TCFD

2022 Chicony Electronics Corporation

Task Force on Climate-related Financial Disclosures Report

Content

1. Message from the Chairman

The COVID-19 epidemic has spread rapidly since the end of 2019. The negative impact on global economic activities has exceeded expectations, including severe damage to global supply chains and the labor market. Countries implemented various epidemic prevention and control measures, which have greatly changed people's lives and work patterns. However, according to the observation of the World Meteorological Organization (WMO), the lockdown-related fall in GHG emissions is little. We are getting farther away from the Paris Agreement goals. For example, the torrential rain in western Germany, the hottest June in Tokyo, Japan, and the worst drought in Taiwan in half a century, the economic and environmental crises brought about by climate change will become more frequently and extremely. Therefore, we must pay more attention on climate change in our business operations.

Due to lifestyles changing, including remote work and distance learning, the demand for Notebook (NB) has increased significantly. In 2021, Chicony's NB related products, including keyboards, video imaging and lens modules, had a substantial increase in revenue. In 2020, Chicony introduced the climate-related financial disclosure (TCFD) framework to identify the impacts and opportunities of climate change, and establish measurement indicators and targets. We join the Science Based Target Initiative (SBTi) and set a ten-year reduction target in 2021. Relevant targets had passed the SBTi audit in 2022.

We believe that while maintaining progress and rapid growth, the company should gradually promote sustainable issues and actively exert a positive influence. Also, it shall regards addressing climate change as one of the important responsibilities of the company's sustainable operation. This is the value of a company's sustainable existence.

President

Chairman

2. About This Report

2.1 Purpose

In 2020, Chicony introduced the TCFD framework to identify the impacts and opportunities of climate change faced by Chicony and established measurement indicators and targets to grasp and reduce the possible operational impact of climate change. In addition to strengthening our ability to adapt to climate disasters and reduce the possible impact, Chicony also strives to mitigate the external impact of GHG. In 2021, we joined the SBTi and formulate quantitative management goals for GHG reduction in the next ten years. Relevant targets had passed the SBTi audit in August 2022. Chicony follows 'Chicony Corporate Social Responsibility Principles' and regards climate change as our sustainable management responsibility. We committed to becoming a leading manufacturer of green components and consumer electronics.

2.2 Scope

The boundary covers Chicony's Taipei headquarters and major production bases, including DongGuan factory, Maurius factory, Suzhou factory, Chongqing factory and Thailand factory. Unless otherwise specified, the revenue-related data are the same as the scope of the organizational boundary, excluding subsidiaries ChiconyPower and Xavi. Following the TCFD framework, the report illustrates the link between Chicony's climate-related financial information and its governance, strategy, risk management, and metrics and indicators from 2021 to 2022 (January 1, 2021 to December 31, 2022).

3. About Chicony

Chicony has a proactive, forward-thinking engineering team. We integrate environmental protection into product R&D and manufacturing. This enables us not only to meet customer needs, but also to reduce the environmental impact of our products. In addition, Chicony builds a headquarters building that combines smart systems and green energy. Our HQ is also a demonstration site for the IWA smart building solutions that is independently developed by our subsidiary - ChiconyPower. Our HQ also represents Taiwan to participate in the 'Asia Pacific Intelligent Green Building Alliance' (APIGBA) competition. Our HQ stood out from a total of 21 smart green buildings in 5 countries and won the highest honor award. Chicony upholds the concept of sustainable and ethical management, and with the principle of 'No Quality, No Sales', provides customers with the highest quality products and services, continues to create revenues and profits that can give back to shareholders, employees and the society.

Chicony Electronics Corporation Ltd.

Establish Date	Feb. 22, 1983
Total Paid-in Capital	NTD 7,600,531,720 (Last Modification Date: April 12, 2023)
Consolidated Revenue	2021: NTD 107,474,079 thousand 2022: NTD 115,748,378 thousand
Total Employees	2021: 16,899 2022: 16,437
Main Products	 • Input Device  • Mobile Keyboard  • Video Image Products  • Camera Modules
Operation Sites	• Headquarters: Taiwan • Branches: U.S., Japan • Production Sites: DongGuan, Suzhou, ChongQing, Thailand , Czech

Note: Chicony Annual Report

4. Climate-related Financial Disclosure and Governance (TCFD)

4.1 Governance

4.1.1 Board Oversight

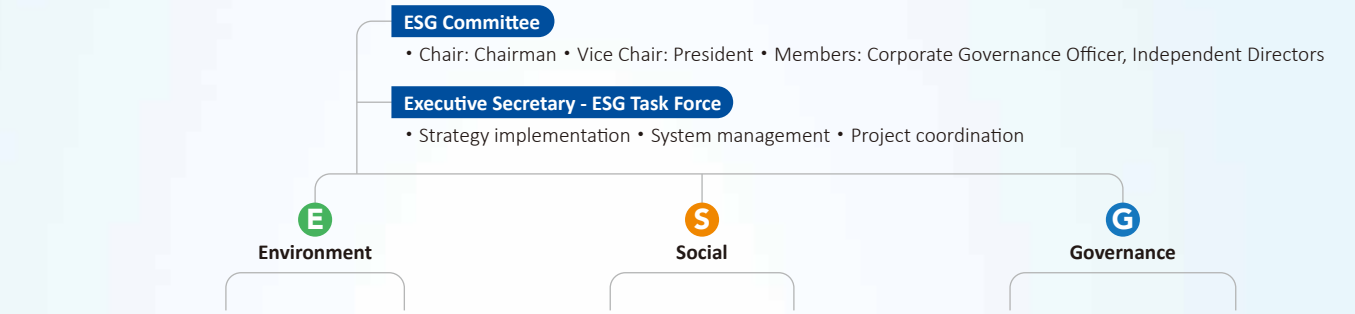
The responsible unit for the sustainable issues strategy at Chicony is ESG Committee under the board of directors (BOD). ESG Committee is required to report to the BOD at least once a year, and the BOD is responsible for reviewing and supervising Chicony's major sustainable issue decisions. The topics discussed in 2021 and 2022 include the submission and achievements of SBTi targets, customer ESG requirements and external climate-related issues.

4.1.2 Role of Management Level

The ESG Committee is the highest governing body responsible for climate issues and also oversees environmental (E), social (S), and corporate governance (G) topics. The ESG Committee is chaired by the Chairman of the Board, with the General Manager serving as the Vice Chairman. The committee comprises the Corporate Governance Officer and three independent directors as members.

