

2021

Climate and Environmental Report



Responds to recommendations from the Task Force on Climate-related Financial Disclosures and the Task Force on Nature-Related Financial Disclosures (Beta v0.2)

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About This Report

E.SUN Financial Holding Co., Ltd. (E.SUN FHC/E.SUN) appreciates your attention to our 1st Climate and Environmental Report. This report has been prepared by the Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) and refers to the Task Force on Nature-related Financial Disclosure (TNFD) 06/2022 v.02. TNFD is still in draft status and will not be published until 09/2023. The data required for Natural-Environmental

issue assessment and methodology is a challenge, but the Climate and Natural issues are urgent, so it must take Precautionary Principles and action immediately. This report serves our commitment to providing meaningful transparency disclosure on our approach towards Net Zero and Natural Positive.



Climate and Environmental Milestone

“ The Pioneer in the world to receive validation of SBT ”



RE100

CLIMATE GROUP



Joined initiative

2022

- Became **the first** bank in Taiwan to receive validation of science-based targets (SBT)
- Joined TNFD
- Joined RE 100
- Joined PCAF

2014

Became **the first** financial institution in Taiwan included in DJSI

2015

Adopted the Equator Principles

2017

Became **the first** Taiwanese signatory company of TCFD

E.SUN's actions on climate change risk management based on TCFD

2019

- Conducted scenario tests for climate change risks to estimate the financial impact.
- Stopped providing project financing to coal-fired power plants
- Issuing carbon-neutral credit cards

2018

Concluded the physical risk and transition risk by business review and risk identification

2017

Became **the first** Taiwanese signatory company of TCFD. Set up a working team to form strategies on climate change and established a management mechanism for the board

2021

- Set the goal to become a company with net zero emissions by 2050
- Revised sustainable finance policy, and ensured that sustainable development is incorporated into financial services and the risk process.
- Launched E.SUN ESG and Sustainability initiative.

2020

- Expanded measurement of the impact of high-climate risk industries in different scenarios
- Compiled a GHG inventory and plan to submitted targets to the SBTi

2022

- Revised climate-related and environmental risk management policy, and enhancing its capacity for managing climate-related and environmental risk
- Launched E.SUN ESG and Sustainability initiative, and over 100 outstanding enterprise advocated for ESG sustainability.

Message from the Chairman and the President



We are the first generation to feel the impact of climate change and the generation that can do significant change about it. Every choice we make will determine the outcome of our common future.

By upholding our belief and commitment to sustainability, E.SUN joins hands with like-minded partners in our pledge to incorporate ESG into the banking business and maximize positive influence.

The task may be difficult, but it is a choice we must make. We continue to believe and we shall never give up. We embrace hope towards a beautiful future.

Pay attention to climate change issues and international trends

The frequent extreme weather events in recent years have affected people's lifestyles as floods, droughts, heat waves, and wildfires caused immense losses of life and property. In response to the most critical challenge to humankind in the 21st century, if we fail to take intense action immediately to reduce carbon emissions, we may create an impact that the world cannot withstand.

Although more than 137 countries or regions worldwide have declared their commitment to "Net Zero", the current carbon reduction efforts are seriously inadequate, and the actual results are insignificant. According to the "Global Carbon Budget 2022" released by the Global Carbon Project, global emissions increased rather than decreased in 2022, and it is possible that we have not yet reached emissions peak. Based on current emission projections, global average warming will likely exceed 1.5°C by 2030. The harsh facts may be difficult to accept, but as long as the world is united and actively implements carbon reduction commitments, net zero emissions by 2050 remain attainable.

The 27th United Nations Climate Change Conference (COP27) was held in Sharm El Sheikh, Egypt based on the theme of "Together for Implementation". It called on countries, companies, and organizations to work together and called for the involvement of the financial system. It directed funds to form market mechanisms and help companies and society complete the net zero transition. Chairman Mr. Joseph N.C. Huang of E.SUN Bank was also invited to attend the peripheral meetings, and he gave a speech titled "New Finance for Climate in Taiwan" at the World Climate Summit (WCS) to share information on how the financial industry supports the net zero transition of Taiwan and companies. After the meeting, he also engaged other attendees to discuss the latest international trends. He communicated what he had learned with employees in Taiwan to implement improvements and shared information with customers.

Take actions to fulfill commitments and forge a sustainable symbiotic relationship between the economy and nature

E.SUN became the first company in Taiwan to sign the TCFD initiative in 2017. We have disclosed climate-related risks in four major categories including governance, strategy, risk management, and metrics and targets, and published the effectiveness of climate governance in recent years in the Sustainability Report. E.SUN joined the Taskforce on Nature-related Financial Disclosures (TNFD) initiative in 2022 and expanded the scope of evaluation to a broader range of the natural environment and biodiversity. E.SUN was also the first to consolidate the TCFD and TNFD reports to enhance information disclosure's integrity and transparency and focus on explaining climate and nature-related risks and opportunities.

In February 2022, E.SUN also became the first financial institution in Taiwan and the third in the world to pass the Science Based Targets Initiative (SBTi) review. We complied with SBT guidelines and formulated the carbon reduction roadmap for internal operations. We plan to convert all company buildings to green buildings by 2027 and use renewable energy in all domestic facilities by 2030.

Forging a symbiotic relationship supporting sustainability between the economy and nature is an important foundation for the sustainable development of humans. E.SUN focuses on "species conservation, habitat maintenance, and environmental sustainability" and provides long-term support for Walami organic farming and the conservation of endangered species such as Formosan black bears, sea turtles, and polar bears. We also support international initiatives such as "Earth Hour" and "World Cleanup Day". In 2022, E.SUN and National Taiwan University worked together in the "E.SUN-NTU ESG Centenary Project", which consists of two sub-projects. The "planting cypress trees native to Taiwan" sub-project is focused on growing 100,000 cypress trees native to Taiwan in the Yushan mountain range within 10 years. With a plantation area of 50 hectares, it will support carbon sequestration and water and soil conservation. The "reviving millet cultivation in Xinyi Township" sub-project aims to revive 28 varieties of millet that were once native to Taiwan. It will help support biodiversity and help revitalize the millet industry and the culture of the Bunun community,

To expand financial influence, E.SUN actively develops the investment and financing portfolio transition strategy, which uses engagement and shareholder activism to help customers complete their low-carbon transition. For two consecutive years from 2021 to 2022, E.SUN called on 133 like-minded companies to join the "E.SUN ESG Sustainability Initiative" and set a target for reducing carbon emissions by at least 1.57 million tons before 2025. 46 of these companies committed themselves to attaining net zero emissions by 2050. We hope to use the power of people to mitigate climate change and support Taiwan's transition to a low-carbon economy.

Determination to become the benchmark of ESG and sustainable development in Asia

Sustainable development is a constant journey without an end. A journey of a thousand miles must begin with a first step. To create a new and wonderful world, we must make choices and take actions today. E.SUN is committed to becoming a leader in sustainable finance and the benchmark of ESG and sustainable development in Asia. Therefore, we will continue and internalize ESG into our core financial business and actively embrace innovation and adaptation. Furthermore, we shall exert positive financial influence and work with like-minded partners to create a beautiful homeland in harmony with nature.

Chairman, E.SUN FHC

Yung-Jen Huang

President, E.SUN FHC

Maqin Chen



Climate-Related and Environmental Highlights

Goals

Net zero by **2050**

Gain an approved 1.5°C SBT

Phase out of coal related industry by
2035

-42 % Reduce carbon footprint of
operation by 2030, baseline year, 2020

2025 Green Loan balance

NT\$**70** billion

2025 Sustainability-linked loans balance

NT\$**32** billion

2022 results

NT\$**30.7** billion

Green loan balance

NT\$**28.4** billion

Sustainability-linked loan
balance

NT\$**20.9** billion

Sustainability bonds underwriting
balance

NT\$**22.6** billion

Responsible investment balance

NT\$**11.6** billion

Sustainability bond issuance

NT\$**16.3** billion

Hedging and consultation services for
sustainability-related projects

46%

of our buildings certified Green Building

AAA

MSCI ESG Risk rating

Listed in DJSI in the past

9 years

**Coalition of Movers and Shakers on
Sustainable Finance,**

one of five sustainable financial
institutions selected by Financial
Supervisory Commission

2022 Achievement

E.SUN ESG and sustainability initiative

E.SUN is committed to improve main businesses and use our expertise in finance to establish partnerships and make our society a better place in spirit of "one simple act of love can inspire others to love." Starting from 2021, the founder of E.SUN Mr. Yung-Jen Huang and Chairman Joseph N.C. Huang have worked with 32 leaders of outstanding companies such as AUO and China Steel to launch the ESG and sustainability initiative. They signed the "Sustainable Development Advocacy" and assembled 101 companies to take part in the initiative in 2022. These companies included industry leaders, excellent companies, and hidden champions and their total revenue totaled NT\$5 trillion. The ESG and sustainability initiative also set a goal for reducing carbon emissions by 1.57 million tons before 2025. We were honored to have President Tsai Ing-wen with us at the ESG and sustainability initiative. She sounded the bell of hope at the venue and demonstrated Taiwan's resolve for completing the net zero transition before 2050.

First in the financial industry in Taiwan to pass SBT review

E.SUN FHC was validated by the Science Based Targets initiative (SBTi), becoming the first financial institution in Taiwan and second in Asia to complete SBT review. The scope of emissions included the business operations of E.SUN and its investment and financing positions, which are most critical for the financial industry. E.SUN systematically and strategically moves towards its goal of limiting global warming to 1.5°C and achieving net zero emissions by 2050, which is aligned with mid-term SBT.

Signs TNFD

The latest "2022 Global Risks Report" published by the World Economic Forum (WEF) listed the loss of biodiversity as one of the top three global risks in the next decade. E.SUN signed the TNFD in 2022 to embrace environmental sustainability and the Nature Positive.

Became official member of RE 100

E.SUN FHC became an official member of RE 100 in 2022 and was the first financial institution in Taiwan to join the Initiative as a "company with low electricity consumption". We actively promote the use of renewable energy and we are committed to using green electricity for all domestic and foreign operations by 2040. Sam Kimmins, Director of Energy at Climate Group said: "We are delighted to welcome E.SUN to RE100. By committing to 100% renewable electricity by 2040, E.SUN joins over 300 of the world's leading businesses committed to driving market change. This sends a powerful message that renewable electricity makes good business sense, and we encourage others to follow".

永續倡議行動

玉山金控 玉山銀行



點亮台灣 永續未來

Take part in COP27



Increase impact of the financial industry for global climate

E.SUN has always paid close attention to the impact of climate change on the nation, society, industries, and the people and actively adopts international standards. The United Nations Climate Change Conferences in recent years have gradually increased the importance of climate change and requirements for investments of the financial system. The "Glasgow Financial Alliance for Net Zero" was formed by 450 financial institutions during COP26 and they pledged to attain net zero emissions for all assets by 2050. The United Kingdom, Germany, and Canada jointly drafted the "Climate Finance Delivery Plan" to finance US\$100 billion per year by 2023 at the earliest to help developing countries reduce emissions and respond to climate change. The COP27 summit this year focused on mitigation, adaptation, finance, and collaboration. It is evident that the power of finance is not influencing and moving the world. E.SUN decided to visit COP27 and the World Climate Summit (WCS) and pledges to dedicate full efforts into using our expertise in finance to support climate transition.

Make financial sector a key driver to climate transition

Chairman Mr. Joseph N.C. Huang gave a speech titled "New Finance for Climate in Taiwan" at the World Climate Summit (WCS) to share Taiwan's experience in developing renewable energy and information on how the financial industry supports the net zero transition of companies. He received positive responses from the Dr. Walid Oueslati of the OECD Transition and Resilience Team, Lora-Ann Chiginsky, Director of Business Development at Asset Management One International of Mizuho Financial Group, and Sherief Kesseba, Managing Partner of Climate Resilience Fund. The WCS was held since 2010 to facilitate discussions between leaders of governments, industries, academia, and citizen organizations. It is the largest meeting of industry partners in COP27. Chairman Mr. Joseph N.C. Huang mentioned in his speech that due to Taiwan's dense population, congregation of high-tech industries, and independent grid, the zero carbon energy transition has become an immense challenge for Taiwan's transition to net zero by 2050. As the Taiwan Strait is rich in wind resources, the government and the private sector have worked together to promote offshore wind power in Taiwan. They have also rapidly constructed a diverse range of renewable energy projects such as solar PV and combined fish farming and solar energy to pursue a balance between environmental protection and energy demand. The experience can be used as references by other island nations. In addition, the E.SUN team also summarized the opinions of experts in the meetings to progress from climate fragility to climate smart. First: accept the possibility of failure in mitigation and, recognize the severity of issues, and help the people, organization, and the state acquire knowledge and understanding of climate adaptation. Second: Establish collaboration platform for the government and private companies in different sectors and use public-private-partnership (PPP) to accelerate the transition. Third: Integrate climate change with financial inclusion, strengthen social financing, and build a more resilient social system. These discussions may be less familiar to most Taiwanese SMEs but they are international development trends that cannot be avoided. By experiencing first-hand the needs of developing countries, groups, NGOs, and the general public, E.SUN has thoroughly considered measures for creating greater influence as a corporate citizen.

Another important topic is "accountability and transparency in information disclosure". This is a critical prerequisite for making the compensation mechanisms workable. Therefore, E.SUN will continue to increase transparency with measures that include the full disclosure of climate governance information, climate risk management policy, and E.SUN's operation data. More importantly, we must strengthen the disclosure of carbon emissions management in investment and financing such as managing investment and financing positions in the petrochemicals industry. We must also implement carbon reduction plans for overall investment and financing positions and continue to uphold the best practices of international benchmarks. As a member of Taiwan's "Coalition of Movers and Shakers on Sustainable Finance", E.SUN actively supports the development of wind power, solar PV, geothermal energy, and energy storage, and launched the "E.SUN ESG and sustainability initiative". E.SUN has called on 133 like-minded companies to join the initiative with the aim of using financial influence for more companies to focus on climate issues and work together to attain net zero emissions by 2050.

Commitments for a sustainable future: Save the beautiful planet for the next generation

COP is an important platform for international cooperation. Communicating with representatives, experts, scholars, and like-minded people from different countries and exchanging ideas on climate change proved to be a rare experience. It helped us understand that sustainability and climate have become a new language for communication between countries. We are the first generation to feel the impact of climate change and the generation that can do significant change about it. Net zero emissions is our common goal and we need everyone to work together for the implementation. Let us make use of our influence, create a smart network for net zero emissions together, and save the beautiful planet for the next generation.



Build a beautiful and harmony homeland

“ Unlocking finance to leverage positive impact and responding to international climate and natural-environmental vision. ”

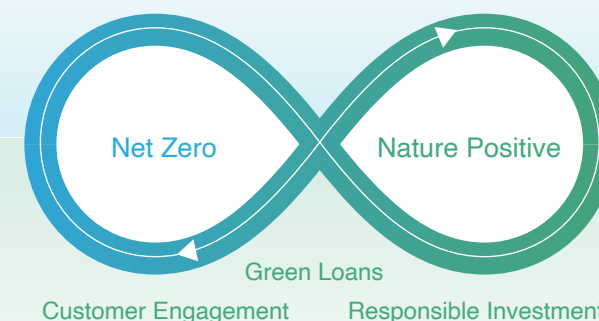
Within one month after COP27 and the World Climate Summit (WCS) drew another important international environmental conference, Conference of the Parties to the UN Convention on Biological Diversity (COP15) was held in Montreal, Canada. The Convention on Biological Diversity (CBD) aims to create an agreement on biodiversity similar to the Paris Agreement to prevent the loss of biodiversity. The parties sign an international convention for three main objectives: the conservation of biological diversity; the sustainable use of the components of biological diversity; and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources. COP15 was held to confirm the Post-2020 Global Biodiversity Framework (GBF) and set more detailed plans and more efficient review mechanisms for the next 10 years. More importantly, countries must devote the 30x30 target and they are committed to preserving at least 30% of the planet's land, inland waterways, coastal areas, and seas as conservation areas by 2030. E.SUN also compared its business location and those of its value chain with hot zones for biodiversity hotspots to ensure that the Company's operations will not directly affect biodiversity.

