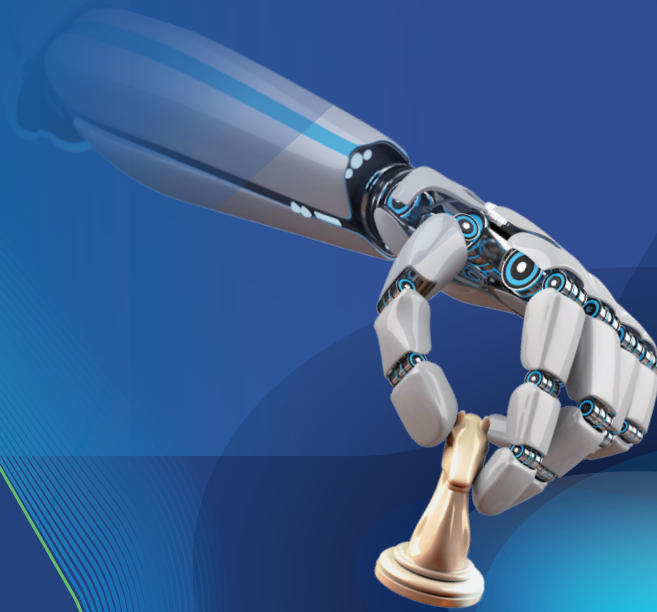




2024 SUSTAINABILITY REPORT



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Editorial Principles

International CSRC Investment Holdings Co., Ltd. (hereinafter referred to as "CSRC") prepared the Sustainability Report 2024 in accordance with the following standards and regulations. Based on the principles of openness, transparency and integrity, stakeholders can learn more about CSRC's contribution to sustainable development strategies, investments, and performance.

Release unit	Global Reporting Initiative, GRI	Sustainability Accounting Standards Board, SASB	Financial Stability Board, FSB	Taiwan Stock Exchange Corporation
Standard framework/ law and regulations	Version of the GRI Standards 2021	Sustainability Accounting Standards - Chemicals	Task Force on Climate-related Financial Disclosures, TCFD	Regulations on the Preparation and Reporting of Sustainability Reports by TWSE-listed Companies

The financial performance and other related information disclosed in this report have been prepared in accordance with the International Financial Reporting Standards (IFRSs) and are mainly presented in NTD and partially in USD.

Reporting Boundary

CSRC’ s core business in the international market focuses on carbon black. This report covers operations across three major global regions, including a total of nine production sites for carbon black and related products. The reporting scope includes 100% of the Group’ s entities with production activities. Any deviations from this scope will be specified in the respective sections. The covered regions and production facilities are detailed as follows.

Region		Disclosure of production sites
Greater China	Taiwan	Linyuan Advanced Materials Technology Co., Ltd. (hereinafter referred to as "Linyuan Advanced plant"), Consolidated Resource Company (hereinafter referred to as "Consolidated Resource"), and International CSRC Investment Holdings Co., Ltd. (CSRC).
	China	CSRC China (Maanshan) Corporation (hereinafter referred to as "Maanshan plant"), CSRC China (Anshan) Corporation (hereinafter referred to as "Anshan plant"), and CSRC China (Chongqing) Corporation (hereinafter referred to as " Chongqing plant")
United States		Continental Carbon Company (Ponca) (hereinafter referred to as " Ponca plant ") and Continental Carbon Company (Sunray) (hereinafter referred to as "Sunray plant ")
India		Continental Carbon India Pvt Ltd. ((hereinafter referred to as "CC IPL") and Continental Carbon Eco Tech Pvt Ltd. (hereinafter referred to as "CCET" ^{Note)})

Note: Since the first production line at the CCET plant commenced operations at the end of 2022, relevant data in this report has been disclosed starting from 2023.

The data and information disclosed in this report were compiled and provided by responsible departments to present the Company's performance in respect of economic, environmental, and social fields in accordance with the requirements of the GRI Standards. Collection, measurement, and calculation methods for each item of disclosed data and information are based mainly on compliance with local regulations or international regulations.

