

# 2024 Climate and Nature Report



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# About this Report

We are pleased to present the fourth Climate and Nature Report of E.SUN Financial Holding Company (hereinafter E.SUN FHC or E.SUN). E.SUN has long been committed to advancing climate action and environmental stewardship. This report is prepared in accordance with the Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) and the Recommendations of the Taskforce on Nature-related Financial Disclosures (TNFD).

To enhance transparency and rigor in our disclosures, E.SUN engaged the third-party organization BSI to verify compliance with both TCFD and TNFD frameworks, ensuring alignment with international standards. Through open and transparent reporting, E.SUN aims to foster mutual learning and growth with society, while continuing to drive sustainable development.

Climate change and nature degradation are unavoidable global challenges of the 21st century. They not only increase the frequency of extreme weather events but also pose significant threats to biodiversity, natural capital, and ecosystems that sustain human life. Driven by a deep care for our land, E.SUN adopted the TNFD framework to assess the potential impacts of our operations and value chain on nature, as well as the risks and opportunities arising from environmental changes. This assessment follows the TNFD's four pillars: Dependency, Impact, Risk, and Opportunity. The report incorporates the TNFD's LEAP approach (Locate, Evaluate, Assess, and Prepare) to evaluate 51 operational characteristics and geospatial indicators across the value chain. It examines short-, medium-, and long-term impacts on E.SUN's business.

Due to limitations in data availability and precision, most datasets produced by public and private sectors are intended for academic research, disaster prevention, or policy-making, and may not fully align with corporate use cases. E.SUN has conducted extensive data collection and selected the most granular and relevant datasets and indicators available to reduce uncertainty and generate insights that support informed decision-making.

## Reporting Period

The report is published annually since 2022. The information disclosure period for this report is for the fiscal year 2024 (from January 1, 2024, to December 31, 2024), covering governance, strategy, risk management, and metrics and targets. In order to present a more comprehensive picture of various projects and campaigns undertaken by E.SUN FHC, the report also discloses activities that occurred prior to January 1, 2024, and after December 31, 2024. The previous version of this report was published in December 2024.

## Scope of the Report

The scope of this disclosure focuses on the operating activities and services of E.SUN Financial Holding Co., Ltd. (E.SUN FHC) and its subsidiaries (E.SUN Bank, E.SUN Securities, E.SUN Venture Capital, and E.SUN Investment Consulting) in Taiwan, which accounts for 99.8% of E.SUN FHC's net revenue (excluding E.SUN Bank's subsidiary, Bank Pro). All financial figures are calculated in New Taiwan Dollars, with relevant statistical data based on internationally accepted standard metrics, including the performance of certain overseas branches. Environmental protection projects related to water usage, electricity consumption, and fuel usage are disclosed for E.SUN's Taipei Headquarters Building, Second Headquarters Building, Summit Campus, Hope Campus, Technology Building, Boai Building, as well as overseas and domestic branches and subsidiaries. Any special meanings pertaining to the above quantitative indicators are explained in separate footnotes.

## Reporting Framework

TNFD	Recommendations of the Taskforce on Nature-related Financial Disclosures
TCFD	Recommendations of the Task Force on Climate-related Financial Disclosures

## Standard of Information

Data Category	Standard and Reference	Certification/Assurance Organization
Sustainability Data	Recommendations of the Taskforce on Nature-related Financial Disclosures	BSI Taiwan
	Recommendations of the Task Force on Climate-related Financial Disclosures	
Financial Data	Annual Financial Report	Deloitte
Financial Data	ISO 14064-1: 2018 Greenhouse Gas Inventory	SGS Taiwan
	ISO 14046: 2014 Organizational Water Inventory	
Financial Data	Statement of Assurance Engagements Standards 3410 Case of Assurance on Greenhouse Gas Statement (Scope 3 Investment and Financing Portfolio Financial Carbon Emissions)	PwC Taiwan

**Letter from the Chairman and President**

# Caring for Our Home, Shaping Tomorrow

Rooted in Taiwan and looking toward Asia, E.SUN embraces the philosophy of “Revere heaven; Love people.” We combine financial expertise with strategic partnerships to advance climate and nature initiatives that showcase Taiwan’s values globally.



## Moving Forward with Determination

Amid global uncertainty, supply chain shifts, and rapid digital and AI transformation, E.SUN remains committed to sustainability. Climate and nature challenges demand collective action across sectors, and we strive to create synergy.

As the second chair of the Movers and Shakers on Sustainable Finance, E.SUN bridges policy and practice. In 2024, we promoted key dialogues on greenwashing prevention, ESCO support, and the Green and Transition Finance Action Plan, mobilizing capital toward sustainable infrastructure and low-carbon technologies for a credible net-zero pathway.

Since 2021, the E.SUN ESG Sustainable Advocacy Action has linked climate awareness, carbon-

reduction targets, and transformation platforms with integrated solutions. In 2025, we sharpen our focus on talent and technology, engaging nearly 200 partners across enterprise, healthcare, and AI sectors. International scholars from the U.S., Japan, Australia, Singapore, and ASEAN share insights to accelerate sustainable transformation and strengthen Taiwan’s competitiveness. Our belief is clear, technology drives progress, talent expands reach, and together they enable continuous innovation for a sustainable future.

## Greening Finance, Driving Transition

Climate change is both risk and opportunity—an opportunity to upgrade industries and embed climate considerations into every operation. Beyond our own commitments, we leverage financial strength to support enterprise transformation at scale.

We have cut Scope 1 and 2 emissions by 48.6%, ahead of our 2030 target, and aim for 100% green-building standards by 2027 (currently at 77%). In 2024, we launched a Financed Emissions Management System, automating financed emissions accounting, and introduced a Low-Carbon Transition Plan using a 7-indicator framework to classify assets and guide financial support for transitioning industries.

Our Sustainable Transition Platform now includes 21 net-zero professionals serving eight domains. Over two years, we have matched 80+ enterprises with consultants and signed MOUs with 18 medical institutions to advance environmental and social initiatives in healthcare.

## Protecting Nature, Building Resilience

Biodiversity is central to resilience. We collaborate across sectors to promote nature-based solutions and nature-positive growth.

Since 2022, the E.SUN-NTU EG Centenary Project has planted over 40,000 native trees in the E.SUN mountain range and supported research on biocredit methodologies for global standards. We expand biodiversity finance through initiatives such as our “Farm to Table Sustainable Food Value Chain” program, linking producers and consumers to promote sustainable agriculture.

Recently, E.SUN and CPC Corporation launched an OECM-linked loan tied to species conservation and habitat maintenance, supporting Taiwan’s Conservation Symbiosis Certification and advancing UN “30 x 30” goals.

Sustainable development is a continuous journey. E.SUN will keep embedding climate and nature considerations into financial services, catalyzing low-carbon transformation and nature-positive growth. By aligning purpose, technology, and talent, we aim to lead with integrity, deliver lasting value, and shape a future of net-zero, resilience, and shared prosperity. We are confident that by aligning purpose, technology, and talent, we will lead with integrity, deliver durable value for our stakeholders, and shape a future of net-zero, resilience, and shared prosperity.

Chairman



President



## Targets and Achievements

Targets
2050 Net-zero emissions following the 1.5°C decarbonization pathway
2040 100% renewable energy use at all domestic and overseas operating sites
2030 42% reduction in operational carbon emissions (baseline year: 2020)
2030 NT\$130 billion in outstanding green credit balance
2030 Sustainability-linked loans accounting for 13% of total corporate credit balance
2030 NT\$55 billion in outstanding sustainable bond investments
2027 100% of domestic owned buildings obtaining green building certification

Select 2024 Achievements
Green credit balance: NT\$107.2 billion
Sustainability-linked loan balance: NT\$76.8 billion
Sustainable bond investment balance: NT\$43 billion
Scope 1 and 2 emissions reduced by 48.6%, achieving the 2030 target of 42% ahead of schedule (baseline year: 2020)
Selected for the DJSI for 11 consecutive years
Received MSCI ESG Ratings AAA for 3 consecutive years
Achieved Leadership Level in the CDP assessment

# Climate and Nature Action Milestones

E.SUN adheres to the TNFD disclosure framework, which encompasses four major areas: Governance, Strategy, Risk and Impact Management, and Metrics and Targets. We have established a vision of achieving nature-positive growth by 2030 and the goal of reaching net zero by 2050. Through scientific methodologies and comprehensive risk management, we are committed to achieving net-zero emissions and fostering a nature-positive future.

## Climate and Environment Initiatives

<b>Climate and Environment Actions</b>	<b>2014</b>	The first financial institution in Taiwan included in DJSI
	<b>2015</b>	Adopted the Equator Principles
	<b>2017</b>	Became TCFD signatory
	<b>2019</b>	<ul style="list-style-type: none"> <li>Quantified transition risk of fossil fuel industry</li> <li>Stopped providing project financing to coal-fired power plants</li> <li>Issued Carbon Label credit cards</li> </ul>
	<b>2018</b>	Conducted business inventory and risk identification based on climate change
	<b>2020</b>	<ul style="list-style-type: none"> <li>Expanded measurement of the impact of high climate risk industries</li> <li>Compiled GHG inventory for finance and investment portfolio</li> </ul>
	<b>2021</b>	<ul style="list-style-type: none"> <li>Set Net Zero by 2050 target</li> <li>Launched the first E.SUN ESG Sustainable Advocacy Action</li> </ul>
	<b>2022</b>	<ul style="list-style-type: none"> <li>Established climate and environmental risk management policy</li> <li>Published our first Climate and Environmental Report</li> </ul>
	<b>2023</b>	<ul style="list-style-type: none"> <li>Appointed as convener of the "Financial Industry Net Zero Working Platform - Policy and Guideline Working Group", completed financed emissions and target setting guidelines</li> <li>Established our sustainable finance policy</li> </ul>
	<b>2024</b>	<ul style="list-style-type: none"> <li>Developed financed emissions management system, providing automated Scope 3 emissions management</li> <li>Appointed as the second Chair of the CMS</li> <li>Published our "Climate and Nature Report", the first to receive highest level TNFD conformity, "Level 5: Excellence", from BSI Taiwan</li> </ul>
	<b>2025</b>	<ul style="list-style-type: none"> <li>Executed Taiwan's first Other Effective Area-Based Conservation Measures (OECM) linked loan</li> <li>Hosted the "Asia Transition Finance Forum"</li> <li>Held the ESG Sustainable Advocacy Action for the fifth consecutive year</li> </ul>

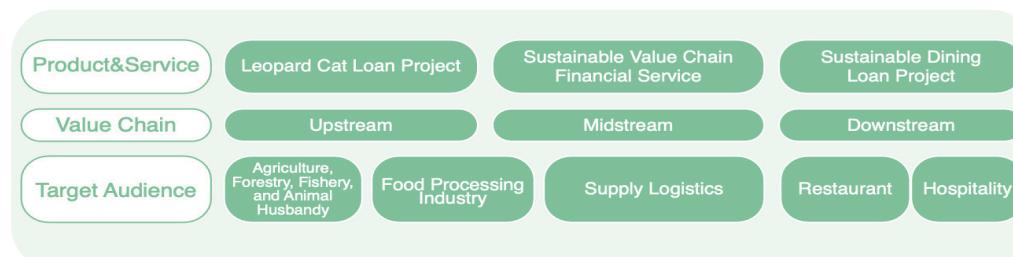
# Farm to Table Sustainable Food Value Chain Financial Service

## Creating Positive Impacts for Nature

The E.SUN Malavi Project started with protecting the first plot of farmland at the foot of Yushan Mountain. By supporting farmers in transitioning to organic agriculture, it promotes local industry, preserves indigenous culture, and strengthens community resilience. After a decade, E.SUN deepened sustainability and finance integration by forming a "Sustainable Golden Triangle" with government agencies, industry consultants, and operators. This collaboration coordinates funding, advisory, and promotion to advance sustainable agri-food development.

Through interviews with upstream, midstream, and downstream operators in the Farm to Table value chain, E.SUN gained deep insights into the transition challenges and financial needs. Most operators indicated that during the transformation process, they often require capital support to cover related costs, as well as ongoing financial support for daily operations to expand capacity. To address these needs, E.SUN provides exclusive financial solutions at the production end, encouraging farmers to adopt environmentally friendly farming practices and offering advisory resources to help them obtain sustainable agriculture certifications. On the consumption side, E.SUN offers sustainable financial services to support restaurants in sourcing eco-friendly ingredients. For logistics, E.SUN assists organic logistics providers in building digital platforms that integrate information and payment flows, linking production and consumption to promote sustainable transformation across the value chain.

E.SUN's "Farm to Table Financial Services" initiative has so far supported 272 hectares of eco-friendly farmland, creating positive impacts from Malavi fields in Hualien to across Taiwan. This project has been recognized with three major awards this year: the Agriculture and Food Agency's 'Outstanding Contribution to Agricultural Product Marketing Award,' the Global Views ESG Corporate Sustainability Award – First Prize in the



E.SUN integrates advisory, funding, and promotional services, providing financial solutions across the upstream, midstream, and downstream segments of the sustainable food value chain.

Environmentally Friendly Category, and the 2025 Taiwan Biodiversity Award – Gold Prize.

In terms of transition support, E.SUN partners with the Agriculture and Food Agency and the Corporate Synergy Development Center to co-host 'Traceable Agricultural Products(TAP) Certification Guidance Workshops,' explaining the TAP certification process and E.SUN's exclusive financial project, and inviting certified operators to share experiences to encourage broader adoption.

E.SUN also serves as a consulting advisor to the Agency of Rural Development & Soil and Water Conservation, helping 131 agricultural product operators identify financial risks and build strong credit profiles. For marketing and promotion, E.SUN leverages government resources invite clients of the loan project to participate in the Agricultural and Food Agency's market activities and promotes these initiatives via Coalition of Movers and Shakers on Sustainable Finance social media channels. This boosts operator visibility and encouraging the public to embrace sustainable living through everyday food choices. Internally, E.SUN organized Regional Revitalization Fairs and Green Family Day markets, featuring environmentally friendly products, and inviting the leopard cat mascot 'A-Hu' from the Ministry of Agriculture to join the event. These activities attracted more than 500 employees, generating total purchases of over NT\$1 million, and enabling employees to learn about eco-friendly farming, leopard cat conservation, and biodiversity through everyday food practices.

As a pioneer in sustainable finance, E.SUN will continue to align with global trends, develop forward-looking sustainability strategies, and integrate internal and external resources with partners. Through innovative financial models, E.SUN aims to lead proactive actions to protect biodiversity and achieve the vision of "Living in Harmony with Nature."



E.SUN invited clients to join Agricultural and Food Agency events to promote sustainable brands.



E.SUN helps operators identify financial risks in their operations and supports them in building a strong credit profile.



# From Commitment to Action: E.SUN's Journey to COP30 in Brazil

The 30th United Nations Climate Change Conference (COP30) was held in Belém, the gateway to the Amazon rainforest, from November 10–21, 2025. This year marks E.SUN's team fourth consecutive attendance at COP. With a sharp focus on "Climate Finance" and "Nature-based Solutions", the conference underscored the financial sector's role as a crucial enabler of industrial transformation. Financial institutions are urged to actively deploy capital to facilitate the transition of high-emitting industries while safeguarding critical ecosystems.

## Championing Nature-Based Solutions and Community Co-Prosperity

E.SUN FHC Chairman Joseph N.C. Huang, delivered the opening keynote at the World Climate Summit (WCS) titled, "Reimagining Climate Action: Weaving a Web of Sustainability with Justice, Nature, and Community." He stressed E.SUN's commitment to transcend traditional frameworks through innovative thinking and collaboration to drive systemic change. Chairman Huang identified COP30 as a crucial moment to broaden the climate agenda beyond carbon emission data to prioritize climate adaptation and enhanced quality of life, emphasizing that recent events, such as the 2025 Hualien disaster, underscore the urgent need for timely, inclusive action that strengthens the social recovery capability of vulnerable groups. To promote climate justice and nature co-prosperity, E.SUN announced several key initiatives leveraging its financial strength, including the launch of Nature-Oriented Financial Products, such as Biodiversity and OEMC-linked loans; the signing of Sustainability Healthcare MOUs with 18 major hospitals to build a resilient medical system; and the expansion of the "Malavi Project" in Hualien, which supports organic conversion and ecological diversity by integrating the traditional agricultural wisdom of the Bunun tribe.

## Enhancing Climate Resilience and Driving Low-Carbon Transition

Louis L.Y. Chang, Chief Sustainability Officer (CSO) of E.SUN FHC, delivered a speech titled, "Building Resilience: A Holistic Financial Approach to Climate Challenges" at the WCS, detailing E.SUN's strategy for deepening climate resilience and facilitating low-carbon transition through financial mechanisms. CSO Chang outlined the dual climate challenges facing Taiwan: transition risks for Small and Medium-sized Enterprises (SMEs), which struggle with expertise, green energy sourcing, and resources under pressure from global supply chains; and physical risks from extreme weather events like typhoons and heavy rainfall. As a member of the Coalition of Movers and Shakers on Sustainable Finance (CMS), E.SUN employs Geographical Information Systems (GIS) to establish a physical risk database, thereby enhancing risk assessment. Furthermore, E.SUN has actively helped establish consistent standards for carbon reduction targets and transition loan reviews within the Taiwanese financial sector. Central to E.SUN's strategy is the newly launched "Low-Carbon Transition Plan," which is anchored by the 2050 Net-Zero goal. This plan moves beyond simply rejecting high-emitting industries by focusing on accumulating high-quality assets with advanced "Climate Alignment" (transition maturity), graded using a 1-to-7-level maturity framework benchmarked against international standards to encourage progressive corporate upgrading.

## From Climate to Nature: Serving Asia Chair of the Nature Investment Coalition

E.SUN FHC continues to expand its international collaborations by announcing a strategic partnership with the World Climate Foundation (WCF). E.SUN CSO Louis Chang and WCF Chairman Jens Nielsen jointly announced E.SUN will serve as the Asia Chair of the Nature Investment Coalition (NIC).

In this leadership role, E.SUN will dedicate its efforts to connecting regional financial institutions, industry leaders, governments, and academic resources to channel capital into natural capital investment, biodiversity conservation in Asia, and the development of bio-credit mechanisms. WCF Chairman Jens Nielsen emphasized that this partnership will significantly advance the NIC's work in Asia and bring Asia's science-based practical experience to the global stage. E.SUN is also collaborating with the National Taiwan University Experimental Forest to support the methodology development for bio-credits in Asia, thereby expanding the nature positive impact of the financial sector.

## Continuing to Advance, Co-Creating a Sustainable Future

E.SUN FHC firmly believes that "A good ESG strategy is a good enterprise developing strategy." From its commitment to Net-Zero by 2050 and the launch of the Low-Carbon Transition Plan, to serving as the Asia Chair of the Nature Investment Coalition, E.SUN will continue to integrate its core financial expertise and collaborate with stakeholders to create greater value for its customers, Taiwan, and Asia, firmly marching toward a sustainable future.



# 01 Governance

- 1.1 Our Vision for Climate and Nature
- 1.2 Governance Structure
- 1.3 Capacity Building & Internal Policies
- 1.4 ESG Sustainability Talent Cultivation

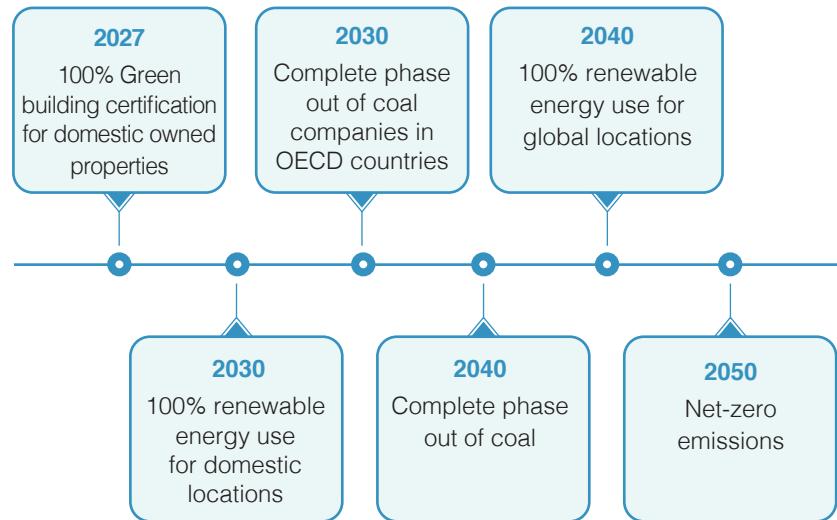


## 1.1 Our Vision for Climate and Nature

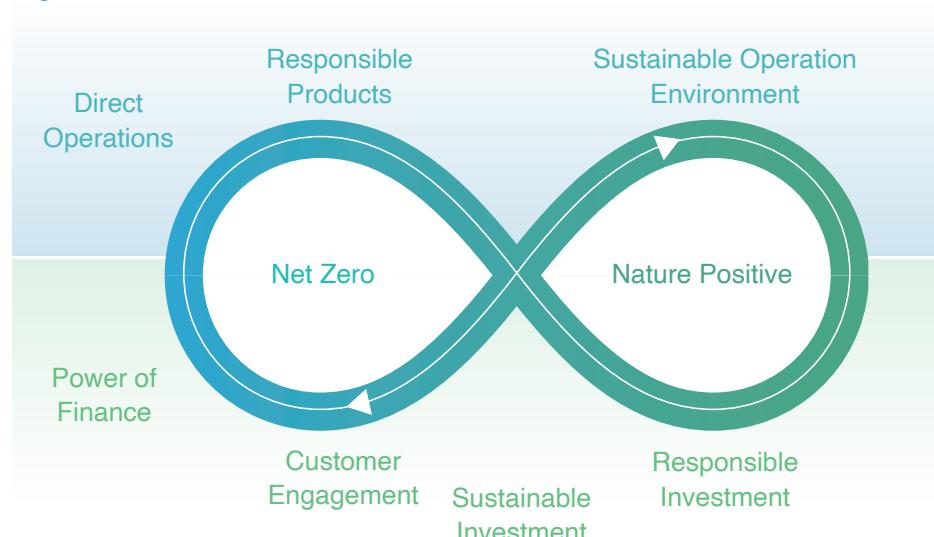
Since our founding in 1992, E.SUN has made a promise of becoming a world-class corporate citizen since its founding. We are determined to become the best-performing and most respected company. E.SUN is committed to moving towards net-zero emissions and nature positive development, aligning with the frameworks proposed by TCFD and TNFD, and taking corresponding actions internally.

### Vision

*E.SUN's employees become world-class citizens,  
E.SUN becomes a world-class corporate citizen*



### Target



### Action Plan



#### 1. Positive Impact

- Finance Transition
- Sustainable Operation
- Establish Partnerships



#### 2. Sustainable Innovation

- Develop Green Products and Services
- Cultivate Sustainable Talent
- Innovate Smart Processes



#### 3. Resilient Organization

- Align with International Best Practices
- Enhance Scenario Analysis
- Enhance Operation Resilience



## 1.2 Governance Structure

### Climate and Environment Governance Structure

E.SUN implements a top-down management mechanism, establishing a tight-knit governance structure from the Board of Directors through high-level management to executive units. The Board evaluates and supervises policies related to climate and environmental risks, while the Sustainable Development Committee is responsible for overseeing and formulating strategic directions related to sustainability. The Audit and Risk Management Committee manages and measures the associated risks. High-level management is closely linked to sustainability performance, and executive units carry out actions and risk management to ensure that targets are achieved. Regular and ad-hoc reports are made to management to maintain transparency in strategy execution.

**E.SUN FHC Climate & Environment Governance Structure**

```

graph TD
    subgraph BD [Board of Directors and Functional Committees]
        CC[Convenor Chairman  
Sustainable Development Committee]
        ID[Convenor Independent Director  
Audit and Risk Management Committee]
    end
    BD --- BD
    BD --- CEO[Chief Executive Officer (President)]
    CEO --- CSO[Chief Sustainability Officer]
    CEO --- CRO[Chief Risk Officer]
    CSO --- DST[Dedicated Sustainability Teams]
    CRO --- RMD[Risk Management Division]
  
```

Organization	Chair/Convener	Members	Reporting / Meeting Frequency	Overview of Responsibilities
Board of Directors	Chairman	12 directors, including 5 independent directors	Quarterly	<ul style="list-style-type: none"> <li>Approve climate-related and environmental risk management policy, major decision making, and supervision of climate risk.</li> <li>Approve action plans and ensuring effective operation of climate-related and environmental risk management.</li> </ul>
Sustainable Development Committee	Chairman	5 directors, including 3 independent directors	At least twice annually, with reports submitted to the Board	Guide and supervise climate management policies, formulate annual plans and strategic direction, track and review the effectiveness of project and activity plans.
Audit and Risk Management Committee	Independent Director	5 directors, all members are independent directors	At least once per quarter	In charge of risk management, risk measurement, risk supervision, deliberating on risk management and execution, tracking compliance with risk management policies, and promoting risk management culture.

Management	Overview of Responsibilities	Oversight Organization	Reporting / Meeting Frequency	Management of Climate and Environment Issues
President (CEO)	Serves as the convener of the CMS, develops long-term leading strategies, establishing E.SUN as the premier brand for sustainable development.	- Dedicated Sustainability Teams - Risk Management Division	Participate in regular sustainability unit meetings semi-annually and attend CMS and related working group meetings at least once per quarter.	<ul style="list-style-type: none"> <li>· Achievement status of CMS commitments</li> <li>· Performance in international ESG assessments and progress toward ESG targets</li> </ul>
CSO	Outline sustainable development strategies, oversee the progress of various projects and goals by dedicated sustainability units. Ensure overall sustainable development compliance with laws and regulations and further managing long-term risks.	Dedicated Sustainability Teams	Regular meetings every two months, with consistent reporting to the Chairman and senior management	<ul style="list-style-type: none"> <li>· Measure the impacts of physical risks and transition risks on the business and further developing management mechanisms for mitigation and adaptation.</li> <li>· Manage opportunities for the transition to a net-zero economy and develop financial products to meet.</li> </ul>
CRO	Integrate planning for risk management, supervise the promotion and execution of risk management related work, and handle overall risk-bearing capacity and risk status.	Risk Management Division	Submit climate and environmental risk reports to the Board of Directors at least semi-annually.	<ul style="list-style-type: none"> <li>· Plan and implement climate risk management mechanisms, evaluate and consolidate climate risk management information, and report to the board of directors.</li> <li>· Assist in the development of data, methodologies, and management tools to effectively identify and assess climate risks for relevant units.</li> </ul>

### Sustainable Development Committee

The “E.SUN FHC Sustainable Development Best Practice Principles,” approved by the Board, serve as the Company’s highest ESG guideline. The Board established a Sustainable Development Committee as the top governing body for sustainability, chaired by the Chairman and composed entirely of directors, including three independent directors. Per its charter, the committee meets at least twice annually, with quarterly meetings planned for 2024. Since 2022, E.SUN has appointed a Chief Sustainability Officer, and the committee delegates tasks to the Sustainability Executive Committee, which coordinates across departments.

In 2024, ESG topics appeared on five of nine Board meeting agendas, covering: (1) Sustainability performance; (2) Employee feedback; (3) Sustainability reporting; (4) Related policies and regulations; (5) Financed carbon emissions management; (6) IFRS sustainability disclosure plans; (7) Material topic identification; and (8) Promotion plans. The Board actively reviews progress, raises questions, and recommends adjustments to ensure timely implementation.

## Audit and Risk Management Committee

To strengthen Board-level risk governance, E.SUN established the Board Risk Management Committee, which held five meetings in 2024 (Jan 17, Mar 13, May 8, Aug 14, Nov 6). Its responsibilities include executing Board risk decisions, reviewing policies and implementation, overseeing risk management mechanisms, and examining reports, risk appetite, and limits. To enhance efficiency, the Board approved merging this committee into the Audit Committee on June 23, 2025, forming the “Audit and Risk Management Committee,” composed entirely of independent directors. The Risk Management Department enforces Board-approved policies and frameworks, ensuring independent and effective controls. It assesses overall risk capacity, monitors current exposures, develops response strategies, and reports regularly to the Board and committee. Business units identify and manage risks tied to their products and processes, set risk appetite limits, and evaluate major issues to establish management policies and sustainable objectives. To reinforce the three lines of defense in risk, compliance, and information security, E.SUN Bank has implemented internal guidelines to promote knowledge sharing and coordination.

## Climate and Environment Performance Remuneration

Management Topics	Key Performance Indicator (KPI)	Management link	Compensation
Climate Change Response	<ul style="list-style-type: none"> <li>Implementation of IFRS S2</li> <li>CDP performance</li> <li>Achievement status of carbon reduction targets</li> <li>Establishment of financial carbon inventory management system for investment and financing</li> </ul>	Chief Sustainability Officer	30%
		Chief Risk Officer	10%
	Review the proportion of renewable energy usage based on the amount of renewable energy consumed and total electricity consumption	Head of Management Division, E.SUN Bank	30%
Nature Issues Response	Control operational environmental indicators, such as water usage, and waste management	Head of Management Division, E.SUN Bank	30%
Responsible Finance	<ul style="list-style-type: none"> <li>Green credit balance</li> <li>Sustainability-linked loan balance</li> </ul>	Executive Officer of Corporate Finance	10%
	Sustainable bond investment balance	Chief Financial Officer	15%



# 1.3 Capacity Building & Internal Policies

## 1.3.1 Policy and Culture Building

To better integrate climate and nature sustainability considerations into organizational decision-making, management, and business operations, E.SUN has established a Sustainable Development Committee at the board level and created dedicated units within each major division. Starting from the governance level, we are committed to putting E.SUN's climate and environmental culture into practice, formulating a long-term sustainability blueprint, and embedding it into our daily operations. We emphasize nurturing talent and align our development strategies to support our climate and nature vision. E.SUN supports the Universal Declaration of Human Rights and the UN Declaration on the Rights of Indigenous Peoples. Human rights issues are incorporated into our governance policies to ensure communication and participation with Indigenous peoples, local communities, and affected stakeholders, creating a just and sustainable society for the future.

### Establish a Climate & Nature Governance Culture

- Established the Sustainable Development Committee and Sustainability Executive Committee
- Established climate and environment-related policies and procedures, and regularly report on progress<sup>1</sup>
- Arrange external climate and nature education training for the Board and Senior Management annually, such as the transformation of the world economy driven by environmental challenges and sustainable finance, discussions on sustainable risk trends and response strategies, trends in sustainable development and governance, and sustainable finance management certifications<sup>2</sup>

### Cultivate Climate & Nature Finance Talent

- Collaborated with TAISE to hold the "Sustainable Finance Manager Development Program" to enhance ESG and climate-related skills, with 212 participants certified.
- Internal training programs incorporate ESG-related topics, with climate and natural risk management courses introduced in tiered training classes. Participants include managers, Hope Engineers, professionals from various departments, and new employees. Furthermore, awareness is enhanced through online courses and monthly ESG educational materials. Team members involved have obtained international certifications such as SCR, CFA ESG, CCI, ISO 14064-1,2,3, ISO 14067, and ISO 14068-1.<sup>3</sup>

### Enhance Climate & Nature Risk Assessment Ability

- Collaborate with external consultants to establish nature-related risk assessment methodologies, evaluating dependencies and impacts through quantitative and qualitative measures, and building a nature-related scenario analysis to explore financial impacts from declines in nature
- Establish an internal financed emissions management system, automating data processing according to PCAF methodology and providing real-time management capabilities

Note 1: For information on climate-related government results for the Board and senior management, please see E.SUN FHC 2024 Annual Report pg.35-43

Note 2: For information on climate-related education training for the Board and high-level management, please see E.SUN FHC 2024 Annual Report pg.73-80

Note 3: SCR\*, Sustainability and Climate Risk. CFA ESG\*, Certificate in ESG Investing

Governance Unit	No. of members with competence on nature-related issues	Total
Strategy Committee	12	12
Sustainable Development Committee	9	10
Audit and Risk Management Committee	5	5

### 1.3.2 Climate and Environment-related Policies

E.SUN FHC Climate and Nature Policies			
<b>Sustainable Development Best Practice Principles</b> To fulfill corporate social responsibility and pursue sustainable development, this policy is established in reference to the "Sustainable Development Best Practice Principles for TWSE/GTSM Listed Companies". It aims to manage the Company's economic, environmental, and social risks and impacts.	<b>Risk Management Policy and Guiding Principles</b> To keep business risks within acceptable levels, the Company applies a comprehensive risk management framework that supports strategic objectives. By embedding risk management into daily operations, we aim to balance risk and reward effectively.	<b>Human Rights Commitment</b> To uphold our commitment to human rights, the Company strictly prohibits any violations and regularly monitors global human rights trends. Through due diligence procedures, we assess related risks and impacts, aiming to mitigate adverse effects and raise awareness among all stakeholders, contributing to positive social development.	
<p style="text-align: center;"><b>Sustainable Finance Policy</b></p> <p>The Policy integrates sustainability values into financial services and risk assessments, guiding enterprises and clients to prioritize environmental protection, climate action, and human rights. This approach promotes sustainable development across business, society, and the environment.</p>			
<p style="text-align: center;"><b>Climate-Related and Environmental Risk Management Policy</b></p> <p>To assess and address risks and opportunities from climate change and environmental shifts, this policy is established in line with E.SUN Financial Holding Company's Sustainable Finance Policy and the TCFD framework, with reference to TNFD. It aims to strengthen risk management through mitigation and adaptation strategies.</p>			
<b>Sustainable Development Engagement Guidelines</b> These Guidelines, guided our Sustainable Finance Policy, drive sustainable transformation through concrete actions. Engaging stakeholders, fostering communication, and supporting initiatives that enhance long-term value and performance.	<b>Guidelines for the Phase-Out of Coal and Unconventional Oil &amp; Gas</b> E.SUN is committed to the COP26 goals by accelerating coal phase-out and ending subsidies for inefficient fossil fuels. Full divestment is targeted by 2030 for OECD-based enterprises and by 2040 for non-OECD-based enterprises.	<b>Sustainable Development Guidelines for Suppliers</b> To uphold our commitment and responsibility in supplier management, we collaborate with suppliers to achieve high ethical standards, respect labor rights, and promote environmental sustainability, working together to fulfill sustainable development goals.	<b>Human Rights Due Diligence Process</b> To fulfill our corporate social responsibility and commitment to human rights, E.SUN has established a human rights due diligence process.



### 1.3.3 Human Rights Governance and Protection

E.SUN formulated our human rights policies with due reference to laws and regulations and human rights development trends. Every year, we review the E.SUN FHC Human Rights Commitment and E.SUN FHC Human Rights Due Diligence Investigation Procedures, and work with all partners to continuously strengthen and improve the management of issues related to human rights.

#### Identify impact

1. To continuously determine the impact of various human rights issues, potential human rights issues and groups potentially at risk of human rights violation are identified by reviewing business operations, new commercial activities (e.g., consolidation and joint venture), and other related activities (e.g., social welfare events) through regular data monitoring, questionnaire surveys, and social trend analysis, etc.
2. The implementation status of suppliers in the value chain, business partners, and customers regarding human rights commitment is examined and assessed as needed. Open data of third-party investigations are used as reference for assessing human rights-related issues.
3. Periodically review direct operations, value chain, new business activities (such as mergers and acquisitions, joint ventures), and other related activities to identify groups and potential human rights issues that may face human rights risks.

#### Assess risks

For stakeholders at risk, the probability of occurrence and level of influence in relation to human rights issues and potential risks are assessed, and human rights risk matrix is established. These results are disclosed on E.SUN's website and its sustainability report.

#### Draft plans

1. Based on the probability and impact of potential risks identified in the human rights issue risk matrix analysis, regularly discuss and develop a human rights issue control plan.
2. The human rights issue control plan includes risk mitigation measures and impact compensation measures, covering all E.SUN FHC service locations in Taiwan and overseas, and related stakeholders affected by human rights issues.
3. Risk mitigation measures and impact compensation measures are implemented by the relevant units involved in the human rights issue.
4. In the event of significant human rights issues, meetings will be convened, investigations conducted, and assessments made regarding the disclosure of investigation results and response measures on public information platforms.

#### Oversee the execution process

1. Establish monitoring, tracking, and evaluation mechanisms for control measures to understand the implementation results of the human rights issue control plan, and ensure the implementation of risk mitigation measures and impact compensation measures.
2. If suppliers, partners, and customers (such as credit granting targets) violate the "E.SUN FHC Sustainable Development Best Practice Principles" and cause significant impacts on the environment and society, relevant units should evaluate the termination or cancellation of the contract.

#### Review and Improve

1. Based on the implementation results of the human-rights issue control plan, review and evaluate the assessment tools and procedures, and reexamine and adjust related measures and commitments to improve the mechanisms of the human rights due diligence process.
2. Through review and evaluation, identify other potential groups and human-rights issues not included in the assessment, in order to fulfill E.SUN's commitment and responsibility to safeguard human rights.



## 1.4 ESG Sustainability Talent Cultivation Program

### Advancing Transitional Finance

With a steadfast approach to addressing sustainability challenges, we demonstrate our commitment as a leader in sustainable development. Despite external challenges marked by climate change and global uncertainties, E.SUN remains true to its founding mission by continuously driving a dual transition in sustainability and digitalization. Grounded in data-driven support, we implement internal carbon pricing and decarbonization strategies across Scope 1, 2, and 3 emissions to achieve our net-zero targets. From commitment to execution, we advance steadily to foster sustainable transformation.

### Talent Development Strategy – Cultivating Talent Before Managing Business

Guided by our core philosophy of nurturing talent and delivering exceptional customer service, E.SUN Bank views talent as the foundation of long-term corporate sustainability. As we enter our fourth decade, we continue to cultivate well-rounded financial professionals to uphold our values and ensure leadership continuity amid rapid changes in finance and sustainability. To support this, E.SUN has built a comprehensive career development system that integrates management practices, humanities, and financial expertise. With a forward-looking approach, we are developing a robust talent pipeline equipped to meet future challenges and seize emerging opportunities. Beyond financial skills, we proactively embed sustainability, digital transformation, and AI competencies into our training programs to adapt to the evolving demands of financial management.

### 1. Digital Transformation Training Program – Comprehensive Top-Down Digital Empowerment

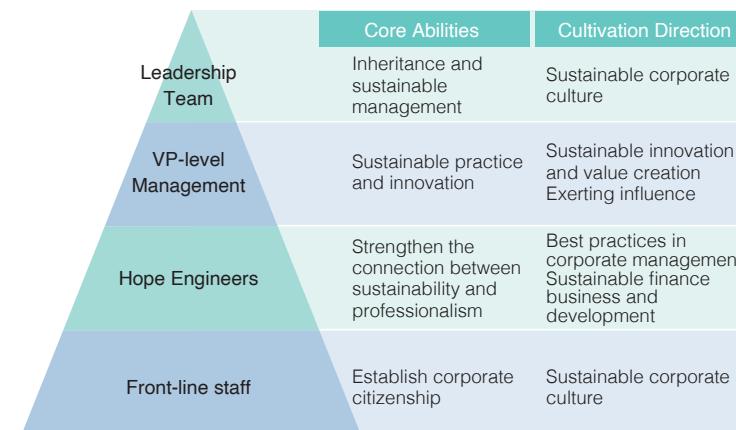
In response to the digital transformation reshaping the financial industry, E.SUN launched its Digital Transformation Training Program to strengthen organizational digital capabilities. The program promotes diverse learning formats, including RPA digital courses, to enhance employees' digital skillsets.