The Living Planet Report shows an estimated overall decline of 69% in population sizes of wildlife between 1970 and 2018. The World Economic Forum (WEF) report listed "Climate Change" and "Loss of Biodiversity" as the top two environmental issues of the 21st century. However, biodiversity has not received as much attention as climate change. In fact, climate change and biodiversity are highly related and the challenges are also closely related and interconnected. Exacerbated climate change will severely affect the ecology just as biological extinction may also aggravate climate change. Therefore, we must view these two major issues with a systemic mindset that accounts for both details and the larger picture. The solution to climate change should avoid damaging biodiversity. We must then work hard to make biodiversity one of the climate solutions. The key lies in clarifying the relationship and mutual constraints of climate change and biodiversity.

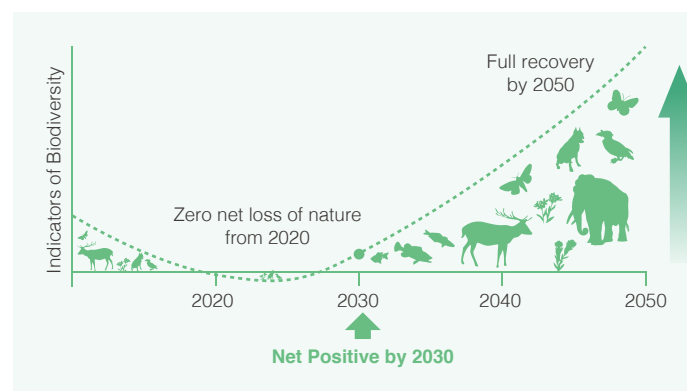
Own Operation

Responsible Products

Sustainable Operating



Financial Impact



Sustainability dictionary Biodiversity

Biodiversity refers to how all life on earth, including animals, plants, microorganisms, and their ecosystems adapt and survive together in the ecosystem. It also dependency and impact human on food security, fresh air, water, and a clean and healthy living environment, and their effects.

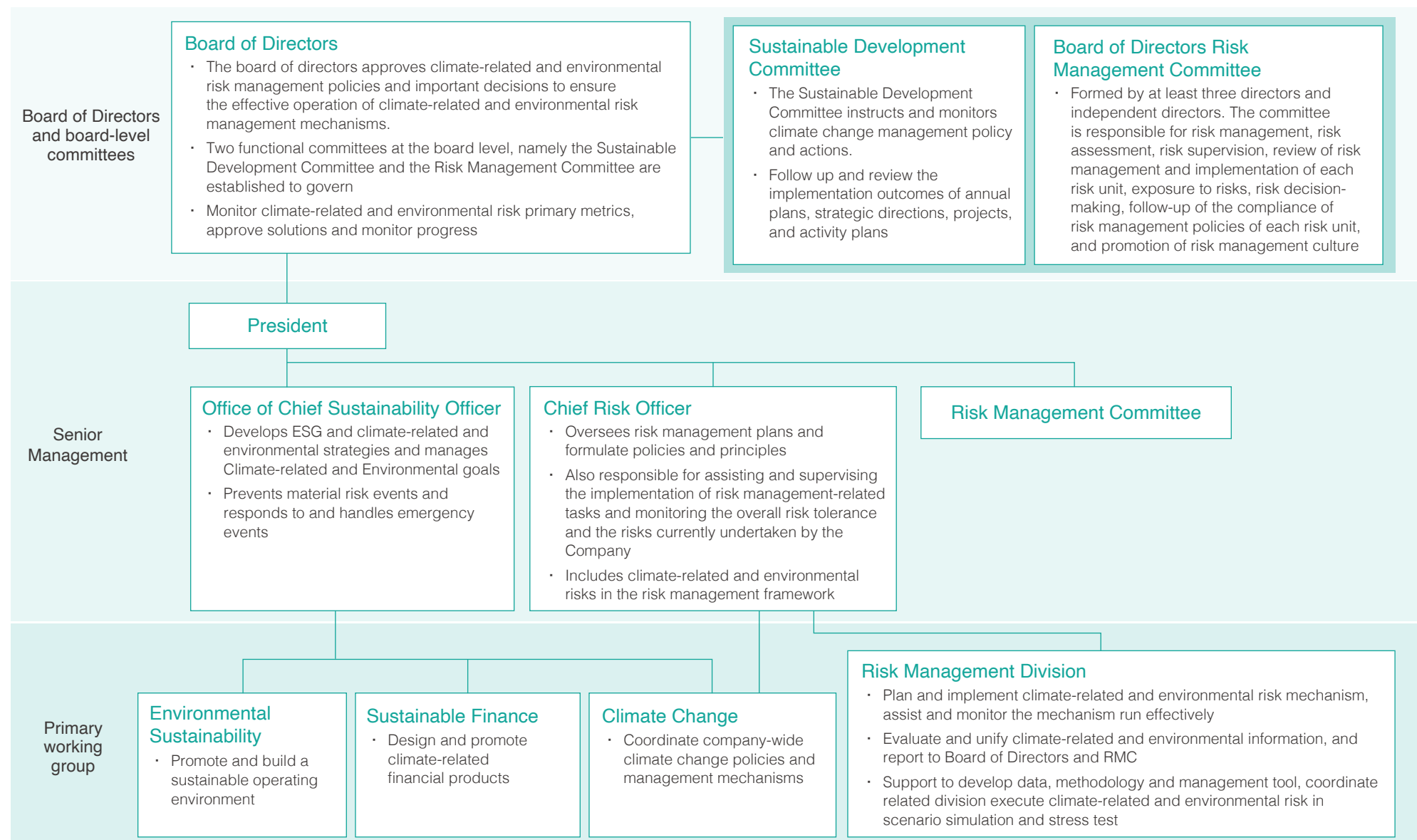
Source : Nature Positive

CH1 Governance

1.1 Governance Structure

1.2 Capacity building

1.1 Governance Structure



Roles of Three Lines of Defense

The Company established three lines of defense for risk management and clarified the scope of responsibilities for the three lines of defense so that all units understand their roles and responsibilities in the overall risk and control framework. It enhances the communication and coordination for risk management and internal control and ensures that the three lines of defense can perform their duties.

Climate-Related and Environmental risks

Guide capital flow to sustainable development	
E.SUN Financial Holding Co., Ltd. Sustainable Finance Policy	<ul style="list-style-type: none"> Direct attention from businesses and customers toward corporate responsibilities such as environmental protection, climate change, etc. for the sustainability of business activities, the society, and the environment.
Strengthen Climate and Environmental risk management	
E.SUN Financial Holding Company Risk Management and Guiding Principles	<ul style="list-style-type: none"> Incorporate climate and environmental risks into the scope of risk management, and report regularly to the board of directors
E.SUN Bank Risk Management Policy	<ul style="list-style-type: none"> The integration of risk management framework and climate-related and environmental risk
E.SUN FHC and Subsidiaries Climate-Related and Environmental Management Policy / E.SUN Bank Climate-Related and Environmental Risk Management Policy	<ul style="list-style-type: none"> Clarify the definition of climate and environmental risks Strengthen the identification and measurement of climate and environmental risks Establish risk based risk management strengthening measures

The main management responsibilities for climate risk of the three lines of defense



First line of defense (Business Management Department)

- Identify business risks
- Assess and measure business risk
- Manage risks arising from business



Second line of defense (Risk Management Division)

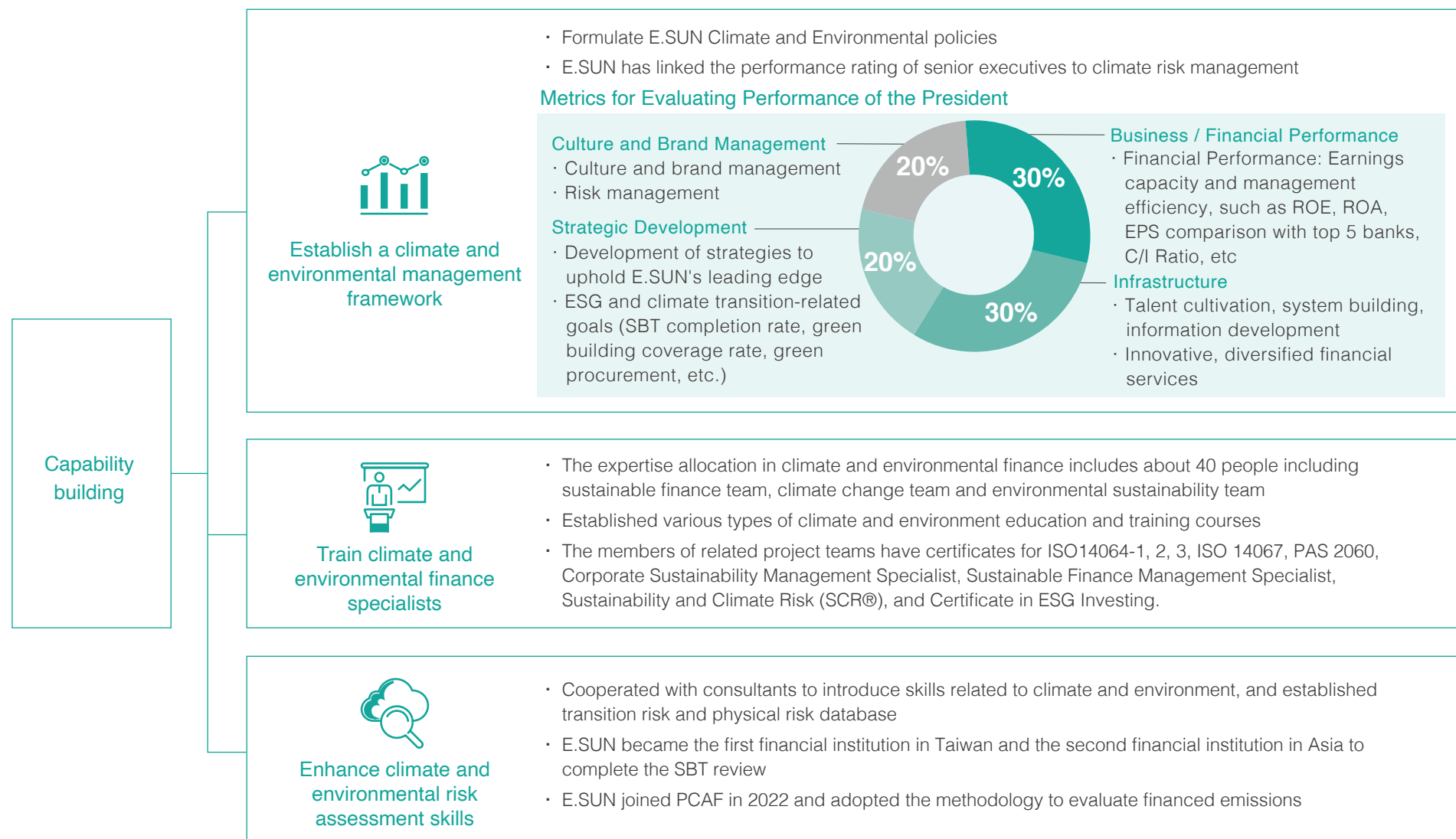
- Plan and introduce risk management mechanism
- Integrate risk management information and report to the board of directors and risk management committee
- Assist in the development of data, methodologies and management tools



Third line of defense (Internal auditing)

- Independent audit of climate and environmental risks

1.2 Capacity building



CH2 Strategy

2.1 Risks and Opportunities

2.2 Opportunity Identification

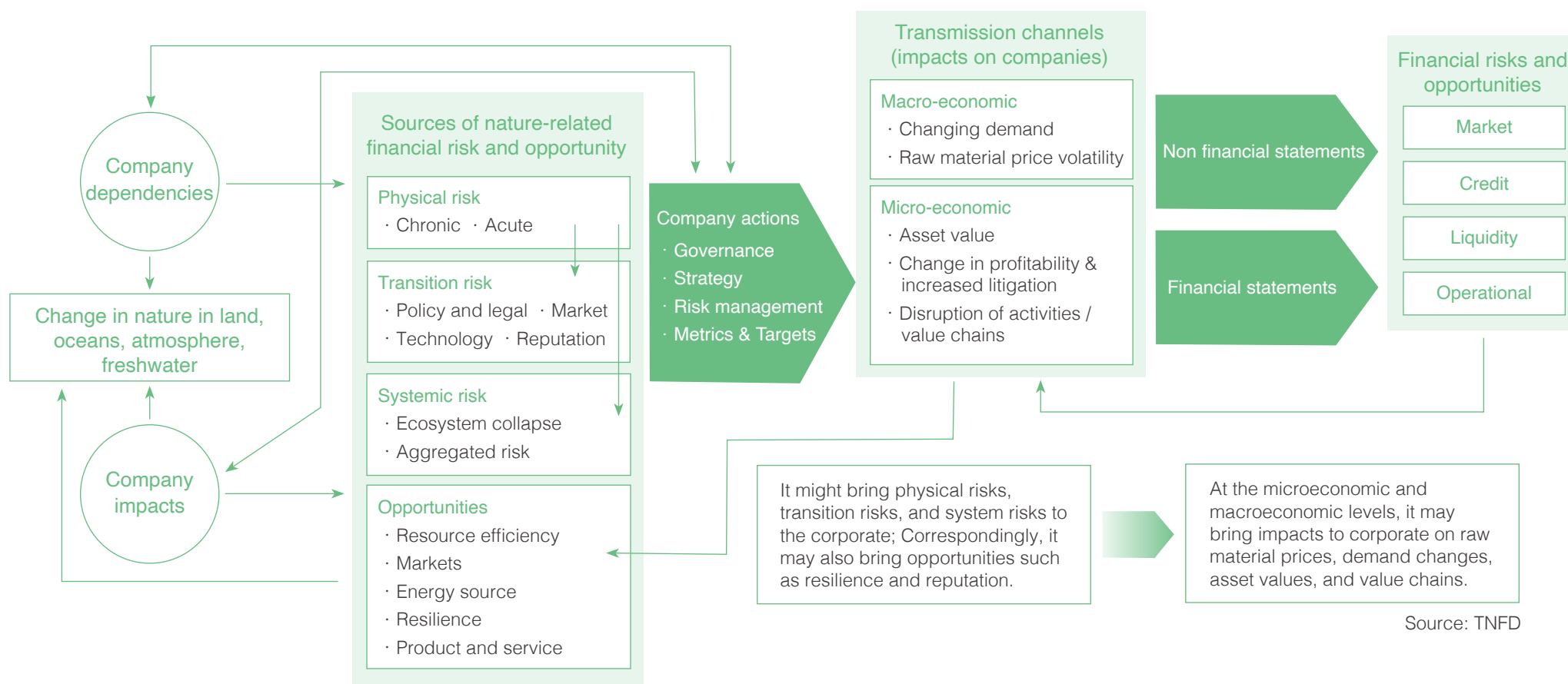
2.3 Business, Strategy and Finance planning

2.4 Empower Finance to accelerate Sustainability

2.1 Risks and Opportunities

According the World Economic Forum(WEF) reports shows that nearly half (US\$44 trillion) of global economic output depends on the services and functions provided by the natural ecology. On the other hand, human activities also impact the change in the natural environment, the impact can be positive or negative. The United Nations Framework Convention on Climate Change defines Climate Change caused by direct

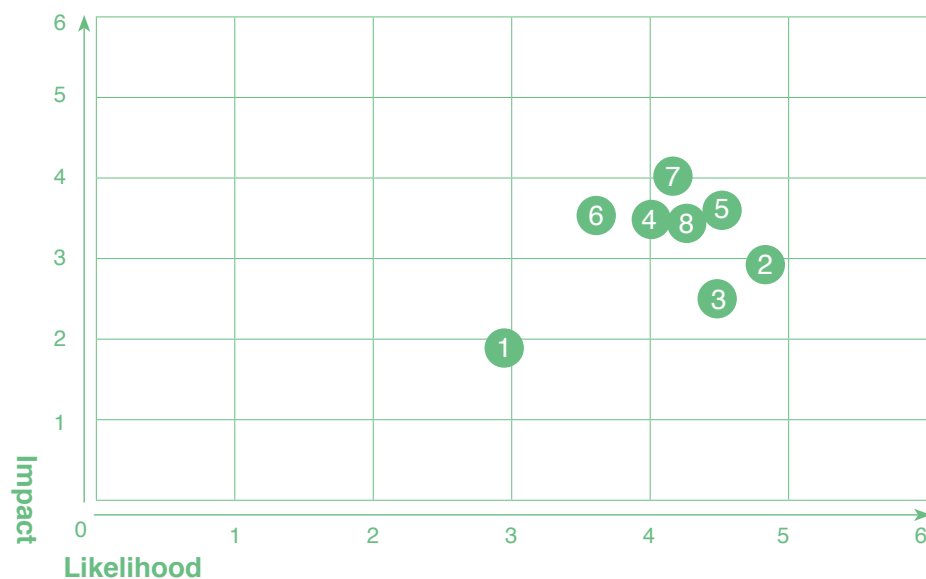
or indirect human activities that alter the composition of the Earth's atmosphere. The interaction between climate change and the natural environment is complex, and E.SUN tries to have a bigger picture to deal with the environmental issue. In addition to respond to the risks actively, E.SUN also grasps the opportunities of sustainable transformation.



