

4

Environmental Aspect

- 4.1 Management of Energy and Resource Consumption 79
- 4.2 Greenhouse Gas Emissions 83
- 4.3 Supply Chain Environment Management 84
- 4.4 Equator Principles (EPs) 87



Management Guidelines

In the face of global warming and in response to the issue of climate change, the Bank has fulfilled its corporate social responsibility, implemented the environmental policy of “healthy living, eco-friendliness and love for our planet”, and continued to promote energy conservation and carbon reduction, waste reduction, resource management, and green buildings to mitigate the impact of climate change and achieve the goal of environmentally sustainable management.

The Bank’s Environmental Performance in Recent Years

GRI 307-1

In response to climate change, the Bank has been implementing sorting of waste, recycling, and energy conservation and carbon reduction measures since before the *Paris Agreement*, and continues to make use of environmentally friendly products such as green building materials, recycled paper and water-saving or power-saving equipment to reduce impact on the environment. In 2018, the Bank did not commit any violations of environmental regulations.



- Our environmental management system obtained ISO 14001 certification
- Our goal for reducing water and electricity consumption is 1.5% per year



- Our energy management system obtained ISO 50001 certification
- Our goal for the five-year average power saving rate is more than 5%
- We have established an energy policy and Supplier’s Code of Corporate Social Responsibility



- We have expanded greenhouse gas reduction and management to all domestic branches and offices
- ISO 14064-1 Greenhouse Gas Inventory certification



- Inventory of waste and resource recycling and reduction, and setting of reduction goal
- Filled out the CDP questionnaire for the first time

Energy Conservation and Carbon Reduction Plan



Policy

The Bank promoted the environmental policy of “healthy living, eco-friendliness and love for our planet”, implemented various resource and energy conservation measures as well as greenhouse gas reduction strategies, and actively introduced various international management systems to achieve the goal of carbon emission reduction.



Implementation

The Bank’s greenhouse gas emission sources are mainly electricity consumption. To promote a low-carbon environment, the General Affairs Division is responsible for establishing specific goals, practices, and programs for energy conservation and carbon reduction; regularly reviewing environmental protection issues; and continuously promoting improvement measures to achieve greenhouse gas reduction goals.



Review

Record the consumption information of the various resources (water, electricity, fuel, natural gas, etc.) and wastes monthly. When there is non-compliance with or deviation from the environmental management requirements, corrective measures are taken in a timely and effective manner to reduce environmental impact. In addition, environmental impact is identified and evaluated regularly, and follow-ups conducted by listing the improvement goals and management programs. Furthermore, the greenhouse gas emission inventory is conducted every year to examine the reduction situation and increase management measures.

Goals	Key Accomplishments in 2018
<ul style="list-style-type: none"> Annual carbon emission reduction of approximately 33,000~60,000kgCO₂e. 	<ul style="list-style-type: none"> The head office in Taipei replaced 556 lamps with LED lamps, reducing carbon emissions by approximately 59,972 kgCO₂e in total (Note 1).
<ul style="list-style-type: none"> Obtained ISO 14064-1: 2006 Greenhouse Gas Inventory international certification. 	<ul style="list-style-type: none"> The greenhouse gas inventory operations of domestic branches and offices obtained the ISO 14064-1: 2006 Greenhouse Gas Inventory certification in 2018.
<ul style="list-style-type: none"> Continue to promote international certification of ISO 14001 Environmental Management System and ISO 50001 Energy Management System. 	<ul style="list-style-type: none"> The environmental management system obtained ISO 14001: 2015 re-certification. Completed energy management system’s ISO 50001: 2011 third-year certification.
<ul style="list-style-type: none"> Regularly record the waste and recycling amount, and establish reduction measures. 	<ul style="list-style-type: none"> The amount of waste from the Bank’s Taipei head office in 2018 was confirmed by a third party to be: general waste of 124.61 metric tons, and recycling waste of 13.728 metric tons (approximately 1.414 metric tons for PET bottles and 12.314 metric tons for paper). Set the goal of reducing the amount of waste by 1% every year.
<ul style="list-style-type: none"> Increase the amount spent on green procurement. 	<ul style="list-style-type: none"> The Bank’s 2018 green procurement amount reached approximately NT\$13.61 million, an increase of 47.13% compared with 2017. Green procurement in 2018 was awarded the <i>Excellent Green Procurement Enterprise Award</i> by the Department of Environmental Protection, Taipei City Government.