To embed digital thinking at the leadership level, E.SUN collaborates with the AIA Taiwan Artificial Intelligence School to offer AI Executive Management and Supervisor Training Classes, laying a strong foundation for top-down transformation. Practical mentoring and alumni exchanges further support skill application and collaborative learning. E.SUN encourages participation through certification subsidies and incentives, fostering a culture of continuous learning and enhancing overall talent competitiveness to meet the future of finance.

- 2024 sustainability-related training participants: all employees; course satisfaction rate: 95%
- 2024 completion rate for 3-hour sustainability education training: 100%

### 2. Sustainability Transformation Training Program – From Strengthening Sustainability Mindset to Developing Expert Teams

To build long-term corporate sustainability, E.SUN integrates ESG training across all levels, from frontline staff to senior executives. These programs strengthen ESG awareness and promote the integration of sustainability principles with financial expertise, creating a positive cycle between sustainable practices and business performance. Employees are also encouraged to participate in diverse volunteer activities to embody sustainable values and deepen ESG consciousness. Adopting a progressive approach, E.SUN cultivates sustainability literacy and establishes dedicated teams to steadily advance its sustainability vision.



### Sustainability Training Across Organizational Levels

- 2024 sustainability-related training participants: all employees; course satisfaction rate: 95%
- 2024 completion rate for 3-hour sustainability education training: 100%

### Domestic and International Sustainability Certifications Obtained

- Sustainability Finance Manager Certification: 212
- Basic Sustainability Development Certification: 395
- Advanced Sustainability Financial Competency Certification: 38
- Corporate Sustainability Manager Certification: 9
- Certificate in ESG Investing (CFA ESG): 4
- Sustainability and Climate Risk (SCR®) Certificate: 2

## 02 Strategy

- 2.1 Natural Capital Dependencies and Impacts
- 2.2 The LEAP Approach
- 2.3 Dependency, Impact, Risk, and Opportunity Transmissions Pathways
- 2.4 From Dependency and Impacts to Risk and Opportunities
- 2.5 Opportunity Identification and Response Strategy
- 2.6 Risk Identification and Impact Assessment

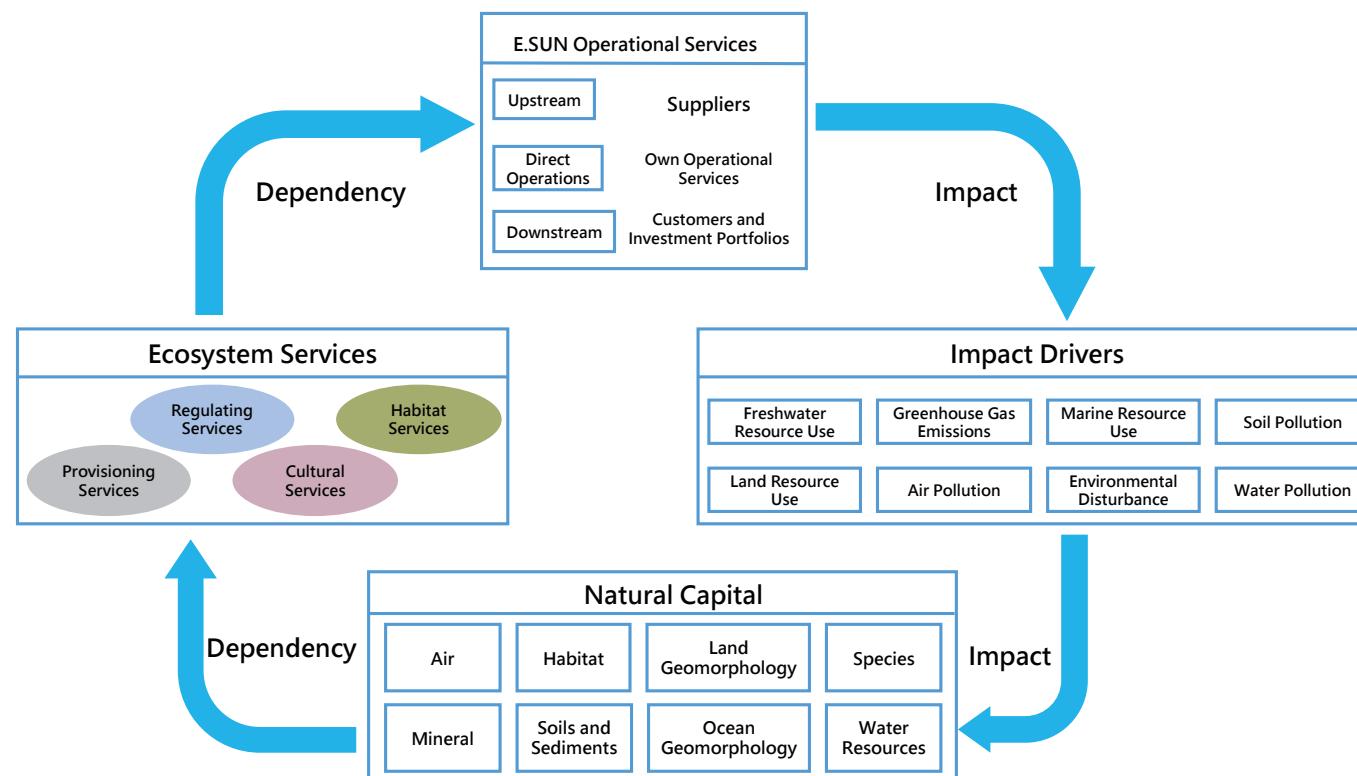




## 2.1 Dependencies and Impacts on Natural Capital

Natural capital encompasses Earth's renewable and non-renewable resources such as flora, fauna, air, water, soil, and minerals that sustain life and provide ecosystem services essential to business and society. It underpins all economic activity. According to the World Economic Forum, about USD 58 trillion roughly 55% of global GDP, depends moderately to highly on nature<sup>1</sup>. If key ecosystem services like pollination, marine resources, and forest timber are lost, global GDP could fall by USD 2.7 trillion annually by 2030, or about 2.3% of total GDP<sup>2</sup>.

As a financial institution, E.SUN's dependencies and impacts on natural capital are both direct and indirect. Direct dependencies include clean water, climate regulation, and flood prevention for operations, while extreme weather poses direct risks. Indirect dependencies and impacts occur through suppliers, customers, and investment portfolios, as industries vary in their reliance on ecosystem services. Following the TNFD LEAP approach, E.SUN uses the ENCORE<sup>3</sup> tool to assess dependencies and impacts across operations, suppliers, and portfolios, identifying priority areas and key drivers to integrate nature-related risks and opportunities into risk management and investment strategies.



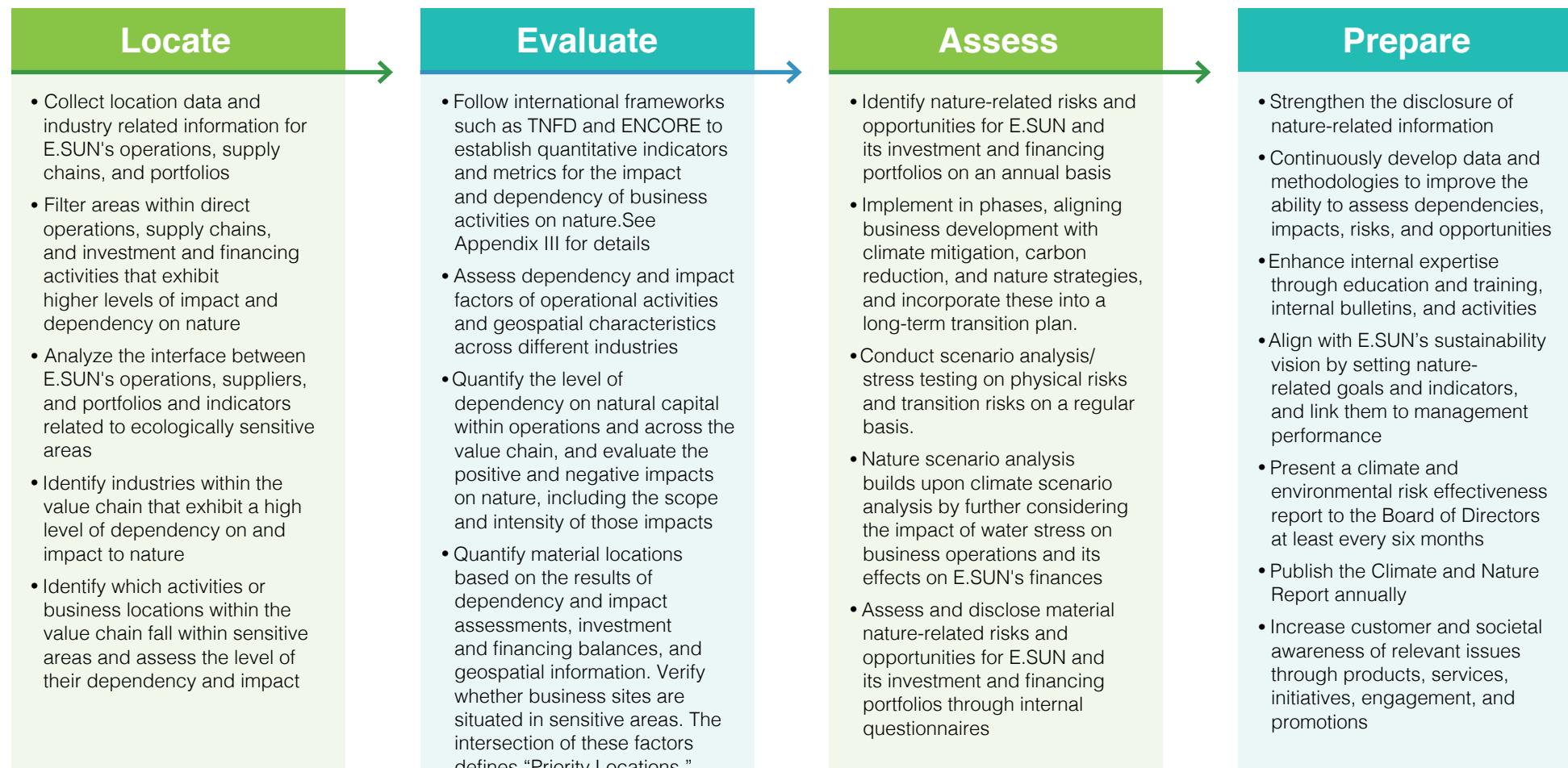
Source: 1. Managing nature risks: From understanding to action (2023), PwC 2. The Economic Case for Nature (2021), World Bank.

Note: 3. ENCORE (Exploring Natural Capital Opportunities, Risks and Exposure) is a tool developed by the UN Environment Programme World Conservation Monitoring Centre (UNEP-WCMC), the UN Environment Programme Finance Initiative (UNEP-FI), and Global Canopy. It is designed to assess business dependencies and impacts on natural capital.



## 2.2 The LEAP Approach Process

E.SUN is committed to enhancing transparency in the disclosure of nature-related financial risks and integrating nature considerations into financial and business decision-making in accordance with the LEAP framework of the TNFD. This framework consists of four phases: Locate, Evaluate, Assess, and Prepare, which are designed to comprehensively assess nature-related risks and opportunities. E.SUN utilizes the LEAP approach to systematically assess its dependencies, impacts, risks, and opportunities arising from nature, both in our value chain and in our direct operations. Based on this framework, E.SUN has designed a concrete assessment process:



## 2.2.1 Operational Scope and Business Model

Business models and value chain activities are closely linked to nature-related dependencies and impacts. In addition to focusing on the effects of carbon emissions on global climate change, companies should identify whether their operational sites and supply chains are located in or near key biodiversity areas, water-sensitive regions, or other critical locations encompassing natural capital, and ensure that business activities do not adversely affect local ecosystems.



### E.SUN Finance Ecosystem



### Overseas and Domestic Service Network

As of December 2025, E.SUN Financial Holding and its subsidiaries have established service locations across Taiwan. In terms of physical channels, this includes 139 E.SUN Bank branches and 17 E.SUN Securities branches. On the digital front, multiple channels are integrated, such as internet banking, mobile banking, the official website, customer service centers, and automated service equipment. E.SUN has 35 overseas business locations across 11 countries and regions, primarily in Asia-Pacific financial centers and ASEAN. Through a multi-point cross-border layout and integrated financial platform, E.SUN provides uninterrupted cross-border financial services to Taiwanese businesses and local customers.

Taiwan	Overseas	Virtual channel	Services and Products
<ul style="list-style-type: none"> <li>139 branches</li> <li>17 security branches</li> <li>12 corporate banking regional centers</li> <li>8 consumer banking regional centers</li> <li>1,350 ATMs</li> </ul>	<ul style="list-style-type: none"> <li>China: subsidiary E.SUN Bank (China) with 5 operating sites</li> <li>Cambodia: subsidiary UCB with 14 operating sites and 43 ATMs</li> <li>United States: Los Angeles Branch, Dallas Representative Office</li> <li>Hong Kong: Hong Kong Branch</li> <li>Singapore: Singapore Branch</li> <li>Vietnam: Dong Nai Branch, Hanoi City Representative Office, Ho Chi Minh Representative Office</li> <li>Australia: Sydney Branch, Brisbane Branch</li> <li>Myanmar: Yangon Branch</li> <li>Japan: Tokyo Branch, Fukuoka Branch, Kumamoto Subbranch</li> <li>Thailand: Bangkok Representative Office</li> <li>Malaysia: Kuala Lumpur Representative Office</li> <li>Canada: Toronto Branch (In Preparation)</li> <li>India: Mumbai Branch (In Preparation)</li> </ul>	<ul style="list-style-type: none"> <li>E.SUN e-Services, including 24-hour customer service hotline, smart customer service, Internet phone and Online visitor message board</li> <li>Personal internet banking</li> <li>E.SUN Corporate Online Banking</li> <li>E.SUN Mobile Financial Advisor</li> <li>Mobile Banking APP</li> <li>E.SUN Wallet</li> <li>WebATM</li> <li>E.SUN Securities A+ mobile services</li> </ul>	<p><b>Banking</b> Consumer financing, corporate financing, wealth management, trust services, financial products, online banking, mobile financing, and other banking services</p> <p><b>Securities</b> Brokerage, derivative financial products, credit transactions, fixed revenue products, e-commerce, and other securities services</p> <p><b>Venture Capital</b> Services provided for companies at the startup stage and expansion stage, and secondarily for companies at the mezzanine stage</p>



## 2.2.2 Identification Process for Priority Locations

E.SUN's operations and investment and financing activities are primarily located in Taiwan; therefore, the assessment prioritizes domestic areas for analysis. Recognizing that natural environmental factors are significantly influenced by geographical location, E.SUN uses Taiwan's nature-related regulations as the basis for identifying Sensitive Locations, defines Material Locations as those within the value chain that exhibit substantial nature-related dependencies and impacts, and determines Priority Locations as the intersection of these factors.

Reference external sources	Process for Materiality Rating and Sensitive Location Assessment	Indicators Adopted for Enhanced Nature Assessment
<p><b>International data sources</b></p> <ul style="list-style-type: none"> <li>•TNFD</li> <li>•PBAF</li> <li>•ENCORE</li> <li>•SBTN</li> </ul> <p><b>Public corporate disclosures</b></p> <ul style="list-style-type: none"> <li>•Market Observation Post System</li> <li>•Sustainability reports</li> </ul> <p><b>Government data platforms</b></p> <ul style="list-style-type: none"> <li>•Open Data platform</li> <li>•Nature Conservation network</li> <li>•National Spatial Planning data</li> <li>•Geological Survey and Mining Management Agency, Ministry of Economic Affairs</li> </ul>	<p><b>Materiality Assessment</b></p> <p>Using ENCORE industry classification standards and materiality ratings, E.SUN identifies Priority Locations by considering high dependency and impact factors.</p> <p><b>Identifying Sensitive Locations</b></p> <p>Following the Locate step of the TNFD-LEAP and integrating localized regulatory composite indicators, E.SUN identifies whether its investment and financing portfolios are situated within Special Focus Areas.</p> <p><b>Priority Locations</b></p> <p>Through ENCORE materiality ratings and the steps for identifying Sensitive Locations, E.SUN screens and selects Priority Locations as key areas requiring focused attention.</p> <p><b>Geospatial indicators</b></p> <p>Match company location and geography</p> <p><b>Proactively Enhance Assessment</b></p> <p>E.SUN consolidates public corporate data and localized geospatial datasets to create Operational and Geospatial Indicators, enabling a detailed evaluation of dependencies and impacts where operations intersect with Sensitive Locations.</p>	<p><b>Operational Characteristic Indicators</b></p> <p>Beyond industry characteristics, E.SUN evaluates companies using public data on resource use, emissions, and regulatory compliance. Indicators include GHG emissions, water use, and pollution control, providing insight into dependency and impact levels of investment and financing.</p> <p><b>Geospatial Indicators</b></p> <p>E.SUN uses Taiwan's land-use zoning indicators, including "Land Conservation Areas" and "Marine Resource Areas", along with existing ecological and disaster-related data layers. The assessment covers 31 geospatial datasets, such as national forest business zones and river area cadastral maps, to evaluate whether corporate operational sites or factories exhibit high dependency on or significant impact to local natural capital.</p>

1. Minimum Regulatory Standards: Baseline compliance requirements set for specific regions or activities. Examples include delineation and restrictions for nature reserves, wildlife protection areas, and designated soil and water conservation zones.

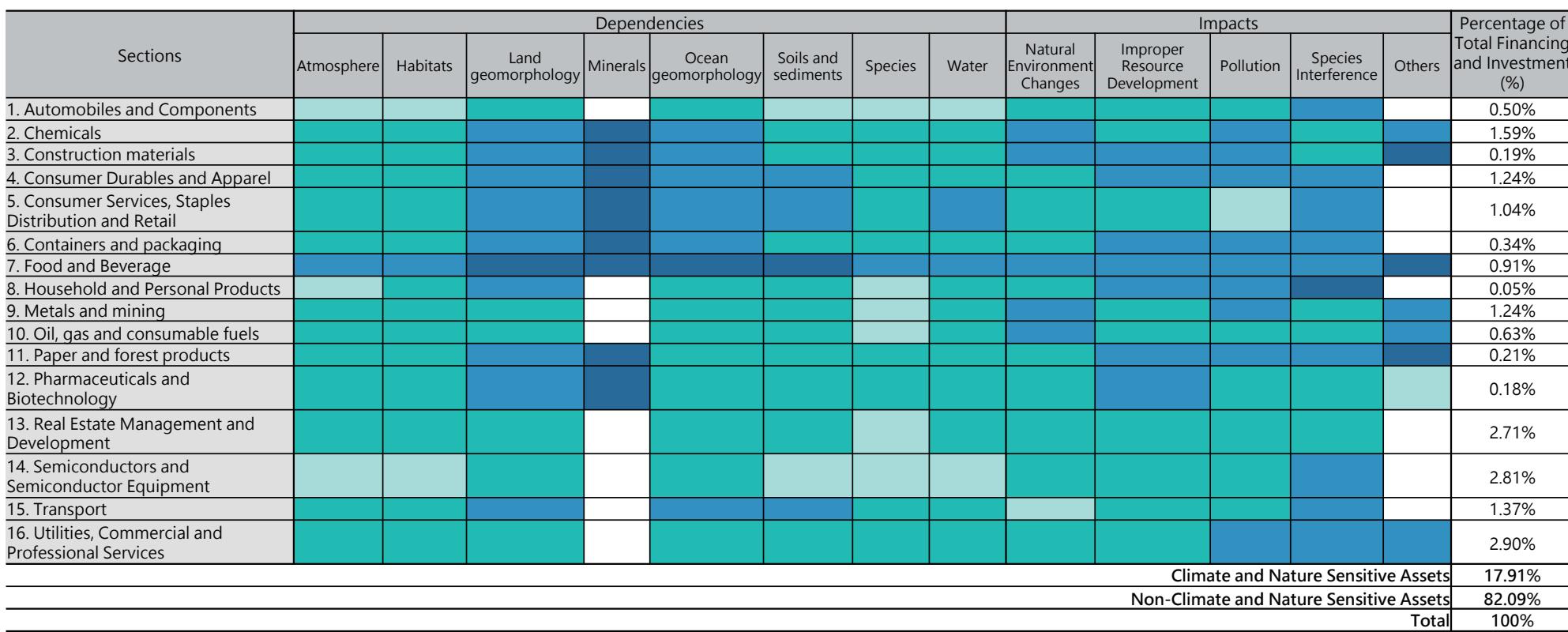
2. Regulatory Reporting and Control Indicators: Indicators designed to monitor and assess compliance status, strengthening control over business activities or resource usage in specific areas. Examples include landslide and geological hazard-sensitive zones, drinking water source quality protection zones, and critical wildlife habitats.

3. Other Relevant Indicators: Nature-related indicators that currently lack specific regulatory or standard provisions, such as soil quality and biodiversity. These indicators provide additional reference for assessing corporate dependencies and impacts beyond existing policies.

## 2.2.3 Climate and Nature Sensitive Assets

### Identification of Sensitive Industries

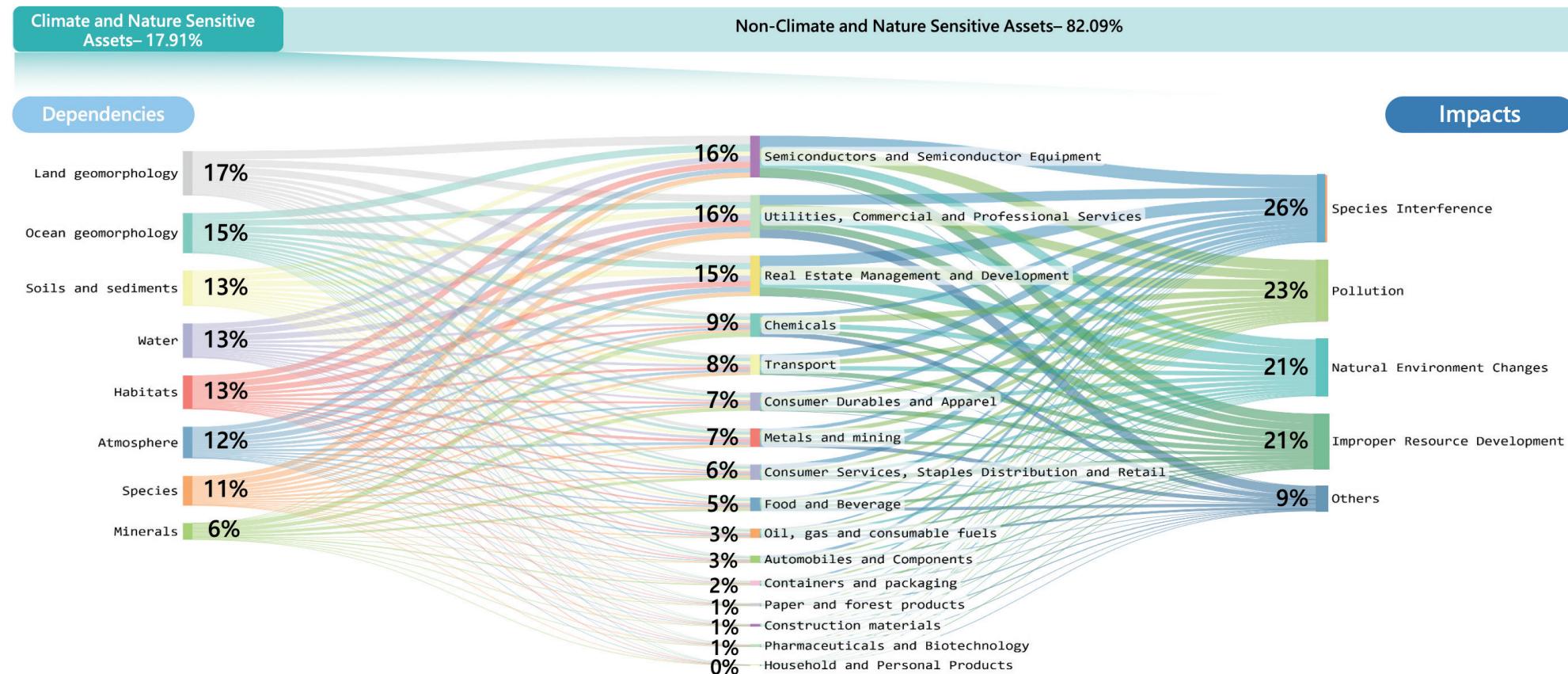
E.SUN incorporates TNFD's list of environmentally sensitive industries alongside leading domestic and international risk management guidelines (including UNEP FI and SASB). This framework integrates the ENCORE tool and material issues identified by the Science Based Targets Network (SBTN). Each quarter, sectors most exposed to climate and nature-related risks are reviewed to inform disclosures and strengthen risk-based decision-making. These insights enable a proactive, risk-oriented approach aligned with global sustainability standards.



Note: As of June 2025, industries with high climate sensitivity accounted for 7.15% of E.SUN Financial Holding's total investment and financing portfolio.



As of June 2025, the table below presents the proportion of industries with high sensitivity to climate and nature-related risks and their exposure levels. The combined share of investment and financing in these sensitive industries is 17.91%, primarily concentrated in utilities, semiconductors and semiconductor equipment, and real estate operations and development. In terms of dependency, these sectors exhibit higher reliance on natural capital such as land and marine geomorphology, soil and sediment. Regarding impact, the most significant effects are associated with species disturbance and pollution.

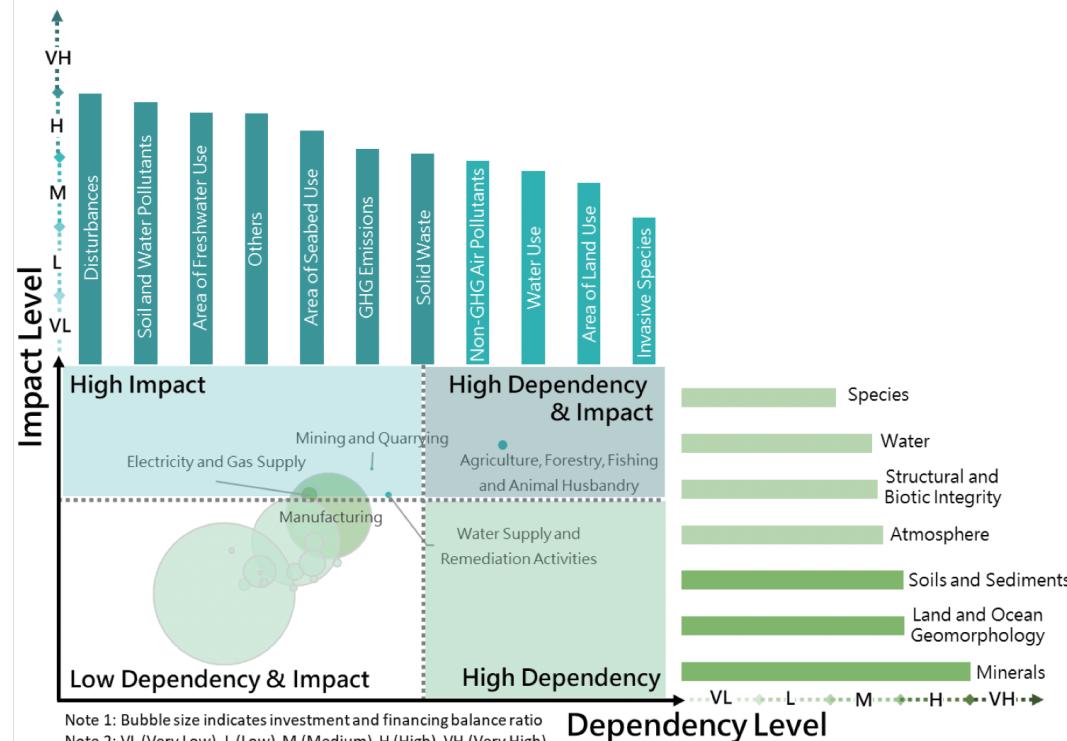




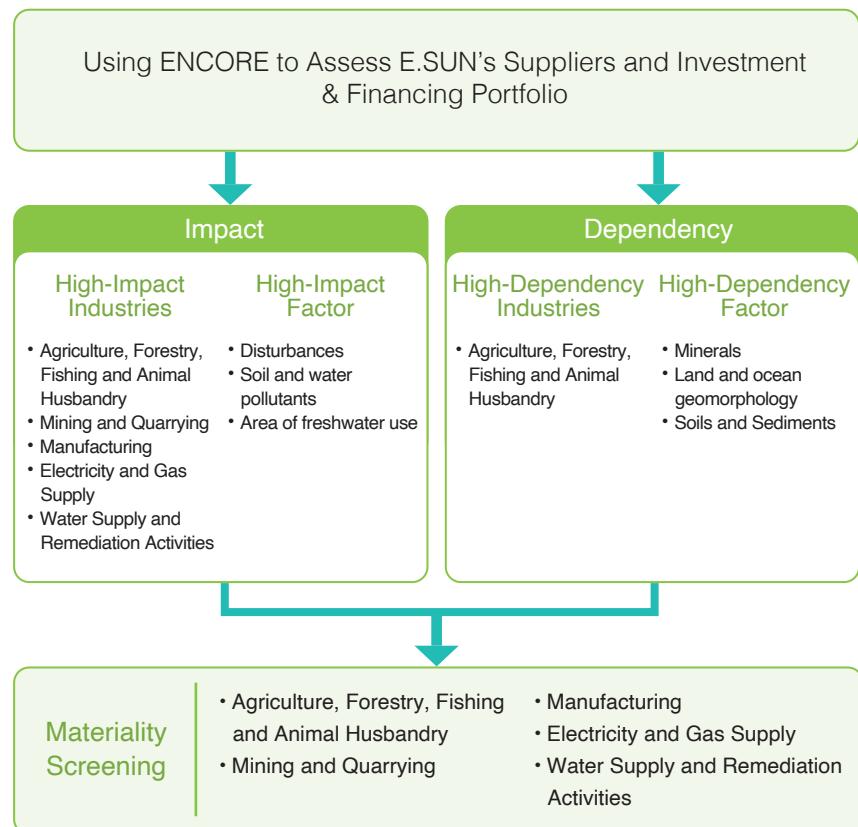
## 2.2.4 Materiality Location Assessment

Beyond E.SUN's own operations, most dependencies and impacts on natural capital stem from suppliers and investment and financing portfolios. Using the ENCORE tool, we assessed these areas and identified industries rated "High" as material for screening. Results show no suppliers fall under high dependency or impact categories. In our portfolio, high-dependency industries include agriculture, forestry, fishing, and animal husbandry; high-impact industries include these sectors plus mining, electricity and gas supply, water supply and remediation, and manufacturing. Key dependency factors include minerals, land and ocean geomorphology, soils, and sediments, while impact factors involve disturbances, soil and water pollution, and freshwater ecosystems. Agriculture, forestry, fishing, and animal husbandry is both high dependency and high impact. E.SUN promotes positive influence by supporting sustainable agriculture through the Farm to Table Loan Program (see Highlight Reports P.6).

### Evaluating Dependencies and Impacts of Investment and Financing Portfolio



### ENCORE Evaluation Results



## 2.2.5 Assessment of Value Chain in Sensitive Areas

E.SUN conducts dependency and impact assessments for its operations, suppliers, and portfolios in line with TNFD disclosure recommendations. Localized indicators are applied to evaluate issues related to water resources, land resources, and biodiversity. Based on Minimum Regulatory Standards, indicators are categorized into Special Focus Areas and Other Focus Areas as the primary basis for analysis.

### Special Focus Areas Indicators

Taiwan has designated over a hundred legally protected natural areas under laws such as the "Forestry Act", "Wildlife Conservation Act", and "Wetland Conservation Act", covering wetlands and wildlife reserves. These serve as key references for nature-related risk assessments in the financial sector.

E.SUN adopts composite indicators from domestic regulations, including nature reserves and designated soil and water conservation zones, to analyze the dependency and impact of its operations, supplier locations, and portfolios within Special Focus Areas.

### Other Focus Areas Indicators

Beyond Special Focus Areas, companies should also consider regions with potential ecological value and environmental risks. These areas, while not fully regulated, may still influence the overall value chain through biodiversity, land, and water resource management.

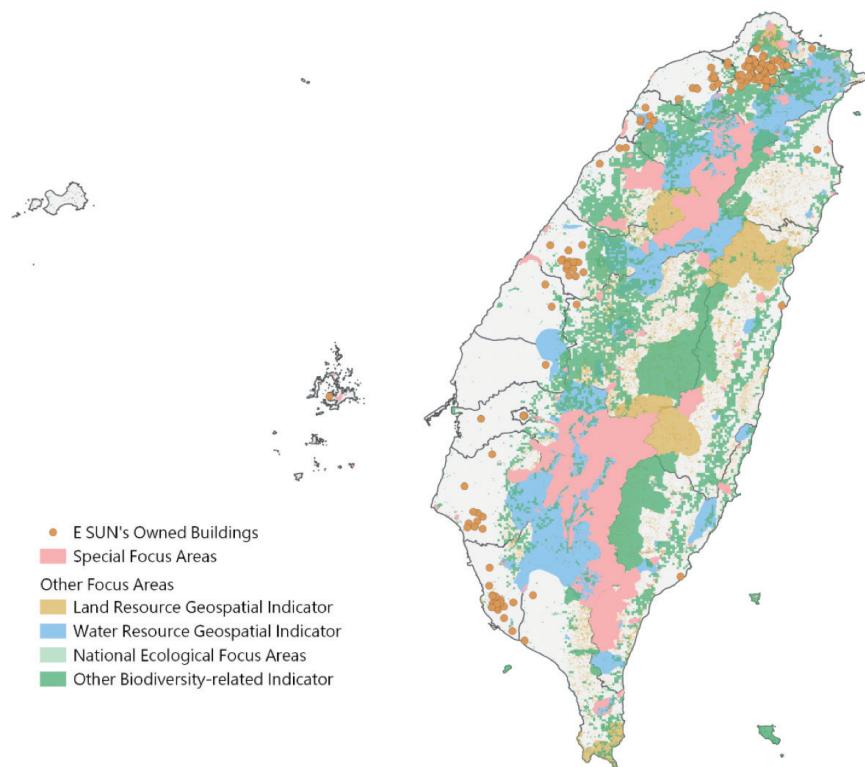
Indicators for Other Focus Areas reference Taiwan's biodiversity hotspots, including national ecological focus areas, national parks, and critical wildlife habitats. Given the importance of water resources as natural capital, E.SUN also incorporates indicators such as drinking water source protection zones and reservoir catchment areas to assess the dependency and impact of operations, suppliers, and portfolios.

If an entity is located within these areas, it signifies high natural capital value, such as abundant water resources or biodiversity. Future investment and financing decisions can integrate concepts of ecological conservation and environmental co-existence, enhancing project sustainability and social acceptance while mitigating potential nature-related risks and improving long-term benefits.



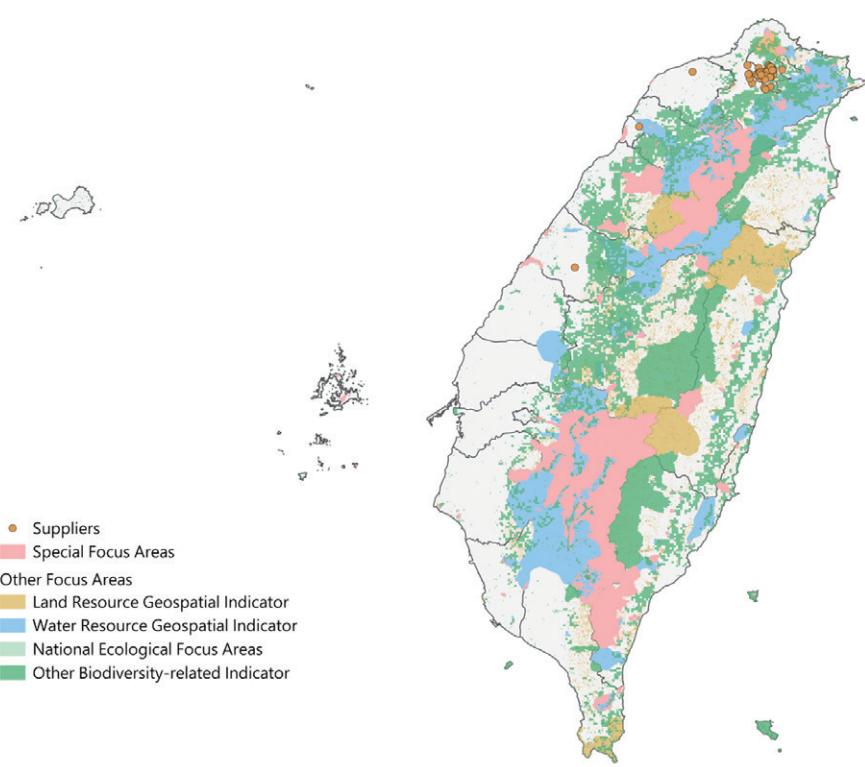
## Direct Operations

None of E.SUN's operational sites are located within Special Focus Areas, indicating no significant dependency or impact on natural capital. Further analysis of Other Focus Area indicators shows no sites in land resource zones, and over 90% are outside biodiversity-related areas. Internally, the financial industry is not classified by ENCORE as having material dependency or impact on natural capital. Therefore, E.SUN's direct operations are assessed as having no significant dependency or impact on these indicators.



## Suppliers

Regarding E.SUN's suppliers, none of their operational sites are located within Special Focus Areas, indicating that these suppliers do not have significant dependencies on or impacts to natural capital. Within Other Focus Areas, no suppliers are situated in land resource priority zones; only one supplier is located in a water resource indicator area, and only one supplier site falls within a biodiversity indicator area. Both suppliers belong to the service industry. Based on internal assessments, suppliers do not exhibit significant dependencies on or impacts to the aforementioned natural capital indicators.