Source: TNFD

2.2 Opportunity Identification

In the "2050 Net-Zero Pathway and Overall Strategy", Taiwan's government announced that it planned to invest NT\$900 billion in reducing emissions before 2030, in 2023 public sector is preparing a net zero budget of 68.2 billion, and it is estimated will accelerate about 4 trillion of private investment between 2023 to 2030. At the same time, the FSC stated that the vision of its Green Finance Action Plan 3.0 published in September 2022 is to "integrate financial resources and support net zero transformation". It will gradually promote disclosure and emissions reduction in the industry. The financial industry must exert positive influence to direct capital to environmentally friendly industries, such as green energy, electric vehicles, green steel, hydrogen energy, and sustainable agriculture. E.SUN actively develops and supports the strategies of the authorities for responsible finance, green finance, digital finance, and other related businesses to assist customers in the low-carbon transformation and support the development of low-carbon technologies. We also seek to explore a second curve of growth for the Company's green economy.



Opportunity / Potential Impact

Resource usage efficiency

- ① Reduce water consumption and increase energy efficiency to reduce costs
- ② Process digitalization and reduce paper use

Energy sources

- ③ Use renewable energy to lower dependency on fossil fuels and sensitivity to carbon prices and reduce GHG emissions

Products and services

- ④ Develop low carbon products and services, support the net-zero policy, assist customers transition, and create business development opportunities
- ⑤ Develop digital financial services to increase customer satisfaction and reduce the cost of services

Market

- ⑥ Expand the customer base through innovative green financial products
- ⑦ Enhance Diversity financial assets and funding resource (such as green loans and bonds)

Resilience

- ⑧ Improve capability to climate change to more efficiently manage risks and seize opportunities

2.3 Business, Strategy and Finance planning

Climate-related opportunities	Current actions	Internal goals	Benchmarking
Resource efficiency	<ul style="list-style-type: none"> Establish of of rainwater recovery equipment; use of water efficiency devices; and advocacy of water conservation Resources classification and recycling/reuse management; promoting goingpaperless 	<ul style="list-style-type: none"> By 2030, scope1 & 2 GHG emissions will be reduced by 42% By 2025, water usage per unit revenue will be reduced by 20%, and waste per unit revenue will be reduced by 56% 	<ul style="list-style-type: none"> Paris Agreement Taiwan's Pathway to Net-ZeroEmissions in 2050 Green Finance Action Plan 2.0 (Taiwan Financial Supervisory Commission ; FSC) Corporate Governance 3.0-Sustainable Development Roadmap (Taiwan FSC) SBTi PRI PRB TCFD TNFD
Energy source	<ul style="list-style-type: none"> Replacement of energy-consuming equipment such as the air conditioners and lighting fixtures Introduction of ISO 50001 to enhance energy management Purchase green electricity and installing solar panels in our bank dormitories to improve the ratio of renewable energy 	<ul style="list-style-type: none"> By 2030, 100% of the Bank's total energy consumption will come from green energy sources 	
Products and services	<ul style="list-style-type: none"> Promote renewable energy, green buildings, ESG bonds, and other green finance products to facilitate business development and customer base management 	<ul style="list-style-type: none"> By 2030, commit to becoming the sustainability backing for SMEs and the best sustainability partners for customers 	
Markets	<ul style="list-style-type: none"> Exerting positive financial influence through engagement, ESG sustainability initiative, and consultation services, and deepening our ties with customers and sustainability partners 	<ul style="list-style-type: none"> We aim to continuously expand the scope and scale of our green products following "Taiwan's Pathway to Net-Zero Emissions in 2050 and Strategy Description" and IPCC AR6 	
Resilience	<ul style="list-style-type: none"> Establishing a management organization; revising internal regulations respecting climate change and incorporating them into daily operations and business development; enhancing risk management and opportunity seizure Participating in climate-related projects organized by the supervisory competent authority or industry association and helping formulate related regulations Cultivating internal sustainability talents and climate talents and planning to subsidize the obtainment of related licenses Obtaining the Green Building certification by improving new buildings and existing buildings and through operational management, thereby enhancing our ability to reduce emissions 	<ul style="list-style-type: none"> We aim to actively participate in the initiatives related to climate change that the government or international organizations propose, so as to enhance our ability to respond to climate change We aim to have 100% of our buildings certified against the Green Building certification by 2027 By benchmarking against international standards (e.g., sustainability evaluation such as CDP and DJSI), we aim to achieve net-zero emissions by 2050 Supporting Government Environmental Impact Assessment 	

2.4 Empower Finance to accelerate Sustainability

Consumer Banking

Zero-carbon credit cards

- Attaining carbon neutrality for all series of credit cards of the bank
- 3,533 tons of CO₂ offset from 2019 to end-2021
- 4.29 million issued. Predicting to change all E.SUN credit cards in circulation to carbon neutral by 2025

Digital e-cards

- In 2022, lead the market in issuing virtual cards "digital e-cards", and 99.5% applications are online throughout the process, and the physical card will no longer be provided after the card is verified
- Reduce carbon emissions by 900 grams per physical card

Inclusive financial innovation services

- Online platforms; electronic bills / statements; going paperless and reducing the GHG emission generated by customers' movement

"Smiling Polar Bear" financing project

- In 2022, individuals who purchase energy-saving home appliances, electric vehicles, and install household green energy power generation equipment etc., offer financial service discounts
- A preferential interest rate or fee discount is provided to those whose who provide mortgage collaterals that satisfy the criteria for the Green Building Mark of the Taiwan Architecture & Building Center, totaling 613 units of building, or NT\$8.99 billion*
- 2025 target annual allocation 11 billion

* Green buildings mortgage include "purchase loans" and "working capital loans."

Corporate Finance

Green loans

- To support business sustainability and extend green loans for green projects to assist enterprises in investing in clean energy, energy storage systems, water resources and environmental pollution control, environmental protection products or equipment, and green buildings, etc.
- Balance reaching **NT\$30.7 billion** in June 2022
- 2025 target balance reaching **NT\$70 billion**

Sustainability-linked loans

- Encouraging enterprises to set and achieve ESG goals and providing them with preferential financial services if they achieve their goals
- Balance reaching NT\$28.4 billion in June 2022
- 2025 target reaching **10%** of the balance of corporate loan

Sustainability initiative

- Invite like-minded business partners to focus on sustainability and joint carbon reduction, and then take practical actions to build a sustainable ecosystem
- From 2021 to September 2022, the "E.Sun ESG Sustainability Initiative" was launched, and 133 companies joined the advocate

Sustainability consulting services

- Combining internal expert team and external professional consultants, assist corporate customers in developing ESG through consultative consulting services
- Accumulated to September 2022, conduct consultations and exchanges on sustainability and climate with **92 companies**, recommend carbon reduction steps, encourage and assist companies in introducing greenhouse gas inventory

Medium and Large-sized Enterprises / Financial Institutions

Responsible investments

- Invest in green bonds, social bonds, and sustainability bonds
- Balance reaching **NT\$22.6 billion**
- 2025 target balance reaching **NT\$32 billion**

Sustainability bond issuance

- Channeling funds to industry that is friendly to the society and environment through issuance of sustainability bonds
- Total issuance reaching **NT\$11.58 billion**

Sustainability bonds underwriting

- Supporting enterprises in raising funds for sustainability causes and assisting them in issuing sustainability bonds **NT\$20.92 billion**

Hedging and consultation services for sustainability-related projects

- Supporting environmentally friendly projects with our financial services by providing hedging and consultation services for sustainability-related projects, e.g., financing for offshore wind power projects and solar power projects
- Hedging services provided reaching **NT\$16.3 billion**

CH3 Risk Management

3.1 Risk Identification

3.2 Impact Assessment

3.3 Risk Management Procedure

3.4 Climate and Environmentally Sensitive Assets Management

3.5 Scenario Analysis

3.6 Business Operations Integration

3.1 Risk Identification

Apart from affecting our operations of financial institutions, the greater risk posed by climate change is the impact on lending and investment assets, such as credit deterioration for loans or price fluctuations in investments. Climate changes and low carbon transition shall pose varying levels of impact at different times, affecting the existing financial risks (such as credit risk, market risk, and operational risk). E.SUN has assessed short, medium, and long-term climate and environmental risk, considering our internal management process and the expected lifetime of the assets. These assessments are integrated into our existing risk management framework and serve as a way to monitor climate change impacts regularly and formulate new measures.

Transition Risk Factor / Potential Impact

Policy and Legal

- ① Carbon tax/fee has impact on the company, customer and client.
- ② Climate and Environmental policies, laws, and financial supervision become stringent

Technology

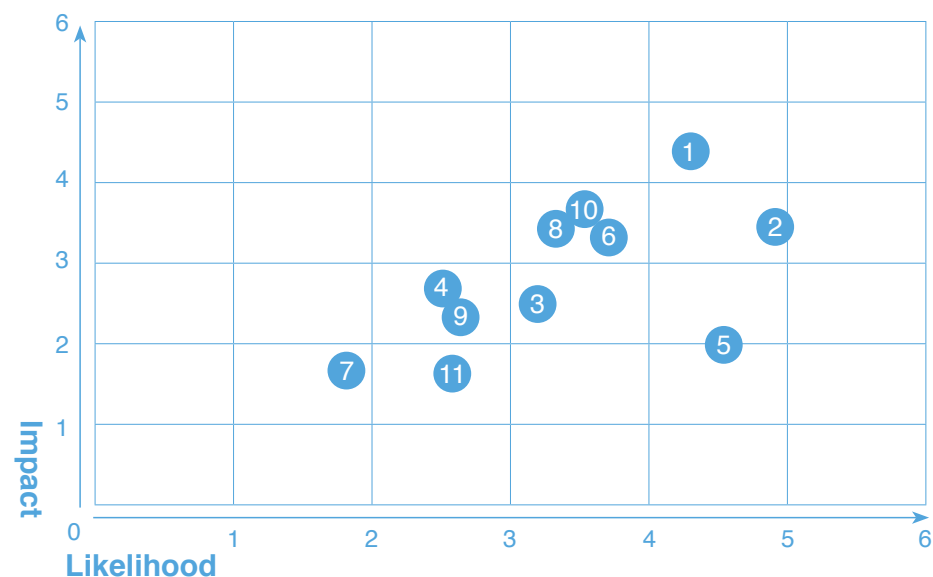
- ③ Substituting low-carbon and environmentally friendly products for existing products and services increase uncertainty in revenue and investment

Market

- ④ The stranded assets of high carbon emission and high natural-environmental risk rattle the market
- ⑤ Price rising in water, electricity and raw materials increases cost

Reputation

- ⑥ Customers' preferences change; decision-making for operations, investment and financing requires considering ESG factors
- ⑦ Litigation risks generated by environmental issues



Physical Risk Factor / Potential Impact

Acute

- ⑧ Extreme weather such as typhoons, floods, and water stress impairs assets or collaterals and interrupts operations
- ⑨ The natural resources depletion and environmental degradation impact operation and business model

Chronic

- ⑩ Global temperature rises by more than 1.5°C, which might cause a change in climate patterns and sea level, impacts the economy and company operations, impairs assets, or causes early replacement of assets
- ⑪ Species loss and degradation due to soil, water and ocean contamination

3.2 Impact Assessment

Business categories	Identification of physical risks					Identification of transition risks				
	Risk Impact	Major risk category	Risk Impact Level			Risk Impact	Major risk category	Risk impact level		
			Short-term	Medium-term	Long-term			Short-term	Medium-term	Long-term
Lending	Natural disasters impair the value of collaterals, or impact customers' operations (e.g., due to a shortage of water or electricity, biodiversity), disrupting the supply chain and therefore pushing up the credit risks	Credit risks	Low	Moderate	Moderate	Carbon tax/fee and carbon tariffs levied to enforce the transition to a low carbon economy adversely impact the financial position of the high carbon emission industry, the industry where carbon reduction is challenges and their related supply chains	Credit risks	Low	Moderate	Moderate
Investment	Climate change and natural biodiversity loss impacts macroeconomic factors (e.g., GDP, unemployment rate) or physical risk events, adversely affecting investment targets (e.g., operating revenues decline, additional operating costs, and supply disruption)and thereby causing the price fluctuation of the investment position	Market risks	Low	Moderate	Moderate	The high carbon-emission industry will face a rise in operating cost (due to the burden of carbon cost) and a chance that failure transition might cause a fluctuation in the price of our investment.Environmental issues affect specific industries, resulting in price fluctuations of the investment positions	Market risks	Low	Moderate	Moderate
Own operations	Operating sites impacted by weather and natural resource factors (e.g., severe typhoons, torrential rains, droughts, or water use), like office buildings, dormitories, and equipment damaged and operations disrupted	Operational risks	Low	Low	Moderate	The rise in energy-conservation and carbon reduction investment (e.g., using renewable energies or energy-efficient equipment) stacks up the cost	Operational risks	Low	Low	Moderate
Suppliers	Natural disasters impede the infrastructures (e.g., electricity and network infrastructures) and so are likely to disrupt services provisions	Operational risks	Low	Low	Moderate	Suppliers pass on the investment and carbon-related costs due to the transition may increase costs	Operational risk	Low	Low	Low

3.3 Risk Management Procedure

Identify

- Identifying the possible impacts and risk factors of climate-related and environmental risks in company's operations and financed assets. Strengthening the integrity of identification through regular reviewing of relevant laws, guidelines and documents.
- Strengthening the identification of high Climate / Environmental risk enterprises in the process of Lending application
- Incorporate factors of climate change risks and opportunities in business process management, analysis, execution and decision making of investment and underwriting.
- The Climate Change Team holds a quarterly meeting to discuss related issues.