Note: (98 W-31 W)*2,650 HR*234 lamps/1,000=41,546.7 kWh/Year
 (98 W-25 W)*2,650 HR*322 lamps/1,000=66,705.8 kWh/Year
 (41,546.7+66,705.8)*0.554 electricity emission factor=59,972

4.1 Management of Energy and Resource Consumption

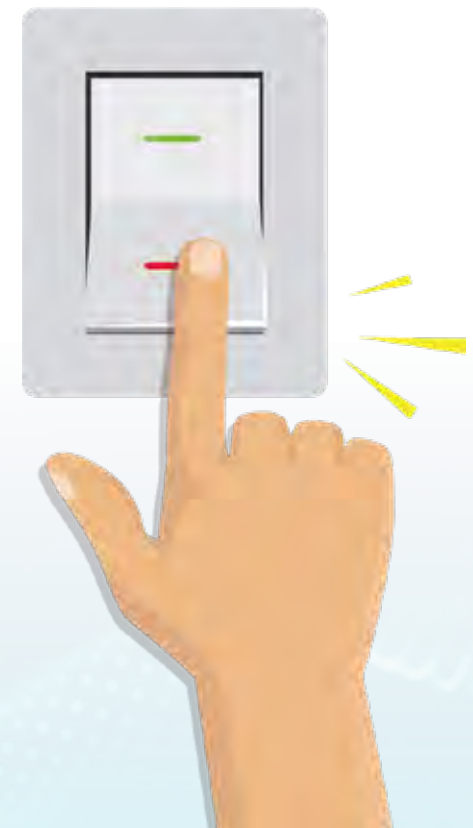
GRI 102-12, 302-1

4.1.1 Goals





The Bank follows relevant laws, regulations and international standards to gradually establish an environmental and energy management system. Through ISO management operational procedures, the Bank has established documents and record systematization measures; regularly reviewed environmental issues; continuously promoted improvement plans; and set the goal of 1% water consumption reduction, 1% electricity consumption reduction, and the reduction of carbon emissions by more than 33,000~60,000kgCO₂e every year. In 2018, the annual certification for ISO 14001: 2015 Environmental Management System and ISO 50001: 2011 Energy Management System was completed.

4.1.2 Energy Conservation and Carbon Reduction Plan

The Bank takes active measures to reduce energy consumption, and continues to promote energy conservation plans and daily management to avoid energy waste. The Bank implements its energy policy of “continuously improving energy performance and maximizing value of energy”, “observing energy management regulations and promoting energy conservation concepts”, “supporting the procurement of energy-saving products and building an energy-saving environment”, and “continuously investing necessary resources and achieving goals and indicators”. In addition, the Bank supported CITY FM’s “Under the Moonlight” initiative of turning off the lights during Mid-autumn Festival, as to promote the concept of energy conservation and carbon reduction, and contribute to global environmental protection.



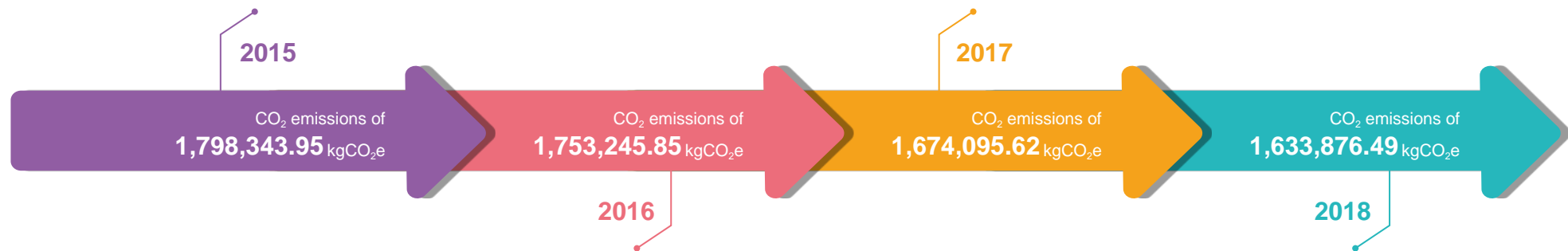
The Bank's energy conservation and carbon reduction measures are as follows:

