business with a sincere commitment to people's desire to "live beautifully." That is, we believe, our purpose.

We believe that conservation of biodiversity and sustainable use of water resources are important for "the preservation of the bounty of the Earth." Regarding the former issue, we organized "the concept of Shiseido's biodiversity" in 2010 as follows.

Our thoughts regarding "biodiversity"

Shiseido is grateful for the benefits of the Earth, the source of new values. Recognizing that the resources of the Earth are limited, we will use them wisely and fairly for the sake of future generations. Moreover, we will work proactively for the conservation of biodiversity to realize a sustainable society.

Our thoughts regarding "fresh water resources"

We will aim for sustainable water use with respect for the healthy water circulation and the water-related culture practices of the local community. First, we will create an understanding of the actual situation of our water use through the value chain of our business activities. Then, based on it, we will work towards minimizing the impacts on the water circulation and the local water-related culture.

Environmental Management

Implementation framework

At Shiseido, we are working to promote sustainability across the entire company, including our brands and regional businesses.

In 2020, we launched and held regular meetings of the Sustainability Committee, a dedicated forum to ensure timely management decisions and thorough recognition of this theme. The committee discusses Group-wide sustainability initiatives, decides on strategies, policies, and specific action plans, and monitors the progress of medium-to-long-term goals. It consists of a representative director and executive officers in charge of Corporate Strategy, R&D, Supply Network, Corporate Communications, Social Value Creation and our brands, with other corporate officers participating on an as-needed basis according to the matter at hand. In addition to the Sustainability Committee, other significant issues related to sustainability were also discussed with the Executive Committee, the Innovation Committee, and the

Board of Directors, for a total of 12 meetings in 2020.

Particularly important matters are submitted to the Board of Directors for approval.

Promotional activities

The Shiseido Group's production sites introduced the ISO 14001 environmental management system for the first time in 1997. Our ten production sites worldwide have obtained ISO 14001 certification*. We place an Environmental Management Representative in each production site, set environmental policies and targets, promote environmental activities, confirm compliance with environmental regulations, properly manage chemical substances, educate employees on the environment, and conduct the PDCA cycle. By so doing, we improve the management system and reduce the environmental impact. The progress of these activities is validated through third-party audits.

* Except at our Nasu factory, which began operation in Dec 2019.

The Shiseido Group Environmental Management Status

Descriptions	Targets	2019 results
Maintain and expand environmental management system	Maintain ISO 14001 certification	Continued ISO 14001 certification

Status of ISO14001 Certification

Production sites		Date of certification
Shiseido Company, Limited	Shiseido Kuki Factory	October 27, 1997
	Shiseido Kakegawa Factory	October 5, 1998
	Shiseido Osaka Factory	March 24, 1999
Taiwan Shiseido Co., Ltd. Hsinchu Factory		August 31, 1999
Shiseido America, Inc.	East Windsor Factory	March 31, 2000
Shiseido International France S.A.S.	Unité de Gien Unité du Val de Loire	August 8, 2000 February 8, 2002
Shiseido Liyuan Cosmetics Co., Ltd.		August 17, 2000
Shiseido Citic Cosmetics Co., Ltd.		November 9, 2004
Shiseido Vietnam Inc.		December 15, 2011

Cooperating companies

Production sites		Date of certification
Shiseido Honeycake Industries Co., Ltd.*		September 29, 1999

* Although Shiseido Honeycake Industries Co., Ltd. is not a consolidated subsidiary it obtained certification in 1999 in line with Shiseido policies.

Collaboration with Stakeholders and Evaluation from External Parties

Agreements with external organizations

2017	In Japan, Shiseido updated the content of our declaration on environmental protection, the Promise of eco-first and certified as an "Eco-First Company" by the Minister of the Environment. (Re-certified in 2012 and 2017, respectively, with a plan to update our declaration in 2020.)
2009	In Japan, Shiseido became the first company in the cosmetics industry to receive the "Eco-First Company" certification from the Ministry of the Environment thanks to our declaration on environmental protection, the "Promise of eco-first."
2008	We agreed with the United Nations Global Compact's Climate Change Initiative on Caring for the Climate.



Environmental study with local residents

Environmental study with children

The Shiseido Kakegawa Factory (Kakegawa City, Shizuoka Prefecture) holds environmental learning sessions for local elementary school students every year. In 2019, 20 children from Kakegawa participated in the sessions. We introduced eco-friendly packages and waste reduction initiatives and learned about the problem of ocean plastics. Everyone checked small pieces of plastic collected from the beach by employees and made kaleidoscopes. The Shiseido Kakegawa Factory continues to provide environmental education in cooperation with the community.



Environmental study in the roof garden at the Ginza Office

The Ginza Office (Chuo-ku, Tokyo) has a rooftop "Shisei Garden" created with biodiversity conservation in mind. We hold environmental learning sessions for local residents in the garden. In October 2016, we invited 29 children to take part in a workshop in which they observed the plants in the roof garden and squeezed oil from Camellia, a cosmetics ingredient.



Awards won

Month/Year	Award	Organizer	Reason for award
August 2017	Technical Packaging Award of The Japan Packaging Contest 2017	Japan Packaging Institute	Using mechanically recycled PET: SEA BREEZE Body Shampoo Cool & Deodorant, SEA BREEZE Super Cool Body Shampoo S
August 2016	Accessible Design Packaging Award of the Japan Packaging Contest 2016	Japan Packaging Institute	Development of new refill replacement mechanism for Clé de Peau Beauté LA CRÉME n

Environmental Accounting

In Japan, we use the Environmental Accounting Guidelines 2005 edition issued by the Ministry of the Environment to quantify the environmental conservation costs and outcomes.

Target period: From January 1 to December 31, 2020

Scope: Domestic sites (production sites, research institutes, departments in the Headquarters), overseas sites (production sites)

1. Environmental Conservation Costs (Unit: 1 million yen)

Category		Main Initiatives	Investment	Expenses
(1) Costs breakdown by operation			115	452
Breakdown	(1)-1 Pollution prevention costs	Water contamination, atmospheric pollution, etc.	4	103
	(1)-2 Global environmental conservation costs	Promotion of energy conservation, measures to protect the ozone layer, etc.	77	9
	(1)-3 Resources recycling costs	Waste processing, recycling, Wastewater re-use, reducing materials, etc.	34	337
	(1)-4 Chemical substance reduction cost		-	3
(2) Upstream/downstream costs		Costs associated with Recycling of Containers and Packaging Recycling Law, green procurement, product recycling, etc.	-	189
(3) Administrative costs		Personnel expenses (excluding R&D), environmental management costs	3	269
(4) Research and Development costs		R&D for environmentally friendly products, etc. (including personnel expenses)	-	-
(5) Social contribution costs		Support of environmental groups, disclosure of environmental information, environmental advertising, etc.	-	30
(6) Environmental remediation costs		Environmental remediation costs, etc.	-	1
(7) Other costs			-	1
Total			118	942

2. Environmental Conservation Outcomes (Unit: 1 million yen)

Outcomes		Economic effect
Earnings	Revenue from the recycling of waste generated in main business activities and the recycling of used products, etc.	38
Cost savings	From energy conservation	52
	Waste-related	10
	From resource conservation	11
	Other	0
Total		111