Reporting Cycle and Coverage Period

The information disclosure period in this report is from January 1, 2024 through December 31, 2024. To fully present the implementation results of corporate social responsibility in all aspects and the trend of changes over the years, the contents of and information on some issues in prior years were adopted.

Assurance of Report Information

To ensure the accuracy and transparency of the information disclosed by CSRC, the data and information in this report are internally managed by the responsible departments in accordance with laws and regulations, and specific information have been externally assured (please refer to Appendices - External Assurance). Relevant data and information were also provided to the ESG report compilation team for confirmation, sent to each department head for review, and reviewed and approved by the Chairman. The company has commissioned PwC Taiwan to conduct an external independent assurance on the sustainability performance selected in the report prepared in accordance with GRI Standards. The assurance is carried out in accordance with ISAE 3000 (International Standard on Assurance Engagements 3000) "Assurance Engagements Other than Audits or Reviews of Historical Financial Information," issued by the Accounting Research and Development Foundation. The scope of assurance for this time is information for the year 2024. Information for December 31, 2023, and earlier periods is not within the scope of assurance. The assurance opinion is issued by the CPAs, and the scope and conclusion of assurance are detailed in the assurance report in the appendix.

Time of Issuance

Prior issuance date: issued in August 2024

Current issuance date: issued in August 2025

Next issuance date: To be issued in August 2026

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Message from the Chairman GRI 2-22

Facing the challenges of climate change and societal expectations, CSRC in 2024 once again demonstrated its commitment to sustainability through concrete actions. Upholding the philosophy of "Creating Diverse Value, Protecting a Green Earth, and Promoting Social Friendliness," we have comprehensively enhanced our performance in corporate governance, environmental protection, and social responsibility.

To meet our carbon reduction goals, we have actively adopted recycled oils and replaced heavy oil with natural gas as alternative energy sources. Despite the full-scale production at our CCET plant in India in 2024, which increased annual output by 233% compared to 2023, we successfully controlled the Group's Scope 1 and 2 carbon emissions, achieving a 19.7% reduction from the baseline year. This steady progress brings us closer to our target of a 21% carbon reduction by 2030. Additionally, our Linyuan plant in Taiwan and Ponca and Sunray plants in the United States have all obtained ISCC PLUS international certification, showcasing our commitment and capability in green manufacturing.

In terms of product innovation, we focus on research and development with circular value and sustainability potential. Through the "Ouroboros" Eco-circular carbon black solution, utilizing pyrolysis oil from waste tires and carbon black recovery technology, we have produced eco-friendly products with performance comparable to virgin carbon black, successfully applied to Cheng Shin bicycle tires. Furthermore, by integrating post-modification technology, we developed the EREBOS R series, expanding into electronic materials and ink coatings, and have completed patent applications. We have also made significant breakthroughs in advanced carbon materials research, successfully synthesizing high-quality single-walled carbon nanotubes (SWCNTs) using the FCCVD method (Floating Catalyst Chemical Vapor Deposition) and established purification and suspension processes, laying a solid foundation for high-efficiency battery applications.

In 2024, we collaborated with Eco Infinic, a Thai subsidiary of SHEICO Group, to set up an rCB (recycled carbon black) production facility at our CCC Phenix plant in the United States, highlighting our long-term commitment to sustainable carbon black technology. This partnership not only strengthens the green resilience of our supply chain but also symbolizes our elevation of supply chain management to a new level of co-creation and shared prosperity.

Regarding talent and culture, CSRC is dedicated to creating a friendly workplace, offering parental benefits exceeding legal requirements, including an additional three days of paid parental leave. In 2024, we launched the "Carbon Black Learning Map" program, identifying and categorizing the knowledge and skills required for different positions and levels, and established corresponding training and verification mechanisms to support precise employee development. Additionally, through a family day event featuring the environmental documentary "Eco Bravehearts," we fostered awareness and concern for marine environmental protection among employees and their families.

We also actively respond to the needs of local communities: supporting community and youth baseball activities in the United States to enhance community connections; assisting in residential solar installations and livelihood pond restorations in India to improve residents' lives; and promoting carbon black experimental education and mangrove ecological conservation collaborations in the Greater China region, fulfilling our corporate citizenship responsibilities.