Energy/Resource Type	Energy Conservation and Carbon Reduction Plan
 Water Resources	<ul style="list-style-type: none"> • Include water consumption in management to improve management and control efficiency of water resources. • Full installation of water-saving devices to fully adjust the water output of faucets. • Regular clean building water towers and conduct water quality testing. • Every three months, an inspection and testing institution approved by the Environmental Protection Administration is commissioned to conduct sampling and testing of the water quality of water dispensers to ensure the safety of water quality. • The Company's water comes 100% from Taiwan Water Corporation; none of our water comes from groundwater or other sources. Office buildings and operational locations supply water for use of employees and some customers with no overall impact on water sources. After use, wastewater is treated and discharged via sanitary sewers to rivers and the sea.
 Electricity	<ul style="list-style-type: none"> • Manage lighting use to reduce unnecessary power usage for lighting. • Replacement of old bulbs with high-efficiency LED bulbs to save power consumption on lighting. • Replace old power-consuming air-conditioners and conduct regular cleaning and maintenance to enhance energy-efficiency. • Set office indoor temperature at between 26 to 28 degrees to reduce the air-conditioning load. • During non-summer seasons when the load is low, the temperature of chiller unit and ice water outlet may be adjusted to 8~10 °C, which can effectively improve the operation efficiency of the chiller unit. • Encourage colleagues to walk the stairs, which is beneficial to health. • During non-office hours, only a few elevators are operated to reduce power consumption.
 Fuel	<ul style="list-style-type: none"> • Manage the use of company vehicles and encourage employees to car-pool when doing business errands to reduce dispatching of vehicles. • Encourage employees to take public transportation more often. • Incorporate daily usage information of gasoline and diesel into management to improve control efficiency of energy conservation.
 Natural Gas	<ul style="list-style-type: none"> • The employee cafeteria serves meals according to scheduled times to control the time for using natural gas. • Employee cafeteria management is carried out based on steaming and electric baking. • Inspect natural gas facilities and equipment from time to time to check if they are old or damaged and are prone to leakage.

4.1.3 Energy Consumption and Intensity

4.1.3.1 Carbon Reduction Results

In order to achieve the goal of developing a sustainable environment, the Bank has adopted various energy conservation, carbon reduction and environmental protection management measures to reduce greenhouse gas emissions and waste of resources. In 2018, taking the head office in Taipei as example, the overall carbon emissions were reduced by 40,219.13 kgCO₂e, a decrease of 2.40% compared with 2017, reaching the Bank's carbon reduction goal. The implementation results are as follows:



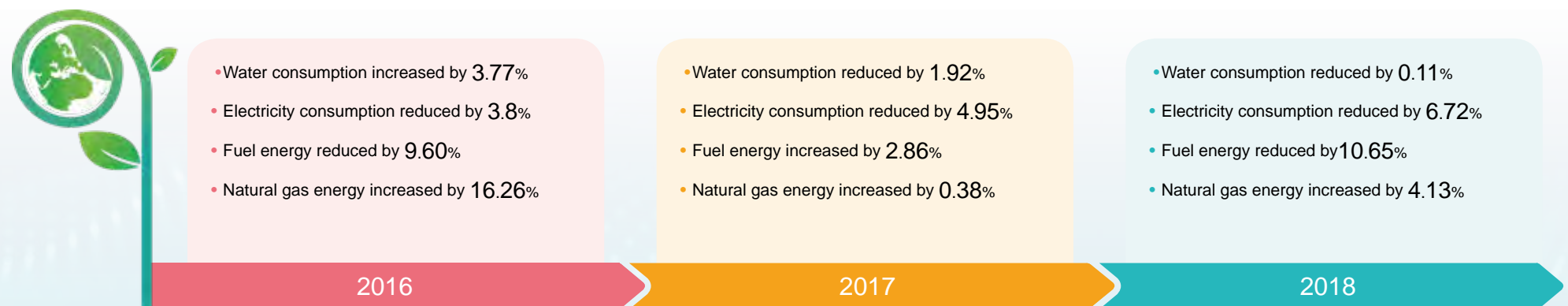
4.1.3.2 Energy Conservation and Carbon Reduction performances

Type of Energy	Unit of Consumption	2018	2017	2016	2015
Water Resources	kL	19,598	19,619	20,004	19,277
Electricity	kWh	2,832,000	3,036,200	3,194,200	3,323,200
Fuel	kJ	500,087,187.6	559,684,944	544,113,024	601,912,474.8
Natural Gas	kJ	513,270,576	492,909,872	491,034,544	422,350,656

Note 1: This table is based on the data of the head office in Taipei.