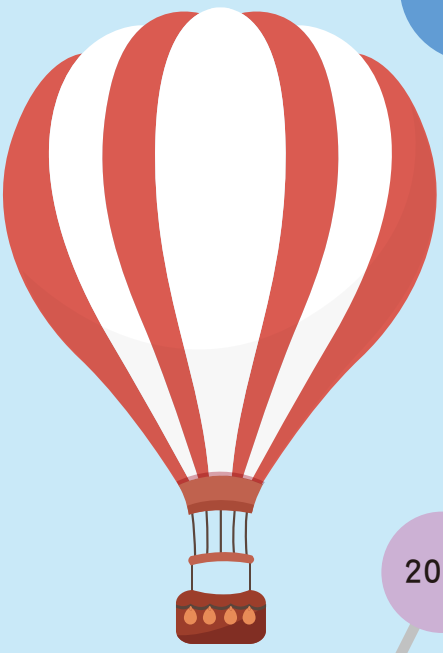
The ESG Committee has an ESG Task Force, as well as six working groups covering Corporate governance, Customer relationships and supplier management, Green products, Environmental sustainability, Employee care, and Public benefit. They regularly submit relevant information and reports to the ESG Committee. The ESG Task Force is headed by the top executive of the Administrative Department, serving as the executive secretary, responsible for strategy implementation, system management, and project coordination. The respective units of the six working groups operate in a cross-departmental manner. They are in charge of their respective climate-related issues, including domestic and international eco-friendly materials, low-carbon trends, etc. They identify climate risks through relevant information and assess and respond to climate impacts within their scope of responsibilities. They integrate daily management activities related to climate change and energy issues within the company and conduct audits to ensure the quality and effectiveness of execution. The organizational structure and framework of Chicony's sustainability management are shown in the figure below.

● Structure and duty of Sustainability Governance



Team	Green products	Environmental sustainability	Employee care	Public benefit	Corporate governance	Customer relationships and supplier management
Responsible Unit	Business Units, Quality Control Center, Unified Purchasing Center	Business Units, New Product Development Center, Administration Department	Administration Department, Business Units	Administration Department	Financial and Administrative Department, Investor Relation, Auditing Office, Administration Department	Business Units, Quality Control Center, Unified Purchasing Center
Function	Raw materials control, green materials and product design	Pollution / Energy / GHG / Climate Change / Renewable Energy Management	Compensation & Benefits, labor relations, employee career planning and occupational health & safety	Local residents communication, support disadvantaged groups and participate in public welfare community	Corporate governance, sustainable operation, ethics and integrity, business performance and risk control	Supplier management, customer satisfaction and product promotion

● Climate Governance Milestone



Goals

- Regularly conduct inventory and disclosure of climate change risks and opportunities with reference to the conclusions of the TCFD report, and establish a comprehensive climate risk management and communication mechanism
- Set GHG reduction targets; implement short-, medium- and long-term plans with each production bases.

2023

- Set a target of 100% renewable energy usage by 2030 and a net zero target by 2050
- Plan and build a carbon management platform, improve the accuracy of carbon management data and the effectiveness of data collection, and accelerate the transition to net zero.

2022

- GHG reduction target was reviewed by SBTi in August

2021

- Establish 'ESG Committee' to oversee climate governance, consisting of the BOD and the management team, and report annually to the BOD
- CDP questionnaire first time achieved Management Level (B Level)
- Six major production bases completed the verification in accordance with the latest ISO 14064-1:2018 GHG inventory standard
- Join the SBTi initiative to develop and submit GHG reduction scenario targets of 1.5°C for the base year of 2020:
  (1) Scope 1 & 2: reduce absolute emissions by 42% and carbon intensity by 56.8% before 2030
  (2) Scope 3- Use of sold products: reduce absolute emissions by 25% and carbon intensity by 44.2% before 2030

2020

- Introduce TCFD and SBTi project to conduct regular inventory and disclosure of climate-related risk and opportunity, with a total of 10 risks and 8 opportunities

2010

- Respond CDP questionnaire annually to address international investors' concerns about the Company's climate governance

4.2 Strategy

Chicony considers climate-related risks and opportunities as the basis of our operational risk management and future expansion plans. We regularly review and track significant risks and opportunities. We regularly publish TCFD reports in accordance with TCFD guidelines, SBTi requirements and international trend recommendations. At the same time, we establish a comprehensive climate risk management and communication mechanism in line with TCFD project conclusions. We also continue to set GHG emission reduction targets and implement short-, mid- and long-term plans for each factory. We will gradually reduce Chicony's carbon footprint through scientific management.

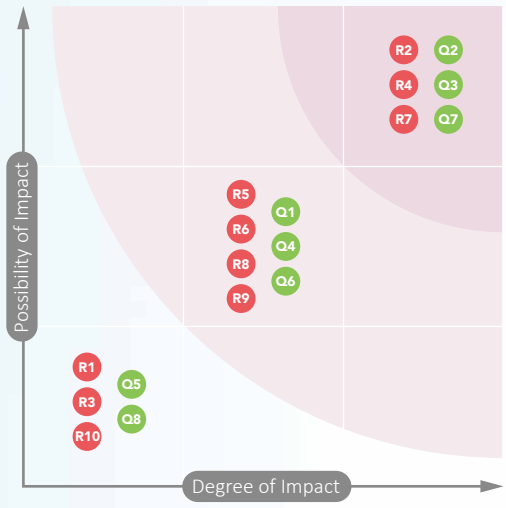
4.2.1 Climate-related Risks and Opportunities

Chicony has compiled a list of climate risks and opportunities by referring to TCFD's official documents and the climate risks and opportunities related to the industry, upstream and downstream partners, and interviewing the current status of each department. The list was used to identify the impact and influence on each department's business development strategy and financial planning. We also analyze and rank the significant climate risks and opportunities in terms of their likelihood of occurrence, and evaluate the short-, mid- and long-term impact of each item on the Group's operations. We review and track significant risk and opportunity items annually to keep track of climate risk and opportunity issues related to our direct operations and supply chain to enhance our climate resilience.

According to the internal target management process, the short-term is within 3 years, the mid-term is 3-5 years, and the long-term is more than 5 years. 10 major climate risks and 8 opportunities are as below.