In 2024, CSRC participated in the EcoVadis sustainability assessment as a group for the first time and received a Silver Medal. We were also honored with several awards, including the "Taiwan's Top 100 Sustainable Companies Award," "Corporate Sustainability Reporting Award – Platinum Level in Traditional Manufacturing Category 1," "Taiwan Sustainability Action Award," and "Asia-Pacific Sustainability Action Award," affirming our continuous efforts toward becoming a sustainability benchmark.

Looking ahead, CSRC will continue to collaborate with global partners, leading with innovation and grounded in responsibility, accelerating the green transformation of the industry, creating long-term achievements that balance business value and sustainable impact, and co-creating a prosperous future with all stakeholders.



Chairman of CSRC and Convener of the
Corporate Sustainability Committee

Jason Koo

Sustainable Performance

Economy /Governance



Diverse value creation

- In 2024, independent directors accounted for **44%** of CSRC’s Board of Directors, **exceeding the one-third legal requirement**.
- Among the board members, **one seat was held by a female director**.
- In the 11th Corporate Governance Evaluation conducted in 2024, CSRC maintained its ranking in **the top 6% to 20%** among listed companies.
- CSRC established and approved **new measures in 2024 for sustainable information management**, demonstrating proactive compliance with domestic regulations.
- No significant incidents of corruption, violations of ethical conduct, or breaches of integrity occurred within CSRC in 2024.
- CSRC continued its joint promotion of the “1.5°C Climate Action Declaration” with the Chinese National Association of Industry and Commerce, and the **Linyuan Advanced Plant joined the Kaohsiung Industry Net Zero Alliance**.
- In its first group-level participation in the **EcoVadis** sustainability assessment, CSRC was awarded a **Silver Medal, ranking in the top 15%** globally—highlighting excellence across environment, labor rights, business ethics, and sustainable procurement dimensions.
- CSRC formed a **strategic upstream-downstream supply chain alliance** with Eco Infinic, a pyrolysis tire recycling company under SHEICO Group, to establish a 30,000-ton-per-year recycled carbon black plant in the U.S., scheduled for production in 2026—expanding into the North American circular economy market.
- Senior management at CSRC held **multiple engagement meetings with key suppliers** in 2024 to exchange in-depth views on sustainable collaboration strategies.
- **87.74%** of the Group’s raw material procurement came from local suppliers.
- The Group’s total green procurement amount reached NT\$1,852,468.
- In Greater China, **100%** of suppliers signing contracts with CSRC in 2024 signed both the “Integrity Clause” and the “Code of Conduct for Corporate Social Responsibility.”
- CSRC’s Maanshan plant in China received the “**Top Ten Enterprises for High-Quality Industrial Development**” award from the Cihu High and New Technology Industrial Development Zone.
- CSRC’s Linyuan Advanced Plant jointly advocated the “**Responsible Care Global Charter**” promoted by the Taiwan Responsible Care Association.

Product/Environment



Protection of green Earth

- In 2024, the Group’s average customer satisfaction score reached **8.85**.
- In 2024, the group’s research investment reached **NT\$188 million**.
- In 2024, CSRC’s cumulative number of patent applications reached 74, with **62 patents** successfully granted.
- In 2024, CSRC continued to operate the **new circular economy model**.
- In 2024, the Group’s green product revenue accounted for **36.2%**.
- In 2024, CSRC’s post-modified product EREBOS series production volume increased by at least 4 times compared to 2023.
- In 2024, the Group’s overall waste reuse rate was **78.9%**.
- In 2024, CSRC used a total of **8,763 tons** of recycled waste to reproduce as raw materials for downstream building materials.
- In 2024, CSRC’s water intensity for carbon black production decreased by 15.1% compared to 2023.
- In 2024, all plants adopted **PE packaging to replace paper bags**, resulting in a total **reduction of 181.2 metric tons** of paper waste across the group.
- In 2024, the Linyuan Advanced Plant and Maanshan Plant in Greater China introduced recycled pyrolysis oil as feedstock, totaling **3,424 tons**, reducing carbon emissions by **1,967.36 tCO₂e**.
- In 2024, the Linyuan Advanced Plant and Chongqing Plant in Greater China replaced heavy fuel oil with natural gas, reducing carbon emissions by **12,621 tCO₂e**.
- In 2024, the Maanshan Plant in Greater China was rated as a **Water-Saving Enterprise** for three consecutive years and maintained a Grade B rating in heavy pollution weather performance evaluation for two consecutive years.
- In 2024, Linyuan Advanced Plant in Greater China region passed **264** hazardous substance tests; the U.S. plant passed **102** tests; the CCET plant in India passed **240** SVHC and **30** RoHS tests, while the CCIPL plant passed **228** SVHC and **30** RoHS tests. The pass rate for all products reached **100%**.
- In 2024, the Ponca and Sunray plants in the United States purified and recycled all process wastewater for 100% reuse in the process cycle; in addition, both plants achieved a **100%** rainwater recycling rate.
- In 2024, the **Ponca and Sunray plants** in the United States obtained **ISCC PLUS certification**.