Note 2: The energy consumption of fuel and natural gas contained in the 2017 Corporate Social Responsibility Report of the Bank is based on the information on the following website: <http://www.onlineconversion.com/energy.htm>; in 2018, the greenhouse gas emission factor management table of the Environmental Protection Administration, Executive Yuan was adopted (version 6.0.3 dated January, 2017)

Taking the Bank's head office in Taipei as example, by implementing various energy conservation and carbon reduction management measures, such as replacing conventional office lamps with LED lamps, the electricity consumption in 2018 was reduced by 6.72% compared with 2017. As for the fuel, through long-time advocacy of taking public transportation and management measures for company vehicle car-pools, in 2018, energy use reduced by 10.65% compared to 2017. And regarding natural gas, due to the needs of employee education and training and the promotion of healthy lunch boxes, the employee cafeteria was commissioned by the Bank to make lunches to promote the health of colleagues, which caused the frequent use of natural gas, and in 2018, energy use increased by 4.13% compared with 2017.



4.1.4 Supporting the Development of Renewable Energy

In order to fulfill corporate environmental protection responsibilities, the Bank continues to promote various green initiatives of subsistence with the environment and support sustainable development. Since 2016, the Bank has cooperated with the government's renewable energy policy and has actively subscribed for 200,000 kWh of green electricity for two consecutive years, reducing carbon emissions by 105,700 kgCO₂e. However, since 2018, Taiwan Power Company stopped issuing green electricity certificates. The Bank thus purchased renewable energy certificates of 67,000 kWh (carbon emissions of approximately 37,118 kgCO₂e), accumulating a total reduction in carbon emissions of up to 142,818 kgCO₂e. In the future, the Bank will also evaluate the increase in the purchase of renewable energy certificates and actively support the implementation of the UN's Sustainable Development Goals (SDGs), depending on business needs and market conditions.

Note: "Electricity emission factor" is based on the standards announced by the Bureau of Energy, Ministry of Economic Affairs, which are 0.528 (2016), 0.529 (2017), and 0.554 (2018) kgCO₂e/kWh.