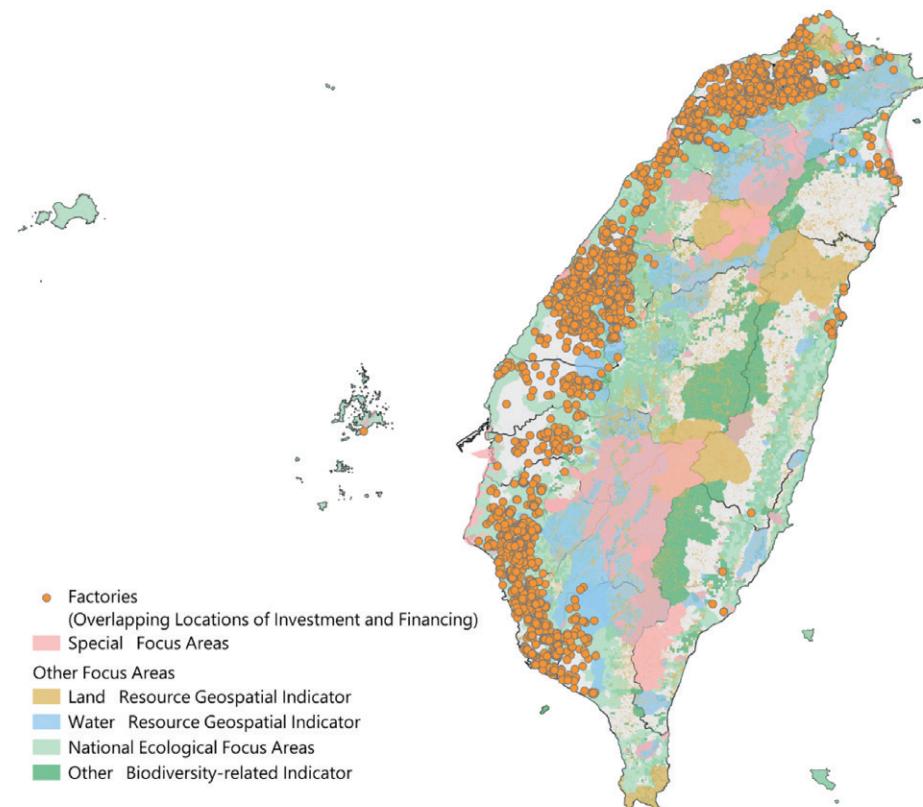


Note: The reference date for geospatial assessment is December 31, 2024.

## Financing and Investment Portfolio

Based on an analysis of factory sites, only 0.11% of E.SUN's investment and financing positions are located within Special Focus Areas, which will remain a priority for monitoring. Within Other Focus Areas, just 0.05% of factories fall under land resource zones; over 80% are outside water resource zones; about 30% are within the national ecological focus areas; and less than 10% are in other biodiversity areas.

Given Taiwan's geographic characteristics—limited plains and over 70% of land classified as mountainous or hilly—factory sites often overlap with high biodiversity value areas. E.SUN analyzed more than 98,000 registered factories nationwide, finding 28.09% located within the national ecological focus areas and 16.29% within water resource-related zones, proportions similar to E.SUN's investment and financing portfolio. Based on these findings, E.SUN plans to continue focusing on biodiversity and water resource issues in its financing activities, aiming to identify and leverage opportunities for positive financial impact.



## 2.2.6 Priority Location Assessment Results

Based on the materiality screening results in Section 2.2.4, the identified sectors include agriculture, forestry, fishing and animal husbandry; mining and quarrying; electricity and gas supply; water supply and remediation; and manufacturing. According to the previous analysis, neither E.SUN's self-owned sites nor suppliers have any locations within Special Focus Areas; therefore, no priority locations were identified. For investment and financing portfolios, the priority location assessment results are shown on the right, primarily distributed around the Taipei area and densely populated regions such as Tainan. Further in-depth assessments will be conducted for these priority locations.

Value Chain	Priority Location
Operations	None
Suppliers	None
Financing and Investment Portfolio	Taipei and Tainan region

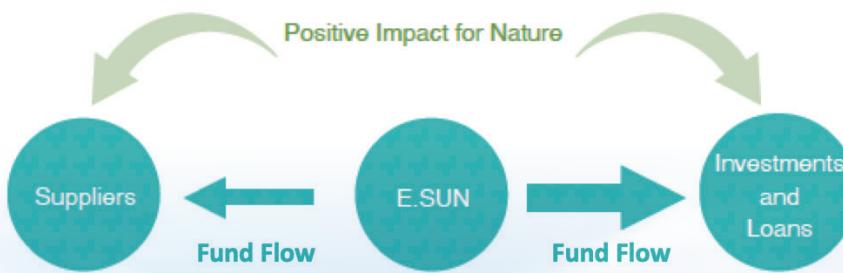


## 2.2.7 Enhanced Nature Assessment

In line with TNFD guidelines, this year we established localized nature assessment indicators based on international tools and Taiwan-specific data. The evaluation considered varying degrees of dependency and impact on natural capital arising from suppliers and investment and financing positions due to operational characteristics and locations. Building on the analysis in Section 2.2.5, the assessment incorporated priority locations as well as overlapping areas within Special Focus and Other Focus Areas, refining the evaluation of dependency and impact. Indicators were categorized into 'Operational Characteristic Indicators' and 'Geospatial Indicators' to enhance granularity.

### Suppliers Analysis

Changes in natural capital may affect supply chain resilience. In addition to leveraging financial influence in investment and financing decisions, E.SUN also acts as a consumer to identify the level of dependency and impact among upstream suppliers, expanding its positive influence on nature. Based on the previously mentioned framework, we assessed operational characteristics and geospatial indicators. The results show that over 80% of procurement value falls under low or medium-low dependency and impact levels. Factories in the manufacturing sector with relatively higher impact were analyzed in Section 2.2.5 and found to be non-priority locations with low procurement value. Overall, the dependency and impact on local natural capital are not significant.



	Proportion of Total Procurement	Degree of Dependence	Degree of Impact	Priority Location
Manufacturing	10.40%	Medium-Low	Medium-High	Low
Other Non-specific Industries (Construction, Telecom, Wholesale)	23.89%	Medium-Low	Medium-Low	Low
Services (Finance, Consulting)	65.70%	Medium-Low	Low	Low

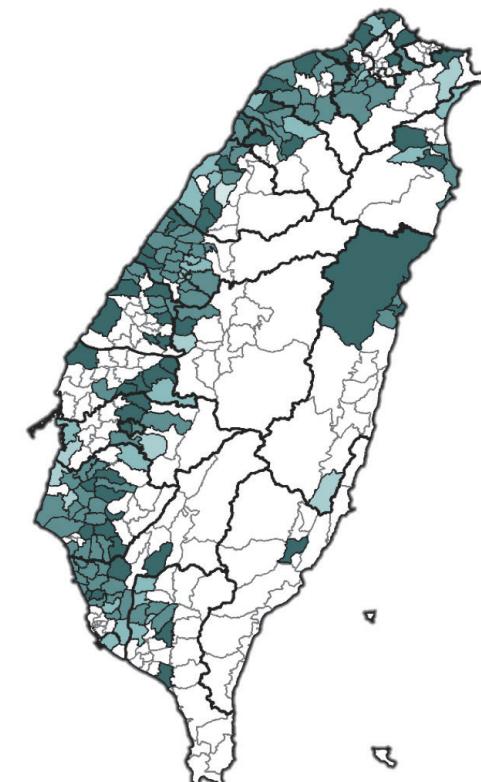
## Investment and Financing Portfolio Analysis

Based on the assessment in Section 2.2.4, priority locations were further evaluated by incorporating sites located in Special Focus Areas and Other Focus Areas. Overall, factory sites are concentrated in metropolitan areas such as Taichung, Tainan, and Kaohsiung; however, analysis indicates relatively higher dependency and impact levels near mountainous and coastal regions. Among these, eastern Taiwan shows higher dependency, while areas with greater impact are mainly in Yilan County and the Greater Taipei region, reflecting the rich ecological resources of Hualien and Taitung as well as Taiwan's dense population. Businesses operating in these areas should pay particular attention to potential impacts on local ecosystems. Considering priority locations, the analysis highlights sites distributed along the Dahan River and Yanshui River basins, where surrounding areas exhibit higher dependency. E.SUN will continue to monitor nature-related issues and engage with enterprises to amplify positive impact on nature.

Dependency Level and Regional Distribution  
of Investment and Financing Portfolio



Impact Level and Regional Distribution of  
Investment and Financing Portfolio



Low      Dependency Level      High

Low      Impact Level      High



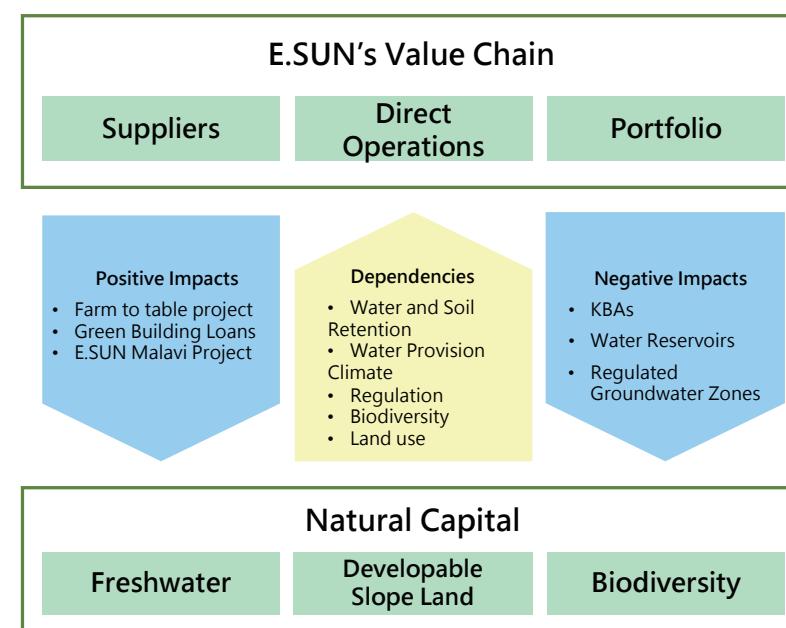
## 2.2.8 Summary of Dependency and Impact Assessment

E.SUN applies the LEAP framework to identify value chain and operations, then assess dependencies and impacts on natural capital and ecosystem services. We follow TNFD guidance and use localized indicators to reflect Taiwan's geospatial characteristics. E.SUN will continue updating data and collaborate with government and academia to monitor environmental changes.

- For our direct operations, based on site identification and indicator screening, there are no significant dependencies on or impacts to natural capital.
- For suppliers, based on site identification and indicator screening, there are no significant dependencies on or impacts to natural capital.
- Taiwan's mountainous terrain and rich biodiversity create certain constraints; E.SUN will continue monitoring biodiversity issues in investment and financing activities.
- ENCORE assessment identifies agriculture, forestry, fishing, and animal husbandry as high dependency and impact sectors. E.SUN supports these through the "Farm to Table" program and applies differentiated management for mining, electricity and gas supply, and water services to expand positive influence.
- Priority Locations: No priority sites for operations or suppliers. For investment and financing, priority areas are near Taipei and Tainan for further evaluation and management.
- Enhanced Nature Assessment: Supplier dependency and impact remain minimal; portfolio impacts are higher, mainly in eastern Taiwan and near Taipei, concentrated in the Dahan and Yanshui River Basins.

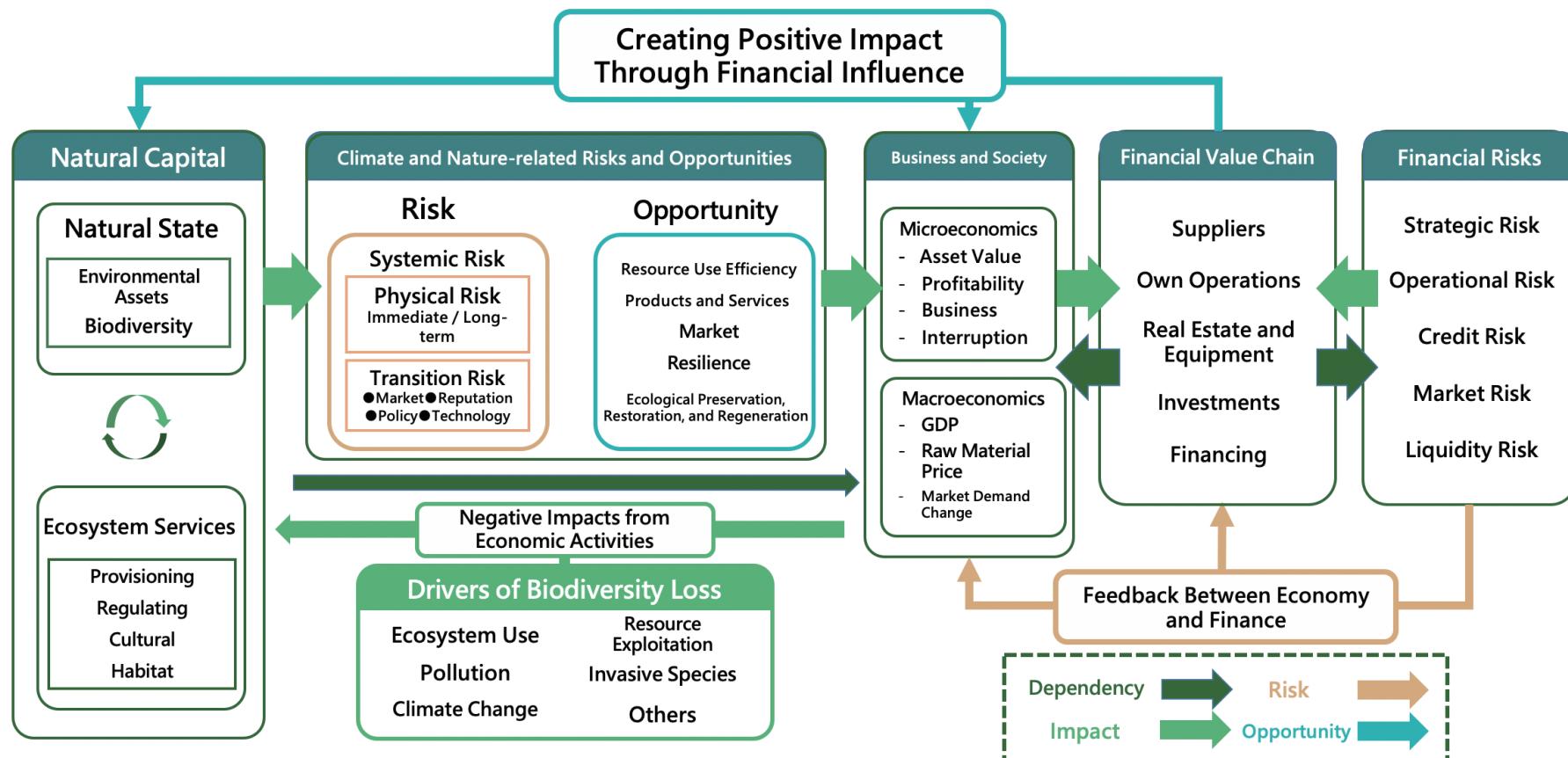
### Actions in Response to Dependencies and Impacts

- Support sustainable agriculture to maintain biodiversity; over 90% of the financing targets for E.SUN's Farm to Table loan program are located within national conservation areas and biodiversity hotspots, which can positively impact local ecological conservation.
- E.SUN's Malavi Project promotes the transition to organic farming in the Bunun community of Namuan village, Hualien County, which is located in a Key Biodiversity Area. This initiative protects local ecosystem services and biodiversity, creating positive impacts for nature.
- To strengthen our positive impacts on climate and nature, E.SUN has issued sustainability bonds, with total issuances exceeding NT\$43 billion as of the end of 2024.
- Differentiated management measures are implemented for communities in hazardous slope areas and clients with environmental violations.



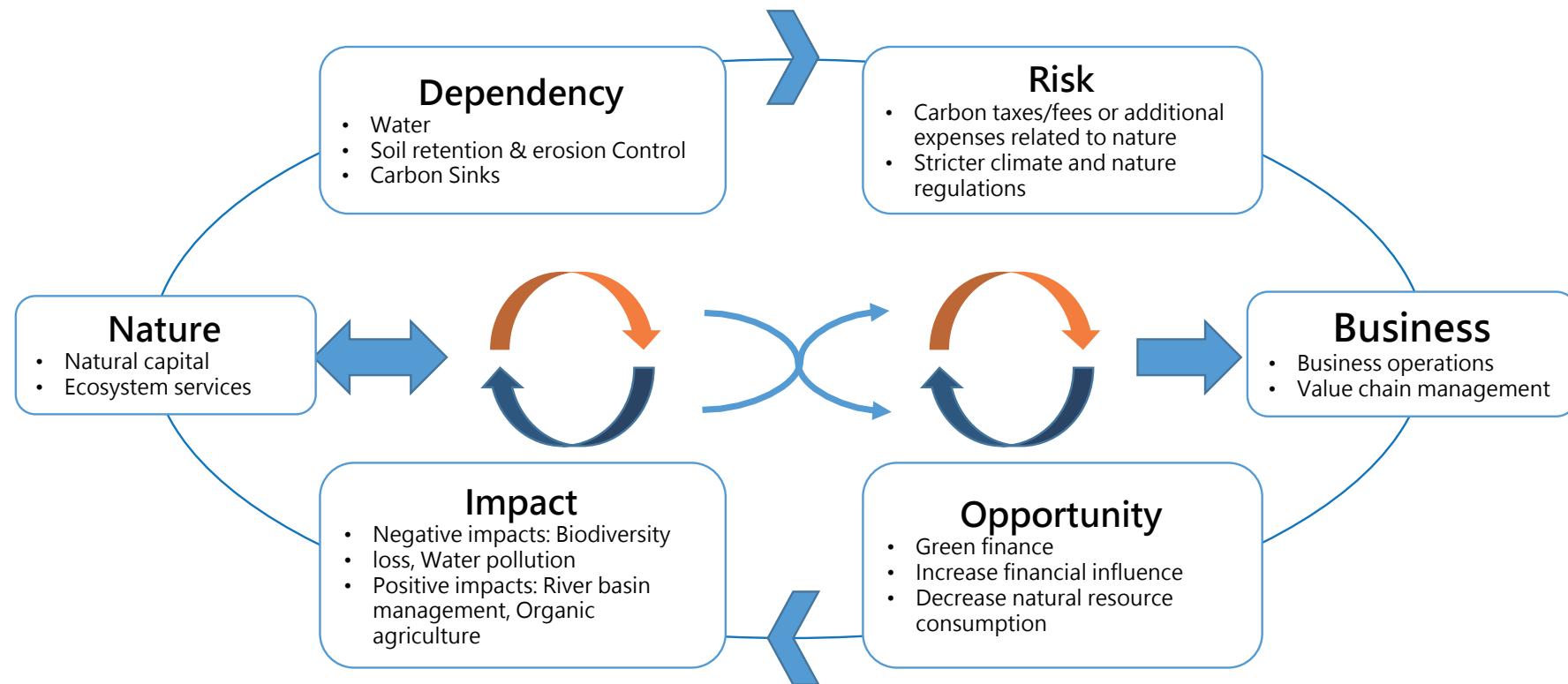
## 2.3 Transmission Pathways of Climate and Environmental Dependencies, Impacts, Risks, and Opportunities

Business activities depend on and impact natural capital and ecosystem services across the value chain, from procurement to investment and financing. Financial institutions face climate and nature-related risks in their own operations and through clients' activities. E.SUN applies the TNFD LEAP methodology to identify these risks and opportunities, enabling deeper insight into client dependencies and impacts and strengthening risk management. Recognizing the link between climate and nature, E.SUN integrates nature-related topics into its core strategy. Through comprehensive assessments, we quantify dependencies and potential impacts on natural capital, enhancing risk management for both clients and internal operations.



## 2.4 From Dependency and Impacts to Risk and Opportunities

E.SUN deepens its understanding of nature-related risks and opportunities by analyzing the dependencies and impacts of its investment and financing portfolio. Risks arise from changes in natural conditions, ecosystem service disruptions, and negative impacts from investees such as pollution that can affect E.SUN's reputation. Opportunities emerge by reducing or managing these risks through operational improvements and product innovation. E.SUN collaborates with external experts and adopts methodologies from TNFD, PBAF, and NGFS to conduct scenario analyses, enhancing resilience and natural governance capacity.



### Climate and Nature Risks and Opportunities Identification

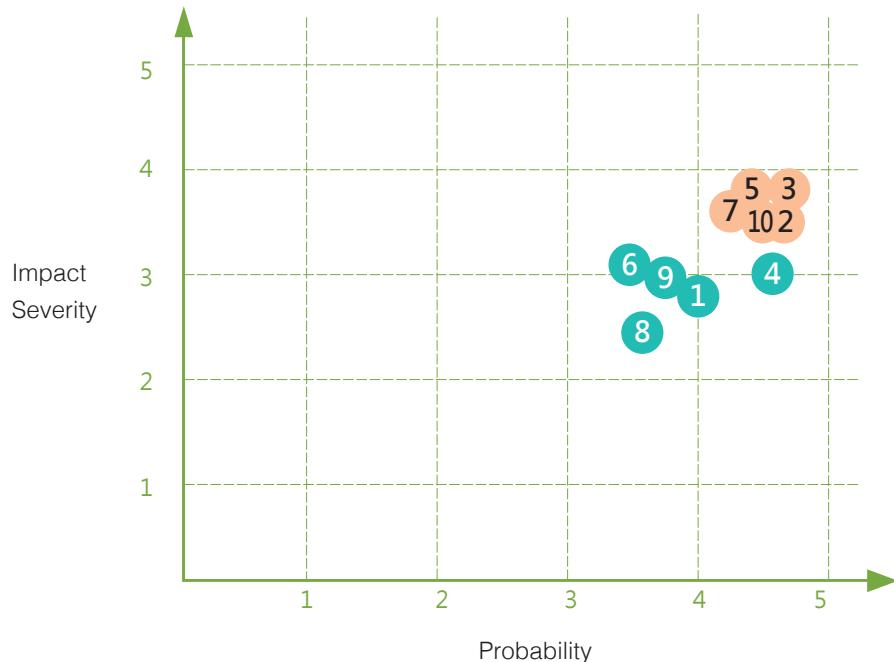
E.SUN incorporates climate and nature-related regulations, reports, and guidance from both domestic and international organizations into its management practices. Each year, we conduct a risk and opportunity assessment using a standardized questionnaire completed by business units across subsidiaries. This process evaluates and prioritizes climate and nature-related risks and opportunities based on three key factors: Impact period, Probability of occurrence, and Impact severity. Scores from each dimension are multiplied and ranked to identify material items. These serve as the foundation for developing targeted mitigation, adaptation, and risk management strategies.



## 2.5 Opportunity Identification and Response Strategy

### 2.5.1 Opportunity Identification

E.SUN actively identifies opportunities across its value chain by assessing natural capital impacts. ESG is both a challenge and a driver of business value. As a key financial player, E.SUN channels capital toward eco-friendly sectors, supporting net-zero and nature-positive goals through responsible, green, and digital finance. In 2024, new material topics include "Sustainable Talent Development" and "Enhance Financial Influence". E.SUN is strengthening its ESG capabilities by cultivating talent, building systems, and improving performance management to address complex sustainability challenges and amplify its positive impact.



Opportunities		Potential impact(s)	Impact Period
Resource use efficiency	1. Green and Low-Carbon Operations	Green buildings and eco-measures using low-carbon or renewable energy (e.g., wind, solar), plus water, energy, and waste reduction to lower costs	S/M/L
	<b>2. Process Digitalization</b>	Digitalized processes to boost efficiency and reduce resource use and environmental impact	S/M
Products	<b>3. Green Financial Products</b>	Green financial products to fund eco-friendly initiatives and support clients' sustainable transitions	S/M
Services	4. Transition Services and Engagement	Climate awareness advocacy to engage stakeholders and strengthen climate finance influence	S/M
	<b>5. Digitalized customer service</b>	Digital financial services to cut paper use, enhance customer experience, and reduce costs and environmental footprint	S
Market	6. Capital market participation	Diversified sustainable assets including green credit, sustainability-linked loans, and bonds to expand ESG investment opportunities	S
Operation Resilience	<b>7. Sustainability Talent Development</b>	ESG talent development to build climate and environmental expertise and drive sustainability innovation	S/M/L
	8. Operational Resilience	Resilient supply chain management through sustainable procurement and climate disaster response planning	S/M/L
Reputation and Brand Image	9. Ecosystem Protection and Restoration	Nature-positive activities to support ecosystem restoration and regeneration	S/M/L
	<b>10. Enhance Financial Influence</b>	ESG performance systems aligned with stakeholder expectations to promote environmental sustainability and long-term value	S/M/L

are items considered to be more material

Note 1: Timeframes are defined as follows: (S) Short-term, under 1 year; (M) Medium-term: up to 2030; (L) Long-term: up to 2050.

Note 2: Material opportunities are defined as items scoring 15 or above, based on Probability × Impact severity.

Note 3: Credit products are classified by maturity: short-term: under 1 year; medium-term: 1-7 years; long-term: over 7 years. Mortgage loans typically span 30 years. Corporate banking offers tailored products based on client needs, with strategies reviewed annually within a 5-10-year cycle.

Note 4: For a comparison of opportunity items with the previous version, see Appendix VIII.

## 2.5.2 Opportunity Response Strategy

E.SUN has developed strategies and action plans for operations, products, and financial planning by identifying significant climate- and nature-related opportunities. Additionally, we have set financial performance targets for climate- and nature-related products (see CH 5.4 for details), along with environmental targets for our direct operations. Resources are being actively allocated to support a green and low-carbon future.

Material Opportunity	Potential Financial Impact	Strategies and Targets			Main Impact Area
		Current & Short term (≤ 1 Year)	Medium term (up to 2030)	Long term (up to 2050)	
2. Process Digitalization	Investment and Financing: Enhance risk assessment efficiency, reduce costs, and improve business performance. Direct Operations: Save energy and resources, reduce carbon fee expenses, optimize customer experience, and increase customer contribution.	<b>Resource Allocation</b> <ul style="list-style-type: none"> <li>Optimize computing resources through a cloud-edge architecture, improve monitoring and recycling, and advance carbon reduction and governance goals.</li> <li>Invest in trusted AI to enhance service efficiency, quality, and competitiveness.</li> <li>Build a physical risk database and apply GIS technology to strengthen risk identification and real estate collateral management.</li> </ul>	<ul style="list-style-type: none"> <li>Strengthen risk management by leveraging IT and data analytics for early warning and response, improving control efficiency.</li> <li>Position E.SUN as a leading Asian AI-driven bank, expanding mature AI applications across all entities.</li> </ul>		Products and Services, Direct Operations, Investment in R&D
3. Green Financial Products	Investment and Financing: Expand the green finance market, increase income from green and sustainability-linked products, strengthen corporate image, attract ESG investors, and lower capital costs.	<b>Resource Allocation</b> <ul style="list-style-type: none"> <li>Support credit clients with positive environmental and social impacts, including renewable energy projects and ESG-focused enterprises.</li> <li>Target NT\$124 billion in green credit and NT\$76.8 billion in sustainability-linked loans for 2024.</li> <li>Develop a financial carbon emissions management system to improve transition risk identification, investing approximately NT\$6 million.</li> </ul>	<ul style="list-style-type: none"> <li>Become the sustainability backbone for SMEs and the best partner for customers by 2030.</li> <li>Green credit target: NT\$130 billion by 2030.</li> <li>Sustainability-linked loans: 13% of total corporate credit by 2030.</li> </ul>	<ul style="list-style-type: none"> <li>Expand green product offerings in line with Taiwan's 2050 net-zero roadmap and strategic guidelines.</li> </ul>	Products and Services, Supply/Value chain, Adaptation and mitigation
5. Digitalized customer service	Investment and Financing: Market green financial products more precisely to boost cross-selling and fee income. Direct Operations: Lower physical service costs, improve customer loyalty, create competitive differentiation, and boost overall revenue.	<b>Resource Allocation</b> <ul style="list-style-type: none"> <li>Create an "E.SUN Artificial Intelligent Platform" to drive financial innovation.</li> <li>Optimize digital experience and operations, accelerate technology adoption, and integrate sustainability into financial services for dual transformation.</li> </ul>	<ul style="list-style-type: none"> <li>Digital engagement: 70% of active customers by 2030.</li> <li>Securities trading: 95% electronic order placement by 2030.</li> <li>Drive dual transition in sustainability and digitalization through financial influence.</li> </ul>		Products and Services, Supply/Value chain, Direct Operations
7. Sustainability Talent Development	Direct Operations: Strengthen ESG risk management, build sustainable finance expertise, reduce climate-related loss risks, attract top talent, and lower turnover and recruitment costs.	<b>Resource Allocation</b> <ul style="list-style-type: none"> <li>Partner with the Sustainable Energy Foundation to launch the Sustainable Finance Manager Certification, strengthening ESG and climate expertise.</li> <li>Provide subsidies for sustainability and climate-related certifications and cultivate internal talent.</li> <li>Incorporate ESG and climate risk management courses into tiered training programs.</li> </ul>	<ul style="list-style-type: none"> <li>Employee development: Maintain over 50 training hours annually.</li> <li>Digital competency: Integrate digital courses into all roles and achieve 80% coverage in the learning program.</li> </ul>	<ul style="list-style-type: none"> <li>Implement talent-focused performance management, integrating long-term strategies and training programs; develop talent through professional development and job rotation.</li> </ul>	Direct Operations
10. Enhance Financial Influence	Investment and Financing: Guide capital toward sustainable industries, reduce portfolio carbon intensity, lower future carbon tax/fee exposure, and enhance brand reputation to support growth and market share. Direct Operations: Improve corporate image, attract sustainability-minded customers, increase retention, and help reduce capital costs.	<b>Capacity Utilization</b> <ul style="list-style-type: none"> <li>Establish a management structure, update climate-related regulations, and embed them into daily operations and business development.</li> <li>Participate in regulatory and industry projects, including Taiwan Sustainable Taxonomy, banking climate risk initiatives, and stress testing.</li> <li>Commit to biodiversity conservation and no deforestation, encouraging suppliers and customers to achieve the 2030 No Net Deforestation<sup>1</sup> goal.</li> <li>Deepen stakeholder engagement through ESG advocacy and consulting services.</li> </ul>	<ul style="list-style-type: none"> <li>Global engagement: Actively participate in government and international sustainability, climate, and nature-related initiatives to enhance response capabilities.</li> </ul>	<ul style="list-style-type: none"> <li>Benchmark against global standards (e.g., CDP, DJSI) to drive continuous improvement and achieve net-zero emissions by 2050.</li> </ul>	Products and Services, Supply/Value chain, Adaptation and mitigation, Direct Operations

Note 1: "No net deforestation" refers to compensating for forest loss through measures such as reforestation of forest lands or afforestation on degraded lands.

Note 2: E.SUN FHC did not have material opportunity impacts on Acquisitions or divestments and Access to capital in 2024

## 2.6 Risk Identification and Impact Assessment

### 2.6.1 Risk Identification

As climate change accelerates and low-carbon transitions advance, their evolving impacts affect traditional financial risks such as credit, market, and operations. E.SUN integrates business practices and product life cycles into its risk framework, conducting short-, medium-, and long-term assessments within its risk management structure. Regular reviews and response plans ensure timely identification and mitigation. This year, natural disasters emerged as a material risk, while risks from sensitive asset impairment and raw material price volatility declined below the materiality threshold due to prior mitigation measures.

#### Identification of Climate, Biodiversity, and Natural Capital Risks

Human socio-economic activities rely heavily on the natural environment, affecting not only E.SUN's operations but also its investment and financing businesses. For example, climate-related environmental risks impacting customers could trigger credit downgrades, asset price volatility, and disrupt financial stability and capital allocation. Therefore, risk identification must cover climate, water resources, forests, and biodiversity within the broader scope of climate, natural capital, and ecosystem considerations



Risk Items		Potential impact(s)	Impact Period
Policy and Regulation	<b>1. Carbon taxes/fees or additional expenses related to nature</b>	Additional costs for carbon emissions or natural resource compensation (e.g., biodiversity credits) affecting the Company and its investment/financing targets.	S
	<b>2. Stricter climate and nature regulations</b>	Stricter environmental regulations increasing restrictions on resource procurement, waste management, and land use, driving up compliance and operational costs.	S/M
Technology	3. Climate and nature sensitive assets	Adoption of low-carbon technologies replacing existing products/services or requiring transition investments with uncertain returns, heightening financial risk.	S/M
Market	4. Fluctuations in raw material prices	Price volatility in water, electricity, raw materials, and other nature-dependent inputs raising costs for the Company and its customers.	S
	5. Changes in consumer preferences	Shifts in consumer preferences influencing operational and investment decisions tied to climate and nature-related considerations.	S/M
Reputation	6. Negative publicity or litigation	Negative publicity, litigation, or credit downgrades from inadequate climate and environmental risk management by the Company or its clients.	S
Liability	7. Penalty risk	Tougher rules on greenwashing and environmental protection increasing compliance costs and penalty risks.	S
Acute	<b>8. Natural disasters</b>	Operational disruptions and asset impairments from natural disasters (e.g., typhoons, floods, earthquakes) affecting business sites or financed entities.	S
	9. Degradation of ecosystem services	Declining ecosystem services (e.g., water scarcity, pollution, biodiversity loss) harming operations of the Company or its customers.	S/M
Chronic	10. Deterioration of climate and natural environment	Economic impacts of climate change and biodiversity loss disrupting business models, causing asset impairments or premature replacements.	S/M/L
Systemic	11. Irreversible degradation of climate and environment	Global warming beyond 1.5-2°C leading to irreversible ecosystem degradation, creating systemic risks and large-scale economic impacts.	S/M/L

■ are items considered more material

Note 1: Timeframes are defined as follows: (S) Short-term, under 1 year; (M) Medium-term: up to 2030; (L) Long-term: up to 2050.

Note 2: Material risks are defined as items scoring 12 or above, based on Probability × Impact severity.

Note 3: Credit products are classified by maturity: short-term: under 1 year; medium-term: 1-7 years; long-term: over 7 years. Mortgage loans typically span 30 years. Corporate banking offers tailored products based on client needs, with strategies reviewed annually within a 5-10-year cycle.

Note 4: For a comparison of risk items with the previous version, see Appendix VIII.

## 2.6.2 Risk Impact Assessment

E.SUN further conducts impact assessment on the material risks identified in Section 2.6, focusing on the extent of impact posed by the key related risks encountered:

Material Risk Items	Climate/Nature Risk Category	Current Impact Description	Potential Impact Description	Main Impact Area	Primary Traditional Risk Category
1. Carbon taxes/fees or additional expenses related to nature	Transition	<ul style="list-style-type: none"> <li>● Portfolio Exposure: About 11.10% of E.SUN's corporate credit portfolio is in six major energy-intensive industries. Rising carbon costs for these clients may reduce portfolio returns.</li> </ul>	<ul style="list-style-type: none"> <li>● Carbon Cost Risk: Higher carbon taxes/fees increase operating costs for high-emission clients; delayed transition may lead to restructuring or disruptions, reducing E.SUN's portfolio returns.</li> <li>● Investment Value Risk: Targets that fail to cut emissions risk value decline from carbon costs and long-term competitiveness loss, lowering portfolio returns.</li> </ul>	Products and Services	Credit/Market
		<ul style="list-style-type: none"> <li>● Operational Investment: E.SUN plans to invest NT\$126 million in energy-saving and carbon reduction measures in 2024.</li> </ul>	<ul style="list-style-type: none"> <li>● Operational Upgrade: E.SUN must invest in energy-saving equipment and green energy to meet regulatory and stakeholder expectations.</li> <li>● Reputation Risk: Failure to fulfill low-carbon commitments may trigger negative media coverage, harming reputation, client trust, and investor confidence, leading to revenue loss or funding challenges.</li> </ul>	Direct Operations, Access to capital, Adaptation and mitigation	Operational
		<ul style="list-style-type: none"> <li>● Green Procurement: Green procurement totaled NT\$646 million in 2024, with cumulative spending exceeding NT\$2.9 billion.</li> </ul>	<ul style="list-style-type: none"> <li>● Supplier Cost Transfer: Suppliers facing carbon costs may pass expenses to E.SUN, raising operational costs.</li> <li>● Supply Chain Risk: Suppliers unable to reduce emissions risk market exit or restructuring, affecting stability and costs.</li> </ul>	Direct Operations, Supply/Value chain, Adaptation and mitigation	Operational
2. Stricter climate and nature regulations	Transition	<ul style="list-style-type: none"> <li>● Financial Impact: No material financial impact is expected for 2024.</li> </ul>	<ul style="list-style-type: none"> <li>● Land Use Restrictions: Stricter environmental assessments may limit development near sensitive areas, impacting credit asset quality.</li> <li>● Regulatory Credit Risk: Tighter rules may restrict operations of investment targets, impairing repayment ability and increasing credit risk.</li> </ul>	Direct Operations, Supply/Value chain	Credit/Market
			<ul style="list-style-type: none"> <li>● Compliance Costs: E.SUN must allocate more resources to meet environmental laws and standards, increasing compliance expenses.</li> <li>● Regulatory Violations: Non-compliance may result in fines, business suspension, and reputational damage, affecting growth.</li> </ul>	Direct Operations, Access to capital	Operational
			<ul style="list-style-type: none"> <li>● Supplier Compliance Costs: Compliant suppliers may transfer costs to E.SUN, raising expenses.</li> <li>● Supplier Non-Compliance: Operational disruptions from non-compliant suppliers may affect service stability.</li> </ul>	Supply/Value chain	Operational
8. Natural disasters	Physical	<ul style="list-style-type: none"> <li>● Collateral Risk: Natural disasters (e.g., typhoons, floods) may impair collateral value, affecting credit asset quality</li> </ul>	<ul style="list-style-type: none"> <li>● Disaster Impact on Clients: Natural disasters may disrupt operations and revenue of investment targets, impairing repayment capacity.</li> <li>● Economic Downturn Risk: Climate-driven disasters may cause economic slowdown, reducing asset quality.</li> </ul>	Access to capital, Supply/Value chain	Credit/Market
		<ul style="list-style-type: none"> <li>● Operational Disruption: Extreme weather may damage branches or equipment and cause absenteeism, impacting service delivery.</li> <li>● Supply Chain Risk: Disasters may disrupt supplier services, leading to operational interruptions.</li> <li>● Revenue Impact: Average daily revenue is NT\$300 million; typhoon-related work stoppages totaled 4 business days in 2024.</li> </ul>	Operational Disruption: Extreme weather may close E.SUN sites, disrupting transactions and fund management, harming client relations.	Direct Operations, Products and Services	Operational
			Supplier Disaster Risk: Poor disaster response by suppliers may affect service continuity.	Supply/Value chain	Operational

Note: ESUN FHC did not have material risk impacts on Acquisitions or divestments and Investment in R&D in 2024

# 03 Climate and Nature Scenario Analysis

- 3.1 Scenario Analysis Overview
- 3.2 Climate Scenario Analysis
- 3.3 Nature Scenario Analysis
- 3.4 Opportunity Scenario Analysis

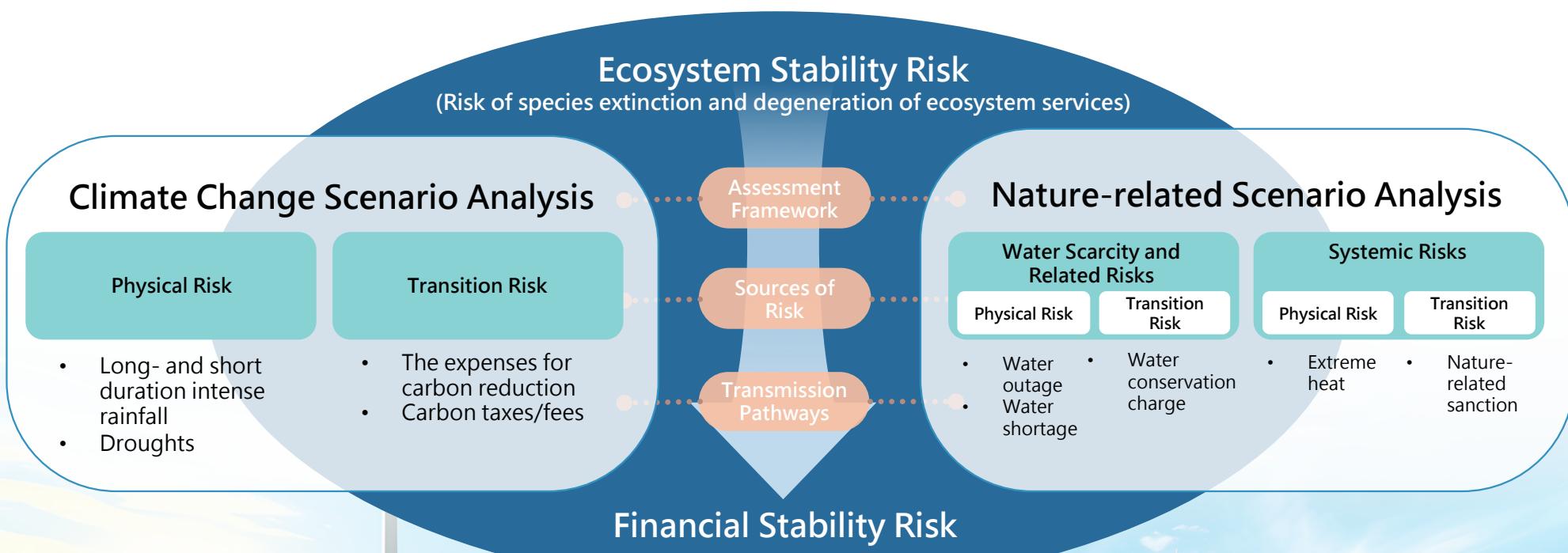




## 3.1 Overview of Scenario analysis

Scenario analysis is a structured process for identifying and evaluating potential future conditions under uncertainty. By integrating the results into corporate governance strategies and risk management processes, organizations can enhance their ability to respond to emerging risks while effectively assessing associated risks and opportunities. This enables the development of forward-looking and resilient strategies.