High Impact Risk	Requirements and regulations for existing products and services (short-term) Changing customer behavior (short-term) Preference changes of consumers, customers and investors (mid-term)	**High Impact Opportunity**	Use of more efficient production and shipping methods (mid-term) Relocating to more efficient buildings (mid-term) Access to new markets (mid-term)

● Matrix of Risks and Opportunities



◆ List of Climate-related Risks

- R1 Cost of GHG emissions
- R2 Requirements and regulations for existing products and services
- R3 Regulations of renewable energy and water
- R4 Changing customer behavior
- R5 Increased costs of raw materials
- R6 Substitution of products and services with lower emissions technology
- R7 Preference changes of consumers, customers and investors
- R8 Severity of typhoons and floods increases
- R9 Changes in precipitation and climate patterns
- R10 Rising mean temperature

◆ List of Climate-related Opportunities

- Q1 Use of more efficient modes of transportation
- Q2 Use of more efficient production and shipping methods
- Q3 Relocating to more efficient buildings
- Q4 Develop/expand low-carbon products or services
- Q5 Development of climate adaptation and insurance risk solutions
- Q6 Development of new products or services through R&D and innovation
- Q7 Access to new markets
- Q8 Participation in renewable energy programs and adoption of energy-efficiency measures

4.2.2 Financial Impacts

We complete the cost analysis of the financial impact of major climate risks and opportunities with reference to Chicony's internal and external information and scenario assumptions. Results will vary based on data availability and granularity of information. Please refer to the table below for the detail information.

4.2.2.1 Analysis of Climate-related Financial Impact

Based on the results of the climate risk and opportunity identification, Chicony conducted internal and external financial impact analysis on the top three risks and opportunities. We also assessed the scope of impact and current control measures, and used the results of the analysis as a stocktaking and review of current strategies.

◆ Impact Analysis of Material Climate-related Risks and Opportunities

Type	Potential Financial Impact	Scope of Impact	Management Approach
R2 Requirements and regulations for existing products and services	⊖ If demand is not met, orders will fall and revenue will decrease	● Sites ● Market	● Introduction of Low VOC paint ● Strengthen the partnership and bargaining power of purchasing and original manufacturers ● Appropriately respond to customers about cost increase
R4 Changing customer behavior	⊖ Increase in various operating costs (procurement, R&D)	● Sites ● Market ● Supply Chain	● Conduct product Value Analysis / Value Engineering (VA / VE) to change product structure design to improve product performance and reduce product production cost ● Expanding diversification of eco-plastics suppliers to reduce dependency ● Early material preparation reduces the purchase price of environmental materials ● Collect the carbon footprint data of the product and mark the material and size according to the machine type.
R7 Preference changes of consumers, customers and investors	⊖ Damage to the company's reputation and image, resulting in loss of sales	● Market	● Introduce sustainability projects, such as TCFD, SBTi, ICP, in response to external concerns ● Establish TCFD task force to identify climate-related risks and opportunities and develop strategies
O2 Use of more efficient production and shipping methods	⊕ Efficiency and capacity improvements to increase revenue	● Sites ● Market	● Set automation goals and provide monthly execution results for supervisors' review ● Early planning of production and quality control according to customer requirements ● Improve automated equipment to increase production efficiency
O3 Relocating to more efficient buildings	⊕ Reduce energy cost	● Sites	● Invest in R&D of smart building control technology ● Optimize the use of energy resources with intelligent control systems ● Electricity saving security system
O7 Access to new markets	⊕ Expand into new areas and increase revenue	● Market	● Expanded investment in product and new business development ● Pay attention to international product development trends ● Develop low-carbon products and obtain low-carbon certification

4.2.2.2 Quantifying Analysis of Climate-related Financial Impact

After completing the financial impact analysis, this section will detail the quantitative assessment of the financial impact of the different climate risks and opportunities faced by Chicony, and propose related future control measures as a reference for decision making.

◆ Financial Impact and Costs - R2 Requirements and Regulations for Existing Products and Services

Type	Detail	Cost	Approach
Transition Risk - Policy and Legal	In 2020, Standardization Administration of P.R.C. (SAC) issued four mandatory national standards for Volatile Organic Compounds (VOCs) in paints, adhesives, inks and detergents. Although the regulations do not yet directly affect Chicony, four of Chicony's major production factories are located in China. If the regulations become more stringent in the future, we may need to switch to water-based paints for our keyboard module spraying in China, which could ultimately result in higher production costs.	In response to the tightening of the VOCs standards, our products may be required to be certified as low VOCs waterborne paint. Chicony reduced the impact by appropriately reflecting the increased paint costs to our customers. We also purchased a VOCs detection system and increased our product verification process. If the painting process is outsourced, we may strengthen our purchasing partnership and bargaining power. In addition, if there are factories that emit VOCs, government required them to appoint an external environmental consultant for long-term management to monitor them.	● Faux-painted appearance on plastic formulation ● Immediate attention to changes in international standards ● If customers request to import, additional manpower will be added

◆ Financial Impact and Costs - R4 Changing customer behavior

Type	Detail	Cost	Approach
Transition Risk - Market	● Our main customers are global brands of consumer electronics such as PC, NB, smart phone, game console, and smart home. In recent years, in order to reduce the carbon footprint of their products, brand owners have been requiring their products to use environmentally friendly raw materials or to reduce the packaging materials used in the production process. This has resulted in higher production costs, longer product development times, and increased costs to obtain various certifications for their products. Customers' environmental requirements include the use of post-consumer recycled material (PCR), bioplastic (BIO), ocean bound plastic (OBP), environmentally friendly paper packaging or carton packaging reduction, etc. The increased use of environmentally friendly materials in 2021 lead to higher operating and development costs. We will continue to monitor the impact of green product revenue trends. ● In order to achieve the net zero goal, customers require their suppliers to set SBTi targets. In order to meet the SBTi target set by our company, we have to increase the cost of replacing energy-intensive equipment and introducing energy-saving measures. In addition, our key customers require their product lines to use 100% renewable energy, which will increase production costs.	IPD BU is actively developing products that use environmentally friendly materials. We hold weekly meetings to reduce the procurement price of the relative materials. Initially, we aim to develop products for existing customers, and in the mid-term, we aim to develop front-end technologies with our customers.	● Develop and conduct strength tests on environmentally friendly plastic products ● Development of products using biodegradable and environmentally friendly materials (e.g. corn plastic, PBAT) ● Aluminum electrolysis from hydroelectric power generation instead of thermal power generation ● Reduction of package use

◆ Financial Impact and Costs - R7 Preference changes of consumers, customers and investors

Type	Detail	Cost	Plan
Resource efficiency	Chicony is a constituent of the FTSE4Good TIP Taiwan ESG Index. External stakeholders are increasingly concerned about our sustainability ratings, performance and communication results. As a result, Chicony continues to invest in ESG-related projects and purchases green power or certificates in response to carbon reduction initiatives. These projects have increased our operating costs.	In order to improve ESG performance, we have hired consultants to implement TCFD, SBTi, and ICP projects. We also established a Climate Change Task Force to identify climate change risks and opportunities and develop strategies to address them.	● Refinement of sustainable governance strategies ● Focus on sustainability issues ● Advocating ESG issues through public relations media channels