Report

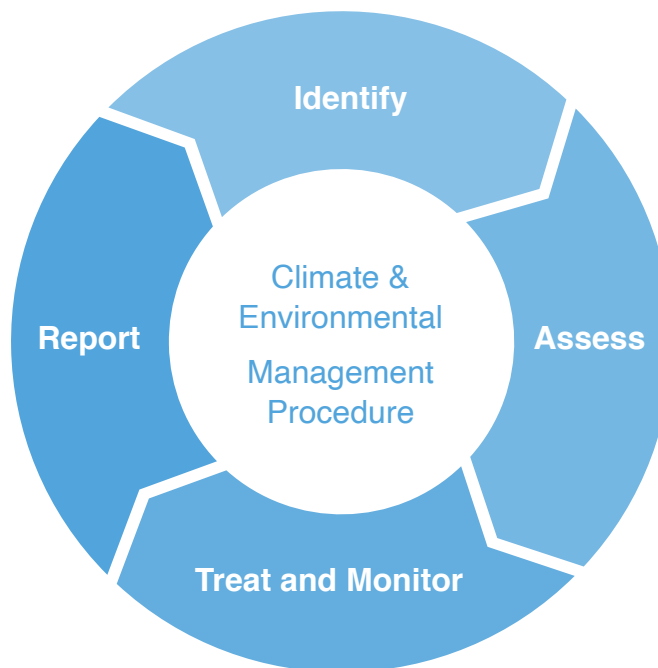
- The president oversees climate change management goals and achievement status. The climate change working team reported the result to the president. The president then commissions CRO to report to the board of directors
- Report climate-related and environmental risk management information to the board and Risk Management Committee regularly to have the superior assessment of climate-related and environmental risk management circumstances
- Submitting a climate and environmental risk report to the board semiannually and periodically, if climate-related and environmental risk endanger the entire operations or business, appropriate control measure should be taken and reported to the Board immediately
- Proceed the information disclosure based on the climate and environmental related regulations

Treat and Monitor

- Establishing metrics that link to climate factors. If the metrics are triggered, lower relevant risk exposure.
- Implementing the Science Based Target initiative (SBTi)
- Adopting risk-based and differentiation managements based on Climate and Environmental risk assessment results

Assess

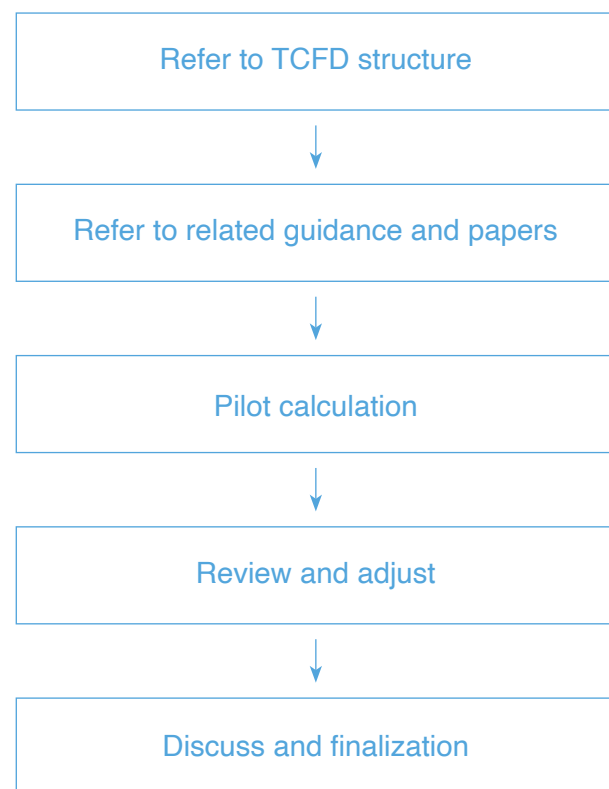
- Inventorying the Financed Greenhouse Gas emissions
- Measuring the concentration of related climate and environmental-sensitive assets
- Conducting regular scenario/stress testing on physical and transition risks for strategy making and risk management reference



3.4 Climate and Environmentally Sensitive Assets Management

Refer to the paper (such as UNEP FI, SASB), E.SUN identify the sectors which are more vulnerable to climate change, for having risk orientation management under external disclosure and internal risk decision-making reference.

Identification process of climate-sensitive assets



The table below shows E.SUN's climate-sensitive industry and risk ratios in June 2022. E.SUN regularly inventories and implements the GHG reduction of financed portfolios according to PCAF methodology for enhancing the resilience of asset portfolios by supporting the green industry and avoiding capital flow to high-carbon emission projects such as coal-fired power generation projects.

High Climate-sensitive Industry

Climate-sensitive asset classification		Total percentage of Investment and Financing (%)
Energy and Utilities	Fossil fuels	0.40%
	Power supply and Utilities	2.26%
Transportation	Transportation Industries	1.27%
Materials and Buildings	Petrochemical / Chemical	2.29%
	Metal fabrication / Smelting	0.73%
	Cement and Glass	0.24%
Agriculture, Food, and Forest Products	Agriculture / Forestry / Fishery / Animal husbandry	0.24%
	Papermaking	0.47%
Climate-sensitive assets		7.90%
Non-climate-sensitive assets		92.10%
Total		100.00%

Note: Climate-sensitive assets have been reviewed and adjusted according to risk assessment. Compared with the 2021 sustainability report, the main change is the addition of the glass industry and the exclusion of metals processing processes with lower energy consumption and downstream wholesale-related subsectors

The identification result of E.SUN high Natural-Environmental-Sensitive Industry

In order to strengthen risk identification in natural environment factors, E.SUN refers to the recommended by TNFD and the scoring result of Science Based Targets Network (SBTN) materiality environmental issue by July 2021. The table below is after the integration of E.SUN's industry exposure percentage; We found that almost 60% of high Natural-Environmental-sensitive industries overlap with high climate-sensitive assets, for instance, Electric Utilities and Power Generators, Chemicals and Mining.

Thematic sectors	Industries	Nature-related issue										Total percentage of Investment and Financing (%)
		Land / Water / Sea Use Change			Resource exploitation	Pollution				Invasives and Other		
		Terrestrial ecosystem use	Freshwater ecosystem use	Marine ecosystem use	Water use	Non-GHG air pollutions	Water pollutions	Soil pollutants	Solid waste	Disturbances	Biological alterations / interferences	
Food and Beverage	Animal Protein											0.30%
	Agricultural Products											0.50%
	Beverages and Processed Foods											0.90%
Renewable Resources and Alternative Energy	Forestry											<0.01%
	Paper Products											0.51%
Infrastructure	Engineering and Construction Services											1.22%
Utilities	Water Utilities											0.05%
	Electric Utilities and Power Generators											2.25%
Extractive and Minerals Processing	Construction Materials											0.35%
	Metals and Mining											0.73%
	Oil & Gas Exploration and Production											0.38%
Health Care	Biotechnology and Pharmaceuticals											0.17%
Resource Transformation	Chemicals											2.22%
Consumer Goods	Apparel, Accessories and Footwear											1.48%
Transportation	Cruise Lines											0.72%
	Marine Transportation											0.20%
Nature-environmental-sensitive assets												11.98%
Non-nature-environmental-sensitive assets												88.02%
Total												100.00%

Very High High Moderate No data

Note 1: Disturbances: Examples include decibels and duration of noise, lumens and light impact on the site.

Note 2: Biological alterations/interferences: Examples include the number of non-native and invasive animals or plants released by species, areas of agriculture with genetically modified organisms or reduced genetic diversity, the number of animals at risk of catching the cattle-transmitted disease by species, etc.

Note 3: Animal protein: Include meat, poultry, and dairy.

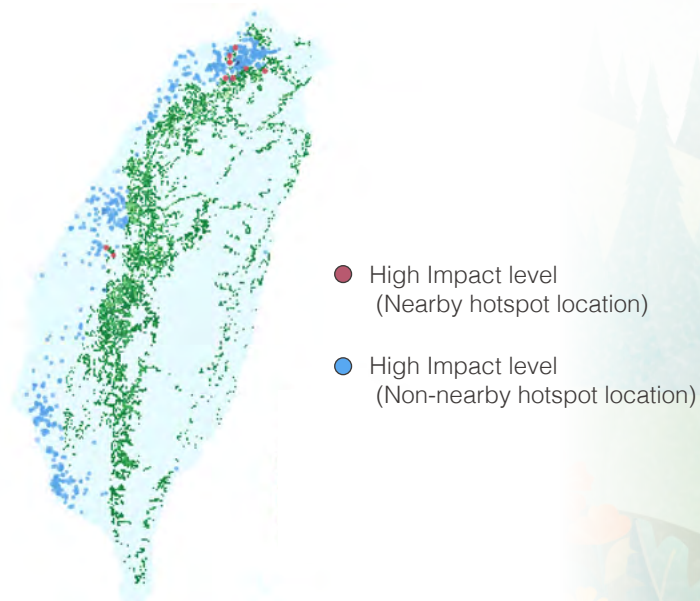
Biodiversity Hotspot Analysis

Based on the identification result of Natural-Environmental-sensitive industries and the consideration of Taiwan's business circumstances, identified 8 sectors might be more natural-environmental-sensitive, which are Animal Protein, Agricultural Products, Forestry, Paper products, Construction Materials, Metals and Mining, Oil and Gas Exploration and Production and Chemical. Using the selected list of their corporate's production site/collateral addresses compared with the biodiversity hotspot data. A total of 38 corporate's production sites/collateral are located within around 0.5 kilometers intersected with the animal hotspots, which means a total of 0.16% of corporate clients of E.SUN production site/collateral addresses adjacent to biodiversity hotspots from E.SUN's whole corporate credit clients adjacent to biodiversity hotspots from E.SUN's whole corporate credit clients.

Society's environmental awareness is increasing day by day, and the methodology of data and analysis is advancing with the times. Therefore, E.SUN will continue refining the advanced evaluation methodology to assist strategy-making and risk management.

Biodiversity hotspots is the data can be use to to identify the impact on local ecology. Generally, the assessment is including three perspectives, which are:

1. The area with high Species Diversity or Richness.
2. The High Endemism area.
3. According to the level extent of the species being threatened



Note1 : Green grids in the map are animal diversity hotspots

Note2 : The Biodiversity Hotspots data refers to Forestry Bureau public information

Differentiated Management of Industries

E.SUN incorporated climate change and environmental risks into daily operations and implements differentiated management as shown in the table below. Measures include actively manage financed emissions from financial assets, increasing green assets, reducing brown assets in investment and financing, promoting energy transition, exerting financial influence, and devote to global climate goals through the guidance of financial resources.

Management Measures	Industry Management Explanation	
Restrict	<ul style="list-style-type: none"> Conduct credit investigation on enterprises involved in coal-fired power generation, coal mining, illegal deforestation, harmful actions against endangered wildlife, and other commercial activities are avoided and avoid dealing with such businesses 	<ul style="list-style-type: none"> Refuse to accept as collateral real estate listed for management in accordance with the "Soil and Groundwater Pollution Remediation Act"
Enhanced management	<ul style="list-style-type: none"> Businesses involved in commercial activities such as coal-fired power, tobacco, gambling, mining, leather and fur production etc. shall undergo rigorous assessments and be monitored on a regular basis Apply the Equator Principles for project risk classification management for power, oil and gas, petrochemical, infrastructure, and other types of project financing of a certain scale or more; carefully evaluate whether the recipient has fulfilled its social responsibilities and adequately formulated environmental and social impact monitoring and improvement plans in the project development process; analyze the implementation of major issues such as physical and transformation climate risks, environmental pollution, and biodiversity for each project financing case 	<ul style="list-style-type: none"> Strengthen the design differentiation in the description of the review for the different climate and environmental risks of the industries that involve in carbon emissions, climate risk, biodiversity, toxic substance management, water resources, etc. Incorporate the hazards and vulnerability of climate risk factors into the zoning standards for real estate collaterals to monitor the climate risk of cases within the jurisdiction of credit business and strengthen the management of climate change risks Enhanced review procedures for cases involving communities on dangerous slopeland
Active support	<ul style="list-style-type: none"> Support social innovation and regional revitalization, provide customized financial services, financial assistance, and marketing resources to empower the attainment of SDGs for local communities, the state, and the society in Taiwan. 	<ul style="list-style-type: none"> Increase investment and financing for forward-looking economic activities or the industries in the key strategies of the Pathway to Net-Zero Emissions in 2050 published by the National Development Council, including wind power/solar PV, hydrogen energy, forward-looking energy, power systems and energy storage, energy conservation, carbon capture and storage, electrification of vehicles and zero-carbon vehicles, zero-waste resource recycling, and natural carbon sinks.

3.5 Scenario Analysis

Scenario analysis is the process of identifying and evaluating potential impacts for possible situations. Stress tests referenced scenarios of international organizations, such as the IPCC, International Energy Agency (IEA), and the Network for Greening the Financial System (NGFS), to determine the impact of climate change over a relatively long period.

Although the climate change scenario (stress) test methodology and data are in their early stages of development, we can use data simulation and discussions with experts to help E.SUN understand the potential impact, support strategy formulation, and implement risk management.

SASB : FN-MF-450 a.1 、 FN-MF-450a.2

- Transformation risks mainly affect industries with higher carbon emissions. If such enterprises fail to plan their transition in time, they may be exposed to risks.
- The exposure to physical risks is determined by the geographical location of the site. If an enterprise or collateral is located in an area with a higher chance of rainstorms and potential for flooding with low elevation/poor drainage, it might cause higher risks.
- By strengthening the management of assets with higher potential risk, we can effectively reduce the expected losses and make the asset portfolio more resilient.

Item	Scenario 1 Net Zero 2050	Scenario 2 Late Policy Action
Description of scenario	<ul style="list-style-type: none"> • The world actively engages in low carbon transition to achieve net-zero emissions by 2050 • Warming under control, low physical risk 	<ul style="list-style-type: none"> • Only after 2030 will active efforts to reduce carbon emissions • Unable to control warming in time, the risk of disasters caused by extreme weather increases
Transition risks	Carbon-related fees/taxes are the main risk factor; Companies would be requested to pay for emissions exceeding the goal on the carbon reduction path	
	<ul style="list-style-type: none"> • Average carbon price: NGFS Net Zero 2050 (world) • Carbon reduction path: Annual reduction must reach 4.2% each year compared with the baseline year (SBT1.5) 	<ul style="list-style-type: none"> • Global average carbon price: NGFS Delayed Transition • Carbon reduction path: Annual reduction must reach 3.3% after 2030 compared with the baseline year
Physical risks	<ul style="list-style-type: none"> • IPCC AR6 SSP1-1.9 	<ul style="list-style-type: none"> • IPCC AR6 SSP5-8.5

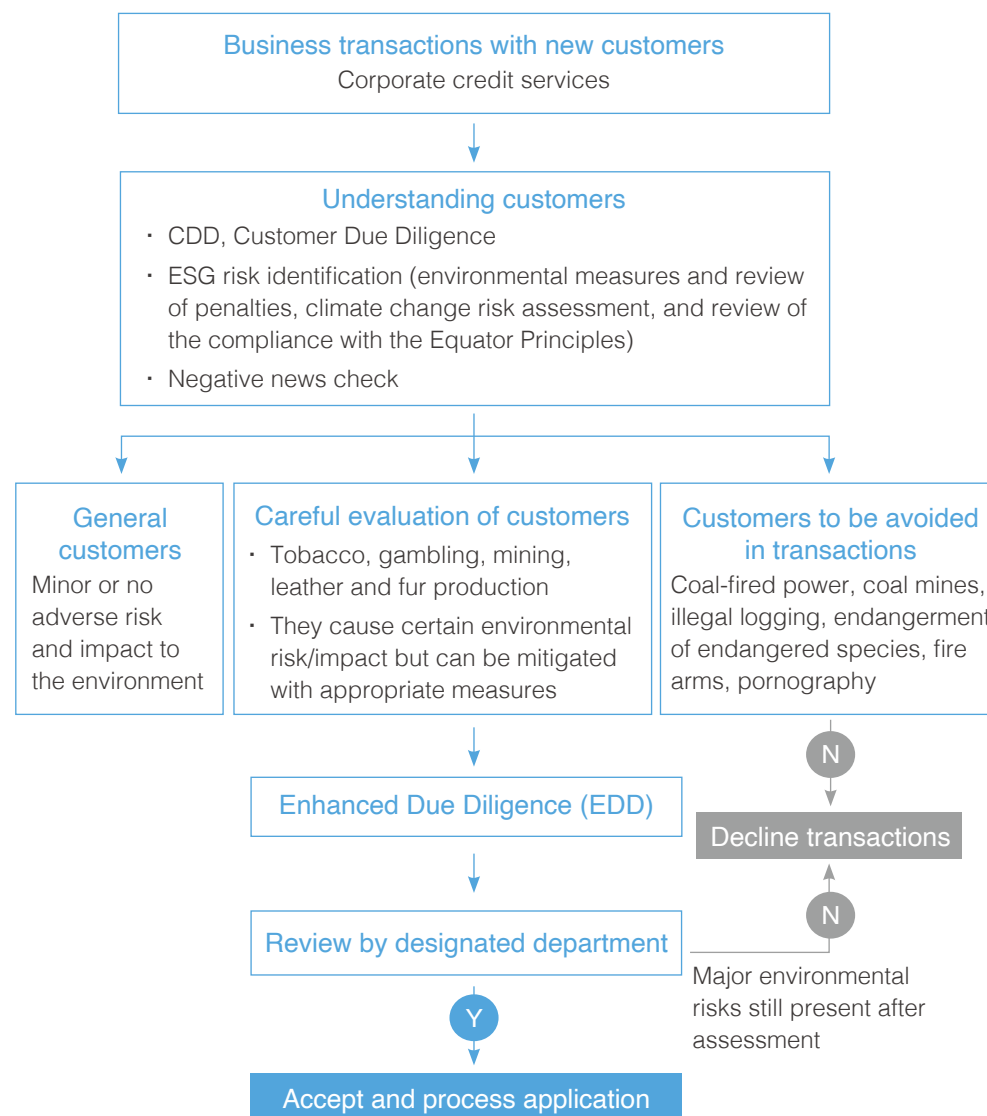
Note: The hypothesis of carbon price refers to NGFS Scenario Explorer hosted by IIASA release 2.2 REMIND-MAGPIE 2.1-4.2.