4.1.5 Waste Management

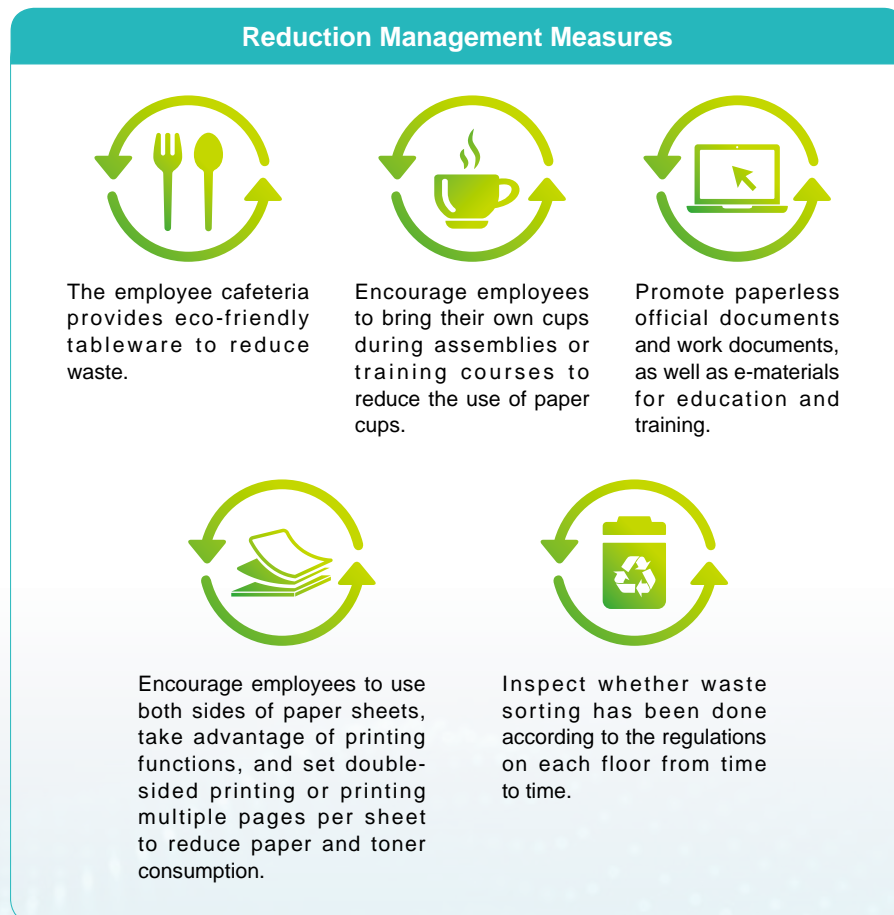
4.1.5.1 Waste Disposal

In 2018, the Bank took the initiative to manage waste, promoted energy conservation and waste reduction activities, actively implemented recycling and sorting by source management, and recorded the amount of waste regularly. In 2018, the amount of waste from the Bank's head office in Taipei was confirmed by a third party to be: general waste of 124.61 metric tons and recycling waste of 13.73 metric tons.

Sorting of Waste	Disposal Method
General Waste	<ul style="list-style-type: none"> • The property management agency of the building stores the garbage in the parking lot on the first floor of the head office in Taipei. • Removed by licensed waste disposal operators and taken to incinerators for treatment.
Recycling	<ul style="list-style-type: none"> • Managed by professional and licensed cleaning manufacturers and recycled according to types of materials such as paper, glass, plastic, iron and aluminum cans. • Notify disadvantaged groups in society to conduct collection. • Donate the waste that can be recycled and reused, such as empty toner cartridges, to the <i>Syinlu Social Welfare Foundation</i> every year.

4.1.5.2 Waste Management Goals and Measures

Taking 2018 as the base year, the Bank set the waste reduction goal of 1% for 2019, and expects to increase the recycling rate to reduce the amount of waste. To achieve the reduction goal, reduction management measures were promoted:

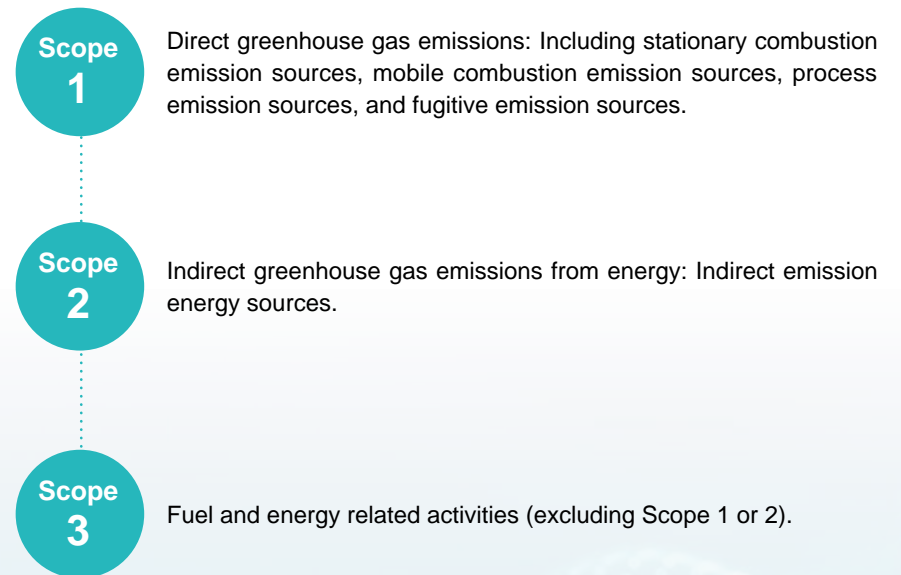


4.2 Greenhouse Gas Emissions

GRI 102-12, 305-1, 305-2

4.2.1 Greenhouse Gas Inventory Scopes

Taking 2017 as the base year, the Bank initiated greenhouse gas inventory operations voluntarily, and completed the inventory of greenhouse gas emissions for Scope 1 and Scope 2. In 2018, Scope 3 greenhouse gas emission inventory was added, and the energy conservation and carbon reduction plan was continuously established to improve energy efficiency and reduce greenhouse gas emission intensity.