Financial Impact and Costs - O2 Use of more efficient production and shipping methods

Type	Detail	Cost	Plan
Resource efficiency	The application of new technologies can improve product yields, reduce waste generation, and shorten delivery times. Improving employee safety and health can reduce costs and increase productivity. At the same time, promoting local procurement can reduce the number of deliveries, optimize storage management operations, and reduce the number of batch shipments. In addition, the introduction of automated processes can reduce the loss of time and man-hours caused by staff errors to achieve maximum production efficiency.	To achieve a more efficient production model, we set automation goals and established an Automation Engineering Center with 10 employees. The center requires all factories to set annual automation targets and propose automation equipment purchases. They coordinate the automation performance of each business unit and track performance on a monthly basis.	● Continuously improve the automation ratio ● Audit the utilization rate of automated equipment in each plant ● Modularize product design to facilitate production automation equipment sharing and reduce equipment development costs.

Financial Impact and Costs - O3 Relocating to more efficient buildings

Type	Detail	Cost	Plan
Resource Efficiency	In 2015, our HQ building was completed with the new Smart Green Building. There are 17,680 IoT devices in the building. Tens of thousands of connected devices can collect sunlight intensity, wind strength, wind direction, temperature and humidity from the external environment, and air quality, temperature and humidity, light level, human flow detection, and face recognition from the internal environment. Through intelligent algorithm analysis, we can enhance the control ability of environmental awareness. Compared with traditional buildings, it can save about 45% of energy consumption cost and 60% of operation and management cost.	Chicony continues to invest in intelligent building control technology to lay out efficient buildings. In the factory where the intelligent control system has been put in place, there are 5 staffs for the central control of the system to optimize the use of energy resources.	● Continuously expand the smart building monitoring system to all production bases ● Continuously manage and improve energy performance through ISO 50001

Financial Impact and Costs - O7 Access to new markets

Type	Detail	Cost	Plan
Markets	In recent years, consumers are increasingly aware that smart home solutions can help reduce the use of energy resources in the home. According to research firm Business Insider, the annual compound growth rate of smart homes were more than 30% from 2018 to 2023. Chicony is actively investing in the R&D and production capabilities of smart home products, which will become a high-value-added product line in the future. Additionally, to reduce environmental pollution, governments are making efforts to promote the popularity of electric vehicles. We will continue to focus on the expansion of our automotive electronics business.	In order to grasp the new market layout, we continue to invest in product and new business.	● Development of new test platform in collaboration with university industry and academia ● Follow international product development trends, including trends in the electric vehicle market

4.2.3 Climate Scenario Analysis

4.2.3.1 Transition Risk Scenario Analysis

Under the assumptions of the transformation risk scenario in line with SBTi's 1.5°C GHG reduction path, we may encounter transformation risks such as changes in customer behavior, shifts in consumer/customer/investor preferences, requirements for existing products and services, and regulation. By analyzing the financial impact paths, we estimate the financial impact scenarios under the 1.5°C carbon reduction path and the sustainable transformation by combining the current input scenarios.

◆ Impact Path - R4 Changing customer behavior

Scenario	Carbon reduction costs due to customer requests or voluntarily in products, packaging materials, recycling materials	
Impact Path	PCR material purchase cost premium difference	Chicony uses 35-85% of PCR materials for various types of keyboards to meet the needs of different customers. In recent years, Chicony has experienced an increase in procurement costs due to the PCR materials.
	Improve product energy efficiency	To improve the energy efficiency of the camera lens module, Chicony will invest more than NTD 1 million in R&D to achieve the expected level of energy efficiency.
	Environmentally friendly packaging	In response to customer demand, we are using recycled plastic boxes as an environmentally friendly packaging material for our portable keyboards, which will incur millions of dollars costs. In the future, Chicony will also introduce other environmentally friendly materials, which will increase the related costs.

◆ Impact Path - R7 Preference changes of consumers, customers and investors

Scenario	The cost of investing in ESG-related improvement projects and purchasing green power or certificates in response to carbon reduction measures	
Impact Path	ESG-related cost Green energy and Renewable Energy Certifications (RECs) cost	In 2021, the costs incurred for ESG-related regulations and renewable energy certificates (RECs) accounted for 0.01% of the total operating costs. We will introduce sustainability-related certification and evaluation. It is expected that ESG-related investment costs will rise in the future. In order to achieve the SBTi target, we will increase the investment cost in energy saving and carbon reduction projects, including green energy and RECs.

◆ Impact Path - R2 Requirements and regulations for existing products and services

Scenario	Additional operating costs due to the environmental regulations or internal carbon reduction operating policies at different production bases	
Impact Path	Annual incremental cost of water-based paint coatings Equipment cost	In response to the demand for environmentally friendly water-based paints in China, we invested approximately NT$4 million in 2019 for the renovation of paint spraying equipment at each of our production bases in China. Annual incremental cost of water-based paints accounted for approximately 15-20% of total paint costs in 2020-2021.

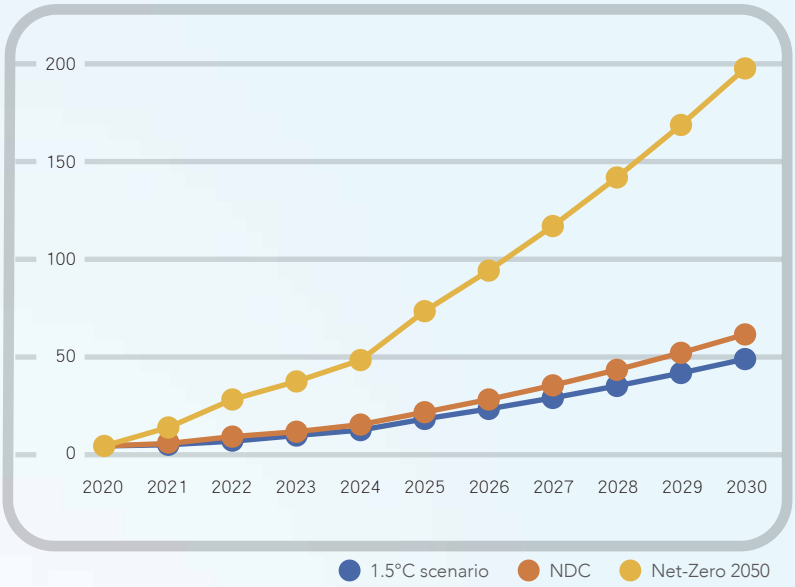
4.2.3.2 Transition Risk Carbon Price Scenario Analysis

As governments around the world are starting to introduce carbon pricing policies, and in response to the company's future carbon reduction plans, we have made reference to the REMIND-MAgPIE3.0-4.4 model of Network of Central Banks and Supervisors for Greening the Financial System (NGFS) and used three scenarios - Net-Zero 2050, 1.5°C scenario, and National Determined Contribution (NDC) - to conduct a risk assessment of carbon pricing for the science-based carbon reduction. Impact of the carbon reduction and the expected carbon price will be estimated and used as a reference for the future planning and operation decision.