3.6 Business Operations Integration

Corporate Banking Risk Management Mechanism

E.SUN develops responsible lending and sustainable financial products in accordance with the "Sustainable Finance Policy". We identify environmental and social risks and incorporate ESG risk factors into the existing loan decision-making process to carefully manage related risks. The measures include a review of whether the borrower is involved in negative issues such as environmental pollution in all cases. In addition, if the transaction counterparty is involved in coal-fired power generation, coal mining, illegal logging, endangerment of endangered species, arms trade, or pornography, E.SUN declines transactions. With regard to commercial activities such as tobacco, gambling, mining, and leather and fur production, or industries with potential environmental risks, E.SUN conducts careful evaluations and enhanced reviews.

- For industries with high climate risk, including businesses related to the use of thermal coal (power generation, mining, trading, and transportation) and unconventional petrochemical oil and gas producers (tar sands, shale oil & gas, polar oil and gas, deep-sea oil drilling, etc.), separate levels of management mechanisms have been set in the loan procedures in the "E.SUN FHC Guidelines for the Gradual Withdrawal of Capital from Fossil Fuel Industries". If the borrower engages in the aforementioned business activities and such activities account for a certain percentage of its revenue, E.SUN shall implement individual case management and gradually withdraw capital investments.
- For project financing in industries such as power, oil and gas, petrochemicals, and infrastructure that reach a certain scale, E.SUN introduced the Equator Principles in 2015 for tiered project risk management. We carefully evaluate whether companies have fulfilled their environmental social responsibility in the project development process, adequately formulated environmental and social impact monitoring and improvement plans, and analyzed the implementation of major issues such as climate entity and transformation risks, environmental pollution, and biodiversity in each project financing case in accordance with the framework established in Version 4 of the Equator Principles.
- In addition to the existing review processes, E.SUN continues to enhance climate and environmental risk management mechanisms to address the different climate and environmental risks associated with the characteristics of different industries. We have designed differentiated inspection items in the instructions for enhanced review, including corporate carbon emissions, climate risks, biodiversity, toxic substance management, and water resources. We implement enhanced assessment and explanation of the credit check process to help business personnel focus on specific ESG issues in each industry and learn how to respond to the risks of borrowers. With regard to collateral with climate risks such as high-risk buildings located in flood-prone areas, we plan to implement physical risk management in the credit process by reducing the loan-to-value ratio and requiring the purchase of insurance policies.



Carbon management for lending

E.SUN is committed to responsible lending and promotes scientific-based carbon reduction target management and internal carbon pricing mechanisms based on our GHG emissions in scope 3 by the PCAF method. We use the results to systematically and methodically guide the financial resources in managing borrowers with higher carbon emissions and help industries and corporate customers complete their low carbon transformation.

Science-based targets (SBT) for carbon emissions reduction

E.SUN set medium and long-term carbon reduction targets in accordance with the Financial Sector Science-Based Targets Guidance. We have established clear carbon reduction pathways and targets for three main types of credit facilities (power generation project financing, non-self-use commercial real estate, non-SME medium and long-term loans). We manage carbon emissions for borrowers with high carbon emissions to attain our net zero carbon emission vision. We track the change of carbon emission intensity and analyze the target attainment status every year to adjust the business operation strategy. We encourage transactions with low-carbon businesses such as renewable energy projects and green building real estate, and increase the proportion of transactions with borrowers who have set carbon reduction targets.

Internal carbon pricing for lending

E.SUN developed and implemented mechanisms for internal carbon pricing for lending in 2021. In July 2022, we provided business units with internal carbon pricing tables and management tools, disclosed the amount of carbon emissions to be borne by borrowers, and converted them into a concept based on carbon cost which is easier to understand. We use these measures to help business units pay attention to the transformation risk of each borrower and the impact of international carbon price. We also help business units in credit portfolio management by implementing carbon emission intensity grading and carbon emission calculations. E.SUN referenced the internal carbon pricing mechanisms and adopted the "carbon allowance" methodology to calculate the cost of excess carbon emissions based on the weighted price of the global carbon trading market and the annual carbon reduction goals. We also encourage business units to undertake more green lending businesses with waiver mechanisms, and plan the integration of internal carbon pricing with business

performance evaluations to gradually integrate the concept of carbon cost into the decision-making process for loans and continue to refine our capacity to respond to climate risks.

Take actions to expand sustainability influence

E.SUN continues to engage with corporate customers on ESG and climate-related issues with a dedicated sustainability team. As of September 2022, we have engaged 92 companies (46 in 2021) to help them respond to international trends and external requirements, which include the Carbon Border Adjustment Mechanism (CBAM), energy trends, and developments in domestic and international climate and environmental regulations. We also encourage customers to actively reduce carbon and focus on environmental sustainability with ESG-Linked Loans and green lending to work together to attain the targets for net zero emissions.

Case study

R Group's main businesses include forest plantation and the production and sales of pulp and paper, and agricultural products. As its operations are highly connected to forest resources, the Group is committed to promoting many sustainable strategies including a no-burn policy, avoiding development of peat swamp forests, and expansion of ecological reserves. It also actively works with non-profit organizations and government authorities, and regularly appoints international accounting firms to review the Group's sustainability reports. The Group uses ESG-Linked Loans to set targets for carbon reduction, renewable energy, and traceability management of plantations to attain sustainable development. It also uses credible international third-party organizations to issue green metrics reports to enhance the credibility of the information. E.SUN provides funding and also participates in the Group's sustainability strategy meeting and onsite visits of overseas plantations and production centers. We also exchanged ideas on important issues such as climate change and biodiversity with the aim of maximizing our sustainability influence with customers.

Consumer banking risk management mechanism

Climate risk management measures

E.SUN incorporates public climate change risk information in due diligence. We prudently assess and monitor the climate risks of the cases, and implement climate risk management with the aim of protecting the ecological environment and ensuring the Bank's creditor rights and reducing risk exposure. In the future, we will plan mid-term climate risk management operations to enhance overall climate risk management measures.

Incorporation of climate risk factors into the real estate collateral classification standards

To strengthen the management of climate change risk and monitor the risk of collateral value loss, E.SUN has added the "flooding hazard factor" – hazard level (e.g., increased frequency of heavy rainfall and typhoons) and vulnerability (e.g., whether the area is prone to flooding) in the real estate collateral classification standards. In the future, it will be extended to post-loan management.

Exclusion of collateral in real estate listed on the Soil and Groundwater Pollution Remediation Act

When E.SUN performs due diligence for mortgage applications, we will reject the applications if the collateral provided by the customer located in a pollution site, which is listed on the Soil and Groundwater Pollution Remediation Act. This measure is implemented to take the responsibilities for pollution remediation, accelerate improvements for pollution, and ensure the sustainable use of resources and improvement of the ecological environment.

Enhanced review procedures on dangerous slopeland cases

Dangerous slopeland cases are under the risk of climate change. Their liquidity is lower than general real estate's liquidity. Therefore, E.SUN strengthens the inspection of the appraised target and implements management measures such as the limitation of the loan-to-value ratio, increase in interest rate, and elevated approval authorization for the loan.

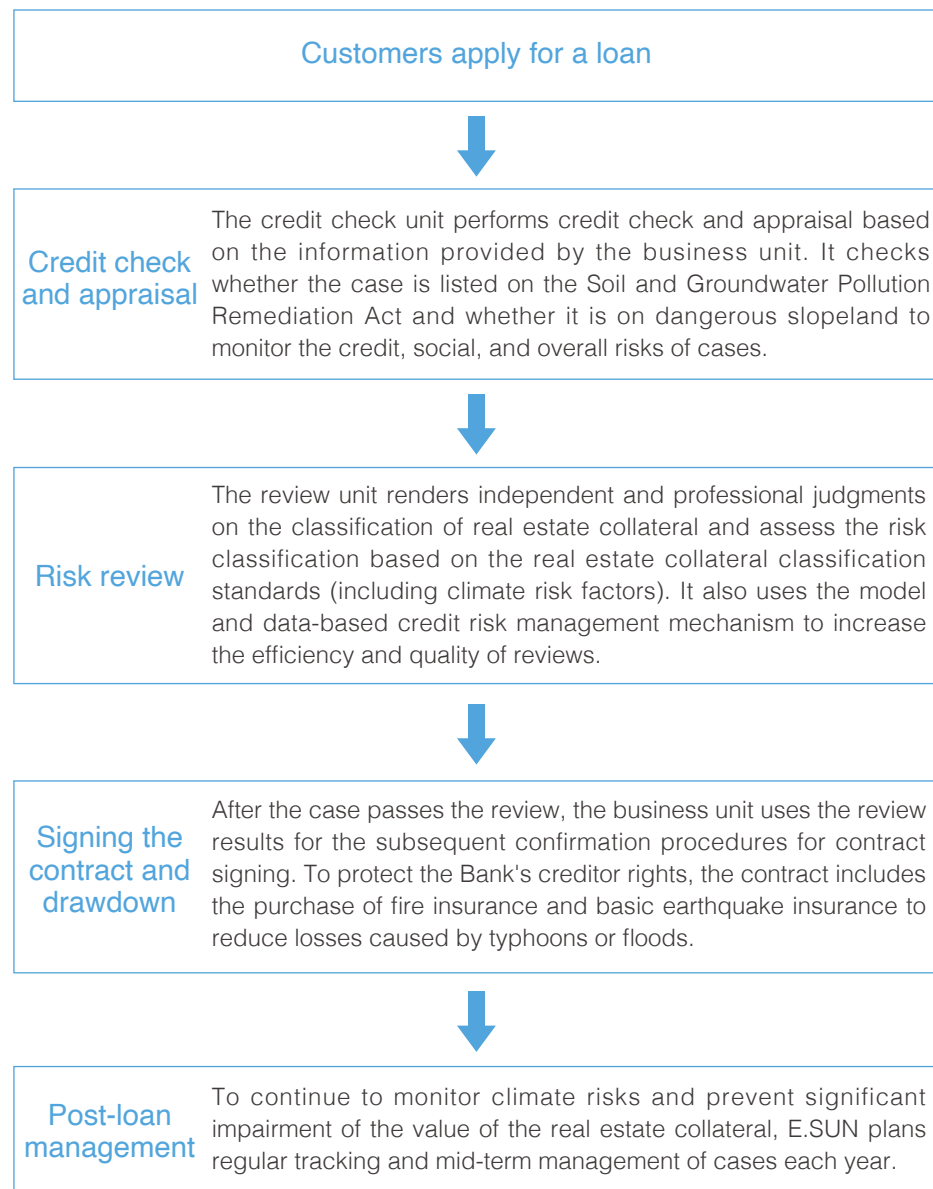
Planning interim management of cases with high flood risk

E.SUN plans to assess and monitor the risk of impairment on collateral value caused by climate change annually, and continuously improves the database, analysis method, and scenario tests for physical risks. When the impairment on collateral value is significant, we will further examine customer's repayment status, assign employees to visit, and evaluate limits for the ratio of incremental loans.

Case study

The customer plans to purchase a factory in Kaohsiung for use as a distribution center to expand its operations in the Central and Southern Taiwan, and apply for a loan from the Bank. E.SUN conducted credit check and collateral appraisal on the company. We also learned that the company's Taoyuan site has been declared as a groundwater contamination control site by the government, and it has been fined several times in accordance with the Waste Disposal Act. We have confirmed with the customer that improvements have not yet been completed. As the case is in violation of environmental protection laws, we declined the loan application.

Due diligence process for climate risks



E.SUN continues to expand its financial influence through taking account of ESG criteria during the selection process of small enterprise customers. In terms of negative industries management, we have established management mechanisms for coal-related industries, which have significant impacts on climate change. E.SUN has specified the exclusions of above-mentioned industries in the operation guidelines. We will not provide new loans to these enterprises in order to avoid the fund flowing into the coal-related supply chain. It could promote the energy transformation of the society and move towards net zero carbon emissions.

In the aspect of positive industries management, E.SUN also uses real actions to support social innovation and regional revitalization industries. We collaborate with governments, industrial associations, schools, research institutions, and other external partners to care about the difficulties of local industries. In the process of collaboration, we learn about the operations, business models, and financial needs in different industries. According to their needs, we provide customized financial services, promotional resources to empower Taiwan's local communities and society in fulfilling SDGs.

Case Study

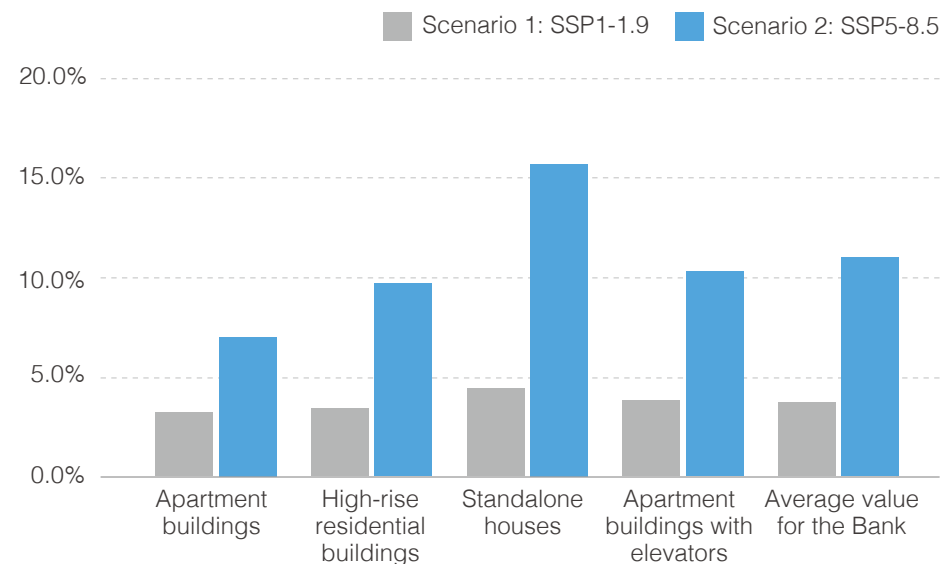
ROKSN, a social innovation enterprise that supplies chicken, focuses on the development of small chicken farms and mainly assists indigenous farmers who are members of Wu Jie Tribe in Ren'ai Township of Nantou, Da Wu Tribe in Wutai Township of Pingtung County, and Atayal tribe in Datong Township of Yilan. However, even if they have the technique for raising chickens, they lack sales channels and a stable cash flow, which limits their capacity to apply for loans. E.SUN learned about their difficulties and worked with Taipei City Government to help it quickly obtain working capital and assist creating a eco-friendly micro production network. E.SUN is committed to taking real actions to take care of the environment. We collaborate with partners, which share similar goals to support and implement climate actions and expand our positive influence.