Climate and nature-related scenario analysis encompasses two key dimensions: stress testing and sensitivity analysis. Using both quantitative and qualitative approaches, it evaluates the potential financial impacts of these risks on business activities. Given that the effects of climate change and nature-related shifts extend beyond physical and transition risks—impacting economic stability, social systems, and ecosystems—it is essential to strengthen assessments of potential financial impacts and actively identify business opportunities.





## 3.2 Climate Change Scenario Analysis

### 3.2.1 Climate Scenario Settings

Climate change-related risks can be categorized into transition risks and physical risks based on their sources. Transition risks refer to costs and carbon-related expenses that companies must bear to comply with low-carbon transition policies and regulations. Physical risks arise from direct damage or operational losses caused by extreme weather events. E.SUN conducts scenario analysis across short-, medium-, and long-term horizons for upstream, midstream, and downstream value chains. The analysis references the International Energy Agency (IEA) Global Energy and Climate Model (2025), the Network for Greening the Financial System (NGFS) Phase IV scenarios, the Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Report (AR6) scenarios, and Taiwan's climate risk event data. These scenarios are used to assess potential financial impacts of climate-related risks on operations and to develop corresponding management strategies. For detailed scenario settings, please refer to Appendix VII, Climate Scenario Settings Information.

Value Chain Stage	Scenario	Analysis Timeframes	Scenario Assumption	Corresponding Temperature Rise
Upstream Supply Chain	Short term	within the next year	Assuming Taiwan imposes a stricter carbon fee policy with a uniform rate applied to domestic enterprises.	-
	IEA Net Zero	2030, 2050	Assuming the global energy sector gradually transitions to achieve net-zero emissions by 2050.	1.5°C
	NGFS Net Zero		Assuming proactive climate policies and technological innovation accelerate global decarbonization, achieving net-zero emissions by 2050.	1.4°C
	Low-Emission Scenario	2030, 2050	Assuming global orderly and proactive cooperation in promoting sustainable development, successfully achieving net-zero emissions by 2050.	1.8~2°C
	Medium-Emission Scenario		Assuming global socioeconomic development continues along current trends, with delayed transition efforts failing to achieve net-zero emissions.	2.7°C
	High-Emission Scenario		Assuming rapid global economic growth with high dependence on fossil fuels, resulting in continued emissions increases and intensified climate change.	4.4°C
Owned Operational Sites	Low-Emission Scenario	2030, 2050, and the end of the century	Assuming global orderly and proactive cooperation in promoting sustainable development, successfully achieving net-zero emissions by 2050.	1.8~2°C
	Medium-Emission Scenario		Assuming global socioeconomic development continues along current trends, with delayed transition efforts failing to achieve net-zero emissions.	2.7°C
	High-Emission Scenario		Assuming rapid global economic growth with high dependence on fossil fuels, resulting in continued emissions increases and intensified climate change.	4.4°C
Investment and Financing Portfolio	Short-term: Transition risk (TR) scenario	within the next year	Assuming Taiwan implements a stricter carbon fee policy with a uniform rate applied to domestic enterprises.	-
	Short-term: Intensity-adjusted (IA) scenario	within the next year	Assuming the historical Typhoon Morakot event reoccurs with increased intensity.	-
	Long-term: Orderly Net-Zero (ONZ) Scenario	2030, 2050	Global gradual transition towards achieving net-zero emissions by 2050.	1.5°C
	Long-term: Disorderly Transition (DT) Scenario	2030, 2050	Assuming a delayed start to the global transition, but still achieving net-zero emissions by 2050 and controlling temperature rise below 2°C by the end of the century.	2°C
	Long-term: Passive Transition (PT) Scenario	2030, 2050	Assuming a delayed transition with failure to control global temperature rise below 2°C by the end of the century, resulting in more severe warming impacts.	>4°C

### 3.2.2 Analysis Method

Based on transition risks and physical risks, we conduct a comprehensive assessment of risk pathways by industry, country, operating location, and collateral location to evaluate their impact on the upstream, midstream, and downstream segments of the value chain. This process enables us to identify potential financial impacts caused by climate change risks. For transition risks, the primary focus is on cost increases driven by external carbon pricing. For physical risks, the main considerations include prolonged heavy rainfall leading to work stoppages, short-duration heavy rainfall causing flooding, as well as risks from droughts, heatwaves, and landslides.

Value Chain Stage	Scope	Risk Transmission Pathways				Risk Factors	Indicators		
		Source of Risk	Key Factors	Pressure Pathways					
Upstream Supply Chain	Overseas Supplier	Transition Risk	Carbon tax / fee, Emission intensity	The transfer of carbon fees by suppliers leads to increased procurement costs.		Procurement Amount	Increased Procurement Amount		
	Domestic Supplier	Transition Risk	Carbon tax / fee, Emission intensity	The transfer of carbon fees by suppliers leads to increased procurement costs.		Procurement Amount	Increased Procurement Amount		
Owned Operational Sites	Domestic Owned Operational Sites	Physical Risk	Heavy rain / Flood	Climate change increases the probability of extreme rainfall events.		Flood Probability	Flood Risk Level		
	Overseas <ul style="list-style-type: none"> <li>Corporate Loans</li> <li>Stocks, bonds and equity investment</li> </ul>	Transition Risk	Carbon tax / fee, Emission intensity	Transition risk levels are established by industry and country under each scenario.		Credit Rating	Probability of Default (PD)		
Investment and Financing Portfolio	Domestic <ul style="list-style-type: none"> <li>Corporate Loans</li> <li>Stocks, bonds and equity investment</li> </ul>	Physical Risk	Flood / Drought / Heatwave	Physical risk levels are assessed by country under each scenario.		Operating Loan Ratio	Probability of Default (PD), Loss Given Default (LGD)		
		Transition Risk	Carbon tax / fee, Emission intensity	The ratio of revenue loss due to carbon pricing is evaluated based on scenario-specific carbon prices and corporate emission intensity.		Full Collateral Coverage Ratio	CLTV		
	Personal loan: Mortgage	Physical Risk	Flood / Landslide	Revenue loss risk levels are categorized by industry under each scenario.		Probability of Default (PD), Loss Given Default (LGD)			
			Heatwave	Revenue loss risk levels are assessed based on the geographical location of corporate operations under each scenario.					
	Personal loan: Others		Flood / Landslide	Collateral value impairment risk levels are determined based on the location of collateral assets under each scenario.					
			Overall Economy (GDP Growth, Unemployment, Long-term Interest Rate)						

### 3.2.3 Analysis Results

#### Climate Scenario Analysis for Upstream Supply Chain

To quantitatively assess the impact of climate risk of suppliers on E.SUN, we conducted an analysis of both transition and physical risks. The transition risk assessment indicates that if suppliers fully pass on additional carbon costs to E.SUN, the increase in procurement costs would be highest under the NGFS Net Zero 2050 scenario, with carbon cost pass-through accounting for approximately 1.89% of total procurement expenditure. The physical risk assessment indicates that, across all 2030 scenarios, domestic suppliers are classified within the low to lower-moderate risk range. E.SUN will continue to promote awareness and engagement through training and communication, encouraging suppliers to establish early response strategies. This approach aims to reduce costs on a reciprocal basis and foster sustainable development within the supply chain.

▼ Domestic suppliers transition risk analysis results ( Unit: \$NTD thousands )

Scenario Setting	Short term	NGFS Net Zero		IEA Net Zero	
		2030	2050	2030	2050
Other Manufacturing	844	17,730	45,772	12,919	23,069
Services (finance, service, real estate)	1,247	26,179	67,583	19,075	34,062
Construction	24	495	1,277	360	644
<b>Total</b>	<b>2,114</b>	<b>44,404</b>	<b>114,632</b>	<b>32,354</b>	<b>57,774</b>
Carbon cost ratio of total procurement expenditure	0.03%	0.73%	1.89%	0.53%	0.95%

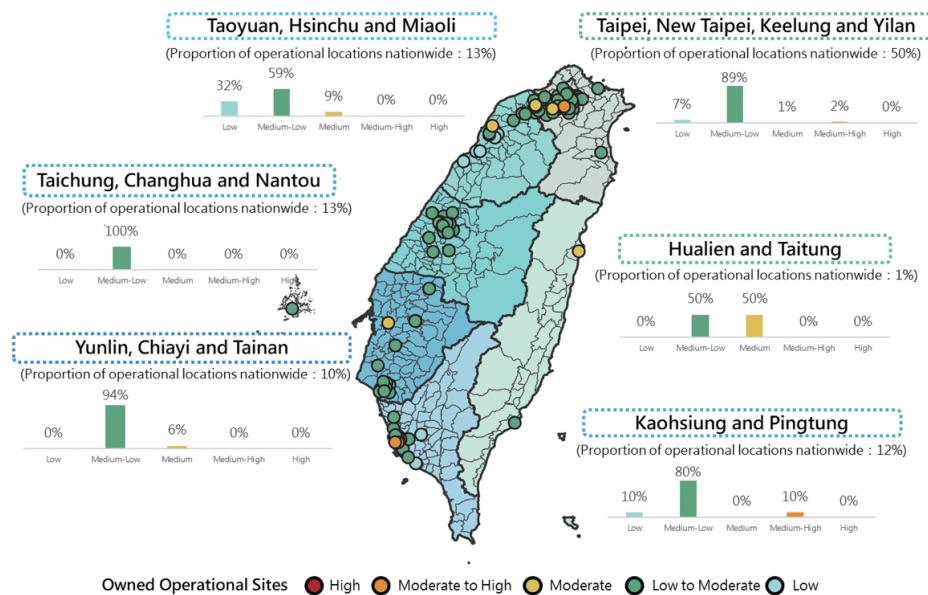
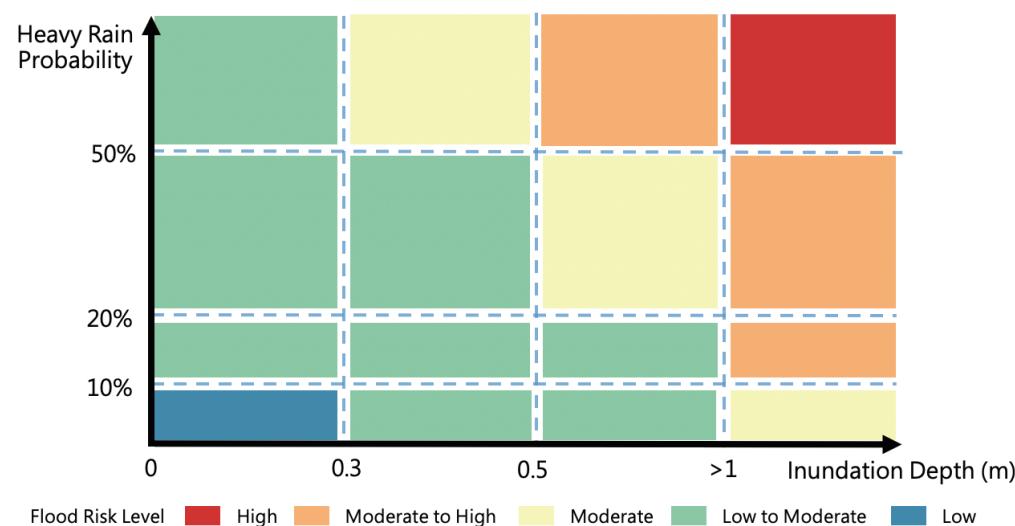
▼ Domestic suppliers physical risk analysis results ( Units: Percentage of suppliers )

Scenario Setting	Low-Emission Scenario ( SSP1-2.6 )		Medium-Emission Scenario ( SSP2-4.5 )		High-Emission Scenario ( SSP5-8.5 )	
	2030	2050	2030	2050	2030	2050
High Risk	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Moderate to High Risk	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Moderate Risk	0.00%	3.13%	0.00%	0.00%	0.00%	0.00%
Low to Moderate Risk	73.44%	92.19%	42.19%	90.63%	81.25%	93.75%
Low Risk	26.56%	4.69%	57.81%	9.38%	18.75%	6.25%



## Climate Scenario Analysis for Direct Operational Sites

Based on the severity, vulnerability, and exposure of physical risks, we assessed the probability of extreme rainfall events, potential flood depth, and the locations of E.SUN's direct operational sites under different climate scenarios. Referencing the IPCC Sixth Assessment Report (AR6) scenarios SSP1-2.6, SSP2-4.5, and SSP5-8.5, we established low-emission, medium-emission, and high-emission scenarios, using 2030, 2050, and the end of the century as analysis timeframes to comprehensively evaluate flood hazard risk levels for E.SUN's operational sites. The analysis results indicate that under all scenarios for 2030 and 2050, there are no high-risk sites. However, under the high-emission scenario at the end of the century, approximately 2.98% of operational sites are classified at a higher flood risk level.



(Unit: Percentage of operational sites)

Scenario Setting	Low-Emission Scenario ( SSP1-2.6 )			Medium-Emission Scenario ( SSP2-4.5 )			High-Emission Scenario ( SSP5-8.5 )		
	2030	2050	EoC*	2030	2050	EoC*	2030	2050	EoC*
High Risk	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.98%
Moderate to High Risk	0.00%	1.79%	0.00%	0.00%	1.19%	0.00%	0.00%	2.38%	5.36%
Moderate Risk	4.17%	5.95%	4.17%	4.17%	2.98%	4.17%	4.17%	2.98%	7.74%
Low to Moderate Risk	66.07%	76.79%	36.90%	51.19%	72.62%	70.24%	68.45%	85.71%	83.93%
Low Risk	29.76%	15.48%	58.93%	44.64%	23.21%	25.60%	27.38%	8.93%	0.00%

EoC\*: End-of-century



## Prevention and Response Measures for Direct Operations

### Typhoon Prevention Measures

In response to climate change extremes, particularly during the typhoon season, to prevent potential damage from strong winds and heavy rainfall, when the Central Weather Administration issues a typhoon land warning, E.SUN's internal system alerts all employees to remain vigilant against risks such as flooding, power outages, and falling objects.

#### ■ Pre-Typhoon Prevention:

- Clear debris from rooftops, balconies, and surrounding drainage areas to ensure proper drainage. For low-lying areas prone to flooding, prepare sandbags or assemble waterproof barriers to prevent water ingress and damage.
- Remove items that could fall and relocate plants indoors or secure them.
- Move important documents and equipment to higher ground and unplug devices. Close windows and doors before leaving the premises.
- To prevent unplanned power outages, ensure that generators are operational and refill them to at least 80% capacity to extend response time.
- Establish internal and inter-property emergency contact points and methods to promptly monitor the situation and coordinate disaster response.

#### ■ During the Typhoon:

- Stay updated on the latest typhoon warnings and avoid going out unless necessary.
- Stay clear of flooded areas to prevent electric shock injuries.
- Minimize exposure in open areas to reduce the risk of lightning strikes.

#### ■ Post-Typhoon Warning and Reporting:

- Continuously monitor the risk of falling objects, avoid touching downed power lines, and check for damage to doors, windows, and signage.
- Provide timely care to colleagues and, if safe, send personnel to inspect the premises. Report any abnormalities to the headquarters immediately.

### Flood Risk Mitigation Measures for High-Flood-Potential Branches

E.SUN utilizes the third-generation flood risk map from the Water Resources Agency to analyze potential flood depths. To prevent disruption of operations due to flooding, waterproof barriers have been installed at branches where potential flood depths exceed 0.5 meters. Currently, a total of 10 branch locations are equipped with these barriers.

### Emergency Response Measures for Flooding

To ensure uninterrupted operations, E.SUN regularly conducts typhoon preparedness drills with branch staff. In the event of significant disasters like flooding, emergency response and recovery measures will be activated for affected sites, and on-site personnel are trained to adapt and minimize branch damage.

#### ■ Emergency Response Plans and Recovery Measures:

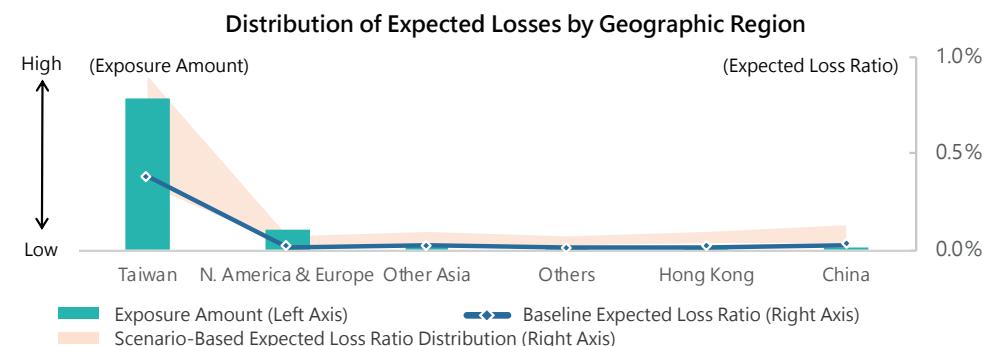
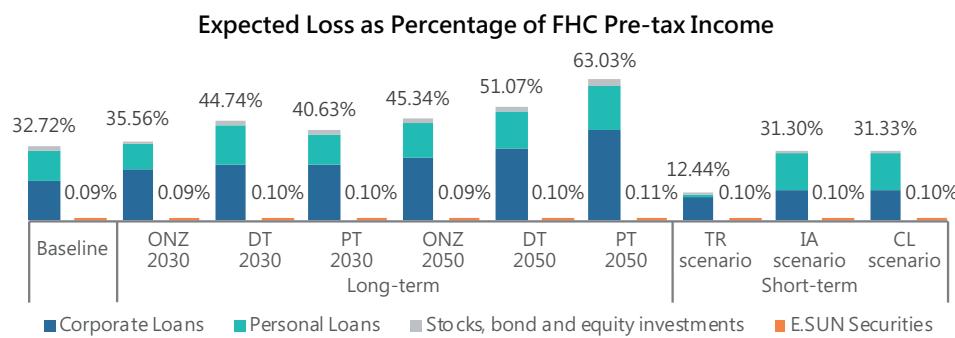
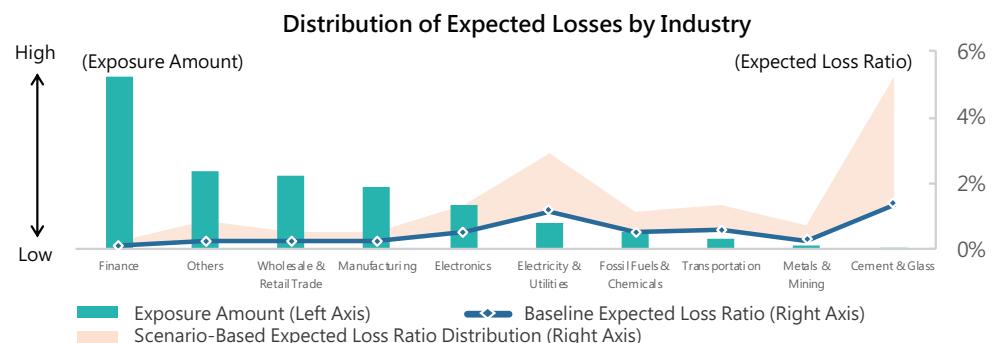
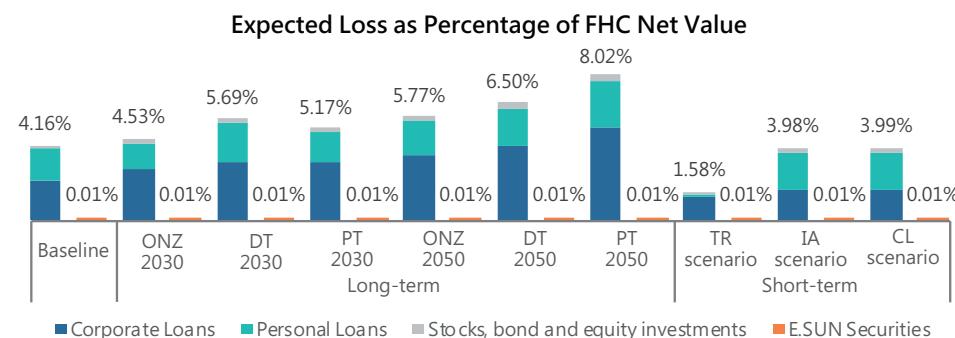
- Immediately arrange for administrative staff to assess on-site damage.
- Depending on the affected unit's condition, promptly dispatch relevant professional contractors for support and repairs.
- Ensure that power and information networks remain operational and unobstructed.
- For critically damaged operational equipment, implement necessary reinforcement or repairs immediately to ensure operational safety.
- If damage is severe and regular operations cannot proceed, urgently seek an appropriate location to handle business and implement adequate recovery actions.



## Climate Scenario Analysis for Investment and Financing Portfolio

Based on E.SUN Bank and E.SUN Securities' domestic and international corporate credit, domestic and international bonds, equity investments, and personal loans, the assessment follows the methodology outlined in the FSC's "Guidelines for Domestic Banks Conducting Climate Change Scenario Analysis." E.SUN adopts an advanced method to transition and physical risk analysis by evaluating the potential financial impacts of climate risks using the economic carbon intensity and geographic coordinates of investment and financing portfolios. This enhances the granularity and accuracy of the assessment.

The analysis results indicate that the largest expected losses for E.SUN Bank and E.SUN Securities occur under the 2050 Passive Transition scenario, accounting for approximately 8.02% and 0.01% of E.SUN Financial Holding Company's baseline net worth in 2024, respectively. Among these, E.SUN Bank represents about 96.64% of E.SUN FHC's assets, while E.SUN Securities accounts for approximately 0.85%. By industry category, expected losses remain relatively low across major exposure sectors such as financial and sovereign entities, wholesale and retail, and manufacturing under all scenarios. By geographic region, expected losses are primarily concentrated in domestic positions, with overall expected loss rates remaining below 1% across all scenarios.



Note 1: The short-term scenario includes only domestic corporate loans, individual mortgage loans, and domestic bonds and equity investments.

Note 2: The expected loss rate is defined as the ratio of expected loss to exposure amount.

Note 3: Abbreviations – ONZ (Orderly Net-Zero), DT (Disorderly Transition), PT (Passive Transition), TR (Transition Risk), IR (Intensity Adjusted), CL (Combined Loss).



## (1) Analysis of High Energy Consumption and High Carbon Emission Industries

In response to extreme climate events, countries have set “Net Zero by 2050” targets and introduced various carbon reduction measures and policies, which may significantly impact the operations and revenues of high energy-consuming and high carbon-emitting industries. These impacts could affect companies’ repayment capacity and increase default risk. Furthermore, such industries are generally more sensitive to physical risks from extreme climate events, such as flooding and drought, which may disrupt operational continuity and stability. Therefore, it is necessary to conduct an in-depth analysis of these industries to strengthen climate risk management.

According to the Ministry of Economic Affairs, based on Article 8, Paragraph 2 of the Energy Management Act, the six major energy-consuming industries include petrochemicals, electronics, steel, cement, textiles, and paper manufacturing. Using credit exposure of domestic and international enterprises as the analysis scope, approximately 11.10% of exposures fall within high energy-consuming and high carbon-emitting industries, with the electronics industry accounting for the largest share at 8.04%. Under various scenarios, the expected loss as a proportion of the financial holding company’s baseline net value (2024) is highest under the 2050 Passive Transition scenario, totaling 0.65%.

### Six Major Energy-consuming Industries

(Unit: Percentage)

Industries	Exposure percentage	Expected loss as percentage of FHC net value										
		Baseline	2030			2050			Short-term			
			ONZ	DT	PT	ONZ	DT	PT	TR	IA	CL	
Petrochemicals	0.78	0.02	0.02	0.03	0.03	0.03	0.03	0.04	0.02	0.02	0.02	
Electronics	8.04	0.29	0.35	0.41	0.35	0.41	0.45	0.48	0.17	0.17	0.17	
Steel	0.76	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.01	0.02	0.02	
Cement	0.09	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	
Textiles	0.61	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	
Paper making	0.82	0.01	0.03	0.02	0.03	0.03	0.06	0.08	0.01	0.01	0.01	
<b>Total</b>	<b>11.10</b>	<b>0.35</b>	<b>0.43</b>	<b>0.49</b>	<b>0.45</b>	<b>0.50</b>	<b>0.57</b>	<b>0.65</b>	<b>0.22</b>	<b>0.23</b>	<b>0.23</b>	

Note: Abbreviations – ONZ (Orderly Net-Zero), DT (Disorderly Transition), PT (Passive Transition), TR (Transition Risk), IR (Intensity Adjusted), CL (Combined Loss).

## (2) Businesses Required to Inventory and Verify GHG Emission Sources

According to the Climate Change Response Act, industries such as power generation, steel, petroleum refining, cement, semiconductors, and thin-film transistor liquid crystal display (TFT-LCD) manufacturing are required to publicly disclose their greenhouse gas emissions if their annual Scope 1 emissions exceed 25,000 metric tons. In addition, manufacturing companies with combined Scope 1 and Scope 2 emissions above the same threshold must also comply with this disclosure requirement.

Based on the Ministry of Environment’s latest (2023) analysis of inventory registration status, a total of 553 business entities, representing 305 companies, have been classified as registration subjects nationwide. As of the end of December 2024, E.SUN has 69 domestic credit customers that meet the registration criteria, with approximately 70% belonging to the electronics manufacturing sector.

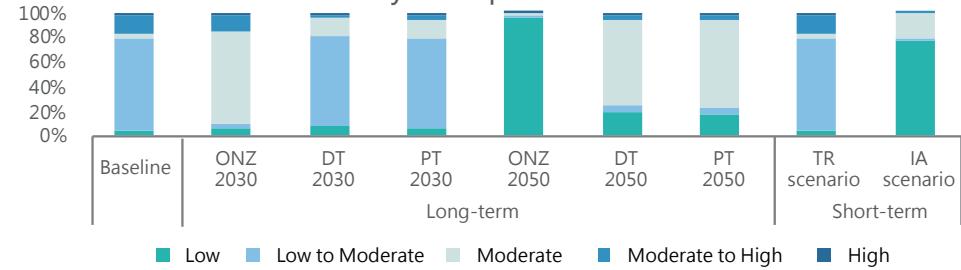
E.SUN conducted climate change scenario analysis for these customers, and the results are summarized in the table below. Under the 2050 Orderly Net-Zero (ONZ) scenario, most customers’ transition risk levels shift to low risk due to proactive carbon reduction efforts. Conversely, under the 2050 Passive Transition (PT) scenario, where carbon reduction measures are assumed to start later, most customers’ transition risk levels rise to moderate risk, resulting in higher expected losses and the most significant impact from climate-related risks.

### Expected Losses of Businesses Required to Inventory and Verify GHG Emission Sources

(Unit: \$NTD million)

Baseline	2030			2050			Short term		
	ONZ	DT	PT	ONZ	DT	PT	TR	IA	CL
562.68	616.56	786.36	680.17	698.34	774.38	932.68	564.97	595.80	596.11

### Distribution of Transition Risk of Enterprises that are required to conduct inventory and inspection of GHG emissions



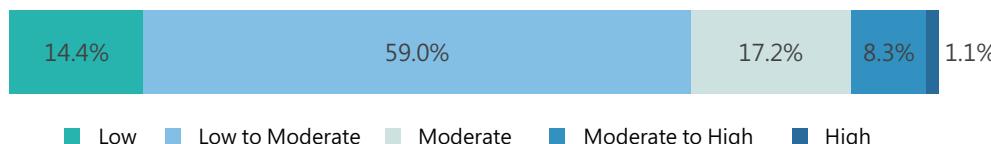
### (3) Financial Impact Analysis of Transition Risks

Transition risks are primarily influenced by the decarbonization policies of the countries where investment and financing targets are located, the carbon emission intensity of the targets themselves, and the industry sectors to which they belong. E.SUN has adopted an advanced method, utilizing actual carbon emission intensity data of domestic targets to conduct a detailed analysis of the potential financial impacts on its investment and financing portfolios under various transition scenarios.

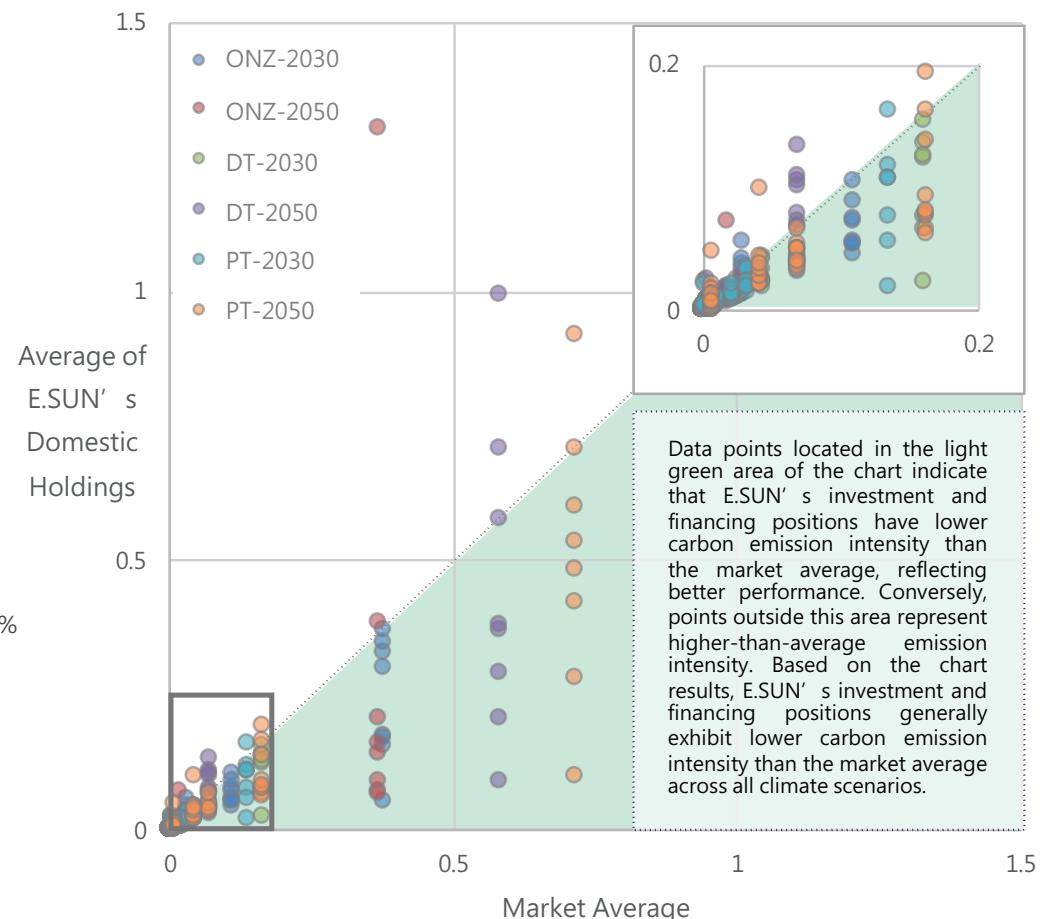
As illustrated in the figure below, approximately 90.6% of E.SUN's overseas investment and financing exposures are in countries with transition risk levels classified as "Low," "Low to Moderate," or "Moderate." For domestic exposures, the analysis is conducted by industry division classification. Results show that around 80% of the exposures have carbon emission intensity below the market average across all scenarios, indicating better performance. Moreover, in most industries, the proportion of revenue affected by transition risks is below 20%.

Overall, the comprehensive analysis indicates that E.SUN's investment and financing portfolios are relatively less impacted by transition risks.

#### National Transition Risk Level Distribution



#### Revenue Impact Ratio by Industry Due to Transition Risks





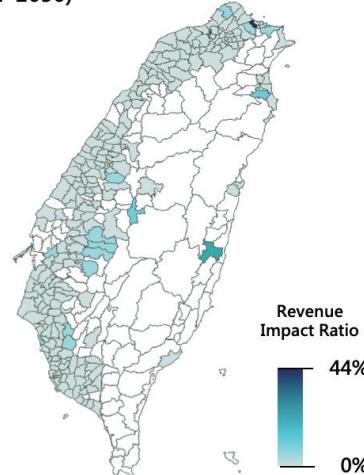
#### (4) Financial Impact Analysis of Physical Risks

Physical risks are primarily assessed based on whether the operating locations of investment and financing targets, as well as the locations of collateral assets, are situated in areas with high climate risk. The analysis evaluates the potential impacts of extreme weather events on business continuity and asset value. Using exposure-weighted averages, the spatial granularity of the assessment reaches the township and district level. Under the 2050 Passive Transition scenario, which represents the highest level of physical risk impact, 98% of the operating locations of domestic corporate investment and financing exposures fall within the “Low” to “Low to Moderate” risk levels. Among these, the average ratio of revenue affected by physical risks is approximately 1.9% for financing exposures and 3.3% for investment exposures. For domestic real estate collateral, the average ratio of revenue affected by physical risks is around 6.9%.

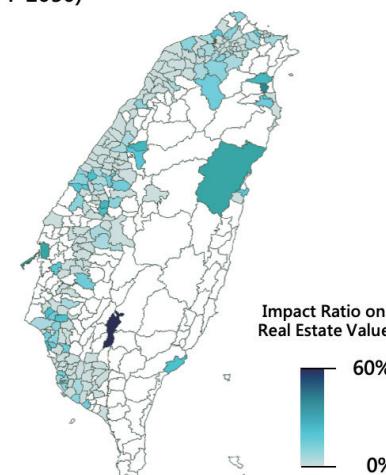
**Distribution of Physical Risk Levels for Domestic Investment and Financing Portfolios – 2050 Passive Transition Scenario**



**Domestic Financing Portfolio – Revenue Impact Ratio from Physical Risks (PT-2050)**



**Domestic Collateral – Real Estate Value Impact Ratio from Physical Risks (PT-2050)**

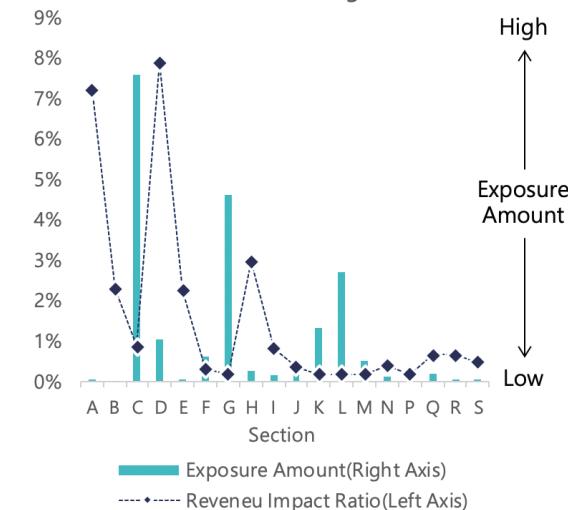


#### (5) Financial Impact Analysis of Short-term Scenarios

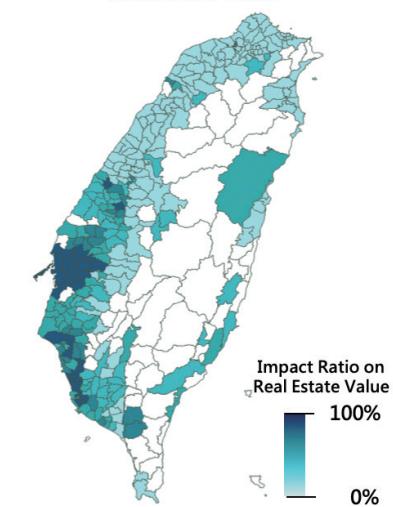
Short-term scenarios primarily assess the potential financial impacts on the Bank's investment and financing portfolios arising from specific climate-related physical or transition shock events occurring in the near future. Compared to long-term scenarios that focus on the overall effects of climate change, short-term scenarios assume the occurrence of specific climate events and estimate the expected loss amounts they may cause. This assessment categorizes hazards into two types: Transition Risk Scenario and Intensity-Adjusted Scenario (refer to Section 3.2.1 Climate Scenario Settings and Appendix VII for details). Due to the assumptions underlying climate shock events, the scope of short-term scenario analysis is limited to domestic corporate credit, personal mortgage loans, domestic bonds, and equity investments.