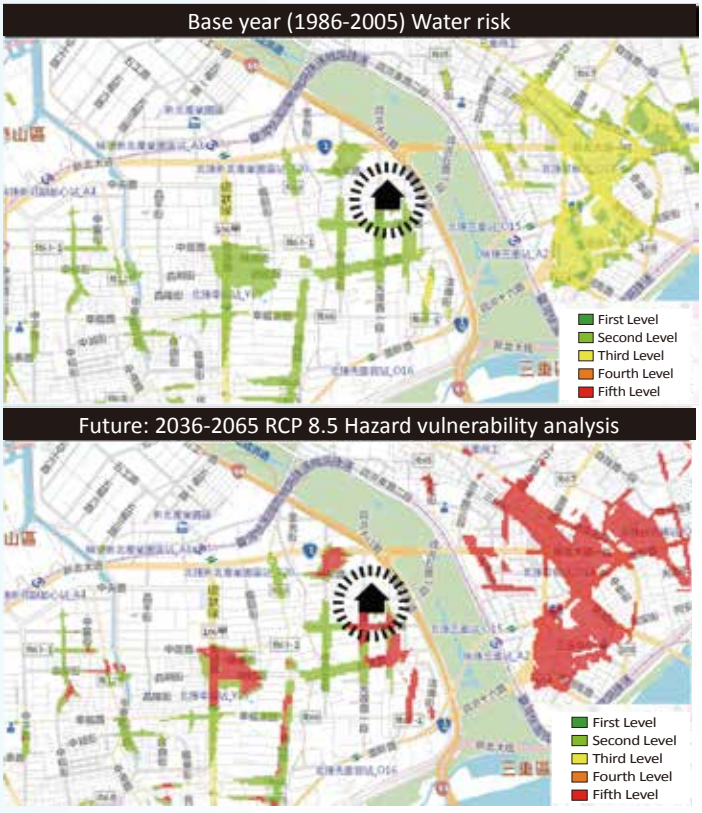
Several carbon credit trading and carbon taxes systems will be gradually launched in 2023. Chicony will plan an internal carbon pricing system to accelerate carbon reduction efficiency.

● Analysis of Carbon Price Risk

Unit: million NTD



● Physic Risk Scenario Analysis of Headquarters



4.2.3.3 Physical Risk Scenario Analysis

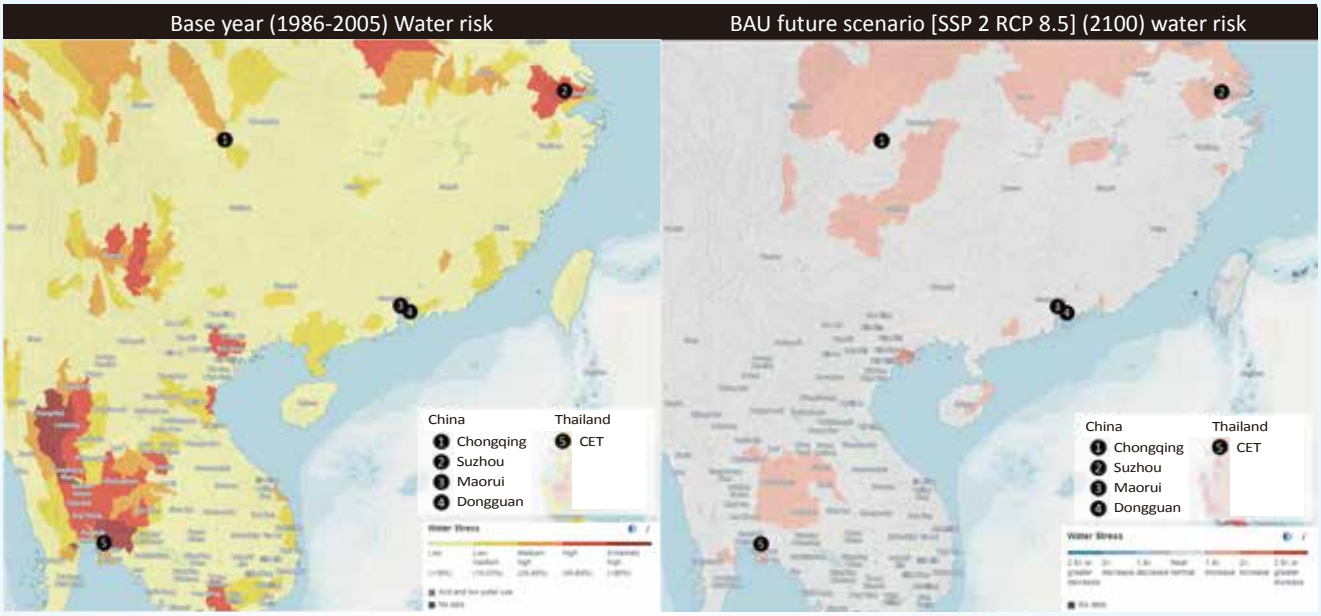
Climate change causes long term changes in environmental patterns. The frequency and severity of severe weather events such as heat waves, droughts, wildfires, rainstorms, typhoons and floods will increase.

We used the Hazard-Vulnerability model of the Naional Science and Technology Center for Disaster Reduction (NCDR) to evaluate the flood potential of the Chicony HQ under the base period (1976-2005) and the future RCP 8.5 scenario (2036-2065). The location of the HQ is at a Level 2 flood potential under the base period. A small area of Level 3 flooding potential is located 600 meters southeast of the HQ. In the future, under RCP 8.5, the location of the HQ and its immediate surroundings will be upgraded to Level 5, with a significantly increased risk of flooding. Since the opening of the HQ in 2015, there have been no incidents of flooding losses. We will continue to implement emergency response, strengthen disaster prevention facilities, and insure its assets in response to possible future scenarios.

We used the World Resources Institute's (WRI) two climate scenarios (Business as Usual (BAU) and [SSP2-RCP8.5] (2100)) to assess the water risk potential of the factories in China and Thailand for the baseline (1986-2005) and future. The baseline is measured as the ratio of total water withdrawal to available renewable surface water and groundwater. The higher the percentage, the greater the competition for water resources among users.