Real estate value impairment analysis

To attain the goal of becoming a bank with net zero emissions by 2050, E.SUN incorporated climate change and environmental risks into regular management and implements differentiated management company businesses as shown in the table below. Our goals include actively managing carbon emissions from financial assets, increasing green assets, reducing gray assets in investment and financing, promoting social energy transformation through the guidance of financial resources, making full use of our financial influence, and attaining global climate goals.

Real estate value impairment ratio



Financial impact simulation

E.SUN further incorporated the loss of real estate value caused by flood risk into the risk model parameters, and analyzed the impact of climate risk on Loss Given Default (LGD) and Expected Loss (EL). The model expected loss and defaults in various regions under the SSP5-8.5 scenario. The loss rate is higher than under the SSP1-1.9 scenario. That means under the SSP5-8.5 scenario, the risk of heavy rain and flooding will cause more serious financial losses and shocks, especially the northern region will have a higher loss given default (LGD) and expected loss (EL). ESUN will continue to refine the scenario analysis models such as flood loss model and risk model, and formulate correspondence management for different risk situations, to reduce the financial impact of flooding risk.

Consumer banking real estate pledged loans

Unit: NT\$ million

2050 / Region	Scenario	Expected loss	LGD
Northern Taiwan	SSP1-1.9	420	20%-38%
	SSP5-8.5	431	21%-40%
Central Taiwan	SSP1-1.9	92	20%-37%
	SSP5-8.5	102	21%-39%
Southern Taiwan	SSP1-1.9	182	20%-36%
	SSP5-8.5	192	21%-38%
Eastern Taiwan	SSP1-1.9	9	20%-36%
	SSP5-8.5	9	21%-37%

Northern Taiwan: Taipei City, New Taipei City, Keelung City, Hsinchu City, Taoyuan City, Hsinchu County, and Yilan County

Central Taiwan: Taichung City, Miaoli County, Changhua County, Nantou County, and Yunlin County

Southern Taiwan: Kaohsiung City, Tainan City, Chiayi City, Chiayi County, Pingtung County, and Penghu County

Eastern Taiwan: Hualien County and Taitung County

Treasury Risk Management

E.SUN attaches importance to the corporate social responsibility performance of the investee target. Based on the Principles for Responsible Investment (PRI), ESG issues were incorporated into investment analyses and decision-making processes. E.SUN established the "Guidelines for Sustainable Securities Investing" and set up management mechanisms for companies with high ESG risks. E.SUN avoids dealing with businesses involved in pornography, controversial arms trade, illegal logging, endangerment of endangered species, creation of new coal mine, or establishment of new coal-fired power plants. Businesses involved in commercial activities such as coal-fired power plants, tobacco, gambling, mining, and leather and fur production shall undergo due diligence reviews and rigorous assessments when investment applications are filed. E.SUN will carry out only those that have been evaluated as posing no adverse effect on the sustainable development of ESG. In addition, E.SUN

pay close attention to the ESG issues with potential material impact on the investment performance, investment decision making, and investment analysis of investees. We also established the E.SUN Sustainability Investment Evaluation Model to incorporate the ESG metrics published by domestic and overseas impartial institutions, such as MSCI ESG Rating, S&P Global ESG Rank Score, Bloomberg ESG Score, Taiwan Corporate Sustainability Award, Sustainalytics ESG Risk Ratings, constituent stock of the FTSE4Good TIP Taiwan ESG Index, and the Corporate Governance Evaluation in Taiwan, into the investment assessment criteria. They are weighted and they include the SBT and carbon cost to separate the score brackets into seven levels from AAA to CCC. E.SUN implements the investment standard review for models with a rating of BBB or above, considers sustainable development factors, and continues to improve the model to maximize financial influence.

Exclusion of industries with controversial ESG issues

- Highly controversial industries with direct impact: Avoid dealing with businesses in pornography, controversial arms trade, illegal logging, endangerment of endangered species, creation of new coal mine, or establishment of new coal-fired power station.
- Industries with potential impact on the environment and society: Businesses involved in commercial activities such as coal-fired power, tobacco, gambling, leather and fur production etc. shall undergo rigorous assessments and monitored on a regular basis.

Referencing the ESG ratings by impartial domestic and foreign agencies

- DJSI
- MSCI ESG ratings
- S&P Global ESG Scores
- Bloomberg ESG
- Sustainalytics ESG Risk Ratings
- Constituent of FTSE4Good TIP Taiwan ESG Index
- Taiwan Corporate Governance Evaluation

Establishment and implementation of the sustainability plan

- SBT target setting and regular reviews of securities investment companies
- Upgrade ESG integration to investment strategies that focus on sustainability and impact
- Invite companies to join the initiative to implement environmental sustainability with real actions

Select investment targets with caution

- Investment targets must have a rating of BBB or higher in the ESG Sustainability Assessment Model established by the Bank

Engaging investees

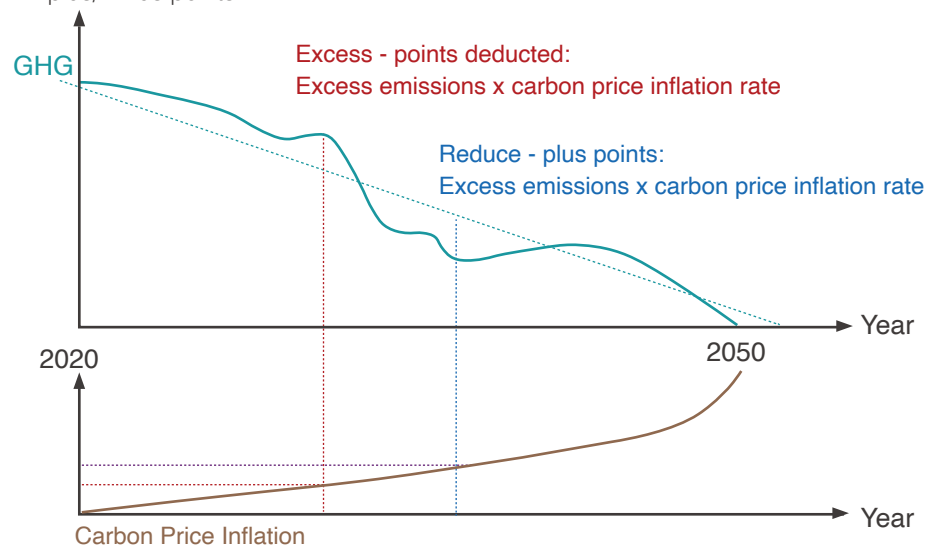
- Regular and ad hoc communication with investees
- Disclosure of voting in investees' shareholder meetings

Exercising influence for sustainable finance

ESG sustainable investment evaluation model

Considered carbon pricing cost

- Using Linear Interpolation method to estimate excess/reduced carbon emissions
- The carbon price is calculated based on the weighted average of the prices from the world's major exchanges
- Calculate the gap between practical carbon emissions and model's estimation to give scores, as well as the carbon price inflation rate, as a multiplication item for plus/minus points



The evolution of the sustainable investment model

ESG assessment of underlying investment

- Refer to the ESG indicators of impartial institutions at home and abroad, such as MSCI ESG ratings, S&P Global ESG Rank scores, Bloomberg ESG score, etc. Weighted and taken into consideration of SBT and carbon price cost, and divided into seven grades Ratings, from AAA to CCC

Regular inspection implementation

- Implemented the investment standard review of model evaluation BBB (inclusive) and above, considered sustainable management factors and continue to improve the model.

Engage with Investment Institutions

E.SUN engage with the invested company in accordance with "E.SUN Financial Holding Company Sustainable Development Engagement Guidelines", and through concept communication to encourage more parties to recognize the importance of ESG issues and carry out their ESG actions. E.SUN through the shareholder bank Activism, communicate with the invested companies, participated in shareholder meetings, executed voting rights, etc. continue to promote the sustainable development of invested companies.

The summary of the engagement case study :

Thank you for your letter and sharing, which makes X Group's emphasis on sustainable development and related strategy promotion more firm. It is also more confident in the direction of enhancing corporate transparency and fulfilling corporate responsibility. X Group has always adhered to high standards of corporate social responsibility (CSR), and we have also continued to promote a series of sustainable development to ensure that our business values, and also practices are aligned with the needs and expectations from our stakeholders. We hope that this is not just the goal of a single company legal person, but that the entire supply chain should work together. There is a sentence in the letter from Huang Chairman: "It is not enough to rely on the strength of a single enterprise". Therefore, X Group is also making continuous efforts to implement the concept of CSR in customers, employees, among the workers and supply chain partners, we hope to drive the supply chain and peers to work together on ESG issues.



Sustainable Operating Environment

Renewable energy

- Solar panels were installed at 20 locations, with a total installed capacity of 164.31 kW, and an annual power generation capacity of about 223,000 kWh, which is equivalent to a reduction of 111.7 tons of carbon emissions.
- After purchasing renewable energy certificates for 5 consecutive years, 259 T-RECs and 1975 I-RECs were acquired, totaling 2,234 certificates, which is equivalent to 2,234,000 kWh of green electricity and a carbon emissions reduction of 1137.1 tons.

Air conditioning energy savings

- Replaced and improved the old air conditioning units
- Circulating fans are installed and regularly maintained.
- The energy savings of air-conditioning in 2021 totaled 52,306 kWh of electricity annually, which is equivalent to the reduction of 26.3 tons of carbon emissions.

Lighting energy savings

- Replaced old energy-consuming lighting equipment with LED energy-saving bulbs and installed sensor lighting equipment
- The effect of replacing lighting equipment in 2021 will save about 98,034 kWh of electricity annually, which is equivalent to a reduction of 49.9 tons of carbon emissions.
- In the summer, when electricity consumption is at its peak, signage lighting is turned off for 100 days for five consecutive years. We increase to 130 days in 2021. This has resulted in a total of 366,915 kWh of electricity saved, which is equivalent to a reduction of 171.5 tons of carbon emissions.

Green building

- Received 6 LEED gold-level international certifications, namely for the server rooms of the Hope and Technology buildings, the SUN HR Development Center, the second HQ and Dali Branch.
- There are a total of 4 EEWG Gold Grade Green Architecture Certified Buildings (Hope Building, HQ2 and Rende Branch), and 8 branches with green building labels (Chiayi, Daya, Yuanlin, Toufen, Changhua, Annan, East Tainan and Shalu Branches).

Management and certification

- Introduced ISO 50001 Energy Management Systems to analyze key factors influencing E.SUN's energy consumption and establish performance metrics, action plans, and goals related to energy consumption.
- Introduced ISO 14064 Greenhouse Gas Inventory to verify the main greenhouse gas emission sources through a third party, and review the emissions of Scope 1, 2, and 3 every year, continue to expand the scope, and review the achievement of the reduction targets.

111.7 tons

Carbon emissions reduced by using renewable energy

18 sites

Obtain green building certification



E.SUN's first zero carbon demonstration branch

E.SUN's Chiayi Branch was established in 1992, and was a first generation branch established when E.SUN was first founded, becoming a good neighbor to local communities for nearly 30 years. The transformation of buildings is a key strategy for E.SUN to develop into a bank with net zero emissions by 2050, and measures are divided into two aspects – energy conservation and carbon reduction. E.SUN's first zero carbon demonstration branch was established in Chiayi in 2021, and shows E.SUN's determination to achieve environmental sustainability. In the future, we will continue to improve the energy efficiency of our operations, and exert every effort to develop even more low-carbon and eco-friendly locations.

Zero carbon transformation measures of the Chiayi Branch

1. Installation of solar panels: Installed solar panels on the branch's roof, and the approximately 16,000 kWh of electricity generated each year will be used by the branch
2. Promotion of environmental protection education: Set up an environment promotion section in the lobby, and allow customers to gain knowledge on environmental protection through videos and leaflets when they visit a branch
3. Implementation of carbon neutrality: Purchased carbon credit to neutralize the 87.18 tons CO₂e generated in 2020
4. Renovation into a green building: Obtained Taiwan green building certificate and US LEED gold certification
5. Adoption of renewable energy: Signed a renewable energy wheeling contract with renewable energy companies, and successfully completed E.SUN's first renewable energy wheeling at the end of 2021



Combine renewable energy with chargers, encourage customers and employees to use electric vehicles, and develop cities that are friendly to electric vehicles

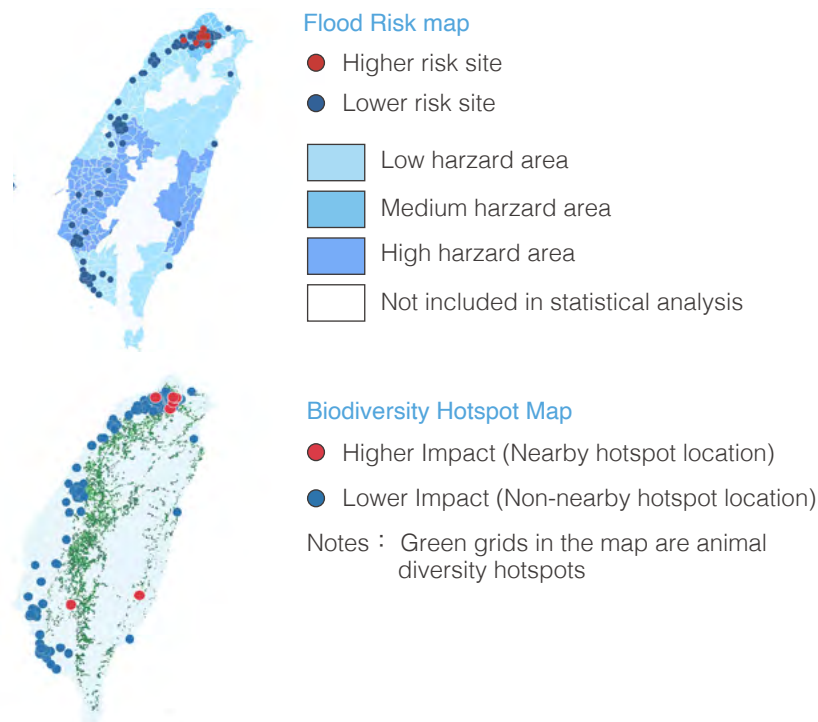
Governments around the world are providing purchase subsidies and tax reductions to encourage citizens to use electric vehicles due to the rising awareness of environmental protection. According to the path to net zero emissions in 2050 announced by the National Development Council, electric vehicles will account for 100% of newly sold vehicles in 2040 to reduce carbon emissions in the transportation sectors. Besides providing subsidies or discounts, improving the environment for electric vehicles by increasing the number of chargers is the only way electric vehicle drivers will not be anxious about charging, which will increase their willingness to use electric vehicles and popularize electric vehicles faster.

E.SUN began planning the installation of electric vehicle chargers in 2020. After careful evaluation of charging efficiency, universality of equipment, and actual usage, we installed 6 sets of chargers in each of the parking lots of two office buildings in Taipei City in March 2021 for use by customers and employees. Furthermore, the installation of chargers is expected to increase electricity consumption of E.SUN's office buildings by 2%. E.SUN is also actively engaging in energy transformation and successfully completed renewable energy wheeling in two office buildings at the end of 2021, combining green transportation with renewable energy to lay the foundation for zero carbon transportation. E.SUN works with customers and employees to implement low carbon concepts in their behavioral model, developing cities friendly to electric vehicles.



Physical risk assessment

Using a geographic information system (GIS) which allows mapping hazard area and risk potential zones, makes analyzing physical risk more efficient. The visualized graphic presentation makes it easier to understand the risk profile, which benefits the formulation of management measures in response. In scenario SSP5-8.5 for 2030/2050, the flood risk map for the Company's business locations and suppliers shows that among the Company's 207 business locations and 204 suppliers, a total of 5 business sites (only 1 is a self-owned building) and 4 suppliers are located in high-risk areas (relatively high hazard of torrential rain and located in a flood damage potential area), subsequent mitigation measures or relocation will be planned according to the lease/use period. E.SUN uses the geographic information of animal diversity hotspots by Forestry Bureau to analyze our business locations and suppliers, 2 of our self-owned buildings and 4 business sites are located within 0.5 KM of the hotspots. As these locations are located in the downtown, preliminary assessment of impact is low.