The results indicate that transition risks lead to an average revenue impact ratio of approximately 1.6% for corporate clients, while physical risks result in a higher average impact ratio of 5.5%, suggesting that physical risk events are the primary risk drivers in short-term scenarios. The average degree of impact on collateral value from physical risk events is approximately 33.8%, with more significant effects observed in central and southern Taiwan, mainly due to the simulated path of Typhoon Morakot in the scenario assumptions.

**Impact Ratio of Transition Risks on Revenue for Domestic Financing Positions**



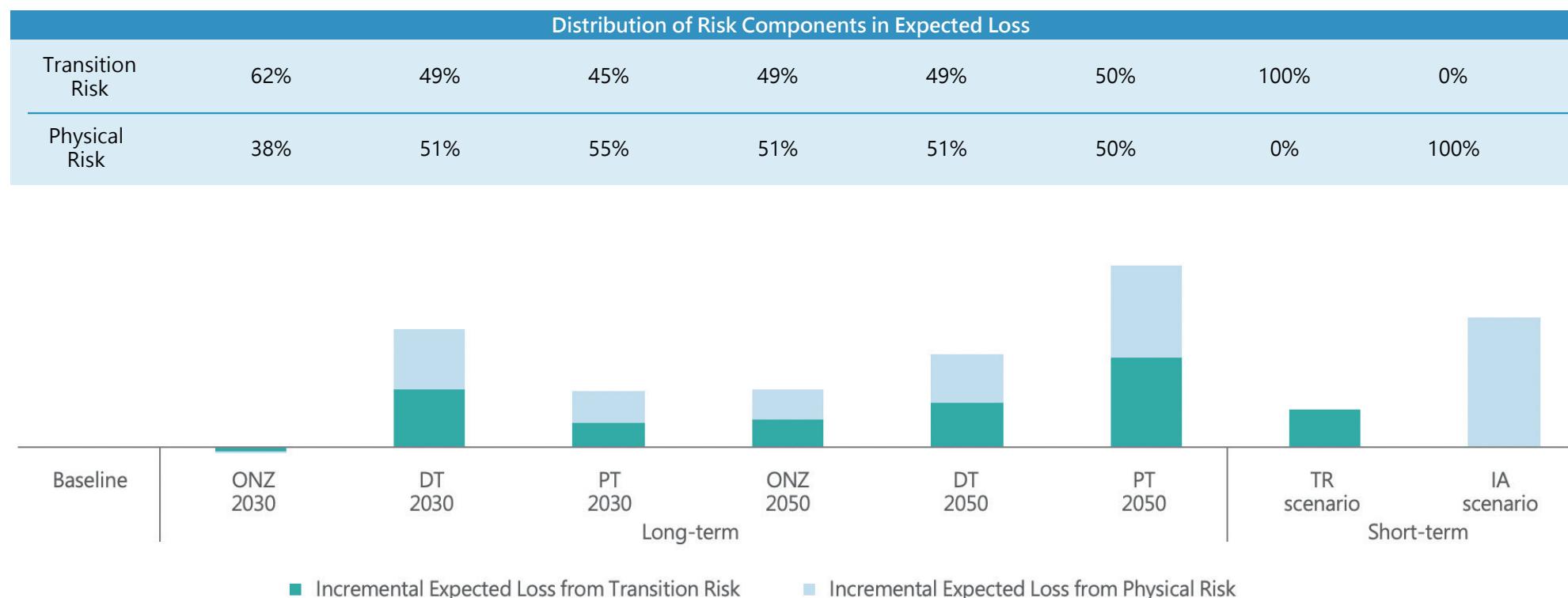
**Impact Ratio of Physical Risks on Real Estate Value**



## (6) Summary

Through climate change scenario analysis, E.SUN can quantify the potential impacts of climate change on its upstream, midstream, and downstream value chain under different scenarios, thereby supporting the formulation of corresponding strategies and management measures. This year's analysis is categorized into long-term and short-term climate events. The long-term scenarios include the Orderly Net-Zero, Disorderly Transition, and Passive Transition scenarios, while the short-term scenarios comprise the Transition Risk Scenario and Intensity-Adjusted Scenario.

Based on the financial impact on revenue, the expected losses of domestic corporate investment and financing exposures are disaggregated to evaluate the relative weight of transition and physical risks within the overall risk composition. The results show that in the medium term (2030), expected losses are higher under the Disorderly Transition scenario due to intensified policy constraints. However, from a long-term (2050) perspective, the Passive Transition scenario leads to the greatest expected losses, indicating that failure to actively implement climate mitigation and adaptation measures may result in higher risks. When assessing the impact of individual climate events in the short term, physical risks remain the dominant risk driver. E.SUN will continue to enhance its assessment capabilities to improve the comprehensiveness and accuracy of risk identification.



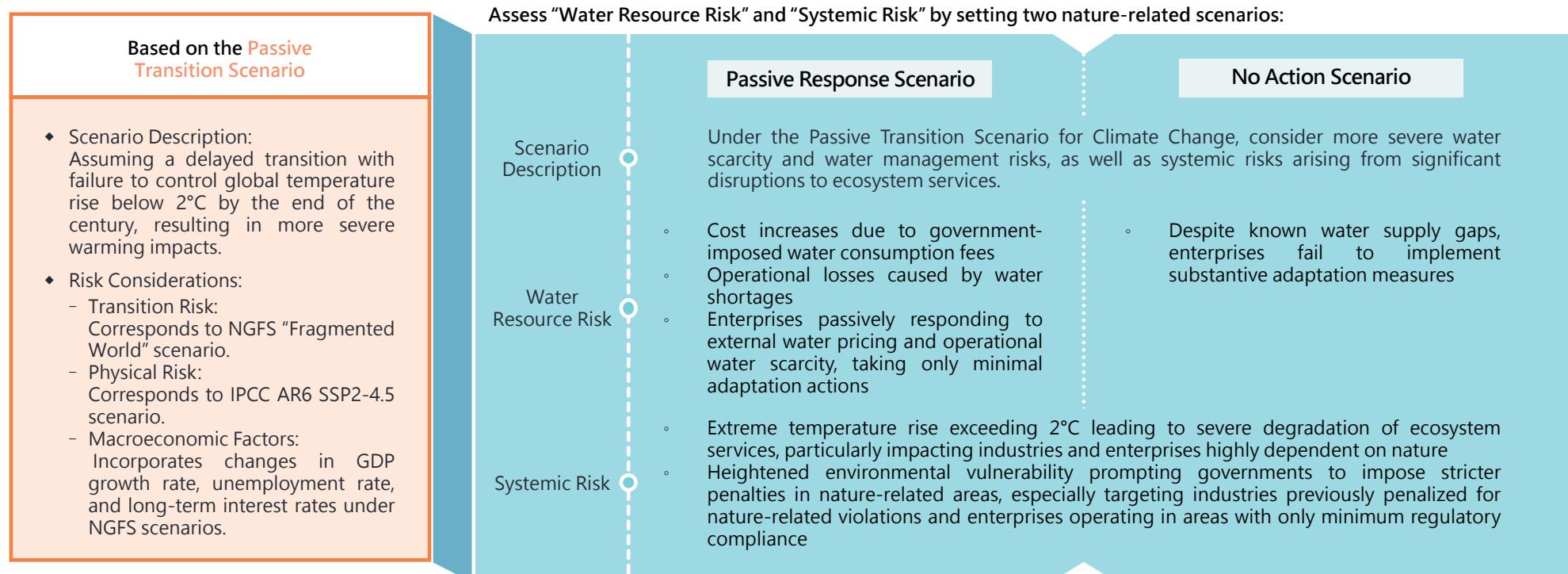
Note: Abbreviations – ONZ (Orderly Net-Zero), DT (Disorderly Transition), PT (Passive Transition), TR (Transition Risk), IR (Intensity Adjusted), CL (Combined Loss).

## 3.3 Nature-related Scenario Analysis

### 3.3.1 Nature Scenario Settings

Climate change is closely intertwined with changes in the natural environment. According to the World Economic Forum (WEF) Global Risks Report 2025, climate, biodiversity, and natural capital risks are identified as the most critical long-term risk issues. To enhance the comprehensiveness and integrity of risk identification, E.SUN builds upon the Passive Transition scenario from climate change scenario analysis and incorporates nature-related risks such as systemic risk and water resource risk into its assessment framework. Two nature-related scenarios are established: The Passive Response Scenario and the No Action Scenario.

Systemic risk refers to the chain reactions triggered by severe degradation of species or ecosystem services, resulting in a loss of balance within the entire system that cannot be restored to its original state. This may negatively impact on the operational activities of investment and financing targets, as well as the value of collateral assets. Water resource risk includes both water scarcity risk caused by droughts and water management risk arising from government intervention in water resource governance.



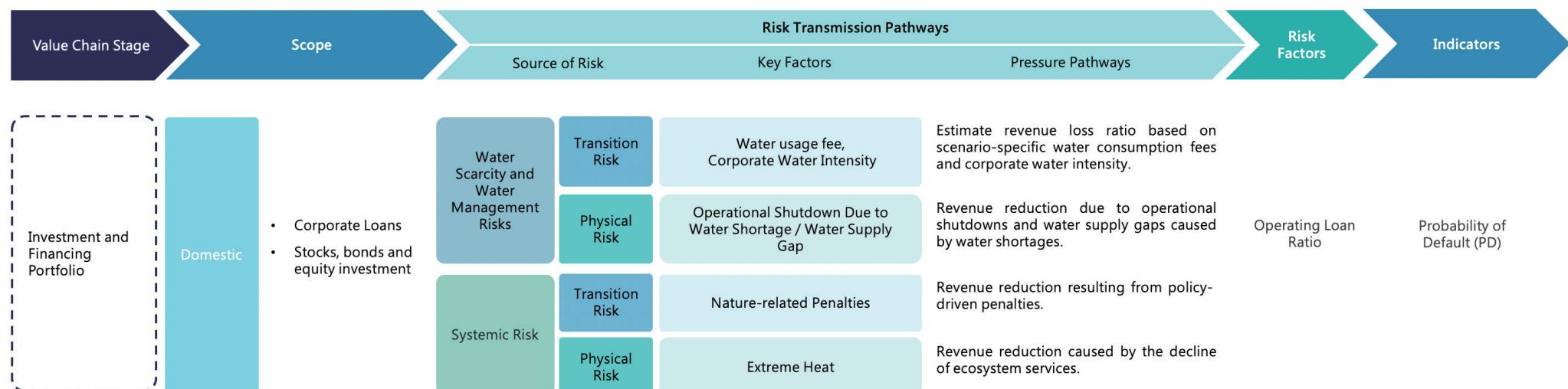
Note: Water scarcity refers to a condition in which prolonged periods of below-average natural precipitation lead to insufficient water storage, resulting in an inability to meet the water resource demands of industrial, commercial, and socio-economic activities.



### 3.3.2 Analysis Method

The financial impacts of nature-related risks are assessed based on systemic risks and water resource risks, taking into account industry sectors, operating locations, and customers' natural resource usage. The assessment draws upon data sources including the IPCC Sixth Assessment Report (AR6), the Water Usage Fee Collection Regulations issued by the Ministry of Economic Affairs, and penalty records from 2019 to 2024 related to corporate use or discharge of natural resources. These serve as the basis for determining the severity of risk impacts.

For systemic risks, the assessment focuses on two key risk factors: extreme heat events and penalty risks arising from nature-related policies. For water resource risks, the analysis centers on potential risks such as increased operational costs due to water pricing policies, production losses caused by water scarcity, and the expansion of water supply gaps.

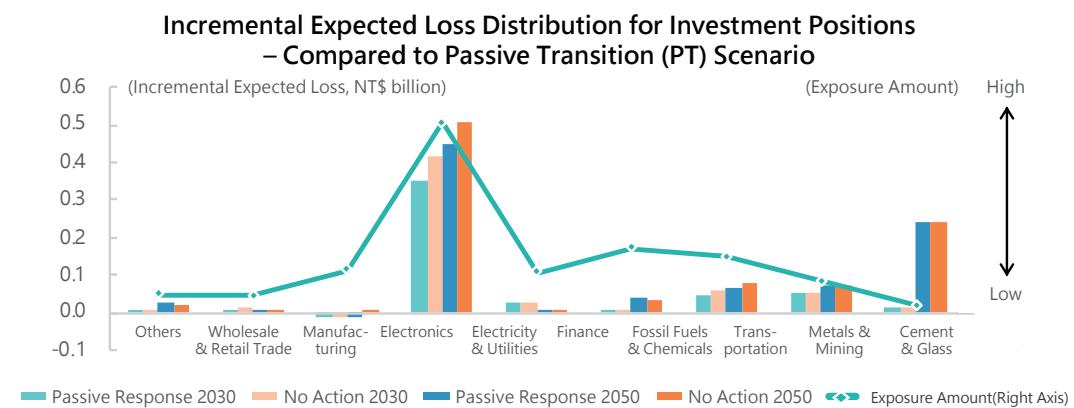
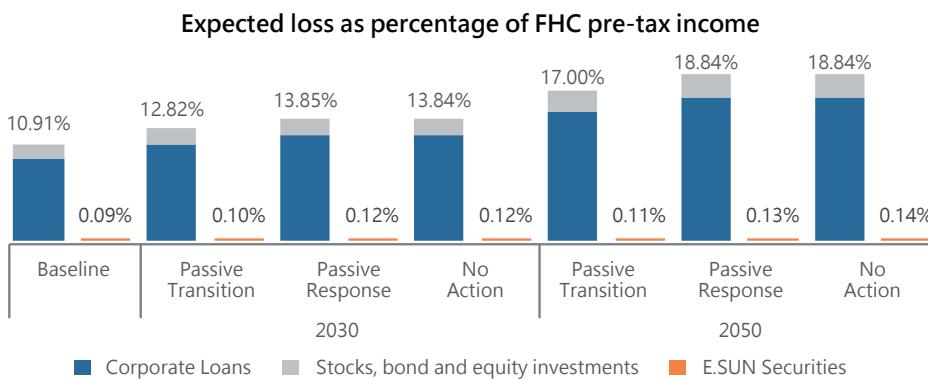
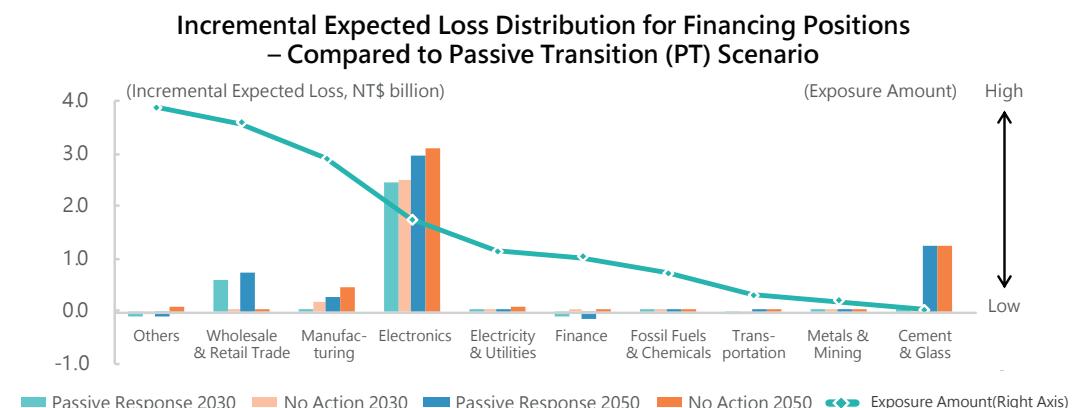
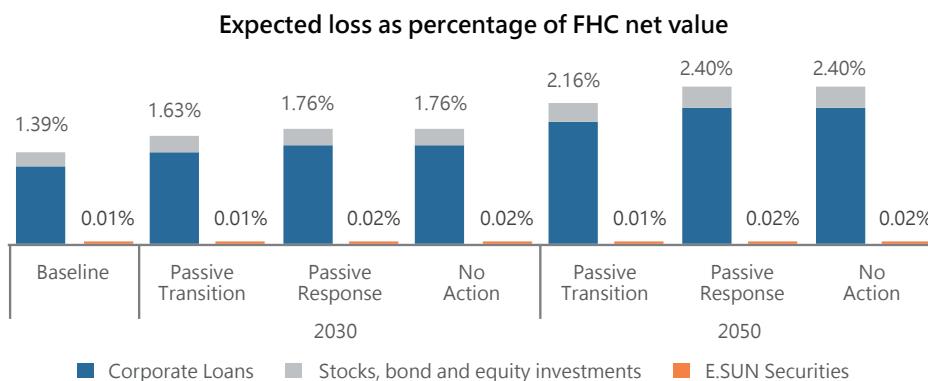




### 3.3.3 Analysis Results

Building upon the Passive Transition scenario from climate change scenario analysis, E.SUN further incorporates nature-related risks—namely systemic risk and water resource risk—to assess the potential financial impacts on domestic corporate credit, domestic bonds, and equity investments held by E.SUN Bank and E.SUN Securities, under nature-related risk shocks. The analysis evaluates the extent to which these risks may affect E.SUN Financial Holdings' overall net worth and pre-tax profit.

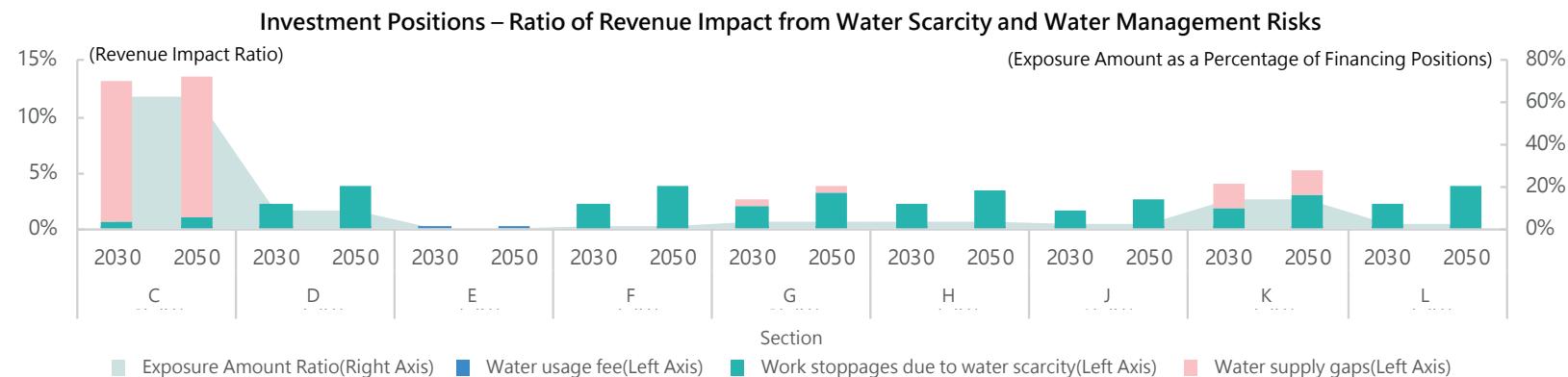
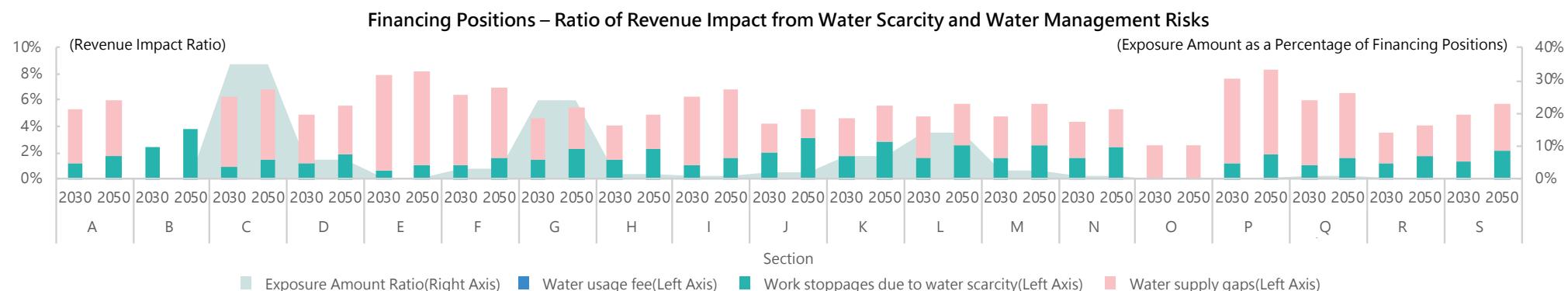
The results indicate that in the medium term (2030), the largest expected losses for E.SUN Bank and E.SUN Securities occur under the Passive Response Scenario, accounting for 1.76% and 0.02% of E.SUN FHC's baseline net worth in 2024, respectively. In the long term (2050), the No Action Scenario yields higher expected losses, reaching 2.40% and 0.02%, respectively—an increase of 0.24% and 0.01% compared to the Passive Transition scenario. Further analysis by industry section shows that across all scenarios, the increase in expected loss amounts due to nature-related risks for domestic investment and financing exposures remains below NT\$600 million. E.SUN will continue to strengthen our risk assessment capabilities to enhance our overall understanding and responsiveness to nature-related risks.



### (1) Water Scarcity and Water Management Risks

In recent years, the importance of water scarcity and water management risks has continued to rise. The stability of water supply is not only critical to the resilience of industrial supply chains but may also influence foreign investors' willingness to invest. E.SUN considers potential risks such as increased operational costs due to the government's imposition of water usage fees, revenue losses or supply chain disruptions caused by work stoppages due to water shortages, and the widening of water supply gaps. Investment and financing exposures are assessed separately, with the revenue impact ratio used as the final indicator of risk transmission.

The analysis results show that financing exposures are more significantly affected by water supply gaps, with the highest revenue impact ratio reaching approximately 7.24%. The impact of work stoppages due to water scarcity shows an upward trend in the long term (2050), with the maximum impact ratio around 3.76%. For investment exposures, Section C (Manufacturing) is the most affected by water scarcity and water management risks, with combined impact ratios of approximately 13.15% in 2030 and 13.51% in 2050, primarily driven by water supply gap risks. For other industry sections, work stoppages due to water scarcity are the dominant risk factor, with overall impact ratios remaining below 5.3%.



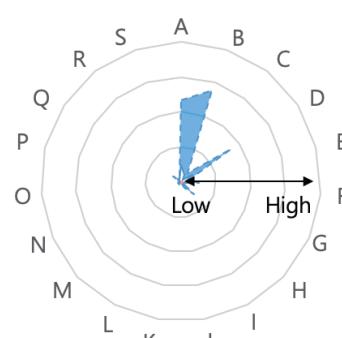
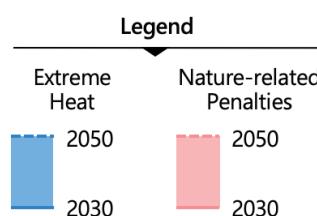


## (2) Systemic Risk

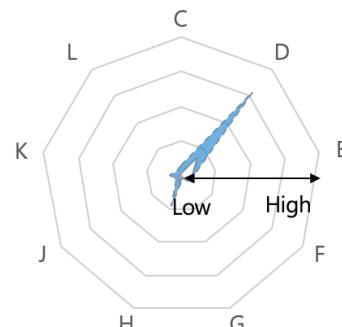
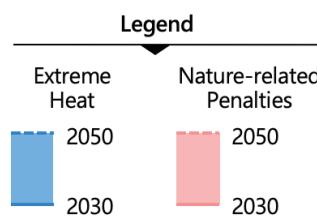
E.SUN considers the potential damage to ecosystem services caused by extreme temperature increases, which may lead to biodiversity loss and a significant decline in natural capital. The analysis also incorporates risks arising from the potential strengthening of government regulations on natural environment management, including the possibility of increased penalty amounts. Investment and financing exposures are assessed separately.

The analysis results indicate that the most significant impact on revenue from systemic risks stems from the degradation of ecosystem services caused by extreme temperature increases. Under the long-term scenario (2050), industries classified under Sections A, B, and D show a more pronounced upward trend in expected losses. This is primarily due to the high dependency of these industries on natural capital, as well as the relatively greater environmental impact of their activities compared to other sectors.

### Financing Positions—Ratio of Revenue Impact from Systemic Risks, by section



### Investment Positions—Ratio of Revenue Impact from Systemic Risks, by section



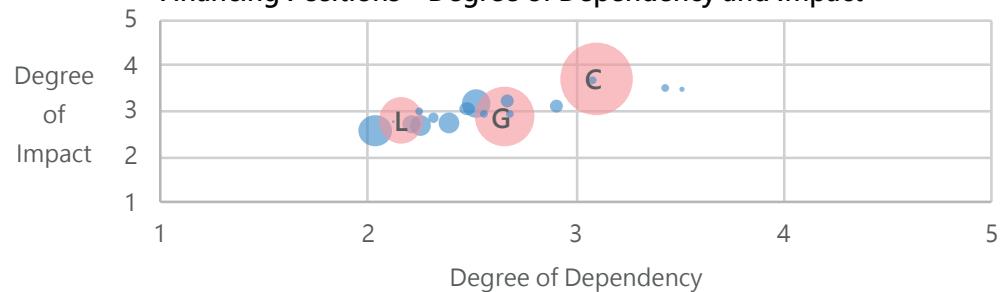
## (3) Dependency and Impact Level Analysis

Based on the results of dependency and impact assessments from Chapter 2, E.SUN examined the relationship between industry sections, dependency levels, impact levels, and investment and financing exposures. The analysis was conducted separately for investment and financing portfolios. The levels of dependency and impact are scored from 1 to 5, ranging from low to high, while the size of each circle represents the proportion of exposure.

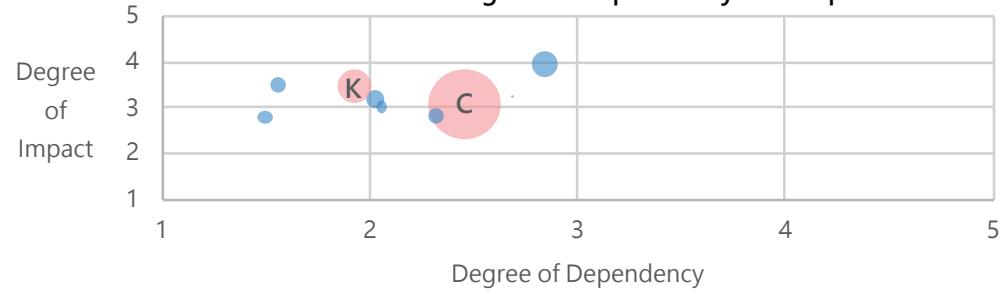
The analysis results show that financing exposures are primarily concentrated in Section C (Manufacturing), Section G (Wholesale and Retail Trade), and Section L (Real Estate Activities), with most dependency and impact levels falling within the Low to Moderate (2 points) to Moderate (3 points) range. Overall, the exposures are mainly at a moderate level, with impact levels slightly higher than dependency levels.

For investment exposures, Section C (Manufacturing) and Section K (Financial and Insurance Activities) account for the largest proportions. Dependency levels are generally between Low to Moderate and Moderate, while impact levels range from Moderate to Moderate to High.

### Financing Positions – Degree of Dependency and Impact



### Investment Positions – Degree of Dependency and Impact

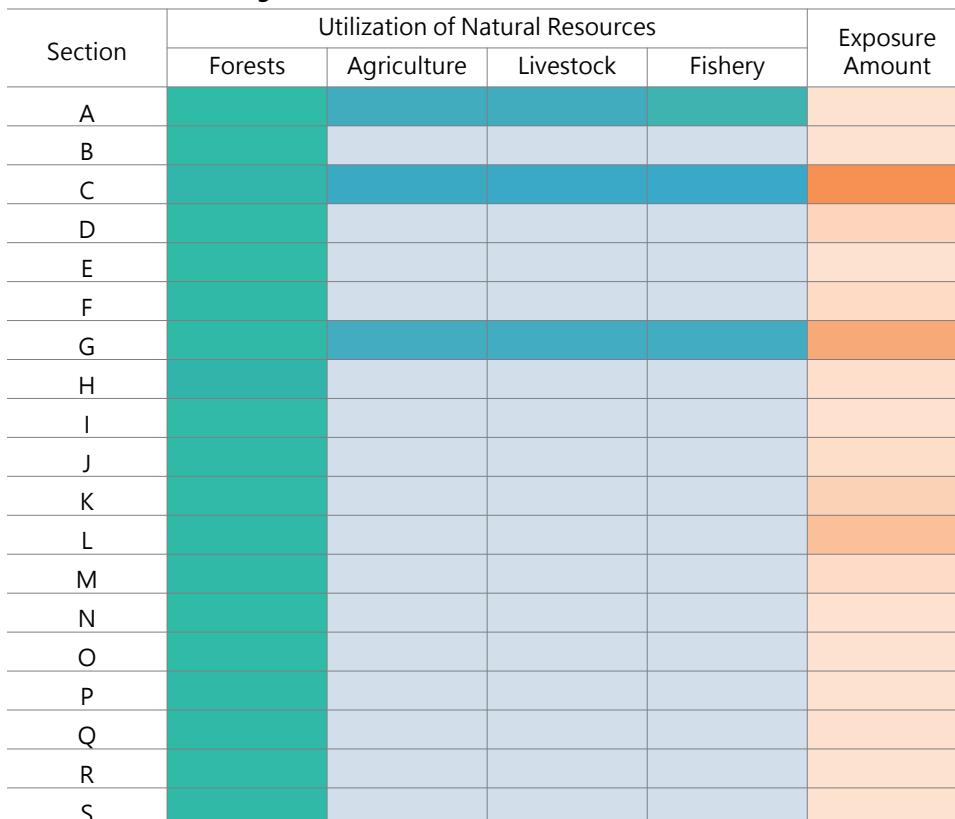




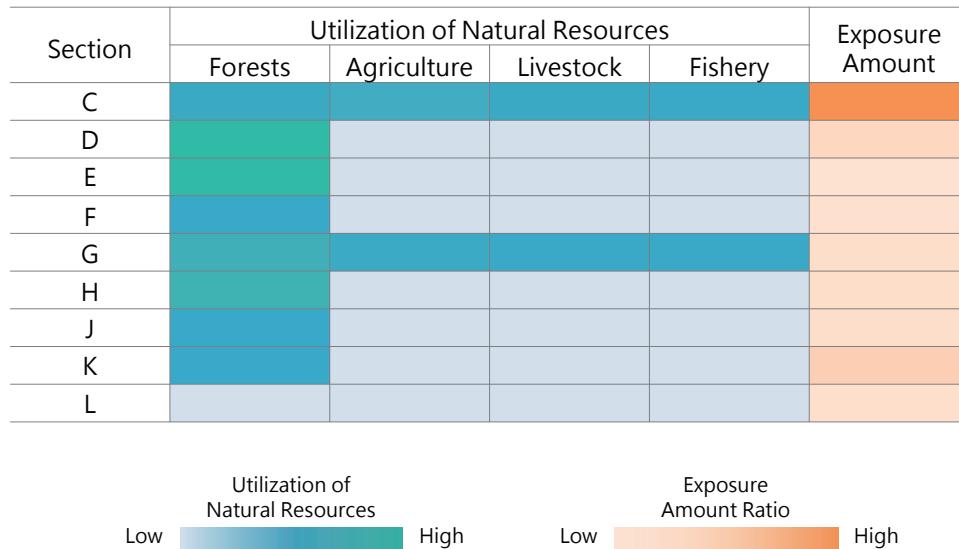
#### (4) Distribution of Natural Resource Use for Investment and Financing Portfolio

Based on the industry section classification defined by the Directorate General of Budget, Accounting and Statistics, E.SUN further analyzed the usage of natural resources across domestic investment and financing exposures. The results are presented in the table. Among the four categories of natural resources—forests, agriculture, livestock, and fishery—forest resources are more widely used across industries. The other three categories are primarily concentrated in Section A (Agriculture, Forestry, Fishing and Animal Husbandry), Section C (Manufacturing), and Section G (Wholesale and Retail Trade), which aligns with the findings from the previous dependency and impact level analysis. Although Section K (Financial and Insurance Activities) and Section L (Real Estate Activities) show relatively high dependency and impact levels in the overall investment and financing portfolio, this is mainly due to their large exposure amounts. Their actual usage of natural resources is relatively limited. E.SUN will continue to enhance our risk assessment capabilities and monitor the potential downstream environmental impacts arising from our investment and financing activities.

**Financing Positions – Distribution of Natural Resource Use**



**Investment Positions – Distribution of Natural Resource Use**



Note: Industry Sections: A – Agriculture, Forestry, Fishing & Animal Husbandry; B – Mining & Quarrying; C – Manufacturing; D – Electricity & Gas Supply; E – Water Supply & Remediation Activities; F – Construction; G – Wholesale & Retail Trade; H – Transportation & Storage; I – Accommodation & Food Service Activities; J – Information & Communication; K – Financial & Insurance Activities; L – Real Estate Activities; M – Professional, Scientific & Technical Activities; N – Support Service Activities; O – Public Administration, Defence & Social Security; P – Education; Q – Human Health & Social Work Activities; R – Arts, Entertainment & Recreation; S – Other Service Activities.



## 3.4 Opportunity Scenario Analysis

### Methodology

In response to climate and nature-related changes, enterprises must enhance resource efficiency and management, and invest in innovation for green products and services to achieve net-zero emissions and nature-positive growth. E.SUN actively collaborates with customers on the path toward low-carbon transition by offering green finance and sustainable financial products, providing funding support throughout their transition journey, expanding financial influence, and continuously exploring related business opportunities. The “Taiwan 2050 Net-Zero Emissions Pathway Blueprint” formulated by the National Council for Sustainable Development sets decarbonization targets for each industry. Given that 68% of global carbon emissions originate from energy use, with electricity generation accounting for 26% (UNEP, Emissions Gap Report 2024), E.SUN conducted an opportunity analysis to better quantify and evaluate future business development potential related to low-carbon energy transition financing needs. We adopted the GCAM 6.0 model under the NGFS Phase V scenario to assess Taiwan’s low-carbon energy transition investment demand, using it as a reference indicator to estimate future growth opportunities in financing and credit services.

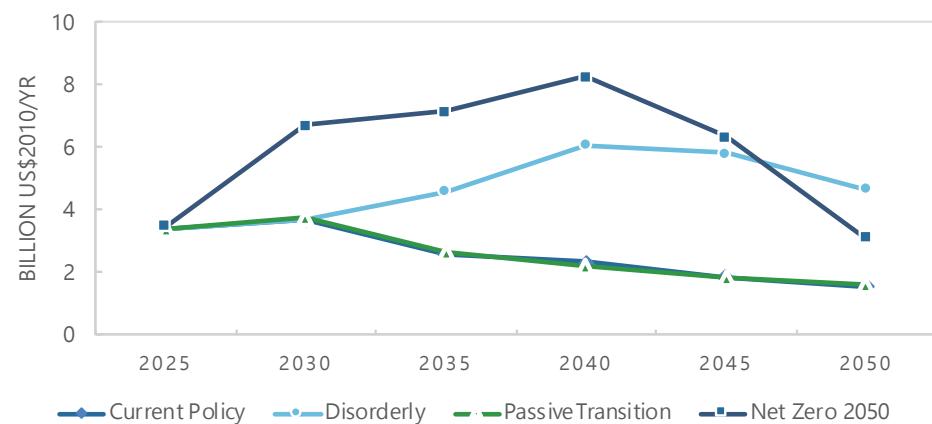
### Analysis Results

According to the energy transition investment demand estimated by the GCAM 6.0 model, the 2050 Net Zero scenario indicates that the highest rate of capital investment growth will occur between 2025 and 2030, requiring an annual growth rate of approximately 24%. After reaching a peak in 2040, the demand will begin to slow. Under the Disorderly Transition and Current Policy scenarios, the growth between 2025 and 2030 is more modest, requiring about 14% annual capital growth. After 2030, as net-zero pressures increase, capital demand under the Disorderly Transition scenario will continue to rise until 2045. The funding requirements for corporate transitions show a growth trend for both 2030 and 2050. E.SUN will continue to monitor the transition needs of enterprises and provide green products and services to seize the opportunities presented.

Percentage of Carbon Reduction by Industry



Forecast Of Investment Requirements For  
Taiwan’s Energy Transition



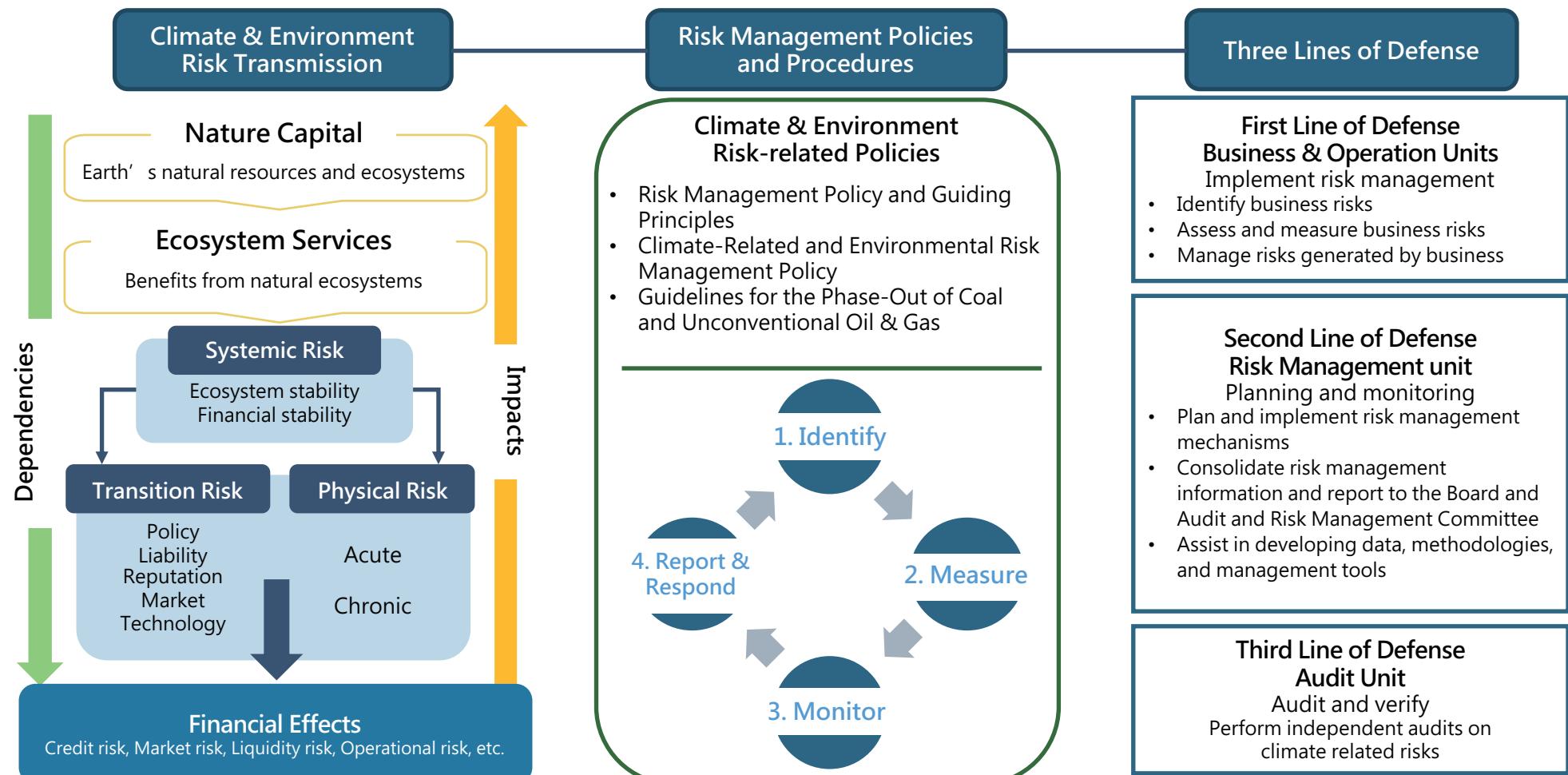
# 04 Risk and Impact Management

- 4.1 Climate and Environment Risk Management
- 4.2 Climate and Environment Risk Response
- 4.3 Differentiated Management



## 4.1 Climate and Environment Risk Management

E.SUN follows its enterprise risk management framework through processes such as risk identification, assessment, response, monitoring, and reporting. The Company has established the "E.SUN FHC Risk Management Policy and Guiding Principles" to manage major risk sources and set relevant standards. ESG risks are incorporated into this framework, supported by the "E.SUN FHC/Subsidiaries Climate-Related and Environmental Risk Management Policy" to strengthen ESG and climate risk oversight. Aligned with international standards such as TCFD and TNFD, E.SUN has built a science-based climate governance framework that advances carbon accounting, decarbonization targets, and climate risk management. Using the Three Lines of Defense model, E.SUN enforces robust internal controls and measures to effectively address and monitor significant climate and environmental risks.