4.2.2 Greenhouse Gas Inventory Performance

2017 and 2018 Greenhouse Gas Emission Statistics

item	2018	2017
Scope 1 emissions (metric tons of CO ₂ e) ^{Note 1}	1,717.69	1,999.7486
Scope 2 emissions (metric tons of CO ₂ e) ^{Note 2}	15,621.01	15,257.4040
Scope 1 + Scope 2	17,338.70	17,257.153
Scope 3 emissions (metric tons of CO ₂ e) ^{Note 3}	3,335.21	-
Total carbon emissions	20,673.91	17,257.153

Note 1: Scope 1 emissions are mainly fuel consumption of company vehicles, diesel for generators, gas, CO₂ fire extinguishers, and refrigerant filled in air conditioners, water dispensers, and refrigerators.

Note 2: Scope 2 emissions are mainly power consumption.

Note 3: In Scope 3, fuel and energy-related activities excluding Scope 1 and Scope 2 are calculated based on the 2018 fuel and energy-related activity data multiplied by the life cycle emission factor announced by the Environmental Protection Administration minus the combustion emission factor.

Note 4: The increase in carbon emissions in 2018 (Scope 1 + Category 2) is due to the increase in the electricity and fuel factor from 0.529 to 0.554.

Note 5: The choice of emission factor is based on the greenhouse gas emission factor management table of the Environmental Protection Administration, Executive Yuan (version 6.0.3 dated January, 2017). The GWP value used is also based on version 6.0.3 of the greenhouse gas emission factor management table in the IPCC Fifth Assessment Report.

4.3 Supply Chain Environment Management

GRI 102-9, 204-1, 308-1, 414-1

4.3.1 Supply Chain Management Mechanism


To promote the balance of economic, social and environmental spheres and sustainable development, in addition to actively fulfilling its own corporate social responsibility, the Bank also promotes such practices among its suppliers by devising the *Supplier Corporate Social Responsibility Policy*, which provides advocacy on several issues, including corporate social responsibility, protection of employee rights and interests (including human rights protection, prohibition against forced labor and child labor, and encouragement of freedom of association) as well as environmental protection (including GHG inventory and setting of carbon reduction goals). For a single transaction amount of more than

NT\$1 million, the Bank also requests suppliers to sign a declaration to abide by such Policy. The Bank hopes to work together with suppliers to implement corporate social responsibility.

- ✓ In 2018, a total of 69 suppliers signed the *Supplier Social Responsibility Declaration* with the Bank, a signing rate of 100%.
- ✓ From time to time, the Bank randomly checked the corporate social responsibility implementation status of signees and found no violations.



The operating status of the supply chain environment management of the Bank is as follows:

Item	Description
Scope of Supply Chain	<p>The Bank has long been adhering to a local procurement policy to promote local economic development. Taiwan is the Bank's main base of operations. Local suppliers are preferred for all procurements to ensure the stability and localization of the supply chain, and increase local employment opportunities.</p> <p>The types of suppliers include: Service suppliers, equipment suppliers and engineering subcontractors, which can be categorized into postal service, logistics, security, electronic equipment, telecommunications, office equipment, printing, property maintenance, construction and maintenance, renovation, architectural design, etc.</p> 
Related Regulations	<ol style="list-style-type: none"> 1. The Bank has established the <i>Supplier's Code of Corporate Social Responsibility</i>, which clearly stipulates that the Bank and suppliers should jointly follow the relevant laws and regulations on occupational health and safety, labor rights and interests, and environmental protection. 2. The Bank has established the <i>Regulations on Procurement</i> to improve procurement efficiency and functionality in accordance with fair and open procurement procedures, as to ensure procurement quality.
Scope of Application	<p>The major suppliers cooperating with the Bank shall refer to any counter party in a transaction of purchase of goods or construction and maintenance specified in the Bank's <i>General Affairs Management Rules</i> involving the amount of NT\$1 million (inclusive) or more.</p>