Supplier management

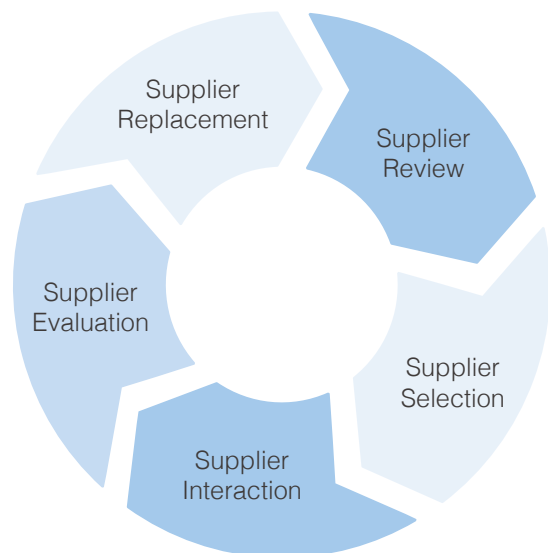
In 2021, E.SUN worked with 1,649 suppliers chains include service supply chains, equipment supply chains, and project contractors; the service includes postal services, logistics, security, electronic equipment, telecommunications, furniture, civil engineering, and architectural design.

Implementing sustainable procurement standards

To establish a supply chain that protects the environment, human rights, safety, health and sustainable development, E.SUN implemented ISO 20400 Sustainable Procurement - Guidance to devise procurement policies in 2021. We stipulated in the regulations governing supplier management that the state of the supply chain be understood through an investigation, and that supplier management be conducted to prevent, address, correct, or control potentially adverse sustainability impacts. Accordingly, the bank formulated action plans and established the supplier items in need of regular supervision as well as measures to quantify performance. External audits and reviews were moreover conducted to examine whether all requirements were met. E.SUN selects qualified suppliers in accordance with the E.SUN Bank Supplier Management Guidelines, and works only with suppliers that comply with local regulations, have signed the Statement of Commitment to Human Rights and Environmental Sustainability, and adhere to the E.SUN FHC Corporate Social Responsibility Guidelines for Suppliers. The statement clearly specifies E.SUN's requirements and expectations of the supplier regarding environmental health and safety, prohibition of child labor, labor management, elimination of any form of forced labor, absence of damage to basic labor rights, basic human rights, the code of ethics, and ethical management.

In 2021, E.SUN interacted with a total of 706 suppliers, all of which complied with the ethical management clause in our Corporate Social Responsibility Self-Assessment Form for Suppliers. To enhance supplier management practices, the bank introduced the Supplier's CSR Self-Assessment Form and, according to the Supplier Visit Questionnaire, occasionally pays visits to key suppliers and record the results. The purpose of the visits is to verify the status of corporate social responsibility practices by suppliers, and the assessments cover economic, environmental, and societal dimensions as well as green management practices. Furthermore, 100% of the new suppliers added in 2021 were selected in accordance with these principles. No significant deficiency and changes were discovered.

Supplier management procedures



Sustainable supply chain engagement

- We require suppliers performing highly dangerous work, including subcontractors in new building projects or branch renovation projects, to comply with the Occupational Safety and Health Act. In addition, responsible persons of said suppliers and E.SUN employees must provide health and safety training for the operators involved and raise awareness against danger in order to reduce injuries in the process.
- Ethical corporate management: Where the total purchase of goods and services exceeds NT\$1.5 million in a year, E.SUN will meet with the supplier to discuss business philosophy and highlight the importance of ethical corporate management.
- The Supplier Convention was canceled in 2021 due to the pandemic. We selected 43 suppliers based on transaction frequency to do a questionnaire on sustainability with them. Suppliers described their plans on the supplier self-assessment questionnaire. On their plans, they stipulated that they acquire information security certification, that they enhance employee welfare measures (including aligning their labor practices with local laws and regulations), and that they enhance green purchasing.

Sustainable Procurement Principles

- Priority is given to procurement and use of various building materials, equipment and appliances that have obtained green building materials certification and environmental protection certifications that also meet the requirements of laws and regulations.
- Procurements should be made based on the principle of standardization and consistency to facilitate unit adjustment, remodeling, refurbishment and other purposes of re-use.
- Continuously improve the supplier management mechanism, including streamlining the document application process and identify the risk of transaction counterparties, and so on.
- A diverse range of initiatives are proposed to suppliers, such as equal job opportunities for ethnic minorities, women and people with disabilities.
- E.SUN also reviews whether the supplier is involved in environmental pollution, violation of government labor regulations, or acts endangering social welfare, etc. If the supplier is involved in the foregoing matters, it will be required to provide explanations or excluded from cooperation.

Local procurement and green procurement

E.SUN has long adhered to the local procurement policy. As a priority, local suppliers are the main sources of goods for various types of procurements. The proportion of expenditures on local suppliers in 2021 was 97%. To fulfill SDG 12, "Responsible Consumption and Production", E.SUN has actively responded to the green lifestyle and consumption policy for the public promoted by the Taiwan EPA. Upholding green and ecofriendly procurement principles, the bank conducted green procurements amounting to NT\$215 million in 2021, and the cumulative amount spent on green procurements has exceeded NT\$1.5 billion.



E.SUN continues to participate in the EPA's Green Procurement Program for Private Enterprises and Organizations. E.SUN has been named an outstanding benchmark organization for "Green Procurement by Private Enterprises and Organizations" by Environmental Protection Administration Executive Yuan for 10 years in a row. The goal is to facilitate an upgrade of the green industry through green procurement and improve the conditions regarding the environment as a whole. Meanwhile, we exercise our influence through purchases and sales to raise awareness of environmental conservation and green spending among business partners and encourage them to invest in the development of green products and technology in order to create opportunities in sustainability together.

To fulfill SDG 12, "Responsible Consumption and Production", E.SUN implement the concepts of social innovation and sustainable development, cooperate with social innovation organizations and stimulate sustainable business opportunities. E.SUN participated in the 2021 Buying Power Award by the Ministry of Economic Affairs and won the first prize in December. Additionally, E.SUN has successfully counseled suppliers to be selected as a social innovation organization in the Buying Power supply chain in 2021. E.SUN plans to counsel and engage with more suppliers to become green suppliers, expand sustainable supply chain and use practical purchase actions to change the living environment and influence the consumption system, looking forward to making positive changes.



Using eco-friendly plastic materials to make envelope film, using innovative technologies to realize a circular economy

Envelopes are a frequently used product by financial institutions, including reconciliation statements for customers to verify their transaction information, credit card statements, and various notices. However, the transparent film on conventional envelopes releases a large amount of GHG that damages the environment in the production process and after being incinerated. E.SUN began working with envelope suppliers in 2021 to use biomass plastic for the transparent film to support environmental sustainability. The biomass plastic received the USDA 100% Certified Biobased Product label, which has the highest creditability in the world. Biomass plastic is an "eco-friendly plastic material" made from non-edible corn and tapioca powder. Carbon emissions from the production process decreases from 3.24kg CO₂e to 0.62kg CO₂e per kilogram compared with plastic. Biomass plastic does not generate toxic substances when incinerated, and carbon dioxide absorbed in its growth process is released back to nature when it is incinerated, which is part of the natural carbon cycle. Hence, this portion of carbon emissions does not need to be calculated in GHG emissions, significantly lowering the damage to the environment compared with conventional envelopes. Eco-friendly envelopes are currently used for reconciliation statements. Besides continuing to promote electronic statements, we also plan to expand the scope of eco-friendly envelopes. Using the approximately 1.563 million reconciliation statements mailed by E.SUN each month, we expect to reduce carbon emissions by 9,813.6kg CO₂e each year.

Environmental protection is an international common issue. E.SUN selected eco-friendly materials for envelopes commonly used for customers to reduce the environmental damage caused by waste, and also exerted influence on envelope suppliers to promote the use of eco-friendly envelopes in even more industries, contributing to a sustainable future.



CH4 Towards a Beautiful Future

4.1 E.SUN's GHG Emission Structure

4.2 Our path to 2050 net zero

4.3 The summary of Environmental Sustainability practices

4.1 E.SUN's GHG Emission Structure

E.SUN started with ourselves and took action. To tackle the immense challenge of achieving net-zero emissions, E.SUN started by understanding the current state of GHG emissions, and taking inventory of our service locations and business operations. We then set emission reduction targets in sequence, taking concrete action which continuously keeps our philosophy of net-zero emissions in mind when making investment and funding decisions, including no longer providing project financing to coal-fired power plants, issuing zero-carbon credit cards, and announcing our plan to phase out all coal investments by 2035.

From 2014 onwards, we have begun taking carbon inventory of our service locations. In 2017, we expanded these operations to take inventory for 100% of our domestic and foreign sites. The inventory included scope 1 direct greenhouse gas emissions (including emissions from electricity generators, natural gas, company vehicles, and firefighting equipment), and scope 2 indirect greenhouse gas emissions from consuming electricity. Considering the fact that the largest source of emissions for companies in the financial industry is investment and financing activities, we adopted the Global GHG Accounting and Reporting Standard for the Financial Industry issued by the Partnership for Carbon Accounting Financials (PCAF) in 2020 to take carbon inventory for our material assets. We used the ESG reports and CDP information published by our investees to calculate their GHG emissions. For instance, if the GHG emissions arising from the business operations of a customer are 1 million tons, and loans and investments provided by E.SUN account for 1% of said company's assets, then we will recognize 10,000 tons of GHG emissions as our scope 3 emissions. In addition to the total emissions, We use carbon footprint and Weighted average carbon intensity (WACI) to evaluate our financed emissions. Carbon footprint measures total carbon emissions for a portfolio normalized by the market value of the portfolio, which can help us to understand whether the investment portfolio is towards carbon reduction. Weighted average carbon intensity measures a portfolio's exposure to carbon-intensive companies, which can help us to interpret the change. Therefore, E. SUN pay attention to the change in indicators for carbon assets and keep towards the mission of net zero.

GHG Emissions Timeline

	2018	2019	2020	2021
Scope 1	2,516	2,455	2,399	1,858
Scope 2	21,593	22,443	22,299	22,105
Scope 3 : Financed Emissions	842,584	916,408	4,710,269	4,244,631
Scope 3 : others	42,156	52,100	53,713	49,181
In total (t-CO ₂ e)	908,849	993,407	4,788,679	4,317,775

Financed Emissions Timeline

	2018	2019	2020	2021
Financed Emissions (t-CO ₂ e)	842,584	916,408	4,710,269	4,244,631
Carbon Footprint (t-CO ₂ e/\$M revenue)	96.30	95.36	69.64	56.64
Weighted Average Carbon Intensity (t-CO ₂ e/\$M revenue)	-	-	-	206.91
Inventory's Coverage (%)	12.47%	12.50%	73.69%	75.71%
PCAF Coverage(%)	100.00%	100.00%	100.00%	100.00%

Note 1: Emissions from investments and financing activities for 2018 have been estimated based on the increases or decreases in our total assets reported in our financial statements.

Note 2: Financed Carbon Footprint = GHG emissions from investment and financing companies / inventoried balance of investment and financing companies

Note 3: Inventory's Coverage = inventoried balance of investment and financing companies / sum of FVPL, FVOCI, AC, loans, and discounted items

Note 4: Financed Weighted Average Carbon Intensity excluded Mortgages.

Note 5: PCAF Coverage: the ratio of the financed emission required to cover by PCAF to the assets had been inventoried.

Financed Emissions in 2021

E.SUN analyzed the financed emission in 2021. Through currently available data, we have taken carbon inventory for 46.20% (exclude short-term securities) of our investments and 93.28% of the loan balance. Total annual GHG emissions from business operations amounted to approximately 4.24 million tons, of which less than 1% are derived from direct emissions and electricity consumed for business operations. Over 98% of emissions are derived from our investees and financed projects. Therefore, we have analyzed our GHG emissions from investees and financed projects according to asset type, industry category, and region. We have set different science-based targets (SBTs) for each different type of asset, planned out our managing systems for high carbon-emitting industries and engaged with our customers, encouraged our employees to engage with corporate customers or investees who are actively reducing their GHG emissions. We hope to use the power of finance to do our part in achieving net-zero emissions.

Note: Details information attached in Appendix 3

Asset class

Business Loans

47%

Listed Equity and Corporate Bonds

37%

Power generation project financing

7%

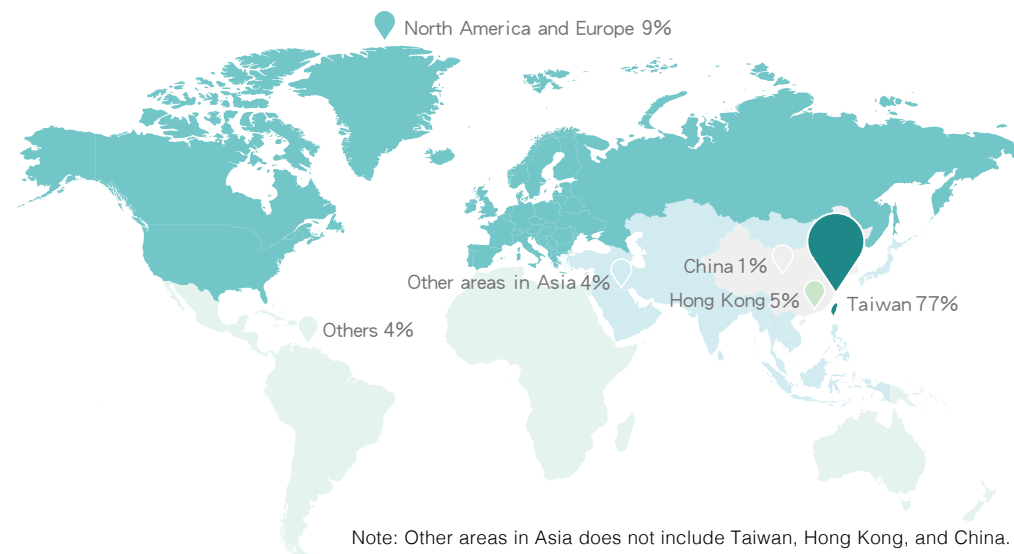
Mortgages

7%

Commercial Real Estate

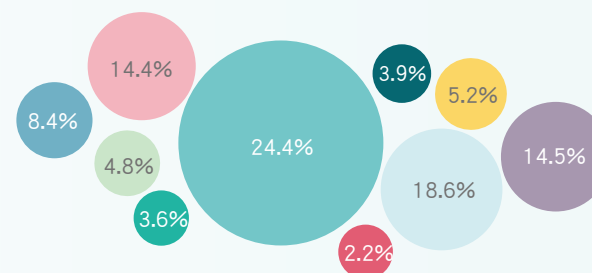
2%

Country / Region



Sector / Industry

- Finance and Sovereignty
- Metal
- Fossil Fuels and Chemistry
- Electricity and Utilities
- Wholesale and Retail Trade
- Electronics
- Transportation
- Manufacturing
- Cement and Glass
- Others



4.2 Our path to 2050 net zero

○ The latest progress
 ■ The goal by 2025
 ■ The goal by 2026
 ■ The goal by 2030