Under the baseline period, Chongqing Factory, Maorui Factory and Dongguan Factory are in the low impact (<10%) region, Suzhou Factory is in the high impact (40-80%) region, and Thailand Factory is in the extreme high impact (>80%) region. In the BAU scenario, Suzhou Factory and Thailand Factory will be 1.4 times more severity, while the other factories have no significant difference. In response to the water risk pressures that have already emerged at the Suzhou and Thailand plants and the potential for more severe scenarios in the future, we keep investing in reducing water consumption in factories and processes, improving water use efficiency, and continuing to look for water alternatives.

● Physic Risk Scenario Analysis of China and Thailand Sites



Source: Disaster Risk Adaption https://dra.ncdr.nat.gov.tw/ ; WRI WATER RISK ATLAS

4.2.3.4 Opportunity Scenario Analysis

In response to the global trend of carbon reduction, Chicony has invested in the R&D of smart homes and electric vehicles to explore new markets. At the same time, Chicony has introduced automated and intelligent equipment to use more efficient production and distribution processes, reduce material waste and increase production. Each site has also invested in various energy saving projects to reduce carbon emissions in accordance with the 1.5°C scenario. By analyzing the financial impact path of the climate opportunity and combining the current status of Chicony's investment, we estimate the potential financial benefits.

Influence Path - O2 Use of more efficient production and shipping methods

Scenario	In order to promote production efficiency, energy saving and carbon reduction, we continue to introduce automation and intelligent equipment to reduce material waste and increase production.		
Influence Path	Automation equipment cost	Human resources cost reduction	In 2021, the cost of automation accounted for 0.03% of the total inventory cost and 0.1% of the total revenue in labor cost savings. Our factories will continue to introduce automated equipment and expand the application of automated processes in order to reduce material waste and labor costs.

Influence Path - O3 Relocating to more efficient buildings

Scenario	Follow the 1.5°C scenario to invest various energy-saving projects in our HQ and factories.		
Influence Path	Equipment cost	Energy saving benefits Benefits of saving electricity bills by building solar panels	The cost of energy saving equipment accounted for 0.002% of the total inventory cost in 2021. The solar panels on our HQ generated 21.341 MWh of green electricity from 2021 to 2022, which is approximately NT$130,000 in benefits based on a green electricity price of NT$6.

Influence Path - O7 Access to new markets

Scenario	Develop more energy-efficient smart home solutions and electric vehicle applications, and actively enter new markets.		
Influence Path	Smart meter and IoT system related products		The cost invested by the AE BU in environmental control smart meter products accounts for approximately 0.07% of the total inventory cost. The revenue of related products showed a steady increase year by year. It is expected to achieve a 15% ROI in the future. In addition, the related IoT system products and smart home environment control products will have the opportunity to increase additional revenue growth in the future under the trend of energy saving and carbon reduction.
	Sustainability-linked Loans		To encourage companies to invest in sustainable development, financial institutions offer sustainability-linked loan. Chicony has signed sustainability-linked loan and green deposit with several financial institutions, which are expected to earn a 1-2bps reduction interest rate and cost of capital.

4.3 Risk Management

4.3.1 Identification and Assessing Procedures

To address climate change risks, Chicony has organized a Climate Change Task Force consisting of 30 cross-departmental executives. We combine the TCFD framework and internal risk assessment procedures to identify and analyze risks based on Chicony's operational and product business characteristics, and identify significant risks and opportunities by impact potential and level. We assess the impact of each climate risk and opportunity on operations, strategy and financial planning, and the relevant team develop related regulations.

4.3.2 Management Procedures

Chicony's BOD approved the 'Risk Management Policy and Procedures' in 2021 as the highest guiding principle for risk management. This document establishes the structure of the risk management organization and the management authority and responsibility at each level. The overall operation system can be divided into three parts: implementation, monitoring, and disclosure. Each responsible unit identifies, analyzes, measures, monitors, responds to, and reports on risks based on their business-related risk characteristics and impact levels. We also monitor potential risks, implements preventive measures, and reports the risk status to the BOD on a regular basis for management reference. Based on this system, we identify climate-related risk opportunities and develop control strategies and practices, as shown in Table 16.

◆ Risk Management Mechanism

Mechanism	Detail	
	Management Level	**Management Approach**
Risk Management	First Line	Every employees is responsible for the risk of the business they undertakes. They shall follow the internal control system and internal regulations of the relevant missions. They are the front-line units for initial risk identification, assessment and control.
	Second Line	The head of each department or departmental risk management personnel shall be responsible for the risk management of the department. Internal regulations are reviewed in accordance with actual business operations. They should also pay attention to the latest regulations and business-related letters and orders announced by the competent authorities, and revise the relevant internal regulations when necessary.
	Third Line	President shall review the completeness of Chicony's key risk management mechanisms, including operational, financial, strategic, regulatory and contractual, and shall ensure that the risks of each department are monitored in accordance with the policy and procedures and management policies.
Risk Monitoring	Audit department supervises other departments to follow the verification authority and related management rules and procedures to ensure the risk management awareness and implementation of all employees.	
Information Disclosure	Follow the regulations of the competent authorities to disclose relevant information. We shall disclose other risk management information that is not required by law in the annual report or the Company's website.	

4.3.3 Risk Management Mechanism

Chicony considers the risk of climate change as one of the major operational risks. We integrate operational risks into our enterprise risk management system and report regularly to the BOD through risk management meetings. At the 13th BOD meeting in 2021, we explained the strategies and practices of each executive unit to manage potential risks, and we continue to focus on climate business and implement climate risks adaptations.