Item	Description
Commitments	<p>1. When signing a contract with a supplier, the Bank shall fully understand its business integrity status. Except where the laws and regulations or the competent authority stipulates otherwise, contents of the contract shall implement and comply with the Bank's <i>Ethical Management Guidelines</i>, and stipulate compliance with the corporate social responsibility policy of both respective parties. The <i>Supplier Social Responsibility Declaration</i> with the Bank shall be signed, which shall stipulate compliance with the corporate social responsibility policy of both respective parties, and it shall be undertaken to abide by the following:</p> <p>(1) Business integrity: The undersigned agrees to abide by the principles of business integrity and conduct business activities in a fair and transparent manner.</p> <p>(2) Labor rights and human rights:</p> <p>① Prohibition of child labor. ② Prohibition of forced labor on employees. ③ Prohibition of any form of discrimination. ④ Ensure that employees' working hours, overtime and salaries meet statutory standards, and provide reasonable breaks and overtime pay for employees. ⑤ Observe occupational safety and health regulations.</p> <p>(3) Environmental protection: Comply with relevant solid wastes, waste gas and wastewater management standards, and any waste, pollutants and other environmental hazards shall be handled in compliance with statutory requirements.</p> <p>2. In the procurement of goods and equipment, the Bank has added a provision stating that "the supplier undertakes to fulfill the due care of a good manager, manage the operations of relevant personnel according to the nature of the work, pay attention to work safety and comply with labor and environmental regulations, separately purchase labor safety related insurance, and pay attention to environmental protection" for the commitments and warranties of the bidding supplier in the procurement specifications, thus requiring all suppliers to comply with relevant labor and environmental regulations.</p>
Punishment for Violation	The Bank is entitled to terminate or cancel the contract at any time if the supplier is found to have violated its corporate social responsibility policy or caused significant impacts on the environment or society surrounding the supplier's location.
Progress and Results	<p>1. In 2018, 100% of the Bank's procurement expenses came from local suppliers.</p> <p>2. In 2018, among the counter parties in the Bank's purchase of goods or construction and maintenance projects reaching the amount of NT\$1 million (inclusive) or more, a total of 69 suppliers signed the <i>Supplier Social Responsibility Declaration</i> with the Bank, i.e., a rate of 100%.</p>

4.3.2 Green Procurement

To show our emphasis on environmental protection, the Bank's procurement prioritizes eco-friendly products with eco-friendly labels, carbon footprint labels, energy-saving labels, water-saving labels, green building material labels, sustainable labels, etc., to reduce environmental impact.

The Bank's green procurement amount reached NT\$13.61 million in 2018, an increase of 47.13% over 2017, and was awarded the *Excellent Green Procurement Enterprise Award* by the Department of Environmental Protection, Taipei City Government.

4.4 Equator Principles (EPs)

4.4.1 Prior Review

Since August 2017, the Bank has extended the scope of application of the Equator Principles to all corporate loans from the original scope of corporate loan applications with credit amount of US\$10 million (inclusive) or more or the equivalent in NTD. That is, when handle all corporate loan applications, the Bank will go to the website of the competent authority to inquire whether the applicant company has a violation record of related regulations of human rights, labor rights, environmental protection, food safety, etc.

4.4.2 Post-loan Management

After extension of the Bank's corporate loans, if any company obligor gets punished by the competent authority for violation of human rights, labor rights, environmental protection or food safety, etc., it shall be examined and assessed according to the Bank's *Code of Practice for Corporate Loan Early Warning System*. If after evaluation it is necessary to put such obligor under surveillance and control, in addition to regular monitoring, stricter incremental application processes, and inclusion in the review list, the use of the respective credit line may be suspended when necessary depending on the seriousness of the case.

In addition, in order to fulfill corporate social responsibility, the Bank has further requested that the business units shall inquire whether the company obligor and its responsible person are involved in criminal prosecution cases upon verdict, or whether there has been violation of laws or negative media reports, etc. for reference when approving or rejecting a loan.

4.4.3 Implementation Status

○○ Holdings Group intends to apply with the Bank for the purchase of €○○ million in position transfers by the Bank to ○○ Commercial Bank. There were no negative news about the borrower, the borrower was not on any sanctions lists, and the transaction counter party ○○ Commercial Bank obtained S&P BBB+ rating, so the credit risk is not high. However, there were a lot of negative news regarding the beneficial owner of the borrower (holding more than 50% of the equity of the borrower's parent company), e.g., illegal operations, insider trading, bribing of officials and other crimes, and such beneficial owner had been sentenced to more than 10 years of imprisonment and substantial fines, leaving a bad impression on society. After evaluation, the Bank decided not to undertake such business.