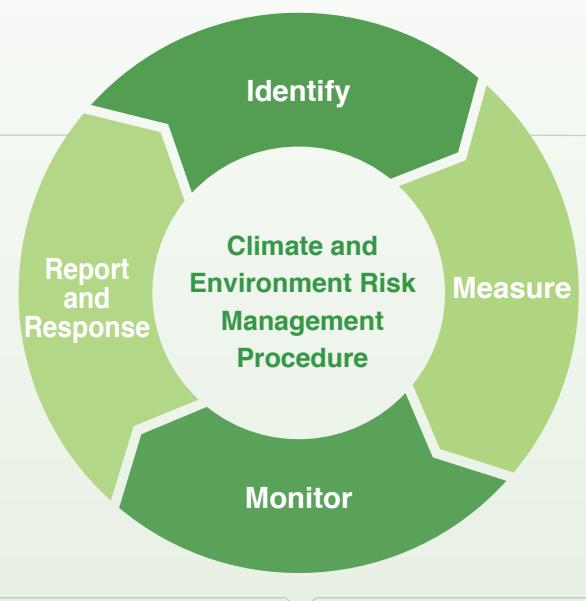
#### 4.1.2 Climate and Environment Risk Management Procedure

##### 1. Identify

- Regularly monitor relevant laws, guidelines, and publications to enhance the integrity of identifying climate-related risks that may impact business and operations.
- Establish the materiality of climate and environmental risks and opportunities through the indicators recommended by TCFD and TNFD, relevant laws, guidelines, literature, and internal experts.
- Incorporate climate change-related risks and opportunities into the management and decision-making processes for investment and underwriting, and enhance identification of enterprises with high climate and nature risks in lending.

##### 4. Report and Response

- Present climate and environmental risk reports to the board of directors at least every six months and conduct regular risk reporting for senior management to assess the exposure and management of climate and natural environment-related risks.
- If climate and environmental risk impacts threaten overall operations or business conditions, take appropriate management actions immediately and report to the board of directors.
- Follow regulatory authorities' climate change-related guidelines for information disclosure.
- Introduce IFRS S2 standards, and report progress to the board regularly.
- Respond to identified risks, establish or adjust internal policies, business strategies, and set climate-related metrics and targets to reach E.SUN's climate vision.



##### 3. Monitor

- Establish indicators that connect climate and nature factors and monitor.
- Implement Science-Based Targets (SBT).
- Adopt risk-based and differentiated management measures based on the results of climate and nature related risk assessments.

##### 2. Measure

- Inventory greenhouse gas emissions of investments and financing activities.
- Assess the proportion and potential impacts of climate and nature-sensitive assets.
- Regularly conduct scenario analysis and stress tests on physical risks, transition risks and systemic risks to inform strategy development and risk management.



## 4.2 Climate and Environment Risk Response

To mitigate climate and environmental risks and strengthen organizational resilience, E.SUN integrates risk assessment results with climate and natural resource scenario analyses. Based on internal capabilities, key management measures and resource allocations are summarized in the table below.

Risk Item	Scope	Risk Factors	Management Measures
1. Carbon taxes/fees or additional expenses related to nature	Low-carbon Transition	Reduce operation and portfolio related carbon emissions	<p><b>Resource allocation</b></p> <ul style="list-style-type: none"> <li>Follow PCAF methodology to inventory financed emissions, develop a financed emissions management system to improve transition risk identification, investing approximately NT\$6 million.</li> <li>Inventory Scope 1 and 2 carbon emissions, and plan mitigation measures (such as installing solar panels, using renewable energy, etc. E.SUN's related expenditures in 2024 totaled NT\$126 million.</li> <li>Set targets and reduce carbon emissions according to the SBTi.</li> </ul> <p><b>Capacity utilization</b></p> <ul style="list-style-type: none"> <li>Fulfill responsibility as asset owners or managers by considering the ESG performance of investees.</li> <li>Avoid investing in companies with direct or potential environmental and social impacts, such as coal companies, and implement responsible investment.</li> <li>Promote or assist companies in raising sustainability awareness and implementing ESG actions through engagement.</li> <li>Support companies in transitioning and responding to climate risks by providing green financing for renewable energy projects, green buildings, and other sustainable expenditures.</li> </ul>
	Financing	Corporate crediting	
	Investing	Equity and bonds investment	
2. Stricter climate and nature regulations	Financing	Corporate crediting Real estate collateral loans	<p><b>Capacity utilization</b></p> <ul style="list-style-type: none"> <li>Refuse collateral labeled as pollution-related sites or those announced by government agencies as subject to the "Soil and Groundwater Pollution Remediation Act.</li> <li>Link loan terms to performance in ESG or sustainability indices to encourage companies to invest in sustainability.</li> <li>Refer to the guidance of the Banker Association's Equator Principles 4.0 for corporate credit approval process.</li> </ul>
	Direct Operations	Compliance and reputation	<p><b>Capacity utilization</b></p> <ul style="list-style-type: none"> <li>Include ESG considerations in the credit approval process to prevent funds from flowing into high-carbon emitters such as coal fired power projects.</li> <li>The provision of green-related financial products and services is guided by the "Guidelines for Financial Institutions to Prevent Greenwashing," which outlines design and measures to avoid greenwashing, as well as establishes internal mechanisms for effective management.</li> </ul>
8. Natural disasters	Financing	Real estate collateral loans	<p><b>Resource allocation</b></p> <ul style="list-style-type: none"> <li>Establish a physical risk database and integrate GIS technology to enhance risk identification and management, strengthening real estate collateral lending risk controls.</li> </ul> <p><b>Capacity utilization</b></p> <ul style="list-style-type: none"> <li>Conduct yearly assessments of real estate impairment risk from climate change, continuously improving databases, analytics, and physical risk scenario testing.</li> <li>Include flood risk factors, such as hazard severity and area vulnerability, into real estate collateral zoning standards, setting lending limits and LTV caps to control potential loss.</li> <li>Regularly review high flood-risk cases; properties in high-risk zones with high LTV ratios are flagged for reassessment of collateral value and lending limits.</li> <li>Strengthen inspections and appraisals for properties in hazardous hillside areas, applying stricter credit conditions and higher approval authority requirements.</li> </ul>
			<p><b>Resource allocation</b></p> <ul style="list-style-type: none"> <li>E.SUN utilizes the third-generation flood risk map from the Water Resources Agency to analyze potential flood depths. To prevent business disruptions, flood proof barriers have been installed at 10 branches where potential flood depths exceed 0.5 meters.</li> <li>Implement sustainable procurement standards for supplier management</li> </ul> <p><b>Capacity utilization</b></p> <ul style="list-style-type: none"> <li>Develop the "Emergency Response and Crisis Management Measures" based on the "Financial Institution Disaster Emergency Response Measures Manual Template" and operational overview to ensure operational continuity and organizational resilience</li> <li>The "Continuous Information Service Management Regulation" takes into consideration power supply interruption and regional flooding recovery.</li> </ul>
	Direct Operations	Supplier management	



## 4.3 Differentiated Management

Environmental risks are closely tied to industry operations and geographic characteristics, requiring tailored management strategies across sectors and regions. E.SUN prioritizes high-sensitivity or nature-dependent industries and locations by establishing ecological threshold indicators and setting critical limits. This layered approach enables more effective risk identification, resource allocation, and response planning. E.SUN actively manages the carbon footprint of its financial assets by increasing green investments and reducing exposure to carbon-intensive sectors. Through responsible capital allocation, the bank supports energy transition and advances global climate goals. Looking ahead, E.SUN will continue to strengthen spatially differentiated management, enhancing its ability to identify and respond to regional and sector-specific risks, expanding the positive impact of the financial industry.

Management Measures	Description
Avoid	<ul style="list-style-type: none"><li>According to "E.SUN FHC Sustainable Finance Policy," companies involved in illegal logging, harming endangered wildlife, developing coal mines, or setting up new coal-fired power projects should be avoided.</li><li>According to "E.SUN FHC Coal and Unconventional Oil &amp; Gas Phase-Out Policy," enhance management and set plans to phase-out of high GHG emitting coal companies and unconventional oil &amp; gas companies.</li><li>Real estate collateral listed in the "Soil and Groundwater Pollution Remediation Act" should be avoided.</li></ul>
Enhanced Management	<ul style="list-style-type: none"><li>Companies involved in tobacco, gambling, mining, and leather and fur-related activities should be carefully evaluated and regularly monitored.</li><li>E.SUN has signed the Equator Principles, and according to Equator Principles 4.0, climate change has been designated as a necessary item for project financing assessments.</li><li>For project financing tied to power, oil and gas, petrochemicals, and infrastructure projects above a certain scale, implement risk classification management under the Equator Principles, carefully assessing whether project development processes are fulfilling social responsibilities and properly establishing monitoring and improvement plans for environmental and social impacts. Analyze climate-related physical and transition risks, environmental pollution, biodiversity, and other material issues for each project financing case.</li><li>Develop specific differentiated measures in enhanced due diligence process to address industry-specific climate and environmental risks, including carbon emissions, climate risks, biodiversity, toxic substance management, and water resources.</li><li>Incorporate the hazard and vulnerability of climate risk factors into real estate collateral zoning standards to manage credit business climate risks within jurisdiction divisions.</li><li>Strengthen the review process for cases in areas with high landslide risk.</li><li>Establish mechanisms to encourage customers with environmental pollution penalties to address their issues.</li></ul>
Actively Support	<ul style="list-style-type: none"><li>Support social innovation and local economic revitalization industries by providing customized financial services, financial counseling, and marketing resources, thereby enhancing the drive towards SDGs in Taiwan.</li><li>Increase investment and financing in forward-looking economic activities aligned with the key strategies outlined in the National Development and Reform Commission's 2050 net-zero emission pathway. This includes sectors such as renewable energy, hydrogen energy, power systems and energy storage, energy conservation, carbon capture utilization and storage, vehicle electrification and decarbonization, resource recycling and zero waste, and natural carbon sinks.</li></ul>

# 05 Integration into Business and Operations

- 5.1 Corporate Banking
- 5.2 Investment
- 5.3 Consumer Banking - Lending
- 5.4 Consumer Banking - Payment
- 5.5 FinTech and Innovation
- 5.6 Sustainable Operating Environment
- 5.7 Nature and Biodiversity Contribution Activities

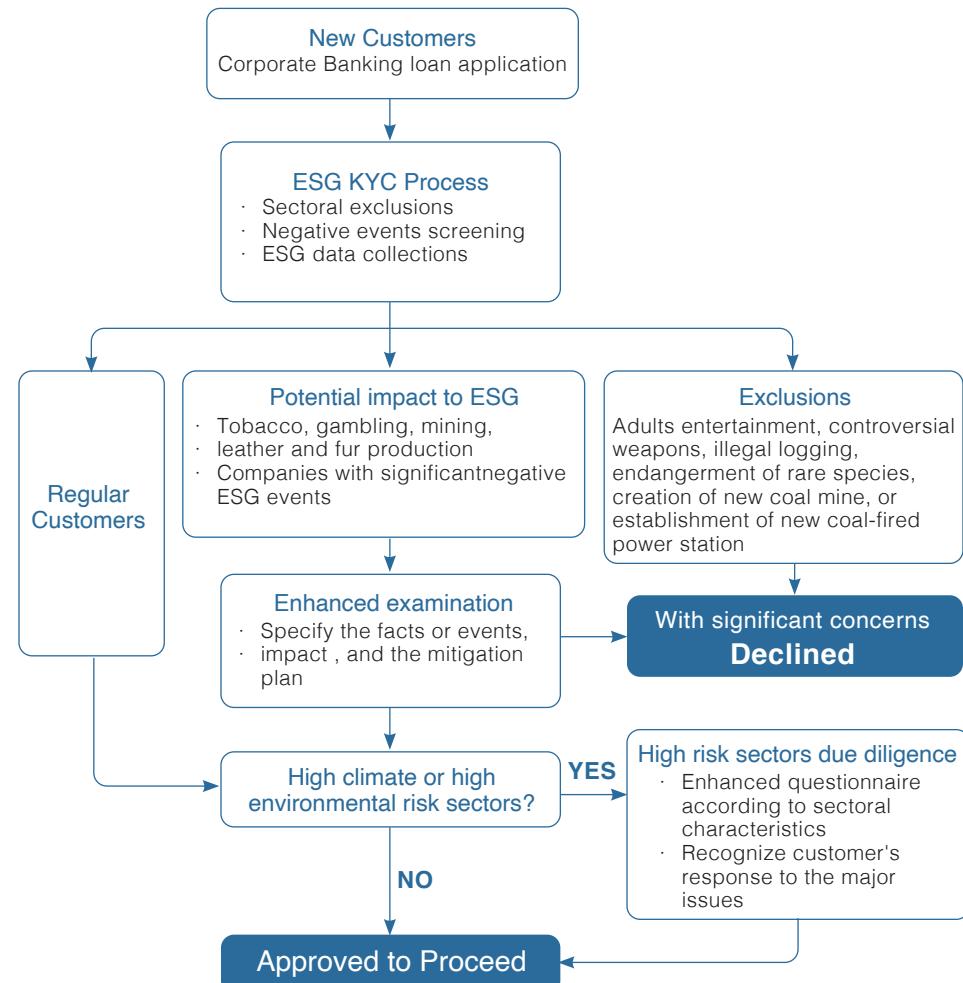




# 5.1 Corporate Banking

## 1.1. Environmental and Climate Risk Management Mechanism for Corporate Banking

- (1) Under the “E.SUN FHC Sustainable Finance Policy”, E.SUN incorporates ESG risk factors into credit reviews to identify and control environmental and social risks. Borrowers involved in pollution or sectors such as coal power, coal mining, illegal deforestation, wildlife trade, arms, or pornography are strictly excluded. High-risk industries such as tobacco, gambling, mining, tanning, require enhanced evaluation and review.
- For high-climate-risk industries, such as coal-related businesses and unconventional oil & gas extraction, E.SUN applies strict checks under the Guidelines for the Phase-Out of Coal and Unconventional Oil & Gas. If these activities represent a significant share of revenue, case-by-case controls and phased divestment are implemented.
  - E.SUN continues to enhance its climate and environmental risk management mechanisms, encouraging enterprises to disclose information related to carbon emissions, water usage, electricity consumption, and more. We focus on conducting due diligence on industries significantly affected by climate and environmental risks, taking into account the specific characteristics of those industries (as referenced in Ch.3). Throughout the enhanced review process, we design differentiated assessment criteria that include climate risk, biodiversity, and water resources. This is implemented during the credit approval process, strengthening evaluations and explanations to guide business units in recognizing industry-specific ESG issues and to better understand how credit clients respond to related risks.
  - Regarding collaterals with climate risks, such as properties in high-flood-risk areas, E.SUN reduces the LTV ratio and requires relevant insurance coverage to ensure effective physical risk management in the credit process.





## (2) Environmental and Nature Risk Management for Large Projects

- For project financing in sectors such as power generation, oil & gas, and infrastructure that meet certain scale criteria, E.SUN implemented the Equator Principles beginning in 2015 to conduct tiered project risk management. We carefully assess whether the project's development process fulfills environmental and social responsibilities and establish effective monitoring and improvement plans for impacts. Following the framework of the Fourth Edition of the Equator Principles, we analyze each project financing case for material issues, including climate-related physical and transition risks, environmental pollution, and biodiversity. For more details, please refer CH 3.1 in the 2024 E.SUN FHC Sustainability Report.
- E.SUN continues to enhance its biodiversity assessment capabilities by utilizing databases such as the International Biodiversity Analysis Tool (IBAT) to identify whether project scopes involve sensitive biodiversity conservation areas and to evaluate impacts on biodiversity.
- In addressing climate change and the protection and restoration of natural capital, we recognize the importance of just transitions, particularly for Indigenous peoples and local communities closely connected to nature, who play crucial roles in safeguarding natural resources. In addition to environmental and natural risks, E.SUN follows the Equator Principles to assess human rights-related issues, including reviewing whether project developers have previously been involved in human rights disputes and utilizing third-party due diligence reports to understand the project's impacts. If a project's site involves specific Indigenous areas, E.SUN also focuses on ensuring that the development process does not violate local cultural protections and that communication with local communities is conducted to ensure the project upholds environmental and social responsibilities.

## 2. Corporate Loan Carbon Management

E.SUN demonstrates responsible lending practices by incorporating the Partnership for Carbon Accounting Financials (PCAF) methodology in our carbon inventory. We use Science-Based Targets (SBTs) and internal carbon pricing mechanisms to guide this process. We actively monitor carbon-intensive borrowers and support industries and clients in their transition to low-carbon operations

### (1) Science-Based Targets (SBT)

E.SUN follows the Science-Based Targets Initiative (SBTi) guidelines to set medium to long-term carbon reduction goals. Clear carbon reduction pathways and targets are established for three major credit asset categories: project financing for power generation, commercial real estate, and medium to long-term loans for non-SMEs. Carbon-intensive borrowers related to these targets are managed through annual tracking of carbon intensity changes and analysis of target achievements. In addition, we encourage active engagement in low-carbon businesses and increasing dealings with entities with carbon reduction targets.

### (2) Internal Carbon Pricing in Credit Process

In 2021, E.SUN developed an internal carbon pricing mechanism related to credit management, which was officially implemented in July 2022. This mechanism guides business units to prioritize the transition risks and impacts of international carbon pricing on their credit clients. It also assists in credit portfolio management through functionalities such as carbon intensity classification and carbon emission estimation:

- Internal carbon pricing reports reveal the carbon emissions associated with credit borrowers, converting them into more easily understood carbon cost concepts. Management tools aid business units in estimating future carbon emissions.
- International carbon trading mechanisms, including the World Bank's global carbon market-weighted price and international decarbonization pathways, are considered in cost calculations for excess carbon emissions. Incentives are provided through mitigation mechanisms to encourage more green credit and sustainable financing, reflecting the emission reduction achievements of credit borrowers.
- Provide a "Financing Carbon Emissions Calculator" for business units to estimate the carbon emissions of their corporate clients, allowing the estimation of scope 3 carbon emissions that E.SUN may need to bear.
- In 2025, performance reward mechanisms have been established to encourage business units to reduce carbon intensity.

## 5.2 Investment

Referencing the Principles for Responsible Investment (PRI), E.SUN incorporates environmental, social, and governance (ESG) factors into equity and bond investment analysis and decision-making. E.SUN Bank has established the "E.SUN Bank Securities Sustainable Investment Management Principles" to manage high ESG-risk companies, allowing investments only when no significant adverse impacts are identified. E.SUN also developed an ESG Sustainable Investment Assessment Model, integrating weighted indicators from domestic and international sources, including Science Based Targets (SBT) and carbon pricing. The model categorizes scores into seven ratings to guide investment decisions. To enhance evaluation accuracy, E.SUN continues to collaborate with data providers and expand quantitative indicators. These efforts aim to improve investment quality and influence investee companies toward sustainable practices, amplifying positive impact on business, society, and the environment.

### Investment Analysis and Decision Process

#### Divestment from Coal and Unconventional Oil and Gas Industries

E.SUN adheres to the "Guidelines for the Phase-Out of Coal and Unconventional Oil & Gas" to strengthen control over coal and unconventional fossil fuel industries associated with high greenhouse gas emissions and to propose a phase-out plan.

#### Exclusion of Controversial ESG Industries

- Direct impact: E.SUN avoids engaging with industries involved in adult entertainment, controversial weapons, illegal logging, endanger of rare species, coal mining, or project finance of coal-fired power plants.
- Potential impact: E.SUN conducts diligent evaluations and periodic monitoring of industries involved in tobacco, gambling, leather and fur production, and mining, among others.

#### Investment Targets Selection

- E.SUN established its own ESG sustainable investment evaluation model, assigning investment targets into seven ratings from AAA to CCC.
- Consideration of external ESG Indicators:  
DJSI / MSCI ESG ratings / S&P Global ESG Score / Bloomberg ESG ratings / Sustainalytics ESG ratings / Components of the Taiwan Sustainable Index / Taiwan Corporate Governance Evaluation
- Investment targets must achieve a rating of BBB or higher based on E.SUN's ESG evaluation model.

### Monitoring and Management

- In cases where invested companies have significant negative impacts on ESG, E.SUN verifies with the companies or engages with the management team.
- Regular and ad hoc communications for information disclosure with invested companies.
- Disclosure of voting information at shareholder meetings.

### Establishment and Implementation of Sustainability Plans

- Set and periodically review SBTs (Science Based Targets) for companies in securities investment.
- Elevate investment strategies from ESG integration goals to a focus on sustainability and impact.
- Encourage companies to respond to initiatives and take action to promote environmental sustainability.



## Issuance of Sustainability Bonds to Support Biodiversity

On April 10, 2024, E.SUN Bank issued its first sustainable bond focused on renewable energy, biodiversity, and forestry conservation. This marks the first time that biodiversity issues have been incorporated into the investment projects funded by bond proceeds in Taiwan, aligning the promotion of sustainable investment with actions for biodiversity protection and restoration.

Following the issuance of the first green bond in Taiwan in 2017, E.SUN has issued sustainability bonds annually. As of June 2025, the total issuance amount has exceeded NT\$27.4 billion, making E.SUN the largest issuer of sustainability bonds among Taiwan's domestic banks in terms of both scale and number of issues. By continuously extending the scope of fund utilization and expanding environmentally and socially responsible execution plans, E.SUN demonstrates its commitment to deepening and broadening sustainable finance.

- 2017
  - In May 2017, E.SUN issued green financial bonds, which were the first priced sustainable development bonds in Taiwan
  - Since 2017, E.SUN has participated in the issuance of sustainable bonds every year
- 2023
  - In 2023, in response to the FSC's "New Wealth Management plan", E.SUN issued three foreign currency structured financial bonds, becoming the first domestic bank to link financial products suitable for high-asset customers to ESG
- 2024
  - In 2024, E.SUN issued its first sustainability bonds that encompass renewable energy, biodiversity, and forestry conservation.

Sustainability bond investments towards ESG	
Green Projects	Social Projects
1. Renewable energies and technology development 2. Conservation of Agricultural and Forestry Resources 3. Biodiversity conservation	1. Basic service needs 2. Affordable housing 3. Programs to create jobs and alleviate or prevent unemployment caused by socioeconomic crises 4. Socioeconomic development and rights protection

Newest inclusions	Corresponding E.SUN projects	Related SDGs
Conservation of Agricultural and Forestry Resources	E.SUN-NTU ESG Centenary Project "Plant a Tree, Plant a Life" Project	SDG 11 (Sustainable Cities and Communities) SDG 13 (Climate Action) SDG 15 (Life on Land)
Biodiversity Conservation	E.SUN Malavi Project	SDG 14 (Life Below Water) SDG 15 (Life on Land)



## 5.3 Consumer Banking – Crediting

### Climate and Nature-related Products and Services

*"Encouraging Customers to Install Solar Power Systems  
for Net-Zero Transition"*

#### Sunlight Roof Loan Project

According to the Executive Yuan's announcement of Taiwan's Pathway to Net-Zero Emissions in 2050, the target for renewable energy usage in 2050 is set at over 60% to achieve the decarbonization of electricity supply. In response to government policies and to promote clean energy, E.SUN encourages both large enterprises and individual households, as well as small businesses, to install rooftop solar power generation equipment. Through financial resources, E.SUN actively assists households and enterprises in reducing carbon emissions, working hand-in-hand with customers to achieve environmental sustainability.

*"Promoting Environmentally Friendly Green Buildings  
for a Green Living Transformation"*

#### Green Building Mortgage & Building Energy-Efficiency Rating Project

Green buildings consume fewer resources and produce minimal waste throughout their life cycle, aligning with the principles of 'Ecology, Energy Conservation, Waste Reduction, and Health.' The Building Energy-Efficiency Rating System is an important management tool for assessing a building's energy performance, and both measures represent key trends in driving buildings toward sustainable development. E.SUN has launched the 'Green Building Mortgage & Building Energy-Efficiency Rating' program to facilitate low-carbon transformations in collaboration with customers. This initiative aims to improve building energy efficiency and help achieve Taiwan's goal of net-zero buildings by 2050.

*"Partnering with the Franchise Industry to Drive Sustainable  
Transformation and Achieve Net-Zero Emissions"*

#### FamilyMart Franchise Loan Program

E.SUN has collaborated with external partners to positively impact franchise businesses in their sustainable transformation. In 2023, we jointly launched the "FamilyMart Franchise Dream Loan" with FamilyMart, applying sustainability-linked loans to the franchise industry. We also negotiated sustainability performance targets with FamilyMart's headquarters and its franchisees, linking the Ministry of Economic Affairs' energy intensity indicator for power-intensive industries to credit terms. Franchisees who achieve their energy-saving targets during the loan period can enjoy preferential interest rates. To date, nearly 190 franchise locations have joined the program, collectively contributing to environmental sustainability in Taiwan.

*"Embracing every dream for our hometown, empowering sustainable  
local development"*

#### Regional Revitalization Multi-Financing Program

To support local industries and align with the government's regional revitalization policies, E.SUN Bank has designed the "Regional Revitalization Multi-Financing Program." Tailored to the different stages of business development, the program addresses a major pain point for local micro-enterprises: the difficulty of securing funds during their early stages. For example, a founder of an indigenous social enterprise in a remote area sought to preserve tribal culture by promoting traditional cuisine using local natural ingredients. In its early days, the enterprise utilized this program to expand its equipment, successfully creating local jobs and driving revenue growth. Today, their products are exported to Japan and Hong Kong, showcasing Taiwan's local culture to the world. Since its launch, the program has deployed approximately NT\$10 billion, helping over 3,000 local businesses secure the funding they need. It continues to empower enterprises to take root locally and achieve stable, sustainable growth.

## Customer Engagement Example

### Franchisee Project – Incorporating Sustainability Performance Links

Target	Conversation	Response	Results	Assessment	Future
<p>In support of Taiwan's net-zero carbon policy, E.SUN partnered with FamilyMart to launch the "FamilyMart Franchise Dream Loan," a sustainability-linked loan designed for the franchise sector. This initiative encourages franchise stores nationwide to actively address environmental sustainability issues.</p>	<p>E.SUN supports FamilyMart's sustainability goals by offering financing solutions tailored to franchisees' growth stages, enabling investments in energy-saving equipment and improved electricity efficiency. Annual assessments verify compliance with energy standards, and preferential interest rates incentivize franchisees to take concrete steps toward sustainable operations.</p>	<p>FamilyMart headquarters and franchisees have endorsed E.SUN's financing solutions and jointly set sustainability performance targets. Credit terms are tied to the Ministry of Economic Affairs' energy efficiency indicators, specifically electricity intensity. Energy-saving performance is monitored throughout the loan period to ensure concrete progress in energy conservation and carbon reduction.</p>	<p>Franchisees' awareness of electricity efficiency has grown, prompting greater adoption of energy-saving equipment during store renovations. Through the FamilyMart Franchise Dream Loan program, franchisees not only upgrade their stores but also contribute to Taiwan's environmental sustainability efforts.</p>	<p>Franchisees recognize the environmental benefits of energy conservation and carbon reduction, reinforcing FamilyMart headquarters' policy implementation efforts. Together with E.SUN, FamilyMart fosters a supportive franchise environment, helping stores achieve steady growth and creating a positive cycle of shared prosperity among E.SUN, FamilyMart, and franchisees.</p>	<p>Through practical examples, we advocate sustainability-linked loans across franchise industries and partner with like-minded organizations to help Taiwan achieve its 2050 net-zero goal.</p>





## 5.4 Consumer Banking - Payment

Personal green lifestyle encompasses environmentally conscious choices that reduce negative impacts and promote sustainability. To make everyday consumption more environmentally friendly, E.SUN Bank leverages its financial influence and credit card features, partnering across industries to create a low-carbon consumption program. This initiative rewards customers for adopting low-carbon habits, enabling them to contribute to planetary sustainability through their spending. Recognizing consumption as a catalyst for global change, E.SUN seeks to turn small behavioral shifts into meaningful progress toward sustainability. Together with customers, we aim to build a low-carbon payment ecosystem that embeds green values in society and inspires broader environmental action.

### 1. ESG Credit Cards

#### (1) E.SUN Visa Signature Tree Planting Project

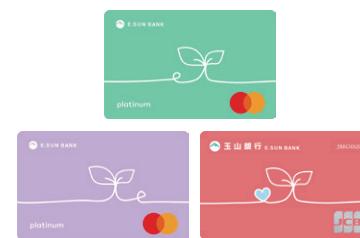
Tree planting helps sequester carbon, mitigate the greenhouse effect, and restore habitats for wildlife. To enhance Taiwan's forest biodiversity, E.SUN launched Taiwan's first eco-conscious credit card—the E.SUN Visa Signature Card—and partnered with the Forestry and Nature Conservation Agency under the Ministry of Agriculture for the "Plant a Tree, Plant a Life" project. Cardholders contribute to reforestation simply through spending, with 0.2% of each transaction (for e-billing users) donated to tree planting. To date, over 60,000 native saplings have been planted, fostering a sustainable future for Taiwan's forests.

#### (2) Black Bear Affinity Card – A Public Welfare Credit Card with Conservation and Environmentally Friendly Concepts

Taiwan black bears face habitat loss, with only 200–600 individuals remaining in the wild. To support conservation, E.SUN collaborates with Taipei Zoo, donating 0.2% of cardholder spending to its Animal Conservation Fund. Over NT\$12 million has been contributed to black bear protection, habitat restoration, and environmental education. Cardholders also earn triple reward points for donations to Taipei Zoo, Taiwan SPCA, and the Taiwan Environmental Information Association, turning everyday spending into meaningful conservation action.

#### (3) Digital-Only Virtual Card Issuance – Digital e-Card & Insurance Card

To reduce paper waste and carbon emissions, E.SUN introduced Taiwan's first Digital-Only virtual card in 2022, achieving a 99.5% online application rate. Each issuance cuts 1,100 grams of CO<sub>2</sub>, totaling 17.5 metric tons annually. Paired with e-billing and low-carbon rewards, this initiative promotes sustainable consumption. In 2023, E.SUN launched a digital insurance card, and by 2024, over 100,000 cardholders had adopted these virtual solutions.



#### (4) Customizable ESG Spending Categories—Unicard

Launched in 2024, Unicard is made with eco-friendly PETG material to support sustainability from the source. Customers can select from three reward options across more than one hundred partner merchants. The card encourages eco-friendly behavior by requiring e-billing for rewards eligibility, and its top-merchant program also includes ESG-related categories such as Tesla, Gogoro battery plans, YouBike 2.0, and E.SUN Wallet Charitable Donation Service. Through these offerings, we aim to encourage green lifestyle and empower customers to advance environmental sustainability through everyday choices.



#### 2. Putting carbon reduction into action with E.SUN cardholders –Carbon Accounting Account

To promote low-carbon lifestyles, E.SUN introduced the Carbon Accounting Account in 2023. Through the E.SUN Wallet App, cardholders using credit or debit cards with EasyCard functionality can track carbon reductions from public transportation choices such as MRT, buses, and YouBike, making their efforts visible and impactful. In 2024, E.SUN launched Taiwan's first Consumption Carbon Footprint Calculator, enabling cardholders to view the carbon footprint of each transaction and integrate carbon awareness into daily spending. Looking ahead, the "Steps for Decarbonization" program will debut in 2025, allowing cardholders to monitor step counts and corresponding carbon savings. By encouraging walking over short-distance vehicle use, E.SUN turns everyday steps into meaningful climate action.



## 5.5 FinTech and Innovation

Sustainability and digital transformation are vital to corporate growth. E.SUN Bank integrates ESG principles into domestic and international expansion, high-end customer engagement, fintech innovation, and three lines of defense management, positioning itself as a human-centered digital financial leader. Our technology team of over 1,000 professionals drives digital development, intelligent applications, R&D, and cybersecurity. Through five core AI applications: R&D services, marketing, processes, risk management, and empowerment, we leverage financial intelligence as a key competitive edge. Amid global net-zero efforts and AI adoption, E.SUN upholds the vision: "Every E.SUN employee as a world-class citizen, and E.SUN as a world-class corporate citizen." We actively use financial influence to advance sustainability and digitalization. In digital finance, E.SUN Bank is committed to inclusive, intelligent, and scenario-based services. As of June 2025, we achieved significant performance in our digital channels, with specific outcomes detailed as follows:

99% Foreign exchange transactions are completed on digital channels.	96% Loan applications are completed on digital channels	97% Transfer transactions are completed on digital channels
95% Mutual fund investments are completed on digital channels	88% Credit card applications are completed on digital channels	55% Deposit account openings are completed on digital channels.

### Services Supported

#### Digital foundation

Through optimizing generative AI platforms, strengthening cloud backup, and improving resource efficiency, we actively advance digital transformation to ensure information security, service resilience, and innovative capabilities. Key outcomes for 2024 include:

Topics	Strategy Directions
AI Technology	<p>Optimize GENIE's use for staff by integrating E.SUN Bank's knowledge base, adding image and audio recognition, expanding the user base, and ensuring security, compliance, and budget control.</p> <p>E.SUN Bank is advancing Retrieval-Augmented Generation (RAG) technology, with its first application, the "E.SUN New Employee AI Assistant", providing generative answers to basic financial questions before, during, and after training, serving as a portable tool to enhance learning and efficiency for frontline staff.</p>
Operational Resilience	<p>To ensure service continuity under extreme scenarios, critical business data was backed up to the cloud in 2024. In 2025, we plan to implement cloud-based core system redundancy to safeguard essential data and maintain basic financial services during disruptions, protecting customer interests.</p> <p>To improve overseas system availability and minimize downtime, servers at branches in Singapore, Japan, and the U.S. were migrated to public cloud platforms in 2024.</p>
Resource efficiency	<p>Resource utilization efficiency was enhanced through a virtualization resource recycling mechanism, regularly analyzing and reclaiming resources for optimal allocation.</p> <p>Collaboration platforms are increasingly integrated into system development, and AI Copilot tools are applied to optimize workflows, boosting team collaboration and productivity.</p> <p>The Intelligent Finance Department consolidated Python third-party packages from ~16,000 versions to ~500 within six months, establishing unified version control and significantly reducing maintenance costs.</p> <p>All overseas branches have implemented SD-WAN architecture, improving network integration and reducing circuit costs through further optimization.</p>
Agility and Resilience	<p>Container platform adoption is expanding, enabling rapid application delivery, automated deployment, and scaling to enhance reliability and ensure stable service operations.</p> <p>Cloud services provide diversity and high availability, complementing on-premises systems to meet growing demand. Security is ensured through a comprehensive management framework.</p>
Cybersecurity Monitoring	E.SUN Bank has developed anomaly monitoring scenarios tailored to cloud environments and implemented personal data scanning and monitoring mechanisms to safeguard cloud usage.



## Financial Innovation Applications

### Optimization of Digital Services to Enhance Customer Experience

Intelligent IVR System	In Q2 2024, we launched the "Intelligent Customer Service System," offering 24/7 real-time responses to common inquiries through a human-machine collaboration model to enhance service experience. By year-end, all customer service positions were fully operational, delivering 1.68 million interactions annually.
E.SUN Artificial Intelligent Platform	<p>Focusing on a customer-centric approach, we have developed "E.SUN Artificial Intelligent Platform" to achieve innovations in financial applications. We offer four key solutions characterized by being "Variety, Speedy, Quality, and Stability," and have secured multiple patents for technologies such as interactive voice response and intelligent product recommendations. In 2024, we were honored with the Excellent Award in the Best Digital Finance category at the Taiwan Banking and Finance Best Practice Awards:</p> <ul style="list-style-type: none"> <li>(1) Variety Product Applications: The "Integrated Application Module" addresses the issue of customers having to repeatedly fill out application information. With a diverse range of product combinations, we facilitate approximately 400,000 financial service applications annually for E.SUN Bank.</li> <li>(2) Speedy Application Journey: By leveraging "Process AI" for data recognition and enhancing it with our proprietary income recognition and risk assessment models, we have increased service application speed by 50%.</li> <li>(3) Quality Experience &amp; Interaction: The introduction of "Service AI" incorporates technologies such as Speech-to-Text (STT), Natural Language Understanding (NLU), and Text-to-Speech (TTS), which results in a 60% reduction in customer service waiting times.</li> <li>(4) Stability Risk Management: Utilizing "Risk Control AI," we can detect anomalous transactions, providing real-time protection for customer assets within 0.1 seconds.</li> </ul>
Mobile Banking	<p>E.SUN Mobile Banking offers a one-stop financial platform integrating banking, securities, and insurance. As of June 2025, the platform focuses on enhancing customer experience through diversified services:</p> <ul style="list-style-type: none"> <li>(1) Convenient Self-Service: Expanded self-service functions include passbook issuance, deposit certificates, fingerprint loss reporting, debit card management, deposit balance certification, NTD online account closure, and QR code cardless withdrawal. Usage extended to sole proprietors for real-time account information linkage.</li> <li>(2) Integration of Securities and Insurance Products: <ul style="list-style-type: none"> <li>• Introduced E.SUN Securities ETF IPO payment within mobile banking with auto-filled details. Launched "Stock e-Portfolio" and Taiwan Stock account inquiry with data sharing for consolidated stock market value and unrealized gain/loss views, plus one-click access to E.SUN Securities.</li> <li>• 24/7 mobile travel insurance subscriptions now offer flexible plans, including travel inconvenience and overseas medical coverage.</li> <li>• New "Annuity Insurance" product enables flexible premium planning and autonomous fund allocation.</li> </ul> </li> <li>(3) Regular Investment Management: Integrated features for adjusting and querying scheduled/unscheduled fund subscriptions and transaction records. Customers can adjust deduction dates/amounts anytime, anywhere.</li> </ul>
Digital Saving Account	To enhance customer experience and service efficiency, we will launch an integrated digital deposit account service in September 2024, significantly streamlining the account opening process. Customers can apply online and verify identity at a branch, reducing processing time by over 50%. Additional services include passbook issuance and online adjustments for non-designated transfer limits. Existing digital account holders can upgrade via video verification through E.SUN Mobile Banking, gaining enhanced benefits without visiting a branch. This initiative delivers a more comprehensive digital service experience.
Electronic Signatures	Following the May 2024 amendment to the Electronic Signature Act, E.SUN Bank partnered with leading global providers to replace paper-based processes with electronic signatures, supporting environmental goals, carbon reduction, and digital transformation while improving efficiency. The service will launch in March 2025, initially for non-financial documents such as internal procurement contracts. This initiative will reduce costs and processing time, minimize document loss risk, and promote paperless operations. Electronic signatures provide non-repudiation and tamper-evident features, ensuring fast and secure service.