◆ Management Mechanism of Climate-related Risks and Opportunities

	Risk/Opportunity Type			Management Approach
Transition Risk	Policy and Legal	R2	Requirements and regulations for existing products and services	● Strengthen the ability to cope with climate change and improve the performance and external evaluation. This includes promoting energy-saving and carbon-reduction projects, improving CDP and other evaluation and promoting SBTi goals. ● Promote the TCFD project. Chicony's seed staff will identify climate risks and opportunities, take stock of existing control measures, and strengthen future control measures to reduce the impact of climate change. ● Compliance with local government regulations; receive ISO 14001 and ISO 14064-1:2018 GHG, and continue to improve based on the results. ● Continuously promote and implement energy saving and carbon reduction projects in each factory to achieve their KPIs ● Ensure water safety, and implement water conservation, recycling and ecological protection.
	Market	R4	Changing customer behavior	
	Reputation	R7	Preference changes of consumers, customers and investors	
Physical Risk	Acute	R8	Severity of typhoons and floods increases	● Strengthen flood, earthquake, heavy rainfall and typhoon preparedness and prevention measures to prevent various natural disasters ● Strengthen measures to protect hardware and equipment from earthquakes, flooding, typhoons, and power outages. ● Establish emergency response procedures and organizations, purchase disaster prevention and relief equipment, and implement personnel training and drills.
		R9	Changes in precipitation and climate patterns	
Transition Opportunity	Resource Efficiency	Q2	Use of more efficient production and shipping methods	● Review customer requirements and re-plan the production line. Promote the automation of production equipment. Regularly review results and adjust them. ● Develop smart green energy buildings. Invest in R&D. Optimize resource scheduling. ● Pay attention to customer needs and industry trends. Improve product trend sensitivity. Develop green products and green energy.
		Q3	Relocating to more efficient buildings	
	Markets	Q7	Access to new markets	

4.4 Metrics and Targets

4.4.1 Climate-related Risks and Opportunities Metrics

Chicony formulated 'Risk Management Policy and Procedures'. Each responsible unit identifies, analyzes, measures, monitors, responds to, and reports on risks based on their business-related risk characteristics and impact levels. After identified and analyzed, our main climate change risks are in response to climate change and natural disasters, including GHG management, carbon credits management, energy management, and compliance. Compliance risks include air, water, waste, toxic substances, noise or environmental assessment requirements.

In 2021, Chicony introduced the SBTi and TCFD projects to develop more diverse solutions, strengthen the ability to respond to climate change and improve performance. In addition, several environmental targets have been formulated, including SBTi, water resources, and waste. We review the implementation results annually to control and improve operational efficiency. We complete the ISO14064-1:2018 GHG for our Taipei HQ, China and Thailand factories every year. We also promote energy saving and carbon reduction related measures, and continue to focus on climate issues, new markets and demands to increase new product revenue and capacity.

4.4.2 GHG Emission Disclosure and Related Risks

All of Chicony's sites conduct GHG inventories in accordance with ISO 14064-1:2018 and complete third-party verification. Through the accurate GHG emissions, we can propose feasible reduction plans.

◆ GHG Emissions (Scope 1 & 2)

Unit: tCO_2e

	2020	2021	2022
Scope 1 (Category 1)	**5,793.01**	**7,273.25**	**7,555.21**
CO2	2,419.61	2,496.84	2,566.21
CH4	1,255.72	2,198.34	2,164.54
N2O	17.00	15.17	11.02
HFCs	2,100.68	2,562.90	2,813.44
PFCs	-	-	-
SF6	-	-	-
NF3	-	-	-
Scope 2 (Category 2)	**83,606.00**	**90,208.30**	**67,148.05**
Total	**89,399.01**	**97,481.55**	**74,703.26**
Emission Intensity (A)	**1.48**	**1.45**	**1.04**
Emission Intensity (B)	**0.94**	**0.91**	**0.65**

Notes:

1. The statistical method is the operational control, and the GWP value is based on the 2021 IPCC AR6 report.
2. The scope of data collection includes Taipei HQ, DongGuan Factory, Maorui Factory, Suzhou Factory, Chonqing Factory and Thailand Factory. Data coverage is 99.29% of the Chicony's consolidated revenue.
3. Emission Intensity = Total Emission / Consolidated Revenue. Unit: tCo2e/ NTD million
4. (A) The consolidated revenue is the revenue of Chicony Electronics from 2020 to 2022 (excluding the revenue of subsidiaries Chicony Power and Xavi Technologies).
5. (B) The consolidated revenue is the revenue of Chicony Electronics from 2020 to 2022.

◆ Other Indirect GHG Emissions (Scope 3)

Unit: tCO_2e

	2020	2021	2022
Category 3: Indirect GHG emissions from transportation	**106,682.95**	**272,535.61**	**34,778.70**
3-1 Upstream Transportation and Distribution(4)	31,349.28	206,392.44	9,541.07
3-2 Business Travel (6)	566.47	200.60	190.41
3-3 Employee Commuting (7)	1,396.30	2,941.05	2,605.20
3-4 Downstream Transportation and Distribution (9)	73,370.90	63,001.52	22,442.02
Category 4: Indirect GHG emissions from products used by and organization	**248,353.19**	**24,336,084.76**	**465,903.67**
4-1 Purchased Goods and Services (1)	229,452.03	767,998.04	449,068.36
4-2 Capital Goods (2)	10,119.15	23,556,357.21	6,920.23
4-3 Fuel- and Energy-related Activities (3)	6,748.86	9,331.63	7,858.86
4-4 Waste Generated in Operations (5)	633.68	729.21	944.91
4-5 Upstream Leased Assets (8)	1,399.47	1,668.67	1,111.31
Category 5: Indirect GHG emissions associated with the use of products from the organization	**1,046,663.46**	**552,593.84**	**362,124.85**
5-1 Processing of Sold Products (10)	311,573.97	8,425.83	Non-significant
5-2 Use of Sold Products (11)	700,908.72	534,864.36	352,380.64
5-3 End-of-life Treatment of Sold Products	11,804.10	298.32	185.08
5-4 Downstream Leased Assets (13)	22,376.67	9,005.33	9,559.13
Category 6: Indirect GHG emissions from other sources	**Non-significant**	**32.45**	**Non-significant**
Total	**1,401,699.60**	**25,161,246.66**	**862,807.22**

Notes:

1. The statistical method is the operational control, and the GWP value is based on the 2021 IPCC AR6 report.
2. The scope of data collection includes Taipei HQ, DongGuan Factory, Maorui Factory, Suzhou Factory, Chonqing Factory and Thailand Factory. Data coverage is 99.29% of the Chicony's consolidated revenue.
3. The numbers in brackets are classified according to the Scope 3 assessment tool of the Greenhouse Gas Inventory Protocol.

4.4.3 Management Targets

In December 2021, we have completed the signing to support the TCFD and SBTi initiatives. To achieve the carbon reduction target, a short-, mid-, and long-term decarbonization strategy is initially formulated with 2020 as the base period. In the short-term strategy, except for the procurement of carbon credits, which is still under evaluation, all other projects are being implemented or have been completed.