Employee/Social



Promotion of friendliness in society

- In 2024, CSRC’s employment of persons with disabilities **exceeded the legally mandated hiring quotas**.
- In 2024, CSRC provided parental benefits superior to the current Labor Standards Act for male and female employees with newborns under six months old, granting an additional **3 days of paid parental leave**.
- In 2024, CSRC had no incidents of human rights violations.
- In 2024, CSRC obtained ISO 45001 certification covering 6 plants, accounting for **75% coverage rate**.
- In 2024, CSRC conducted occupational safety and health training for a total of **9,962** employees, contractors, and transporters, with a total training duration of **34,808** hours.
- In 2024, CSRC invested **NT\$3.615 million** in promoting social welfare.
- As of the end of 2024, the Dr. Cecilia Koo Botanic Conservation Center has collected **34,712** plant species from around the world.
- In 2024, to promote traditional opera culture, the tourist theatre, TaipeiEye reopened after the Lantern Festival with **133** performances; total attendance reached **13,126**. Among international audiences, Japanese visitors were the largest group, followed by Koreans, accounting for 36% and 28% respectively.



Awards and Honors in 2024

Taiwan Corporate Sustainability Awards

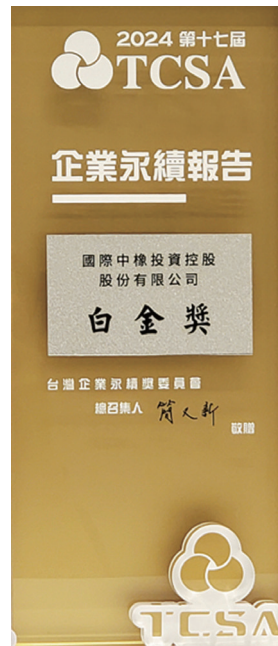
The 17th TCSA

Taiwan Corporate Sustainability Awards - Taiwan's Top 100 Sustainable Companies Award