# 5.6 Sustainable Operating Environment

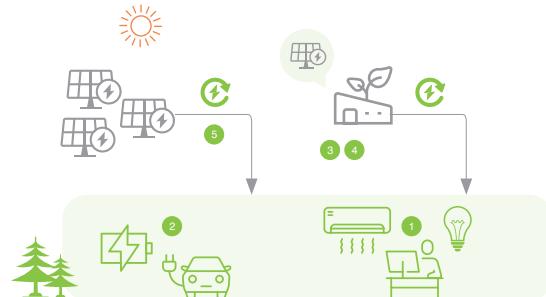
## 5.6.1 Direct Operations Management

Faced with the urgent crisis of climate change, governments and businesses around the world are actively formulating relevant climate adaptation strategies. E.SUN is also proactively promoting its own carbon reduction, water conservation, and waste reduction initiatives. Internally, in addition to promoting environmental conservation and energy-saving policies, advocating for environmental education, establishing a culture of environmental conservation and energy efficiency, and implementing energy-saving measures, E.SUN has also set medium- and long-term goals for various environmental aspects externally.

### Sustainable Operating Environment Targets:

1. Reduce Scope 1 and 2 emissions by 42% by 2030, based on the 2020 baseline.
2. Cut Scope 3 emissions from fuel and energy use by 42% by 2030, based on the 2020 baseline.
3. Achieve 100% renewable energy use at domestic sites by 2030, based on the 2020 baseline.
4. Reduce water use per unit of revenue by 30% by 2030, based on the 2020 baseline.
5. Cut waste generation per unit of revenue by 78% by 2030, based on the 2016 baseline.

### Green Operations Framework



- 1 **Use energy-efficient equipment:** Adopt high-efficiency air conditioning and lighting systems to enhance energy usage efficiency.
- 2 **Replace fleet vehicles:** Substitute company ICE vehicles with EVs and install charging stations to promote green transportation.
- 3 **Solar power systems:** Install solar power systems for self-consumption to increase the proportion of renewable energy usage.
- 4 **Green building design:** Create an office environment that meets green building standards to provide a comfortable workspace for employees.
- 5 **Sign power purchase agreements:** Fully transition to renewable energy supply to create a low-carbon operating environment.



Solar Power Systems



Green Building (EEWH & LEED)

E.SUN is committed to installing solar panels on all owned buildings domestically by 2025, with 31 locations completed in 2024, achieving a completion rate of 89%.

E.SUN is committed to converting all domestically owned buildings into green buildings by 2027. In 2024, 27 locations were completed, reaching a 77% completion rate.

### Green Building Certifications in 2024:

Building	Certification	Project Features
Kaohsiung Office	LEED v4.1 ID+C PLATINUM	The entire office building has been remodeled through the introduction of green building principles to obtain LEED ID+C Platinum certification.
Qixian Branch	LEED v4.1 O+M PLATINUM	The buildings, which are over 50 years old, have achieved LEED O+M Platinum certification through energy-efficient improvements.
Donggang Branch	LEED v4.1 O+M PLATINUM	
Pingtung Branch	LEED v4.1 O+M PLATINUM	It is a significant milestone for E.SUN as the 10th location to achieve LEED Platinum certification.



## ■ Carbon reduction measures

Governments and enterprises worldwide are increasingly focusing on the issue of carbon emissions. With the advent of an era where carbon emissions have monetary value, reducing carbon emissions is no longer just a slogan. The European Union and other countries have introduced carbon tax mechanisms. The EU plans to officially implement the Carbon Border Adjustment Mechanism (CBAM) in 2026, while the UK's carbon border tax is scheduled to start in 2027. Taiwan's Ministry of Environment will begin imposing a carbon fee in 2025, encouraging people globally to take responsibility for their own carbon emissions through this levy.

### Implement Scope 1 & Scope 2 internal carbon pricing

To support Taiwan's 2050 net-zero goals and accelerate carbon reduction, E.SUN Bank began implementing internal carbon pricing for Scope 1 and 2 emissions in 2023. A carbon fee was introduced to evaluate the cost-effectiveness of energy-saving measures. Using greenhouse gas inventories, the bank analyzed emissions and carbon fee data across departments. In 2024, the pricing mechanism was extended to all domestic branches, integrating carbon costs into daily operations. This initiative encourages departments to treat emissions as a financial cost, fostering carbon management practices.

Purpose	Application
Navigate regulations	In line with Taiwan's Climate Change Response Act and the 2050 net-zero framework, all E.SUN Bank branches adopted internal carbon pricing for Scope 1 and Scope 2 emissions as a carbon reduction tool.
Rolling adjustment of internal carbon pricing	The carbon fee was set at USD 100 per ton of CO <sub>2</sub> e, referencing EU and global market prices, Taiwan's proposed rates, industry benchmarks, and E.SUN's own carbon reduction cost per unit.
Cultivate the concept that carbon emissions have monetary value	To raise departmental awareness, carbon fees are disclosed using a "Shadow Price" approach, and a billed method based on actual emissions, prompting departments to budget for carbon costs annually.
Identification of Priority Decarbonization Hotspots	By integrating inventory data with carbon pricing, E.SUN identified emission hotspots, primarily owned buildings and data centers, and assessed cost impacts to guide effective decarbonization strategies.
Establish a consistent usage environment	E.SUN is building a systematic carbon emission database, deploying hierarchical electricity data collection, and standardizing energy usage environments to improve carbon management.
Conduct cost-benefit analysis	Carbon pricing has reshaped the evaluation of energy-saving measures, shortening payback periods and increasing the benefits of equipment replacement and efficiency upgrades.
Drive energy efficiency	Units with lower emissions incur fewer carbon costs, incentivizing actions such as replacing high-energy equipment and adopting renewable energy, fostering behavioral change across the organization.
Achieve carbon reduction targets	Carbon fee structures will be updated based on actual reduction costs, global pricing trends, and regulatory changes, accelerating E.SUN's progress toward net-zero emissions.

### Replace energy-consuming equipment

To reduce operational carbon emissions, E.SUN Bank launched a plan in Q4 2023 to replace all lighting fixtures at domestic branches with LED lamps by 2025. The initiative is being actively advanced in 2024 and is expected to save approximately 4.87 million kWh annually, about 10.4% of the bank's total electricity consumption.

### Actively promote renewable energy

E.SUN is committed to using 100% renewable energy across all domestic and international locations by 2040. Since 2021, the bank has installed rooftop solar PV systems and signed renewable energy PPAs. By the end of 2024, total purchases reached 34.15 million kWh, covering 72.9% of electricity needs, with a renewable usage rate of 56.4%. Starting January 2025, E.SUN Securities will fully adopt green electricity across its headquarters, 17 branches, and its subsidiary E.SUN Investment Trust, reinforcing its commitment to the 2050 net-zero goal.

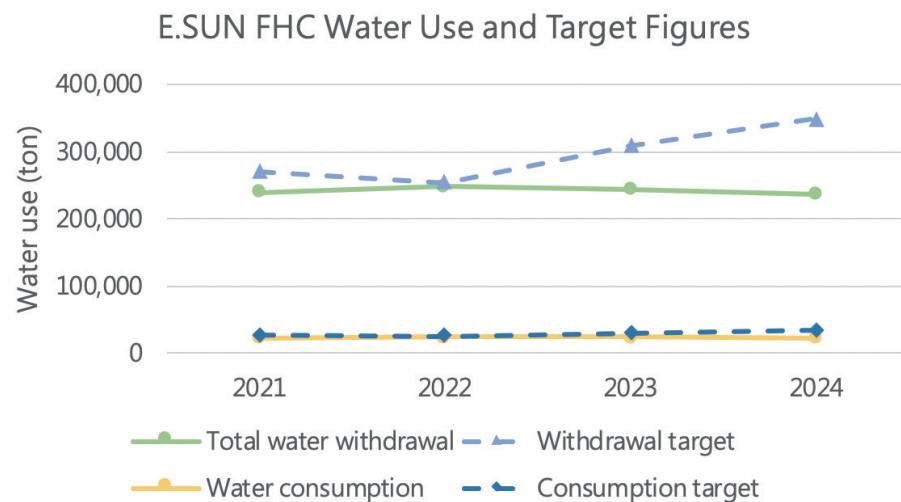
## ■ Water Usage Reduction

All operational water used by E.SUN is sourced from the public water supply and classified as domestic water use, posing no negative impact on water sources. Wastewater generated is domestic sewage, and its treatment complies with the Water Pollution Control Act and other relevant regulations.

### Expanding the Implementation Scope of ISO 46001 Certification

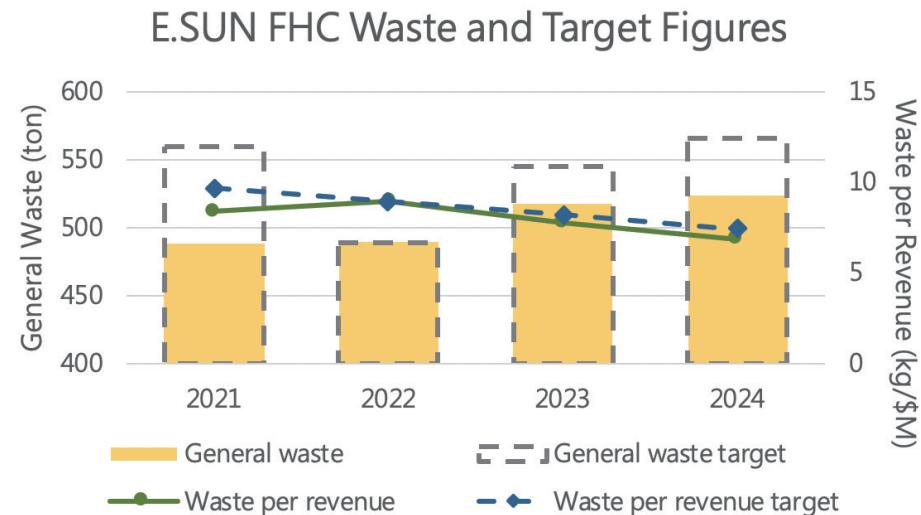
Since 2021, E.SUN Bank has adopted the ISO 46001 Water Efficiency Management System, conducting water footprint assessments to identify improvement opportunities. In 2023, the scope expanded to 15 sites, both operational and office buildings, raising the implementation rate to 28%. E.SUN continues to broaden its management scope, promoting water-saving practices and encouraging employees to adopt responsible habits. Monthly water usage is monitored to detect anomalies, and branches are invited to share innovative ideas and achievements.

Rainwater harvesting systems have been installed at key facilities, including the Hope Campus, HR Development Center, and Second Headquarters. These systems use permeable paving to enhance soil retention and collect runoff via drainage pipes. After sedimentation and filtration, the water is reused for landscape irrigation. In 2024, 7.82 megaliters of rainwater were collected. Rain sensors prevent irrigation during rainfall, and outdated fixtures are being replaced with certified water-saving appliances.



## ■ Waste Reduction

In line with global "Zero Waste" goals, E.SUN Bank promotes circular economy practices by recycling employee uniforms. Uniforms that are ill-fitting, replaced, or no longer needed are redistributed internally or converted into shared public uniforms available at key locations such as the Headquarters, Hope Campus, Technology Building, and Boai Building. In 2022, E.SUN launched a new uniform style upgrade to improve comfort, collecting around 13 tons of old uniforms. These were sorted and processed into solid recovered fuel rods in partnership with a professional facility, replacing coal in industrial boilers. By 2024, 2,580 kg of uniforms were fully converted into fuel rods. E.SUN is also aligning with the Environmental Protection Administration's "Recycling Procurement Guidelines for Textile Wear," actively engaging vendors to explore further recycling options. Future plans include sorting collected uniforms for either regranulation and filament production or continued fuel rod conversion.





## 5.6.2 Supply Chain Management

E.SUN selects suppliers based on established standards, requiring those with annual transactions above a set threshold<sup>1</sup> to complete a Supplier CSR Self-Assessment Form and sign a Statement of Commitment to Human Rights and Environmental Sustainability. The assessment outlines expectations for corporate governance, occupational safety, environmental protection, and labor practices. Child labor is strictly prohibited, and cross-checks confirm none of E.SUN's suppliers employ it. Compliance with equal pay principles and basic labor rights, such as fair wages, reasonable working hours, paid leave, and proper layoff notice, is verified through Ministry of Labor records. Violations trigger on-site inspections. To address potential risks, E.SUN applies review mechanisms throughout the transaction process. Results of these measures are summarized in the table below.

Unit: Number of suppliers

	2022	2023	2024
Supplier conference attendance	36	47	46
Suppliers visited	39	15	12
Suppliers discussed in evaluation meetings	N/A <sup>2</sup>	11	73
Number of signatories of the Supplier Sustainability Statement	415	248	396

Note 1: The threshold amount is NT\$0.5 million. In 2024, among new suppliers, 30% meet the aforementioned criteria.

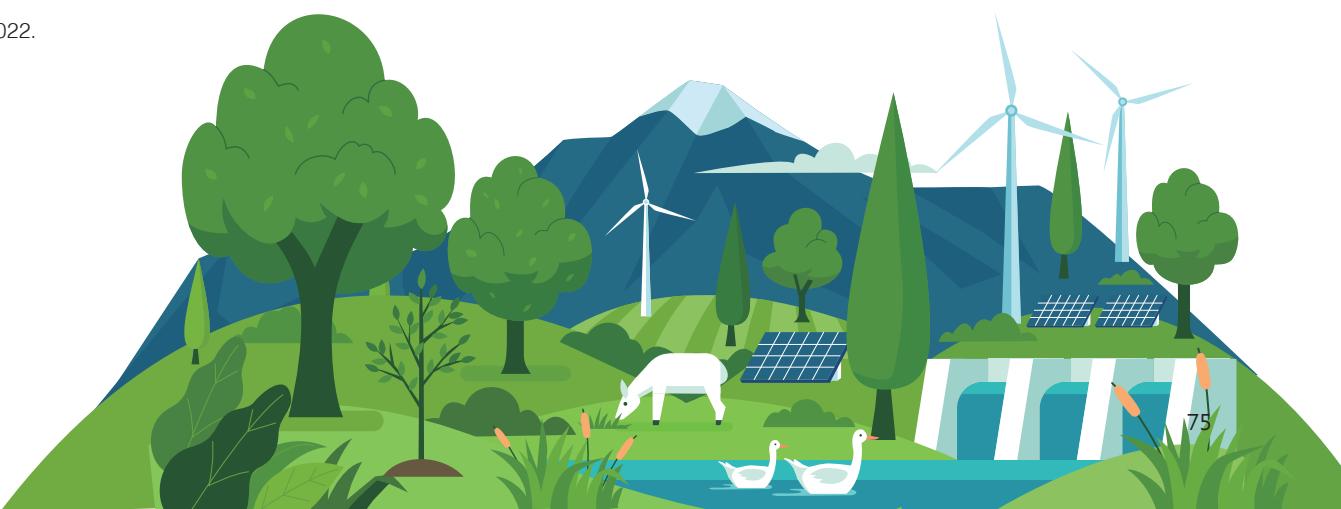
Note 2: This is a new system implemented in 2023, so there is no data for 2022.

### ■ Sustainable and Responsible Procurement

E.SUN implements the ISO 20400 Sustainable Procurement Standard, applying both general and specific specifications. Supplier performance is regularly reviewed through qualitative and quantitative indicators, with action plans developed to strengthen sustainable influence. Compliance is verified via external audits. In 2024, local suppliers accounted for 94.5% of procurement, supporting SDGs. To advance SDG 12, "Responsible Consumption and Production," E.SUN actively participates in government-led green living initiatives and the EPA's Green Procurement Implementation Program. The Company has earned the EPA's Green Procurement Benchmark Excellence Award for 14 consecutive years. In 2024, green procurement totaled NT\$646 million, with cumulative spending exceeding NT\$2.9 billion. By leveraging procurement to influence supply chains, E.SUN aims to foster a green supply network and create shared opportunities for sustainable development with its partners.

### ■ Sustainable Supply Chain Engagement

In 2024, we continued to hold supplier conferences to leverage our influence, inviting energy management experts to share insights on corporate sustainable supply chain evaluations. We aim to guide suppliers in reflecting on evaluation aspects and collaborating with E.SUN to make contributions to sustainability. Additionally, we will explain the mechanisms for circular procurement and the components of green procurement, jointly creating sustainable value with our suppliers. To promote responsible production and facilitate responsible consumption, we will utilize advisory support mechanisms in 2024 to successfully assist suppliers in joining social innovation organizations, thereby helping them implement sustainability practices.

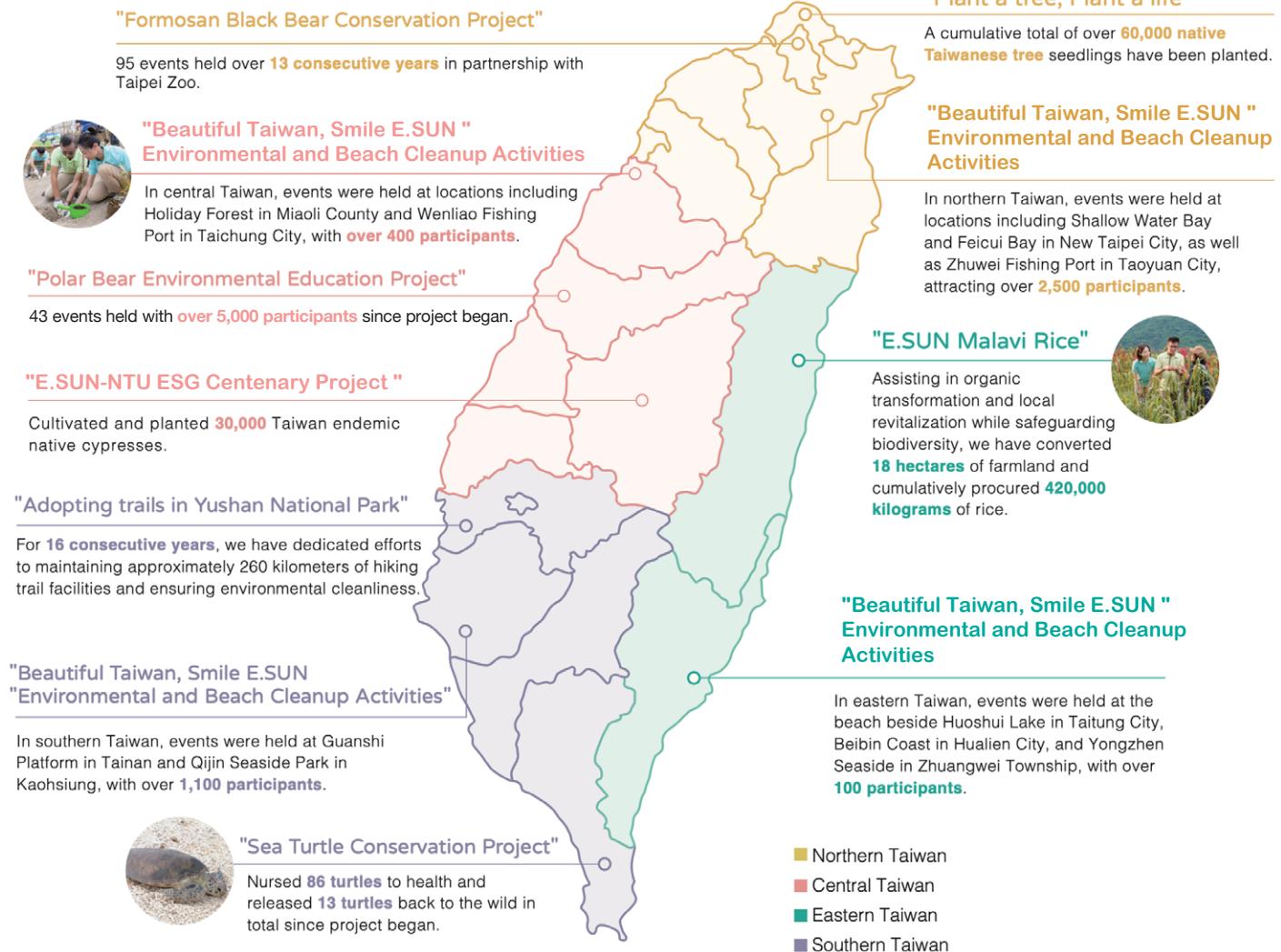


## 5.7 Nature and Biodiversity Preservation

### ■ Overview of E.SUN's Natural Environment Initiatives

E.SUN is committed to supporting the global Convention on Biological Diversity and advancing sustainable ecological development in alignment with the United Nations Sustainable Development Goals (SDG 13: Climate Action; SDG 14: Life Below Water; SDG 15: Life on Land). Our natural environment and biodiversity strategy is centered on three core pillars: species conservation, habitat preservation, and environmental sustainability. Taking initiative from within, we proactively respond to both international and domestic environmental sustainability advocacies. In 2022, we voluntarily joined the Taskforce on Nature-related Financial Disclosures (TNFD), and in 2023, joined the TNFD Early Adopters, demonstrating our continued progress toward realizing the vision of living in harmony with nature.

### Key Achievements in 2024:



## ■ Nature and Biodiversity Mitigation Hierarchy

E.SUN's strategy for the natural environment and biodiversity development focuses on four main pillars: Species Conservation, Habitat Preservation, Environmental Sustainability, and Employee Participation. We also reference the AR3T1 corporate nature action framework proposed by SBTN to align our activities accordingly. Together with like-minded partners, we strive to contribute to the beautiful nature of Taiwan.

Positive Impacts on Nature	Avoid	Reduce	Restore	Regenerate
Sea Turtle Conservation Project			√	
Polar Bear Environmental Education Project	√	√		
Formosan Black Bear Conservation Project	√		√	
E.SUN-NTU ESG Centenary Project	√	√	√	
"Plant a tree, Plant a life" Tree Planting Project			√	
E.SUN Malavi Rice Project	√	√	√	
Millet Revitalization Project	√		√	
"Beautiful Taiwan, Smile E.SUN" Environmental and Beach Cleanup Activities	√		√	
Adopting trails in Yushan National Park	√		√	
Earth Hour / 130 Days Lights Out	√	√		

Note 1: The AR3T framework, proposed by SBTN, aims to achieve transformation through four levels: Avoid, Reduce, Restore, and Regenerate



## 5.7.1 Species Conservation

### ■ Sea Turtle Conservation Project

We collaborated with the National Museum of Marine Biology and Aquarium (NMMBA) for six consecutive years on the "Sea Turtle Conservation Project." A total of 86 turtles were treated and 13 turtles were released back into the wild over the course of the project as well. Wildlife Released Turtles in the past six years:

Turtle species	2019	2020	2021	2022	2023	2024
Green sea turtle	3	1	1	2	1	-
Hawksbill sea turtle	1	-	-	-	-	-
Olive Ridley sea turtle	2	-	-	-	-	2
Total	6	1	1	2	1	2



Lead the students to visit the Sea Turtle Rescue and Medical Center and introduce the manmade objects found in the bodies of sea turtles.



Participants had the opportunity to closely observe the care and rehabilitation of injured sea turtles within the facilities of the rescue center.



During the sea turtle rescue course, veterinarians provided participants with detailed instructions on how to respond appropriately when encountering stranded or injured sea turtles.



Conducted a sea turtle release event at the conservation beach in Houbihu.

### ■ Polar Bear Environmental Education Project

Every year on February 27th, which is International Polar Bear Day, E.SUN collaborates with the National Museum of Natural Science to launch a series of polar bear conservation activities. Over the past 5 years, we have organized a total of 43 events, with nearly 5,000 people participating. The activities in 2024 include the "Mission to Save Polar Bears" seminar, the interactive "Polar Bears and friends' fun challenge", and guided tours of the National Museum of Natural Science. Through these events, we aim to encourage public reflection, foster environmental awareness, and promote proactive actions to mitigate global warming.



We invited Bai Hsin-Yi, a natural ecology program producer and host, to serve as the speaker for the "Mission to Save Polar Bears" seminar, where she shared her experiences filming polar bears in the Arctic.



We invited teachers and students from E.SUN Seed School at Qiaorong Elementary School in Taichung City to visit the National Museum of Natural Science. Through observing polar bear specimens, the program aimed to guide students in understanding the environmental impacts of climate change.

### ■ Formosan Black Bear Conservation Project

The Formosan black bear is Taiwan's sole native bear species. The preservation of this species in Taiwan not only means their survival, but also implies protecting the integrity of Taiwan's forest ecosystems and overall biodiversity. Since 2012, E.SUN FHC has been working with Taipei Zoo to promote a series of black bear conservation activities. In 2014 we launched the Black Bear Affinity Card and invited our customers to support the conservation of Taiwan's native species. E.SUN Bank's Hualien Branch utilizes the first animal conservation specialty branch in Taiwan "Black Bear Branch" dedicates its efforts to promoting animal conservation and biodiversity.



The lobby of E.SUN Bank's Hualien Branch features the Black Bear Learning Corner, providing customers with access to conservation knowledge while they conduct their financial transactions.

## 5.7.2 Habitat Conservation

### ■ E.SUN-NTU ESG Centenary Project

In partnership with NTU, E.SUN is planting native conifers such as Taiwan Red Cypress, Formosan Hinoki, Taiwania, Incense Cedar, and China-fir in the Yushan mountain range. The 10-year project, launched in 2022, aims to plant 100,000 trees across 50 hectares, expected to absorb 242,000 tons of CO<sub>2</sub> over a century. After selective thinning, 25,000 trees will remain to grow for 100 years, supporting soil and water conservation and delivering carbon sequestration and circular economy benefits. By 2024, 28,605 saplings have been planted, achieving 28% of the overall goal.



### ■ Plant a tree, Plant a life Tree Planting Project

E.SUN has been jointly promoting the "Plant a tree, Plant a life" for 6 consecutive years in collaboration with the Ministry of Agriculture. In 2024, we adopted 4.58 hectares of national and coastal forests and planted 10,050 native tree saplings, such as Formosan Ash, Formosan Sweet Gum, Formosa Acacia, and Taiwan Gordonia etc.

### “E.SUN Visa Signature” – Taiwan’s First Charitable Card Promoting Environmental Awareness

Through the “Plant a Tree, Plant a Life” initiative, cardholders contribute to reforestation simply by spending. Customers who opt for e-billing or mobile billing enable 0.2% of each transaction to be donated to tree planting programs, giving back to the land and supporting a greener future.



### ■ E.SUN Malavi Rice Project

E.SUN has been supporting the "E.SUN Malavi Rice project" for 11 consecutive years along with Yushan National Park Services, Yinchuan Sustainable Farm and Tse-Xin Organic Agriculture Foundation, encouraging local farmers to adopt organic agriculture for sustainable food production and protect biodiversity, which saw the endangered native fish species "Kikuchi's Minnow" return to the paddies. E.SUN has transformed 18 hectares of farmland into certified organic fields and has acquired 420,000 kg of Malavi Rice in total.

### ■ Millet Revitalization Project

In partnership with NTU, E.SUN launched a three-year project to restore 28 local millet varieties. The initiative includes cultivation demonstration zones, illustrated storybooks, promotional activities, and collaboration with Jiumei Elementary School on a "Millet Conservation Land" project, providing students with agricultural and cultural education through rituals and planting activities. The project promotes species preservation, cultural heritage, and millet cultivation. By 2024, the cultivated area reached 0.7 hectares, exceeding the initial 0.6-hectare target, with harvests totaling 262.7 kg in 2023 and 467.8 kg in 2024.



### ■ "Beautiful Taiwan, Smile E.SUN" Environmental and Beach Cleanup Activities

For 15 consecutive years, we have organized the "Beautiful Taiwan, Smile E.SUN" environmental cleanup and beach cleanup activities. In response to World Cleanup Day in 2024, over 7,790 E.SUN volunteers and their families participated across 147 business locations and 15 coastal areas throughout Taiwan. Through these concrete actions, we actively contribute to plastic and waste reduction and safeguard our beautiful homeland.

### ■ Adopting trails in Yushan National Park

We have adopted and maintained 260 km of trails in Yushan National Park trail for 16 consecutive years. We use this opportunity to promote conservation and environmental education, and encourage E.SUN employees to participate and work together to protect the environment.

### ■ Taiwan New Year Bird Count

For two consecutive years, we have participated in the "Taiwan New Year Bird Count," jointly organized by the Chinese Wild Bird Federation, Taipei Wild Bird Association, Kaohsiung Wild Bird Association, and the Biodiversity Research Institute of the Ministry of Agriculture. This event serves as a critical data source for monitoring changes in Taiwan's winter migratory bird populations, to which we are committed to contributing for ecological documentation.



### 5.7.3 Environmental Sustainability

#### ■ Earth Hour

For 13 consecutive years, we have participated in Earth Hour, the world's largest international carbon reduction campaign. Voluntarily extending the lights-off duration, from March 22 to 24, we turned off all signage and exterior wall lights at 170 domestic and overseas business locations for three consecutive nights.

#### ■ 130 Days Lights Out

For the past 8 years, we've turned off our lights during peak energy hours in summer. From June 5th to October 13th, 2024, all 139 branches across Taiwan shut down their signage lights and exterior wall lights for the entire day. Over the past 8 years, a total of 560,018 kWh has been saved, equivalent to reducing 276.6 metric tons of carbon emissions.



#### ■ Resource Circulation and Charity Auction

For 13 years in a row, we have held the "Resource Circulation Charity Auction," which amassed 10,000 donated second-hand and brand new items in 2024. This year, over 5,200 colleagues participated, raising over NT\$10 million in proceeds that were all donated to the "E.SUN Care for Schoolchildren Program." The program supports economically disadvantaged families and children facing sudden setbacks by alleviating the financial burden of education by assisting in the purchase of stationery, books, and participation in activities, ensuring that all children can learn happily and participate in both school and extracurricular activities.



#### ■ 13-Book Lovers: Magazine Circulation Day

To realize E.SUN's environmental protection spirit, the "13-Book Lovers: Magazine Circulation Day" activity has been held at E.SUN Headquarter buildings for years. So as to effectively promote resource sharing, we collected magazines that various departments had subscribed to (or had received as donations), along with employees' own books, magazines, CDs, and DVDs, which were made freely available to all employees. We collected a total of 3,322 items in 2024, and circulated 1,845 items, for a circulation rate of 55.54%.

#### ■ E.SUN Environment and Energy Saving Education Day

On the 13th of every month Environmental volunteers of each department promotes knowledge of environmental protection on the 13th of every month and educational material is regularly displayed on our e-Learning platform. Also, the 13th is also cleaning day, where employees would clean the office environment to put the 4R concept - Reduce, Reuse, Recycle, and Refuse into practice.

Month	2024 ESG Education Topics
January	COP28 Makes First-Ever Resolution to Reduce Methane Emissions
February	Conveying Sustainability to the Silent World
March	Mine Resurgence
April	Planet vs. Plastics
May	Energy storage
June	World Environment Day
July	The Greatest Challenge for the Financial Industry in Achieving Net Zero: Financial Carbon Emissions
August	World Humanitarian Day
September	10 years endeavors of the Malawi Rice Project
October	World Architecture Day
November	UN Conference of the Parties to the Convention on Biological Diversity
December	COP29

## 06 Towards a Better Future

- 6.1 Empowering Finance Towards Sustainability
- 6.2 Carbon Emissions Structure
- 6.3 Financed Emissions Analysis
- 6.4 Our Path to Net-Zero



## 6.1 Empowering Finance Towards Sustainability

Personal Finance	Corporate Finance	Medium and Large Enterprises / Financial Institutions
<b>Carbon Footprint Labeling Credit Cards</b> <ul style="list-style-type: none"> <li>E.SUN Bank's entire range of credit cards have received "Carbon Footprint Labeling Certificate"</li> <li>8.7 million cards have been issued cumulatively</li> </ul>	<b>Green Loans</b> <ul style="list-style-type: none"> <li>Assisting in the development of green projects, such as renewable energy, energy storage, green buildings, and energy-saving equipment; total balance reached NT\$107.2 billion at the end of 2024</li> <li>Target balance NT\$130 billion by 2030</li> </ul>	<b>Sustainable investments</b> <ul style="list-style-type: none"> <li>Investments in certified green bonds, social bonds, and sustainability bonds; total balance reached NT\$43 billion at the end of 2024</li> <li>The target balance is NT\$48 billion by 2025</li> </ul>
<b>Innovative Inclusive Financial Services</b> <ul style="list-style-type: none"> <li>E.SUN promotes going paperless and reducing GHG emissions by switching to online platforms and electronic bills/ statements</li> </ul>	<b>Sustainability Linked Loans</b> <ul style="list-style-type: none"> <li>Encouraging companies to establish and achieve ESG development goals by providing financial service incentives; total balance reached NT\$76.8 billion at the end of 2024</li> <li>Target to reach 13% of total corporate loans by 2030</li> </ul>	<b>Sustainable Bond Issuance</b> <ul style="list-style-type: none"> <li>Channeling funds to environmentally and socially friendly industries</li> <li>E.SUN Bank's total issuance reached NT\$26.3 billion at the end of 2024</li> </ul>
<b>Low-Carbon and Energy-Saving Loan Series</b> <ul style="list-style-type: none"> <li>Financial incentives for individuals purchasing energy-efficient appliances or installing solar power generation systems.</li> <li>Preferential interest rates or fees for real estate collateral certified with the Green Building Label or Building Energy-Efficiency Rating by the Taiwan Architecture &amp; Building Center, benefiting a total of 1,403 customers with an outstanding balance of approximately NT\$21.8 billion.</li> </ul>	<b>Sustainability Advocacy</b> <ul style="list-style-type: none"> <li>Inviting like-minded corporate partners to focus on sustainability and jointly reduce carbon emissions, building a sustainable ecosystem through practical action</li> <li>From 2021 to 2024, the "E.SUN ESG Sustainability Initiative" was held with 379 companies joining the initiative</li> </ul>	<b>Sustainable Bond Underwriting</b> <ul style="list-style-type: none"> <li>In 2024, E.SUN Securities acted as a co-underwriter for 3 cases, with a total underwriting amount of NT\$102.7 million</li> <li>Supporting companies in raising funds for sustainability causes and assisting them in issuing sustainable bonds</li> <li>E.SUN Bank's total underwriting balance reached NT\$27.2 billion at the end of 2024</li> </ul>
	<b>Sustainability Consulting Services</b> <ul style="list-style-type: none"> <li>Combining internal expert teams with external professional consultants to provide advisory services that assist corporate clients in ESG development</li> <li>As of 2024, engaged with a total of 260 companies on sustainability and climate-related issues, including recommending steps for carbon reduction and connecting clients with external consultants to conduct GHG inventories</li> </ul>	<b>Hedging and Consultation Services for Sustainability-related Projects</b> <ul style="list-style-type: none"> <li>Supporting environmentally friendly projects by providing hedging and consultation services for sustainability-related projects, such as offshore wind power projects and solar power projects</li> <li>Encourage clients to implement sustainable development principles through ESG-linked financing and hedging transactions.</li> <li>The hedging services provided amounted to NT\$41.6 billion at the end of 2024</li> </ul>



## 6.2 Carbon Emissions Structure

Financed emissions represent the largest source of emissions in the financial sector, E.SUN conducts carbon footprint assessments in accordance with the Partnership for Carbon Accounting Financials (PCAF) 2nd Edition guidelines. In July 2024, E.SUN launched its financial carbon emissions management system, increasing the assessment frequency from annually to monthly for real-time monitoring. The system's automated calculations reduce manual errors and improve efficiency. To ensure consistency and effective management, E.SUN established internal protocols governing calculation logic, roles, and documentation. All methodologies and data are standardized and verified by a third party (see Appendix 18 of our 2024 Sustainability Report). Through systematized carbon data, E.SUN continues to monitor asset-related carbon indicators to support future decarbonization strategies.

### GHG Emissions Timeline

Unit: t-CO<sub>2</sub>e

	2021	2022	2023	2024
Scope 1	1,857	1,844	2,161	2,403
Scope 2	22,105	20,294	17,959	10,291
Scope 3: Financed Emissions	3,672,612	4,945,550	5,355,042	5,508,602
Scope 3: Others	49,475	56,015	46,436	37,495
Total	3,746,049	5,023,703	5,421,598	5,558,791

Note 1: Scope 2 emissions are calculated using the market-based method

Note 2: For detailed emissions breakdown please see Appendix V

### Scope 3 Portfolio Emissions Inventory

E.SUN FHC

	2021	2022	2023	2024
Financed Emissions (t-CO <sub>2</sub> e)	3,672,612	4,945,550	5,355,042	5,508,602
Carbon Footprint (t-CO <sub>2</sub> e/NT\$M)	1.73	2.10	2.14	1.99
Weighted Average Carbon Intensity (t-CO <sub>2</sub> e/NT\$M)	6.23	4.77	5.09	5.03
Inventory Coverage(%)	75.27%	76.53%	77.62%	78.61%

Note 1: Emissions from investment and financing activities for 2024 have been estimated based on the changes in our total assets reported in our financial statements.

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

Note 3: The Weighted Average Carbon Intensity is calculated based on the carbon emissions per unit of revenue from the financed and invested entities, accounting for the proportion of E.SUN's financing and investment.

Note 4: Inventory Coverage = inventoried balance of investment and financing companies / sum of FVPL, FVOCI, AC, loans, and discounted items.

Note 5: Inventory coverage refers to the proportion of investment and financing activities that have been assessed in accordance with the PCAF methodology, relative to the total investment and financing portfolio. For 2024, E.SUN FHC's proportion of relevant investment and financing activities aligned with the PCAF methodology is 100%.