◆ Short-, Mid-, Long-term Decarbonization Strategy

Short-term (1-3 years)		Mid-term (3-5 years)		Long-term (5-10 years)	
Strategy	**Target**	**Strategy**	**Target**	**Strategy**	**Target**
Energy and Carbon Reduction Projects	Scope 1	Evaluate the installation of carbon capture equipment	Scope 1	Install carbon capture equipment	Scope 1
Green Energy / Renewable Energy Certificates (RECs)	Scope 2	Other Renewable Energy	Scope 2	Develop Green Products or Zero-carbon Products	Scope 3- Use of Sold Products
Installation of Solar Panel	Scope 2	Green Energy / Renewable Energy Certificates (RECs)	Scope 2		
Assessing Develop Green Products or Zero-carbon Products	Scope 3- Use of Sold Products	Establish Supplier Carbon Management Platform	Scope 3		
Carbon Credits	Scope 1 & 3	Carbon credit procurement	Scope 1, 3		

Chicony (including Chicony Power) set a carbon reduction target in line with SBTi and the 1.5°C scenario of the Paris Agreement in 2021, and has obtained SBTi certification for its rationality in 2022.

- Reduce Scope 1 and 2 GHG emissions 56.8% per million NTD revenue by 2030 from a 2020 base year, equivalent to 42% in absolute emissions.
- Reduce scope 3 GHG emissions from use of sold product 44.2% per million NTD revenue by 2030 from a 2020 base year, equivalent to 25% in absolute emissions.

◆ SBTi Progress

	2020 (Base Year)	2021		2022	
GHG Emissions (Unit: tCO_2e)					
Scope 1 & 2	135,920	151,378	+11.37%	114,015	-16.12% (✓)
Scope 3- Use of Sold Products	35,644,410	30,566,678	-14.25% (✓)	23,523,680	-34.00% (✓)
GHG Emission Intensity (Unit: tCO_2e/ million NTD)					
Scope 1 & 2	1.47	1.46	-1.17%	1.04	-29.49% (✓)
Scope 3- Use of Sold Products	342.81	293.97	-14.25% (✓)	214.33	-37.48% (✓)

Note: The consolidated revenue is the revenue of Chicony Electronics from 2020 to 2022 (excluding the revenue of subsidiaries Chicony Power and Xavi Technologies).

In 2022, the Company promoted various energy and resource efficiency projects and replace many old equipment with new energy-saving and carbon-reducing equipment. At the same time, we promoted high value-added and low carbon products. As a result, we achieved record revenue and lower absolute and relative carbon emissions, and met the SBTi targets for 2022. Chicony Power's results are described in their Sustainability Report.

◆ Chicony (only) GHG Reduction Progress

	2020 (Base Year)	2021		2022	
GHG Emissions (Unit: tCO_2e)					
Scope 1 & 2	89,399	97,482	+9.04%	74,703	-16.44% (✓)
Scope 3- Use of Sold Products	700,909	534,864	-23.69% (✓)	352,381	-49.73% (✓)
GHG Emission Intensity (Unit: tCO_2e/ million NTD)					
Scope 1 & 2	1.4784	1.45	-2.11%	1.04	-29.94% (✓)
Scope 3- Use of Sold Products	11.59	7.94	-31.49% (✓)	4.89	-57.85% (✓)

Note: The consolidated revenue is the revenue of Chicony Electronics from 2020 to 2022 (excluding the revenue of subsidiaries Chicony Power and Xavi Technologies).

5. Restrictions

This report is based on the TCFD framework. The results in this report are based on departmental interviews, internal and external data collection and hypothetical simulations. It may vary depending on the data quality and assumptions, and are intended for internal evaluation purposes only. The results may differ from the basis of Chicony's past, present and future financial reporting and performance measurement. The data in this report are not intended to be used for comparative analysis and forecasting from the perspective of financial reporting or performance. It is also not applicable to the basis of measuring and judging the stock price of Chicony.

The NCDR's New Taipei City-Grid 40m scale risk map and uncertainty assessment present the mode uncertainty using Standard Deviation (SD) and Signal-to-Noise Ratio (SNR), respectively. The SD of each region was evaluated with 33 modes of risk level data, and the uncertainty of most GCM modes was presented. For the China and Thailand factories, the water-related risks were assessed using WRI's Aqueduct Water Risk Atlas Tool.

The distribution of hazard-vulnerability risk level is the degree of risk of flooding in the area when facing the flooding. The uncertainty analysis of the flooding hazard-vulnerability risk map of New Taipei City-Grid 40m is to sort the risk level results of multiple climate models by statistical exceedance probability ranking, and present the risk level distribution at 90%, 75%, 50% and 5% respectively. Companies can choose which model to use depending on their needs. Choosing likely to occur means accepting the risk level results of the 75% model. If the area is in red, it means that the area is at higher risk of flooding and can be used as a reference for risk planning.

6. Future Prospect

The impact of climate change is becoming increasingly significant. According to the World Economic Forum's (WWF) Global Risks Report 2023, the top three global risks for the next decade are all climate change-related. We cannot ignore the impact of climate change. Chicony understands the impact that climate change will have on our operations. This is why we need to develop strategies to ensure the resilience of our business strategy. We also need to be able to respond to the impact of climate risks and to take advantage of climate opportunities.

Chicony follows the TCFD framework to disclose the identified climate risks, opportunities and responses. In the future, more strategies will be introduced. To actively investing in carbon reduction strategies to meet SBTi targets, we plan to introduce carbon inventory and establish a carbon management platform in the supply chain production process. We will continue to build more renewable energy facilities and increase the use of green energy in our sites. Chicony's mission is to be a pioneer in climate-related disclosure in the electronics industry and to maximize our impact on the low carbon transformation and sustainable development of our business. We will bring the industry and stakeholders together to build a low carbon supply chain and make a positive impact on the environment.

7. Appendix

Core Elements	Item	Chapter
Governance	Describe the board's oversight of climate-related risks and opportunities.	4.1 Governance 4.1.1 Board Oversight
	Describe management's role in assessing and managing climate-related risks and opportunities.	4.1 Governance 4.1.2 Role of Management Level
Strategy	Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.	4.1 Governance 4.1.1 Board Oversight
	Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.	4.2 Strategy 4.2.2 Financial Impacts
	Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	4.2 Strategy 4.2.3 Climate Scenario Analysis
Risk Management	Describe the organization's processes for identifying and assessing climate-related risks.	4.3 Risk Management 4.3.1 Identification and Assessing Procedures
	Describe the organization's processes for managing climate-related risks.	4.3 Risk Management 4.3.2 Management Procedures
	Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.	4.3 Risk Management 4.3.3 Risk Management System
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.	4.4 Metrics and Targets 4.4.1 Climate-related Risks and Opportunities Metrics
	Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.	4.4 Metrics and Targets 4.4.2 GHG Emission Disclosure and Related Risks
	Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.	4.4 Metrics and Targets 4.4.1 Climate-related Risks and Opportunities Metrics

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2022 Chicony Electronics Corporation

Task Force on Climate-related Financial Disclosures Report