The 17th TCSA

Corporate Sustainability Reporting Award - Platinum Level



The 4th TSAA

Taiwan Sustainability Action Awards - Best Action Plan

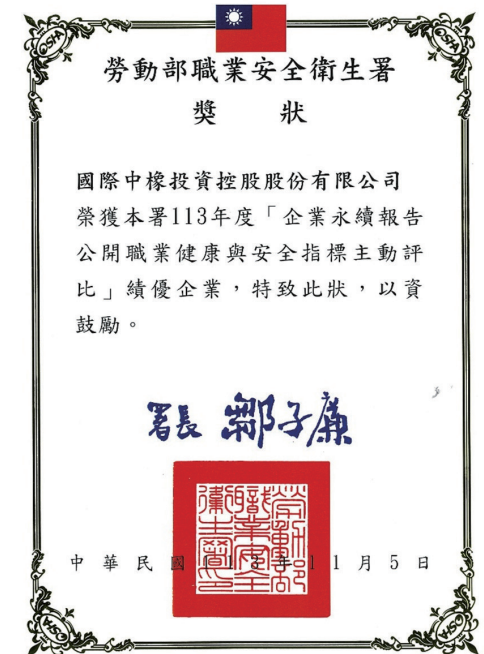


The 3rd APSAA

Asia-Pacific Sustainable Action Award

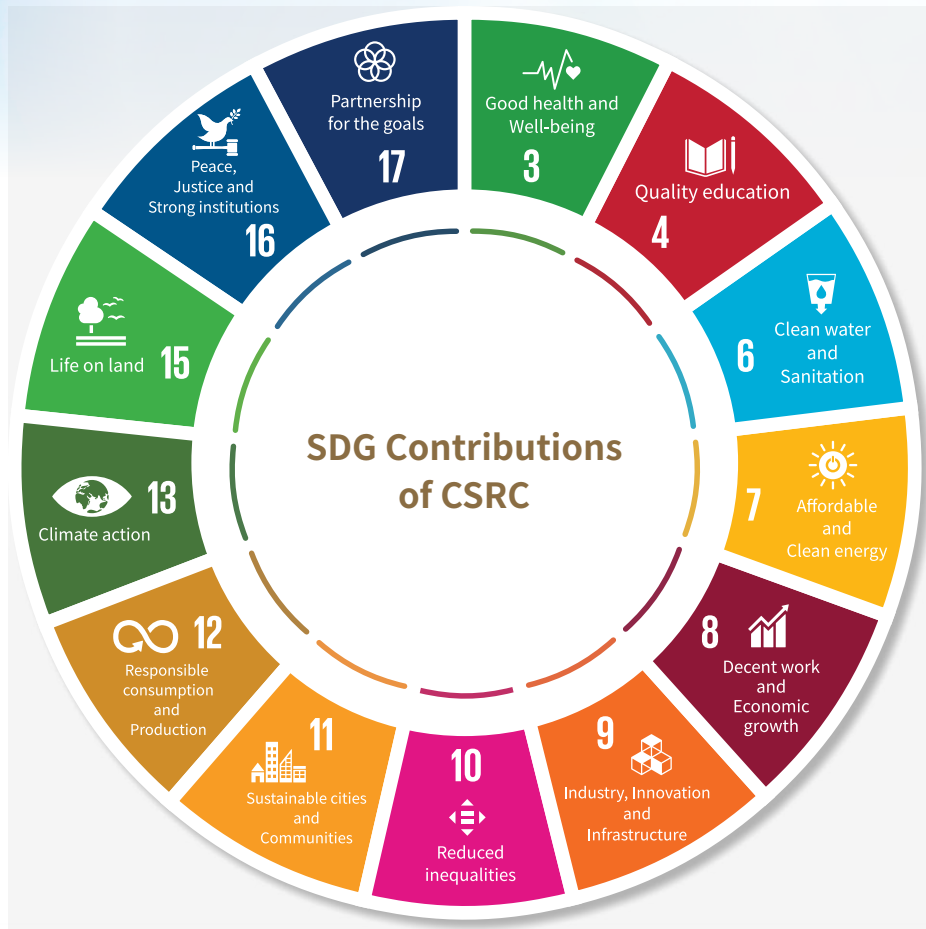


Best Companies in Corporate Sustainability Report Disclosure in Occupational Health and Safety Indicators Evaluation in the Chemical Industry



Response to United Nations Sustainable Development Goals (SDGs)

CSRC integrates itself with international sustainable trends and actively responds to the UN Sustainable Development Goals (SDGs) to take up its corporate social responsibility, working together for environmental protection and social progress.