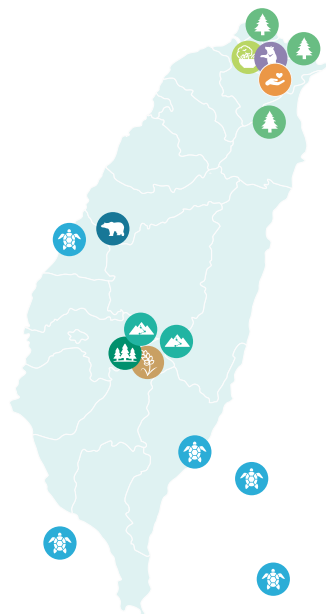
Item	Risk Factor	SBTs	Measures for reducing greenhouse gas emission
Scope 1	<ul style="list-style-type: none"> Use of company cars, refrigerant, gas and natural gas The baseline year is 2020 	Reduction percentage 	<ul style="list-style-type: none"> Installing solar panels; building solar energy facilities on 100% of our buildings by 2025; 100% of the Bank's total energy consumption will come from green energy sources by 2030. Purchasing renewable energy certificates in support of government energy policy.
Scope 2	<ul style="list-style-type: none"> Electricity for business sites and buildings The baseline year is 2020 		<ul style="list-style-type: none"> Phasing out energy-consuming equipment; substituting energy-efficient products for old energy-consuming lighting fixtures and air conditioners. Building green buildings - we aim to have 100% of our buildings certified against the Green Building certification by 2027.
Scope 3	<ul style="list-style-type: none"> Investment and financing (based on PCAF methodology) The baseline year is 2019 	(1) Power company project financing emission intensity 	<ul style="list-style-type: none"> We have committed not to financing coal-fired power generation projects from July 2019 onwards; there were no balances in this regard at the end of 2021. Accelerating the phasal withdrawal of funds from coal-related business and non-traditional fossil fuels mining activities in 2021; in principle, no new financing will be provided starting from the end of 2030. The goal is to entirely withdraw our involvement by 2035. We joined SBT in 2021, adopting a 1.5 °C -aligned science-based target for emission reduction. Helping customers reduce GHG emissions through initiatives and sustainable financial products, particularly by increasingly financing enterprises having joined SBT, and by increasing our investment and financing of which the underlying assets are green energy and green buildings. E.SUN initiated the internal carbon pricing project which will gradually incorporate carbon costs into our lending portfolio management in the future. Through integrating the carbon prices of various countries announced by World Bank periodically, we set up the internal shadow price to calculate the implicit costs of the carbon emissions that E.SUN needs to undertake from each business loan. Additionally, the ESG related loan such as sustainability-linked loan and green loan will enjoy discounted carbon cost as the reward mechanism. By adopting the carbon pricing project, we expect to enhance the consensus to carbon issues, as well as direct the internal behavior and encourage more low-carbon business.
		(2) Power company long-term financing emission intensity 	
		(3) Commercial real estate financing emission intensity 	
Scope 3	<ul style="list-style-type: none"> Others (Procurement procedures; credit card production and disposal processes; employees' business travels; waste disposal, etc.) 	(4) Service industry long-term financing emission intensity 	<ul style="list-style-type: none"> Engaging in carbon neutralization and R&D of recycled card materials to reduce the carbon emissions of credit cards. Implementing local procurement and green procurement and engaging with our key suppliers.
		The percentage of manufacturing company borrows that passed the SBTs 	
Scope 3	<ul style="list-style-type: none"> Others (Procurement procedures; credit card production and disposal processes; employees' business travels; waste disposal, etc.) 	The percentage of investee companies that passed the SBTs 	<ul style="list-style-type: none"> Engaging in carbon neutralization and R&D of recycled card materials to reduce the carbon emissions of credit cards. Implementing local procurement and green procurement and engaging with our key suppliers.

Note 1: (1)(2) carbon intensity (t-CO₂e/MWh) reduction

Note 2: (3)(4) carbon intensity (t-CO₂e/m²) reduction

4.3 The summary of Environmental Sustainability practices

E.SUN supports global conventions on biological diversity. To promote sustainable ecological development and fulfill the United Nation's sustainable development goals (SDG 13 Climate Action, SDG 14 Life Below Water, and SDG 15 Life on Land), E.SUN's sustainable ecological development strategy comprises three focuses: species conservation, habitat conservation, and environmental sustainability. E.SUN believes that actions must start from home, and takes the initiative to respond to environmental sustainability initiatives worldwide and nationwide. We make good use of our corporate influence to call upon employees, customers and suppliers to implement environmental protection through actions for a beautiful Taiwan and a sustainable Earth.



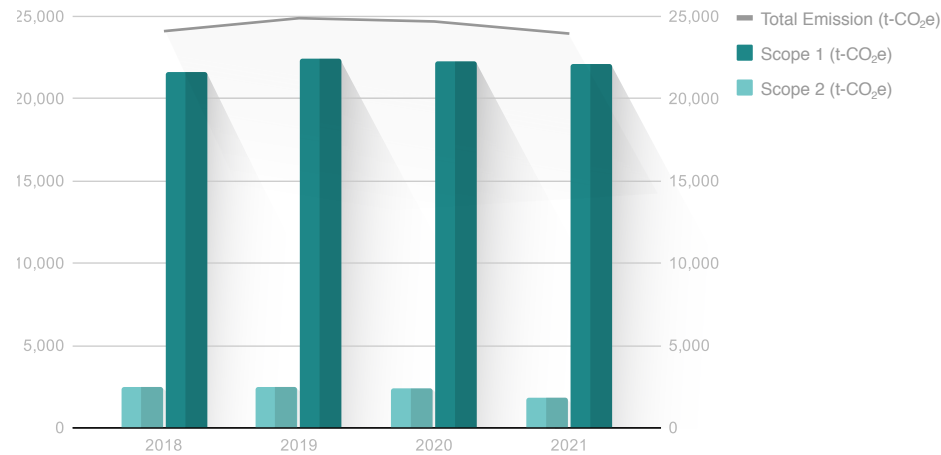
	Habitat Conservation	Environmental Sustainability	Species Conservation	Climate Change
「Earth Hour」 have been executed for consecutive 9 years				
「Cherish and Reuse resources」 total collected 7,276 donated materials				
「E.SUN Vegetables Day」 reduced carbon emissions by roughly 49.48 tons CO ₂ e				
「Sea Turtle Conservation Project」				
「Black Bear Affinity Card」				
「Polar Bear Environmental Education Project」				
「Yushan National Park Trail Project」 have maintained for 13 consecutive years				
「Plant a tree, Plant a life」 planted over 30,000 saplings of native tree species				
「Beautiful Taiwan, Smiling E.SUN」 already held 149 beach clean-up activities and counting				
「Ten years to grow trees, but a hundred to rear people」 E.SUN-NTU ESG Centenary Project				
「The millet restorationl project」				

Sustainable Operating Environment

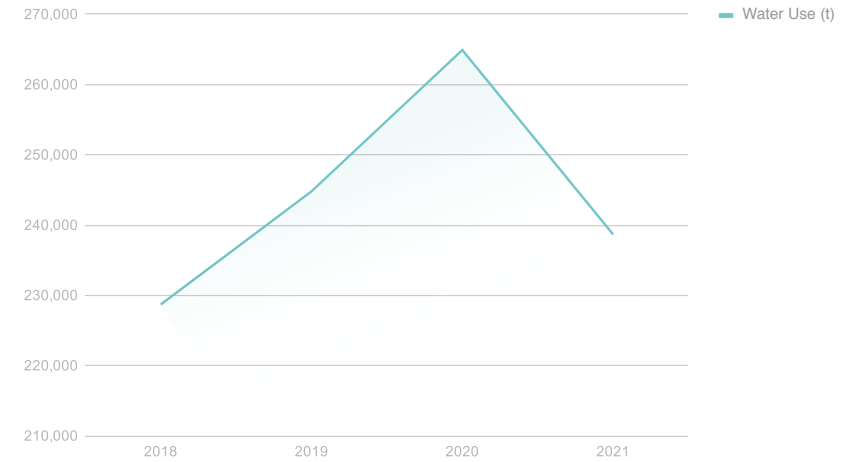
Disasters caused by climate change are devastating the world, as a result, to control the rising temperatures has now become an important international issue. E.SUN established specific goals, practices, and plans in terms of environmental protection and energy conservation through Environmental Sustainability under the Sustainable Development Committee, conducting regular reviews and delivering regular reports to the executives, and actively promoted energy conservation and carbon reduction programs to reduce greenhouse gas emissions caused by energy use. We promoted environmental education, established a culture of environmental protection and energy conservation, and implemented environmental protection and energy conservation measures, taking steps towards a sustainable operating environment. To achieve the 2050 target of the net-zero bank, E.SUN is diligently creating a sustainable operating environment by establishing carbon, water usage, and waste reduction targets, performing annual third-party verification to check compliance.

Facing the government's 2050 zero-carbon emission challenge, E.SUN declared that it will use 100% renewable energy by 2030, increasing the percentage of renewable energy by 10% each year to reach the goal gradually. Besides building solar power equipments, E.SUN started to plan the procurement of renewable energy in early 2020, and the first green energy wheeling project was completed in 2021. E. SUN will have completed four renewable energy wheeling by 2022. And we already purchased 10.85 million KWh of renewable energy electricity, which is equivalent to 24.7 percent of the bank's electricity use. and the electricity of actual green energy wheeling has reached 4.1 million kWh. We will continue to cooperate with electricity suppliers to purchase renewable energy electricity with a high degree of matching with the Bank's electricity consumption mode to achieve RE100 on all domestic bases by 2030.

2018~2021 GHG Emission

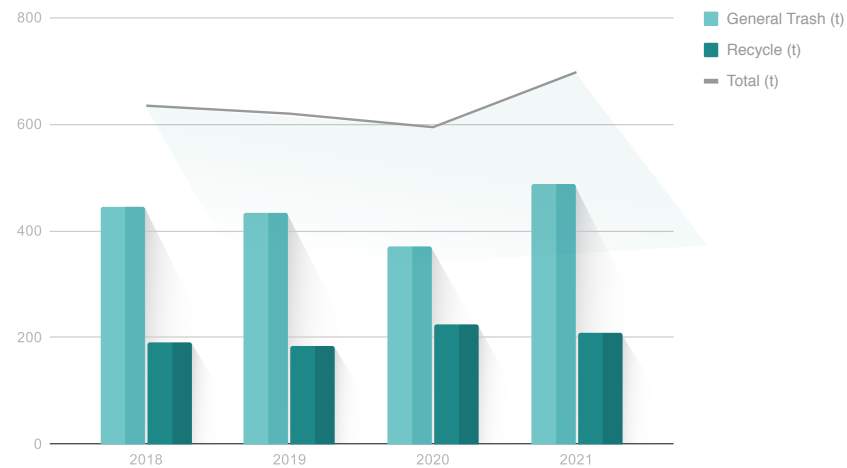


2018~2022.06 Water Use



Note: Set a benchmark in 2016, and targeted to reduce water consumption by revenue by 25% in 2025.

2018~2022.06 Amount of waste



Note: The increase in the amount of waste in 2021 is that the epidemic has affected living habits, so the proportion of food delivery and takeaway has increased significantly. Set a benchmark in 2016 and targeted to reduce waste by revenue by 25% in 2025.

CH5 Conclusion

Building a Net-zero, Nature-positive Future

This is E.SUN's first climate and environment report. We presents E.SUN's management performance and implementation of strategies, risk management, metrics, and goals related to climate and the natural environment according to disclosure recommendations of the TCFD and TNFD.

In the current global economic recession, energy crisis, and political turmoil, people are gradually becoming aware that global risks are closely related to everyone. Due to the frequent extreme weather events and with consideration to the natural resources of each region, if climate action fails or natural resources are impaired, no matter of EPS or assets accumulated by a company will have any meaning. Hence, achieving net zero emissions and natural positive have become the most important missions in this era. The ideal vision of sustainable development not only involves actions by companies and individuals, with international consensus, government policies, and market mechanisms, we believe

that the vision will be gradually converted into realizable actions and paths, from a moral cause to institutional support. Climate change and natural environment are not issues for specific individuals, nor are they the challenge of a single generation, but rather a task that requires cooperation across all generations. This is an unprecedented transition that requires extensive, long-term, international, cross-organization, and cross-industry cooperation. In 2022, E.SUN collaborated with 101 outstanding enterprises in Taiwan to advocate for ESG and sustainability actions, ringing the bells of hope for Taiwan's sustainability and future. We truly believe that ESG is not a zero-sum game, but mutual prosperity. This is a never ending journey. E.SUN will continue to create a positive impact through finance, and work together with partners in protecting our beautiful homeland that we deeply love. This is what we all hope for and a commitment that we will always uphold.



Appendix 1、TCFD Disclosure Recommendations

Supporting Recommended Disclosures		Chapter
Governance	Describe the board's oversight of climate-related risks and opportunities.	1.1
	Describe management's role in assessing and managing climate-related risks and opportunities.	1.1 , 1.2
Strategy	Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.	2.1 , 2.2 , 3.1
	Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.	2.3 , 2.4 , 3.2
	Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2 °C or lower scenario.	3.5
Risk Management	Describe the organization's processes for identifying and assessing climate-related risks.	3.1 , 3.2
	Describe the organization's processes for managing climate-related risks.	3.3 , 3.4
	Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.	3.4 , 3.6
Metrics & Targets	Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process	2.3 , 2.4 , 3.4 , 3.6 , 4.1
	Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks	3.6 , 4.1 , 4.2
	Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.	2.3 , 2.4 , 3.6 , 4.2 , 4.3

Appendix 2 、 TNFD Disclosure Recommendations

(06/2022 v.02)

Supporting Recommended Disclosures		Chapter
Governance	Describe the board's oversight of nature-related dependencies, impacts, risks and opportunities.	1.1
	Describe management's role in assessing and managing nature-related dependencies, impacts, risks and opportunities.	1.1 , 1.2
Strategy	Describe the nature-related dependencies, impacts, risks and opportunities the organisation has identified over the short, medium, and long term.	2.1 , 2.2 , 3.1
	Describe the impact of nature-related risks and opportunities on the organisation's businesses, strategy and financial planning.	2.3 , 2.4 , 3.2
	Describe the resilience of the organisation's strategy, taking into consideration different scenarios.	2.1 , 2.2 , 3.1 , 3.2
	Describe the organisation's interactions with low integrity ecosystems, high importance ecosystems or areas of water stress.	3.4 , 3.6
Risk Management	Describe the organization's processes for identifying and assessing climate-related risks.	3.1 , 3.2
	Describe the organization's processes for managing climate-related risks.	3.3 , 3.4
	Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.	3.4 , 3.6
Metrics & Target	Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process	2.3 , 2.4 , 3.4 , 3.6 , 4.1
	Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks	3.6 , 4.1 , 4.2
	Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.	2.3 , 2.4 , 3.6 , 4.2 , 4.3

Appendix 3 、Financed Emissions

Asset class	Financed Emissions (t-CO ₂ e)	Carbon Footprint (t-CO ₂ e/\$M revenue)	WACI (t-CO ₂ e/\$M revenue)
Listed Equity and Corporate Bonds	1,555,710	91.16	380.41
Business Loans	2,006,483	74.20	107.56
Power generation project financing	300,799	605.98	
Commercial Real Estate	91,898	40.51	
Mortgages	289,741	10.32	-
Total	4,244,631	56.64	206.91

Country/Region	Financed Emissions (t-CO ₂ e)	Carbon Footprint (t-CO ₂ e/\$M revenue)	WACI (t-CO ₂ e/\$M revenue)
Taiwan	3,299,535	58.67	233.19
Hong Kong	207,604	100.69	760.61
China	35,892	45.90	50.70
Other areas in Asia	160,975	37.74	158.23
North America and Europe	373,679	45.85	49.39
Others	166,945	48.50	128.86
Total	4,244,631	56.64	206.91

Sector/Industry	Financed Emissions (t-CO ₂ e)	Carbon Footprint (t-CO ₂ e/\$M revenue)	WACI (t-CO ₂ e/\$M revenue)
Finance and Sovereignty	963,565	56.56	117.29
Electricity and Utilities	736,950	512.98	1,824.62
Manufacturing	574,847	86.28	118.41
Wholesale and Retail trade	569,331	105.59	99.88
Fossil Fuels and Chemistry	333,805	179.20	619.27
Electronics	205,272	46.00	133.28
Others	189,468	24.09	50.95
Transportation	154,802	99.33	320.50
Metal	140,893	348.51	712.97
Cement and Glass	85,957	453.42	4,295.32
Total	3,954,890	84.38	206.91

Note 1: Calculation of WACI does not include personal housing mortgage loans

Note 2: Weighted average carbon intensity (WACI)

$$WACI = \sum_i \left(\frac{\text{current value of investment}_i}{\text{current portfolio value}} * \frac{\text{issuer's Scope 1 and Scope 2 GHG emissions}_i}{\text{issuer's \$M revenue}_i} \right)$$



心清如玉。 義重如山。