### 2024 Subsidiary Emissions

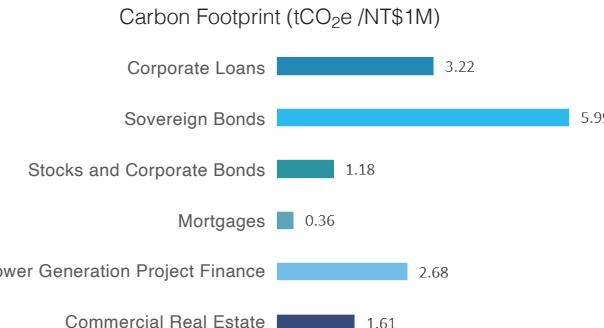
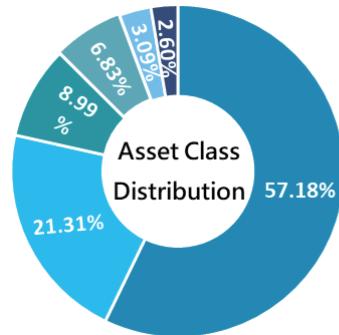
	Bank	Securities	Venture Capital
Financed Emissions (t-CO <sub>2</sub> e)	5,501,355	3,226	4,021
Carbon Footprint (t-CO <sub>2</sub> e/NT\$M)	1.99	1.17	0.80
Weighted Average Carbon Intensity (t-CO <sub>2</sub> e/NT\$M)	5.04	2.62	3.04



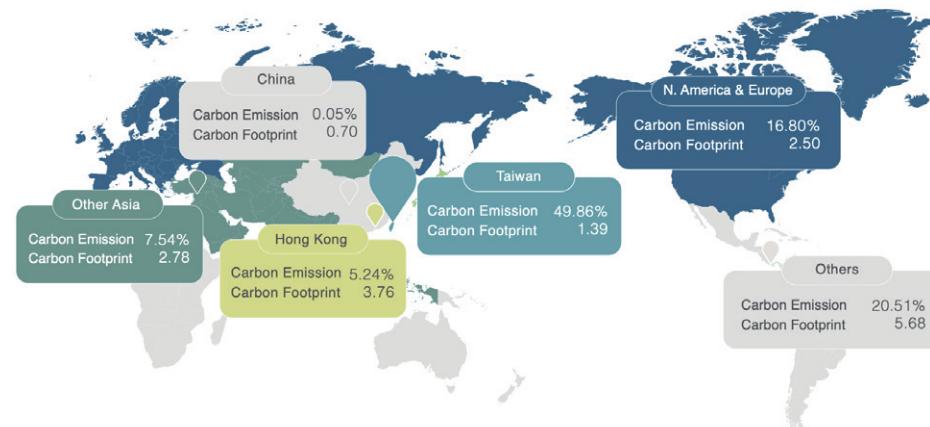
## 6.3 Financed Emissions Analysis

E.SUN analyzes the greenhouse gas emissions of its investment and financing portfolio by asset class, region, and industry. The results are shown in the following charts. The carbon emissions of each asset class are primarily from corporate loans, accounting for 57.18% of the total carbon emissions. The carbon footprint is highest for sovereign debt investments. Since Taiwan is the main region for investment and financing, it accounts for nearly half of the carbon emissions. In terms of industry, manufacturing and transportation are the main sources of carbon emissions, ranked by carbon emission proportion. The carbon footprint is significantly highest in the cement and glass industries, indicating the high emission characteristics of these sectors. Based on the Science Based Targets (SBT), E.SUN sets carbon reduction targets for different asset classes, plans control mechanisms for high-carbon industries, and engages with customers.

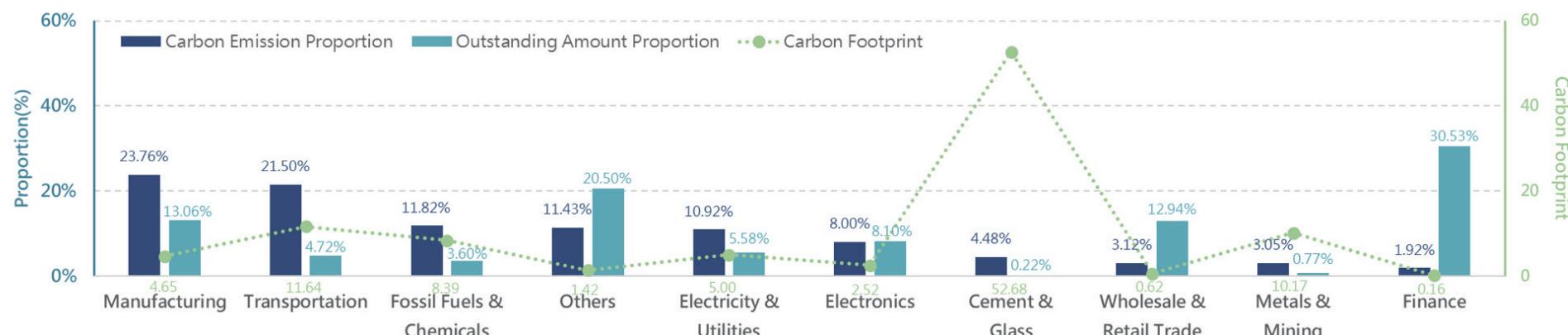
### Asset Class Distribution



### Geographical Distribution



### Industry Distribution



Note: Unit of Carbon Footprint: tCO<sub>2</sub>e /NT\$1M



## 6.4 Our Path to Net-Zero

E.SUN FHC announced its "Net Zero Emissions 2050" target and publicly committed to seek validation to the NetZero target by SBTi in 2021. We formally set our science based carbon reduction targets (SBTs) which passed official review in 2022. Our Scope 1&2 SBT uses 2019 as the base year, with a target coverage rate of 100%; Our Scope 3 portfolio SBT uses 2019 as the base year, with a target coverage rate of 11% of the total portfolio. E.SUN has set carbon reduction strategies to drive disciplined transition actions and regularly reviews progress towards our SBTs, with progress towards 2024 SBTs set out below:

### Direct Operation (Scope 1&2)

Target	Reduce absolute scope 1 and 2 GHG emissions 42% by 2030 from a 2020 base year.
Progress	Reduced absolute scope 1 and 2 GHG emissions 48.2% from a 2020 base year, meeting our 2024 target.

Reduction Ratio (Compared to baseline)

2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030

SBT Annual Reduction Target E.SUN's Progress

### Transition Actions

- Join SBT in 2021 and set 1.5°C aligned Scope 1 & 2 carbon reduction targets.
- Install solar power on 100% of domestic owned buildings by 2025.
- 100% green building certification for all owned buildings. Replace old lighting and AC equipment with energy efficient products.
- 100% renewable energy use for domestic locations by 2030, 100% for global locations by 2040. Purchase renewable energy certificates in cooperation with government policy.
- Officially implemented Scope 1&2 internal carbon pricing in 2024.

Note 1: Finance, retail, service, food and lodging, real estate development sectors

Note 2: Fossil fuel, electrical & electronic equipment, iron and steel, pulp and paper and cement sectors. The target covers 100% fossil fuel corporate loans.

### Investment & Financing Portfolio (Scope 3)

#### 1. Power Generation Project Finance

Target	Reduce electricity generation project finance portfolio GHG emissions 50% per MWh by 2030 from a 2019 base year.
Progress	Reduced electricity generation project finance portfolio emissions by 55.5% per MWh from a 2019 base year, meeting our 2024 target.

Electricity Generation Project Finance SBT Target Progress

2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030

SBT Annual Reduction Target E.SUN's Progress

#### 2. Commercial Real Estate (CRE) Loans

Target	Reduce GHG emissions from CRE within E.SUN's corporate loan portfolio 58.7% per m2 by 2030 from a 2019 base year.
Progress	Reduced emissions from CRE within corporate loan portfolio 53.4% per m2 from a 2019 base year, meeting our 2024 target.

Commercial Real Estate Loans SBT Target Progress

2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030

SBT Annual Reduction Target E.SUN's Progress

#### 3. Power Generation Sector Loans

Target	Reduce GHG emissions from electricity generation sector within our corporate loan portfolio 49.3% per MWh by 2030 from a 2019 base year.
Progress	Reduced emissions from electricity generation sector within our corporate loan portfolio 53% per MWh by 2030 from a 2019 base year, meeting our 2024 target.

Electricity Generation Sector Loans SBT Target Progress

2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030

SBT Annual Reduction Target E.SUN's Progress

#### 4. Non-manufacturing Sector<sup>1</sup> Loans

Target	Reduce GHG emissions from Non-manufacturing sectors within the corporate loan portfolio 58% per m2 by 2030 from a 2019 base year.
Progress	Reduced emissions from Non-manufacturing sectors within the corporate loan 33% per m2 by 2030 from a 2019 base year, meeting 2024 targets.

CRE-related Sectors Loans SBT Target Progress

2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030

SBT Annual Reduction Target E.SUN's Progress

#### 5. Specific High Emission Sectors<sup>2</sup> Loans

Target	E SUN FHC commits that 33.3% of the corporate loan portfolio by loan value within specific high emission sectors will have set SBTs by 2026 from a 2019 base year.
Progress	31.4% of the specific high emission sectors within our corporate loan portfolio have set SBTs from a 2019 base year, meeting our 2024 target.

Specific High Emission Sectors SBT Progress

2019 2020 2021 2022 2023 2024 2025 2026

Annual SBT Signatory Target E.SUN's Progress

#### 6. Listed Equity & Bonds Investment

Target	E SUN FHC commits to 33.9% of its listed equity and bonds portfolio by total assets setting SBT validated targets by 2026 from a 2019 base year.
Progress	17.4% of our listed equity and bonds portfolio have SBT validated targets, which did not meet our 2024 target. This is due to several major global corporations exiting SBT commitments because of political uncertainty starting in 2023.

Listed Equity & Bonds SBT Progress

2019 2020 2021 2022 2023 2024 2025 2026

Annual SBT Signatory Target E.SUN's Progress

### Transition Actions

- Committed to no longer supporting financing for coal-fired power generation projects since July 2019, and has had no related balances since 2021.
- Announced in 2022 a gradual phase-out of coal-related and unconventional oil & gas extraction-related business activities. By the end of 2023, we have completely phased out of unconventional oil & gas-related investments and financing, and will no longer provide support in the future. No new coal-fired power generation and related coal mining exposures will be added. Existing exposures within OECD countries will be phased out by 2030, with the complete phase out of all positions by 2040.

Unit: TWD million

Portfolio Exposure	2023	2024
Coal-related	15,505	13,374
Unconventional Oil & Gas-related	0	0

- Since 2022, an internal carbon pricing mechanism has been introduced in the credit process, referencing international carbon prices to serve as a reference basis for business development.
- Continuously supports the development of renewable energies, and assists companies in low-carbon transition through advocacy, sustainable consulting services, and diverse sustainable financial products such as green loans and sustainability-linked loans.

# 07 Conclusion

Looking Forward





# Looking Forward

## Global Warming Surpasses 1.5°C — Urgent Action for Sustainability

In 2024, global temperatures hit a record high, exceeding 1.5°C above pre-industrial levels for the first time. Extreme weather is now the top long-term global risk, reshaping human-nature interactions and impacting financial stability. E.SUN is committed to accelerating sustainability efforts, starting with ourselves and partnering with society and customers to drive positive change.

## Strengthening Nature Assessment Frameworks to Guide Action

As risks of resource depletion and ecosystem degradation intensify, E.SUN has enhanced its framework for assessing nature-related dependencies and impacts. Using the ENCORE tool to identify industry materiality and integrating geospatial analysis for double materiality, we have mapped activities and locations within our value chain most closely linked to natural capital. These insights will guide future engagement and management priorities. E.SUN will deepen monitoring and risk controls at these sites and implement concrete measures to reduce negative impacts on nature, creating positive outcomes and advancing our vision of nature-positive growth.

## Amplifying Financial Influence to Drive Sustainable Transition

E.SUN continues to leverage the positive influence of the financial sector by actively seeking sustainability opportunities within our business. Through deep engagement with clients, we help set and achieve sustainability performance targets. Within our own value chain, we integrate responsible investment, financing, and sustainable procurement mechanisms, linking carbon reduction to measurable outcomes. With differentiated management and robust risk frameworks, E.SUN steadily leads industry transformation, advancing green finance and sustainability.

## Connecting the Sustainability Value Chain for Collective Impact

Through partnerships and sustainability-linked products, E.SUN fosters eco-friendly practices and biodiversity conservation. We aim to lead by example, reduce environmental impact, and strengthen sustainability capabilities, advancing climate and nature strategies toward a 2050 vision of harmony with nature.



# Appendix





## Appendix I, TCFD Disclosure Recommendations

	Recommended Disclosures	Chapters
Governance	Describe the board's oversight of climate-related risks and opportunities	1.2 / 1.3 / 4.1
	Describe management's role in assessing and managing climate-related risks and opportunities.	1.2 / 1.3 / 1.4 / 4.1
Strategy	Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term	2.4 / 2.5 / 2.6
	Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning	2.5 / 2.6 / 6.1
	Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2o C or lower scenario	2.5 / 3.1 / 5.6
Risk Management	Describe the organization's processes for identifying and assessing climate-related risks	2.2 / 2.6 / 4.1
	Describe the organization's processes for managing climate-related risks	4.1 / 4.2 / 4.3 / 5.1 / 5.2
	Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management	4.2 / 4.3 / 5.1 / 5.2 / 5.3
Metrics and Targets	Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.	2.2 / 2.5 / 4.3 / 5.1 / 5.2 / 5.3 / 5.4 / 5.6 / 6.1
	Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks	6.2 / 6.3 / 6.4
	Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets	2.5 / 5.6 / 6.1 / 6.3 / 6.4

## Appendix II, TNFD Disclosure Recommendations

	Recommended Disclosures	Chapters
Governance	Describe the board's oversight of nature-related dependencies, impacts, risks and opportunities	1.2 / 1.3 / 4.1
	Describe management's role in assessing and managing nature-related dependencies, impacts, risks and opportunities	1.2 / 1.3 / 1.4 / 4.1
	Describe the organization's human rights policies and engagement activities, and oversight by the board and management, with respect to Indigenous Peoples, Local Communities, affected and other stakeholders, in the organization's assessment of, and response to, nature-related dependencies, impacts, risks and opportunities	1.2 / 1.3
Strategy	Describe the nature-related dependencies, impacts, risks and opportunities the organization has identified over the short, medium, and long term	2.1 / 2.2 / 2.5 / 2.6
	Describe the effect nature-related dependencies, impacts, risks and opportunities have had on the organization's business model, value chain, strategy and financial planning, as well as any transition plans or analysis in place	2.3 / 2.6
	Describe the resilience of the organization's strategy to nature-related risks and opportunities, taking into consideration different scenarios	2.2 / 3.1 / 3.2 / 5.6
	Disclose the locations of assets and/or activities in the organization's direct operations and, where possible, upstream and downstream value chain(s) that meet the criteria for priority locations	2.2 / 4.3
Risk & Impact Management	(i) Describe the organization's processes for identifying, assessing and prioritizing nature-related dependencies, impacts, risks and opportunities in its direct operations	2.1 / 2.2 / 4.3
	(ii) Describe the organization's processes for identifying, assessing and prioritizing nature-related dependencies, impacts, risks and opportunities in its upstream and downstream value chain(s)	2.1 / 2.2 / 4.3 / 5.1 / 5.2
	Describe the organization's processes for managing nature-related dependencies, impacts, risks and opportunities	4.1 / 4.2 / 4.3 / 5.1 / 5.2
	Describe how processes for identifying, assessing, prioritizing and monitoring nature-related risks are integrated into and inform the organization's overall risk management processes	4.2 / 4.3 / 5.1 / 5.2
Metrics & Targets	Disclose the metrics used by the organization to assess and manage material nature-related risks and opportunities in line with its strategy and risk management process.	2.2 / 2.5 / 6.1
	Recommended Disclosures	2.2 / 4.3
	Describe the board's oversight of nature-related dependencies, impacts, risks and opportunities	2.5 / 5.6 / 5.7 / 6.1

# Appendix III, TNFD Core and Additional Disclosure Metrics

## Core Disclosure Indicators and Metrics for FIs

	Metric no.	Category	Metric Description	Value Chain Stage	Figures
TNFD core global metrics	C7.0	Risk	Value of assets, liabilities, revenue and expenses that are assessed as vulnerable to nature-related transition risks <sup>1</sup>	Portfolio	About NT\$93.5 billion (11.27%)
	C7.1		Value of assets, liabilities, revenue and expenses that are assessed as vulnerable to nature-related physical risks <sup>2</sup>		About NT\$20.0 billion (2.41%)
	C7.2		Description and value of significant fines/penalties received/litigation action in 2024 due to negative nature-related impacts	Direct Operations	NT\$0
	C7.3	Opportunities	Amount financing and investment that conforms to the Taiwan Sustainability Taxonomy	Portfolio	About NT\$233.8 billion
	C7.4		Amount of products and services producing positive impacts on nature (Green loan balance + Sustainability linked loan balance + Sustainability bond balance)	Portfolio	About NT\$227.0 billion
TNFD FI Core Metrics	FI.C0.0	Exposure to sectors	Total exposure percentage to nature-sensitive sectors categorized by the TNFD.	Portfolio	17.29%
	FI.C0.1	Exposure to sensitive locations	Percentage of portfolio within Minimum Regulatory Standards <sup>3</sup> areas	Portfolio	0.11%

Note 1: Quantitative assessments are conducted based on 40 impact-related "operational characteristic" and "geospatial" indicators. After adjusting for weighting, the resulting scores represent the top 1% of companies within our portfolio in Taiwan.

Note 2: Quantitative assessments are conducted based on 15 impact-related "operational characteristic" and "geospatial" indicators. After adjusting for weighting, the resulting scores represent the top 1% of companies within our portfolio in Taiwan.

Note 3: The indicators considered in the Minimum Regulatory Standards area include nature reserves, wildlife protection areas, natural conservation areas, drinking water source quality protection zones, national-level significant wetland areas, specific soil and water conservation areas, hot spring outcrops, and reservoir catchment areas, totaling 8 indicators.

## Recommended Disclosure Indicators and Metrics for FIs

	Metric no.	Driver of nature change	Indicator / Metric description	Value chain stage	Figures/Explanation
TNFD core global metrics	C1.0	Land/freshwater/ocean-use change	Total spatial footprint <sup>1</sup>	Suppliers	3.49 km <sup>2</sup>
	C1.1		Extent of land / freshwater / ocean-use change Public Welfare Initiatives: E.SUN Malavi Project, E.SUN NTU Centennial ESG Project, E.SUN Tree Planting Project (2020–2024) Investment and Financing Portfolio: Farm to Table Project Sites		0.05 km <sup>2</sup>
	C2.0	Pollution/ pollution removal	Pollutants released to soil split by type	Direct Operations	890.73 km <sup>2</sup>
	C2.1		Municipal wastewater discharged		1.17 km <sup>2</sup>
	C2.2		Waste generation and disposal <sup>2</sup>		2.72 km <sup>2</sup>
	C2.3		Plastic pollution		Less involvement with this indicator
	C2.4		Non-GHG air pollutants		212,983 tons
	C3.0	Resource use/replenishment	Water withdrawal and consumption from areas of water scarcity according to WRI categorization	Suppliers	Total: 703 tons General waste: 523 tons General waste target: 565 tons
	C3.1		Quantity of high-risk natural commodities sourced from land/ocean/freshwater		Less involvement with this indicator
	C4.0	Invasive alien species and other	Measures against unintentional introduction of invasive alien species		Less involvement with this indicator
TNFD Additional Metrics	C5.0	State of nature	Total endangered plants habitat area according to the Endemic Species Research Institute's Taiwan Biodiversity Network (TBN) that intersects with portfolio companies	Portfolio	0 tons
	A2.1	Waste minimized, reused or recycled	Amount of household and office waste recycled <sup>2</sup>	Direct Operations	1% 180tons
	A3.0	Driver of nature change: resource use and replenishment	Total water consumption and withdrawal. the water consumption of E.SUN Bank is entirely sourced from third-party water suppliers defined by GRI, namely Taiwan Water Corporation and Taipei Water Department. It does not include water from surface water, groundwater, seawater, or recycled water sources. <sup>3</sup>	Direct Operations	Total water withdrawal: 236,648 tons Total water withdrawal target: 349,482 tons Water consumption: 23,665 tons Water consumption target: 34,948 tons

Note 1: Data calculated S&P's Ecosystem Footprint database and does not cover entire portfolio due to data limitations

Note 2: Percentage of examined and estimated data is 95% and 5% respectively

Note 3: The disclosed data is as of the end of December 2024. For historical data and targets, please refer to Appendix VI.



# Appendix IV, Greenhouse Gas Emissions Summary Table

## Greenhouse Gas Emissions (Scope 1, Scope 2, Scope 3):

Category	Item	2020	2021	2022	2023	2024
Scope 1	Carbon emission (ton)	2,399	1,857	1,844	2,161	2,403
	Emission Target (ton)	-	2,298	2,197	2,097	1,996
Scope 2	Location-based Emissions Target (ton)	22,640	22,656	24,403	24,339	23,369
	Location-based (ton)	-	23,070	21,618	26,039	29,421
	Market-based (ton)	22,299	22,105	20,294	17,959	10,291
	Market-based Emissions Target (ton)	-	21,362	20,426	19,489	18,552
Scope 1+2	Total Carbon emission (ton)	24,698	23,962	22,139	20,120	12,694
	Per capita (ton/person)	2.6308	2.5669	2.4304	2.2073	1.3697
	Carbon emission per unit of revenue (ton/NT\$M)	0.4391	0.4139	0.4039	0.3017	0.1667
	Data coverage ratio	100%	100%	100%	100%	100%
Scope 3	1 Purchased Goods and Services	5,708	4,589	154	39	38
	2 Capital Goods	47,033	43,921	50,422	37,005	28,705
	3 Fuel-and-energy-related-activities (not included in Scope 1 or 2)	5,340	-	4,497	3,944	2,484
	Fuel-and-energy-related-activities Emissions Target	-	5,116	4,891	4,667	4,443
	4 Upstream transportation and distribution	-	-	-	-	-
	5 Waste generated in operations	120	158	175	179	181
	6 Business travel	29	43	60	280	314
	7 Employee commuting	-	-	-	3,169	3,645
	8 Upstream leased assets	-	-	-	-	-
	9 Downstream transportation and distribution	-	-	-	0.18	0.21
	10 Processing of sold products	-	-	-	324	380
	11 Use of sold products	1,178	382	624	1,320	1,543
	12 End of life treatment of sold products	211	382	83	175	205
	13 Downstream leased assets	-	-	-	-	-
	14 Franchises	-	-	-	-	-
	15 Investments	4,710,269	3,672,612	4,945,550	5,355,042	5,508,602
Other upstream		-	-	-	-	-
Other downstream		-	-	-	-	-
Total indirect GHG emissions (Scope 3)		4,769,887	3,722,087	5,001,565	5,401,478	5,546,097
<b>Total carbon emissions</b>		<b>4,794,585</b>	<b>3,746,049</b>	<b>5,023,703</b>	<b>5,421,598</b>	<b>5,558,791</b>

Note: 1.E.SUN Bank set a science-based carbon reduction target through SBT in 2021, aiming to reduce carbon emissions by 4.2% annually based on the 2020 baseline. Therefore, the target for Scope 1 and Scope 2 emissions in 2024 is 20,548 tons.

2.Scope 1 emission mainly includes car fuel, diesel for power generator and natural gas; scope 2 emission mainly includes electricity; and scope 3 emission mainly includes employee travel, waste, product procurement emissions, capital commodity emissions, and product usage emissions.

3.Scope 1, Scope 2 and Scope 3 air travel includes all branches in Taiwan and overseas. Scope 3 waste and land travel inventory includes all branches in Taiwan.

4.The values for petroleum and diesel emissions are in accordance with the Greenhouse Gas Index Management Solution (version 6.0.4) published by the Environmental Protection Administration.

5.Electricity parameter is 0.494 kg CO<sub>2</sub>e/kWh by Energy Bureau, MOEA 2024.

6.According to ISO 14064-1 Greenhouse gases Part 1: Specification with guidance, emission = activities\*emission parameter\*GWP.

7.The Global Warming Potential (GWP) of refrigerants to the IPCC 2024 Sixth Assessment Report.

8.The target setting method for location-based carbon emissions is based on the 2020 baseline, with a yearly reduction of 1% in emissions per unit of revenue.

9.The target setting method for market-based carbon emissions is based on the 2020 baseline, with a yearly reduction of 4.2% in total emissions.

10.Scope 3 includes newly added fuel and energy-related activities carbon reduction targets, with 2020 as the base year when emissions were 5,340 tons. The carbon emissions will be reduced by 4.2% annually to achieve a 42% reduction by 2030.

# Appendix V, 2024 Financed Emissions Structure

## Asset Class Distribution

Asset Class		Financed Emissions (tCO2e)	Carbon Footprint (tCO2e/ NT\$M)	WACI (tCO2e/ NT\$M)	Physical Emission Intensity <sup>2</sup>	Physical Emission Intensity Units <sup>2</sup>	Data Quality	Inventory Coverage
Investment	Stocks and Corporate Bonds <sup>1</sup>	495,295	1.18	4.00			3.17	50.68%
	Sovereign Bonds	Excluding LULUCF	1,174,097	6.60	6.60		1.00	
		Including LULUCF	1,064,381	5.99	5.99			
Crediting	Corporate Loans	3,149,685	3.22	5.19			3.79	92.70%
	Power Generation Project Finance	169,954	2.68		0.08	tCO <sub>2</sub> e/Power Generated(MWh)	2.98	
	Commercial Real Estate Loans	143,237	1.61		0.10	tCO <sub>2</sub> e/Floor Area(m <sup>2</sup> )	4.00	
	Mortgages	376,334	0.36		0.03	tCO <sub>2</sub> e/Floor Area(m <sup>2</sup> )	4.00	
	Motor Vehicle Loans	- <sup>3</sup>	-	-	-	tCO <sub>2</sub> e/km	-	
Total	Excluding LULUCF	5,508,602	1.99	5.03			3.58	78.61%
	Including LULUCF	5,398,886	1.95	4.96			3.58	

Note 1: Due to the absence of Scope 3 GHG calculation guidelines for sustainable bonds, such as green, sustainability, and social bonds, in the PCAF 2nd Edition, E.SUN has excluded related emissions from its stock and corporate bond assessments. The excluded emissions total 31,727 tCO<sub>2</sub>e. Including these would raise the overall inventory coverage to 79.39%.

Note 2: Physical Emissions Intensity refers to the efficiency of total carbon emissions from specific activities within an industry per unit of output.

Note 3: A dash (-) in the table indicates that the Company or its subsidiaries did not hold the relevant asset during the reporting year.

## Geographical Distribution

Geographic Region	Financed Emissions (tCO <sub>2</sub> e)			Carbon Footprint (tCO <sub>2</sub> e/NT\$M)			WACI (tCO <sub>2</sub> e/ NT\$M)		
	Bank	Securities	Venture Capital	Bank	Securities	Venture Capital	Bank	Securities	Venture Capital
Taiwan	2,740,701	2,376	3,405	1.40	1.24	0.97	2.15	3.27	3.23
N. America & Europe	924,708	848	-	2.50	1.13	0.00	2.18	1.33	1.07
Hong Kong	288,739	-	4	3.76	-	0.98	4.49	-	1.96
Others	1,129,320	3	611	5.73	0.02	0.41	10.32	0.02	2.62
Other Asia	415,379	-	-	2.78	-	-	3.32	-	-
China	2,508	-	-	0.70	-	-	1.09	-	-
Total	5,501,355	3,227	4,021	1.99	1.17	0.80	5.04	2.62	3.04

## Industry Distribution

Industry	Financed Emissions (tCO <sub>2</sub> e)			Carbon Footprint (tCO <sub>2</sub> e/NT\$M)			WACI (tCO <sub>2</sub> e/ NT\$M)		
	Bank	Securities	Venture Capital	Bank	Securities	Venture Capital	Bank	Securities	Venture Capital
Manufacturing	938,269	197	2,015	4.69	0.54	1.06	5.04	3.55	3.51
Electricity and Utilities	432,290	-	-	5.00	-	-	51.71	-	-
Fossil Fuel and Chemical	467,725	16	46	8.40	1.65	0.80	13.43	6.42	1.70
Transportation	850,324	833	20	11.76	1.23	0.14	18.99	3.62	7.30
Electronics	313,929	1,181	1,405	2.53	1.71	1.77	3.47	3.16	4.34
Others	451,975	47	415	1.43	0.43	0.22	3.05	1.18	1.97
Cement and Glass	177,210	-	-	52.68	-	-	148.94	-	-
Metals and Mining	120,793	-	-	10.17	-	-	11.67	-	-
Wholesale and Retail Trade	123,204	141	119	0.62	0.55	0.91	0.35	1.13	1.78
Finance	76,006	10	1	0.16	0.02	0.01	0.50	0.07	0.65
Total	3,951,725	2,426	4,021	2.56	0.91	0.80	4.85	2.41	3.04

# Appendix VI, Operational Environmental Management Indicators

## Energy

Item	2021	2022	2023	2024
Total consumption (MWh)	50,669	53,309	52,705	50,827
Total consumption (GJ)	182,408	191,913	189,737	182,977
Total non-renewable energy consumption (MWh)	49,570	45,313	40,676	24,374
Total non-renewable energy consumption target (MWh)	48,899	46,755	44,611	42,468
Total renewable energy consumption (MWh)	1,099	7,996	12,029	26,453
Per capita (GJ/Person)	19.54	21.07	20.82	19.74
Per unit of revenue (KWh/NT\$ thousand)	0.88	0.97	0.79	0.67
Per unit of revenue (GJ/NT\$M)	3.15	3.50	2.84	2.40
Data coverage	100%	100%	100%	100%

Note: 1 GJ = 277.778 kWh

## Water

Item	2021	2022	2023	2024
Total water withdrawal (ton)	238,715	248,609	242,972	236,648
Total water withdrawal target (ton)	270,944	254,832	308,115	349,482
Total water withdrawal (megaliter)	239	249	243	237
Water discharge (ton)	214,844	223,748	218,675	212,983
Water consumption (ton)	23,872	24,861	24,297	23,665
Water consumption target (ton)	27,094	25,483	30,811	34,948
Per capita (ton/person)	25.57	27.29	26.66	25.53
Per unit of revenue (ton/NT\$M)	4.12	4.54	3.64	3.11
Per unit of revenue target (ton/NT\$M)	4.68	4.65	4.62	4.59
Data coverage	100%	100%	100%	100%

Note: 1. E.SUN Bank's revenue water consumption reduction target is based on the year 2020, aiming to reduce water consumption by 3% annually, with a total reduction of 30% by 2030. The revenue water consumption in 2020 was 4.71 ton/NT\$M.

2. The water consumption of E.SUN Bank is entirely sourced from third-party water suppliers defined by GRI, namely Taiwan Water Corporation and Taipei Water Department. It does not include water from surface water, groundwater, seawater, or recycled water sources.

## Waste

Item	2021	2022	2023	2024
Total waste generated (ton)	698	692	692	703
Total waste reused / recycled (ton)	210	203	174	180
Total waste disposed (ton)	488	489	518	523
Total waste disposed target (ton)	559	489	545	565
Waste (kg/person)	52.3	53.7	56.8	56.5
Waste per unit of revenue (kg/ NT\$M)	8.43	8.93	7.77	6.87
Waste per unit of revenue target (kg/ NT\$M)	9.66	8.92	8.17	7.42
Data coverage	100%	100%	100%	100%

Note: 1. E.SUN Bank's revenue general waste reduction target is based on the year 2016, aiming to reduce waste generation by 5.57% annually, with a total reduction of 78% by 2030. The revenue general waste in 2016 was 13.39 kg/NT\$M.

2. The data inventory and estimation ratio for waste by year are 95% and 5%, respectively.

3. General waste is disposed of through incineration.



## Appendix VII, Climate Scenario Settings Information

Value Chain Stage	Scenario	Source of Risks	Analysis Timeframes	International Scenario Resources				
				Source of Scenario	Adopted Scenario	Scenario Assumption	Scenario Carbon Price	Corresponding Temperature Rise
Upstream Supply Chain	Short term	Transition Risk	within the next year	Taiwan Climate Change Response Act	-	Assuming Taiwan imposes a stricter carbon fee policy with a uniform rate applied to domestic enterprises.	NTD\$300/ton	-
	IEA Net Zero	Transition Risk	2030, 2050	IEA GEC Model 2024 Net Zero 2050		Assuming the global energy sector gradually transitions to achieve (2030) USD\$140/ton net-zero emissions by 2050. (2050) USD\$250/ton		1.5°C
	NGFS Net Zero	Transition Risk		NGFS Phase 4	Net Zero 2050	Assuming proactive climate policies and technological innovation accelerate global decarbonization, achieving net-zero emissions by (2030) USD\$192/ton (2050) USD\$496/ton 2050.		1.4°C
	Low-Emission Scenario	Physical Risk			SSP1-2.6	Assuming global orderly and proactive cooperation in promoting sustainable development, successfully achieving net-zero emissions USD\$100/ton or Above by 2050.		1.8~2°C
	Medium-Emission Scenario	Physical Risk	2030, 2050	IPCC AR6	SSP2-4.5	Assuming global socioeconomic development continues along current trends, with delayed transition efforts failing to achieve net-zero emissions.	USD\$30~70/ton	2.7°C
	High-Emission Scenario	Physical Risk			SSP5-8.5	Assuming rapid global economic growth with high dependence on fossil fuels, resulting in continued emissions increases and intensified climate change.	No Carbon Pricing Policy	4.4°C
Owned Operational Sites	Low-Emission Scenario	Physical Risk			SSP1-2.6	Assuming global orderly and proactive cooperation in promoting sustainable development, successfully achieving net-zero emissions USD\$100/ton or Above by 2050.		1.8~2°C
	Medium-Emission Scenario	Physical Risk	2030, 2050, and the end of the century	IPCC AR6	SSP2-4.5	Assuming global socioeconomic development continues along current trends, with delayed transition efforts failing to achieve net-zero emissions.	USD\$30~70/ton	2.7°C
	High-Emission Scenario	Physical Risk			SSP5-8.5	Assuming rapid global economic growth with high dependence on fossil fuels, resulting in continued emissions increases and intensified climate change.	No Carbon Pricing Policy	4.4°C
Investment and Financing Portfolio	Short-term: Transition risk (TR) scenario	Transition Risk	within the next year	Regulations on the Collection of Carbon Fees in Taiwan	-	Assuming Taiwan implements a stricter carbon fee policy with a uniform rate applied to domestic enterprises.	NTD\$1,000/ton	-
	Short-term: Intensity-adjusted (IA) scenario	Physical Risk	within the next year	Historical Event Recurrence	-	Assuming the historical Typhoon Morakot event reoccurs with increased intensity.	-	-
	Long-term: Orderly Net-Zero (ONZ) Scenario	Transition Risk	2030, 2050	NGFS Phase 4	Net Zero 2050	Global gradual transition towards achieving net-zero emissions by (2030) USD\$186/ton (2050) USD\$562/ton 2050.		1.5°C
	Long-term: Disorderly Transition (DT) Scenario	Physical Risk	2030, 2050	IPCC AR6	SSP1-1.9	Delayed Transition		
	Long-term: Disorderly Transition (DT) Scenario	Transition Risk	2030, 2050	NGFS Phase 4	Delayed Transition	Assuming a delayed start to the global transition, but still achieving net-zero emissions by 2050 and controlling temperature rise below 2°C by the end of the century.	(2030) USD\$150/ton (2050) USD\$456/ton	2°C
	Long-term: Passive Transition (PT) Scenario	Transition Risk	2030, 2050	IPCC AR6	SSP1-2.6	Assuming a delayed transition with failure to control global temperature rise below 2°C by the end of the century, resulting in more severe warming impacts.	(2030) USD\$173/ton (2050) USD\$235/ton	>4°C

## Appendix VIII, Climate and Environment Risk and Opportunities Difference Chart

### Differences in Opportunity Items between 2024 and 2023

Opportunity Item	Difference	Adjustment Explanation
1. Green and Low-Carbon Operations	Description Adjustment	Aligned with the company's carbon reduction strategy, this item now includes references to low-carbon and renewable energy use.
3. Green Financial Products	Name and Description Adjustment	Renamed "Green Products and Services" to "Green Financial Products" to clarify focus on environmentally beneficial financial solutions.
4. Transition Services and Engagement	Name and Description Adjustment	Updated from "Expanding Sustainable Customer Base" to "Transition Services and Engagement" to better reflect efforts supporting client climate transition through advocacy and collaboration.
9. Ecosystem Protection and Restoration	New Item Added	Introduced "Ecosystem Protection and Restoration" to reinforce commitment to conserving natural resources and promoting ecological sustainability.

### Differences in Risk Items between 2024 and 2023

Risk Item	Difference	Adjustment Explanation
1. Carbon taxes/fees or additional expenses related to nature	Name and Description Adjustment	Expanded "Carbon Taxes/Fees" to include nature-related risks, reflecting evolving policies and ensuring completeness.
3. Climate and nature sensitive assets	Name and Description Adjustment	Renamed to "Climate and Nature-Sensitive Assets" and added scenarios of potential financial risk for greater clarity.
4. Fluctuations in raw material prices	Name and Description Adjustment	Refined name and impact description to clearly show how raw material price volatility affects operations and financial risk.

# Appendix IX, TCFD/TNFD Conformity Statement




## Conformity Statement

### Climate related Financial Disclosure

This is to conform that: E.Sun Financial Holding Company, Ltd. 玉山金融控股股份有限公司  
14F, No. 115, Sec. 3, Minsheng E. Rd. 臺灣  
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105402  
民生東路三段 115 號 14 樓  
Taiwan 105402

Holds Statement Number: SRA-TW-812274

As a result of carrying out conformity check process based on TCFD requirement, BSI declares that:

- E.Sun Financial Holding Company, Ltd. follows the Recommendations of the Task Force on Climate and Nature-related Financial Disclosures (TCFD/TNFD) Guidance to disclose Climate and Nature-related financial information which is clear, comparable and consistent against its organizational risks and opportunities as well as its financial impacts. The disclosure covers the four core elements of the TCFD/TNFD and is prepared based on the guiding principles for effective disclosures.
- The maturity model for the Climate-related Financial Disclosures is **Level-5+ : Excellence grade**.
- 與氣候相關的財務揭露的成熟度模型為**第五級 PLUS : 優秀**等級。
- The maturity model for the Nature-related Financial Disclosures is **Level-5 : Excellence grade**.
- 與自然相關的財務揭露的成熟度模型為**第五級 : 優秀**等級。



For and on behalf of BSI Joe Hsieh, Managing Director Northeast Asia, APAC Assurance

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<b>Location:</b>	<b>Conformity Check Overall Result:</b>
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	The maturity model for the Nature-related Financial Disclosures is <b>Level-5 : Excellence grade</b> . 與自然相關的財務揭露的成熟度模型為 <b>第五級 : 優秀</b> 等級。

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