Governance		
Response to SDGs	CSRC' s response	page number
Goal 8.7	<ul style="list-style-type: none"> In 2024, 100% of our suppliers in Greater China signed the Supplier Corporate Social Responsibility Code of Conduct, covering the commitment to no child labor. 	156
Goal 12.4	<ul style="list-style-type: none"> In accordance with GRI Standards and SASB indicators, continuously compile sustainability performance results, and prepare and publish the sustainability report. 	2
Goal 12.7	<ul style="list-style-type: none"> Invested in a circular economy model, such as carbon black, water cycle, waste heat recovery, and waste reuse to achieve sustainable development. 	58
	<ul style="list-style-type: none"> In 2024, The Group' s total green procurement amount reached NT\$1,852,468. 	162
Goal 13.3	<ul style="list-style-type: none"> Identified the climate risks and opportunities that CSRC will face in the future and put forth countermeasures to reduce the risks. 	37
Goal 16.5	<ul style="list-style-type: none"> In 2024, board directors and colleagues participated in 229 hours of corporate governance, ethical management and sustainable development. 	35
	<ul style="list-style-type: none"> In 2024, the percentage of employees and board members engaged in anti-corruption communication and training sessions in Greater China region was 100%. 	32
	<ul style="list-style-type: none"> In 2024, in the Greater China region, suppliers accounting for approximately 97% of the total procurement amount received communication regarding the company' s anti-corruption policies and procedures, and signed the integrity commitment statement. 	32
	<ul style="list-style-type: none"> Established a supplier evaluation system to ensure proper supply chain management and improve supply capacity and quality. 	158

Environment/Product		
Response to SDGs	CSRC' s response	page number
Goal 6.3	<ul style="list-style-type: none"> Each operating plant is equipped with sewage treatment facilities, and the wastewater from the process is treated in accordance with the local standards. 	101
Goal 7.2 Goal 7.3	<ul style="list-style-type: none"> Linyuan Advanced has bought back the solar panels used by Chailease, and plans to gradually increase the use of renewable energy in the future. 	88
	<ul style="list-style-type: none"> At the India CCIPL plant, wind turbine motors were replaced with high-efficiency motors, resulting in a total electricity savings of 6,712 kWh. This upgrade effectively reduced energy consumption and achieved both economic and emission reduction benefits. 	88
	<ul style="list-style-type: none"> In the U.S. region, CSRC not only re-evaluated and optimized the selection of rotating equipment to improve operational efficiency—reducing electricity consumption by 550,243 kWh—but also collaborated with local utility providers to purchase renewable electricity. This transition to renewable energy serves as a cornerstone of the company' s greenhouse gas reduction strategy, and CSRC will actively explore further opportunities to incorporate renewable energy into its operations. 	88
Goal 8.3	<ul style="list-style-type: none"> To encourage employees to actively innovate, put R&D results into practice, and improve product quality and functions, we have established a patent granted bonus system. In 2024, six patent was granted, and five employees were awarded bonuses. 	46
Goal 9.5	<ul style="list-style-type: none"> We invest large amount of research funds per year to develop new products and train professional talents. In 2024, we invested more than NT\$188 million. 	46
Goal 11.6	<ul style="list-style-type: none"> We have installed desulfurization and denitrification systems in our plants in Greater China. 	90
	<ul style="list-style-type: none"> Continued to replace paper bags with PE bags to reduce about 181.2 metric tons of paper waste. 	61
	<ul style="list-style-type: none"> Regularly reported the amount of waste, appointed qualified waste disposal service providers to handle it, enhanced our waste recycling capacity, complied with various waste disposal laws and regulations, and promoted clean production, resource regeneration, and industrial waste reduction; achieve the group-wide waste recycling rate of 78.9% in 2024. 	104
Goal 12.2 Goal 12.4 Goal 12.5	<ul style="list-style-type: none"> Increased the efficiency of using raw materials, reduced fuel consumption per unit of product, and reduced the waste of resources. 	61
	<ul style="list-style-type: none"> Used recycled pyrolysis oil from waste tires as an alternative to petrochemical fuels. 	63
	<ul style="list-style-type: none"> Recycle used bulk bags from clients to replace incineration with reuse. 	61
	<ul style="list-style-type: none"> Recycled and reused the waste solvents generated in the labs. 	61
	<ul style="list-style-type: none"> Replaced wooden pallets with reusable plastic pallets to reduce the output of waste wooden pallets. 	61
	<ul style="list-style-type: none"> Continued to increase the percentage of process water recycled, expanded the scope of water cycle, and worked with nearby companies to recycle condensate for reuse of water. 	99
	<ul style="list-style-type: none"> Adopted a carbon black cycle model and a new circular economy model as the core of business operations and recycled 8,763.24 tons of waste and re-made it into downstream building materials. 	60
Goal 13.1 Goal 13.3	<ul style="list-style-type: none"> In 2024, 100% of contracted suppliers in Greater China signed the Supplier Corporate Social Responsibility Code of Conduct, covering the commitment to compliance with relevant waste, exhaust gas, and wastewater management standards, as well as disposal and processing of waste, pollutants, and other environmental hazards in compliance with regulatory requirements or international covenants. 	156
	<ul style="list-style-type: none"> Included TCFD in the assessment and disclosure by all plants of the Group and continued to identify climate-related risks and opportunities and put forth countermeasures. 	71

Social		
Response to SDGs	CSRC' s response	page number
Goal 3.9 Goal 12.4	<ul style="list-style-type: none"> Linyuan Advanced has begun to establish the Process Safety Management (PSM) system and strengthened process operation safety and management through planning, execution, auditing, and improvement step by step. 	131
	<ul style="list-style-type: none"> Formulated comprehensive on-site chemical management procedures in accordance with local government regulations and enhanced users' relevant knowledge. 	132
	<ul style="list-style-type: none"> Labeled the chemicals used in products in accordance with local government regulations in each region. 	132
Goal 4.1 Goal 4.7	<ul style="list-style-type: none"> In 2024, the entire group invested a total of NT\$3,615,000 in public welfare activities. 	145
	<ul style="list-style-type: none"> The CCIPL plant in India installed rooftop solar panels at a police residential complex to increase the use of green electricity. 	146
	<ul style="list-style-type: none"> The CCIPL plant in India carried out restoration work on three community ponds in Asalatpur village, Ghaziabad, to support local residents in harvesting and reusing rainwater. 	146
	<ul style="list-style-type: none"> In 2024, CSRC provided funding for tutoring programs and awarded scholarships in the Greater China region, totaling NT\$192,000 and benefiting 144 individuals. 	147
	<ul style="list-style-type: none"> In 2024, CSRC collaborated with Tamkang University to organize a science outreach camp, visiting 33 schools and engaging 1,500 students in hands-on experiments to help them understand circular economy and the diverse applications of carbon black in everyday life. 	148
Goal 4.5	<ul style="list-style-type: none"> Experimental workshops were held at elementary schools in remote areas of Pingtung, inviting schoolchildren to participate and providing transportation support and hands-on experiment opportunities. 	148
Goal 4.8	<ul style="list-style-type: none"> Formulated human resources policies, enhanced the organizational structure of the Human Resources Department, provided diversified education and training, and offered courses suitable for employees at all levels. In 2024, employees' average annual training hours totaled about 19 hours. 	113
Goal 8.8	<ul style="list-style-type: none"> A total of 9,962 employees, contractors' personnel, and carriers' personnel received 34,808 hours of occupational safety and health training. 	107
Goal 10.4	<ul style="list-style-type: none"> Conducted market surveys on salary every year and referred to industry salary standards and individual performance evaluation results to determine salaries that were competitive in the market to ensure the competitiveness of their salaries in the entire market. 	116
Goal 11.4	<ul style="list-style-type: none"> In 2024, the C.F. Koo Foundation continues its efforts in cultural preservation by launching two annual program productions and maintaining the operation of Taiwan's only online opera channel, "Koo Cloud Theater." The foundation remains committed to managing the Children's Theater and will organize campus outreach lectures in conjunction with its annual programs. A key highlight was the reopening of the "A tourist theatre, TaipeiEye" on Lantern Festival, resuming operations after a four-year pause due to the COVID-19 pandemic. 	152
Goal 15.4 Goal 15.6	<ul style="list-style-type: none"> Committed to conserving tropical and subtropical plants around the world and maintaining biodiversity through the Dr. Cecilia Koo Botanic Conservation Center. By the end of 2024, the center had collected 34,712 plant species from around the world. 	149

Sustainability blueprint GRI 2-12、2-13、2-14

Corporate social responsibility policy :

In addition to striving for the greatest achievements in our main business, CSRC also actively maintains good interactions with all stakeholders and fulfills its corporate citizenship responsibilities through concrete actions to build a sustainable society.



Our implementation guideline :

E - Green manufacturing

Adhering to the principle that "environmental protection is a responsibility not a cost", we pay attention to the environment and cherish resources in terms of raw materials, processes, and products, and implement the circular economy concept with a focus on the balance between economy and environment.



S - Inclusive society

We focus on employee benefits, maintain harmony with the local community, care for schoolchildren's education, and have launched the "Green Finance Action" initiative to promote the concept of a circular economy, to be committed to cultural and ecological conservation.



G - Integrity

We put legal compliance first and adopt integrity, fairness, and transparency as the foundation for business operations, and promote a sustainable supply chain from the inside out to share prosperity in the future.



Four core values of CSRC

C ommitment

- Integrity — Keep promises to customers
- Respect — Keep good relationship with customers
- Quality — Pursue excellent product quality
- Take charge — Manage to improve even trivial flaws
- Flexibility — Serve customers and pay attention to customer needs



S ynergy

- Meet customer needs and grow with customers
- Provide value-added technologies and services other than products
- Cross-functions cooperation with enhanced specialty and efficiency
- Integrate global resources and optimize local services



R ebirth

- Tackle with civilization pollutions
- Improve efficacy of circular economy
- Continuous improvement over waste solutions
- Caring for the community and the environment



C reativity

- Technological innovation
- Process efficiency improvement
- Diversified product application development
- Code compliance and workflow improvements



CSRC creates sustainable value through a circular economy model of carbon black.

	Raw Materials	Manufacturing	Sales	Product Final Stages
Resources	<ul style="list-style-type: none"> End-of-life residues from steelmaking and oil refining industries Recycled Tire Pyrolysis Oil (TPO) and Recycled Carbon Black (rCB) 	Reactors and Boilers	Carbon Black, Steam	Carbon Black Packaging, Condensate water
Potential Risks	<ul style="list-style-type: none"> If the end-of-life residues from the steelmaking and oil refining industries are not properly disposed of, they will cause environmental pollution. The recycled oil from waste tire pyrolysis has a higher sulfur content, which increases SOx emissions when used as a general fuel. The recycled carbon black has a higher ash content, which can directly affect the performance of rubber and plastics. 	<ul style="list-style-type: none"> Production of air pollutants (SOx, NOx, PM, TSP, VOC), greenhouse gases, precipitator ash, fuel consumption 	<ul style="list-style-type: none"> Insufficient diversity in carbon black products and excess steam leading to energy waste. 	<ul style="list-style-type: none"> The disposal cost of paper bag packaging and the failure to recover condensate result in a waste of water resources
Opportunities and value creation	<ul style="list-style-type: none"> End-of-life residues from steelmaking and oil refining industries are reused as raw materials to produce carbon black for multiple applications⇒Creation of a new industry chain Using recycled tire pyrolysis oil as a raw material can effectively address its high sulfur content, reducing SOx emissions. At the same time, by improving the carbon black recovery process, the negative impact of ash content on rubber and plastic customers to adopt the material. This approach simultaneously brings about carbon reduction effects⇒Creation of a new industry chain and a complete closed-loop system for the carbon black industry. 	<ul style="list-style-type: none"> Implementation of air pollution control equipment to reduce emissions of air pollutants⇒Improvement of environmental and health quality Precipitator ash is collected and processed together with red brick raw materials for transformation into building materials⇒Creation of a new industry chain Optimization of process technology to reduce per unit product oil consumption⇒Improvement of resource utilization efficiency Reactors utilize high temperature combustion to remove dioxin in the raw oil⇒Improvement in health and environmental quality 	<ul style="list-style-type: none"> R&D of green carbon black products⇒Improvement in health and environmental quality Reuse excess steam to generate electricity⇒Improvement in resource utilization efficiency R&D of high-end, multi-application carbon black⇒Improvement in market competitiveness 	<ul style="list-style-type: none"> Packaging changed to environmentally friendly PE materials⇒Improvement in customer productivity and reduction in waste Partnering to recycle condensate⇒Creation of a new industry chain

Corporate Sustainability Committee

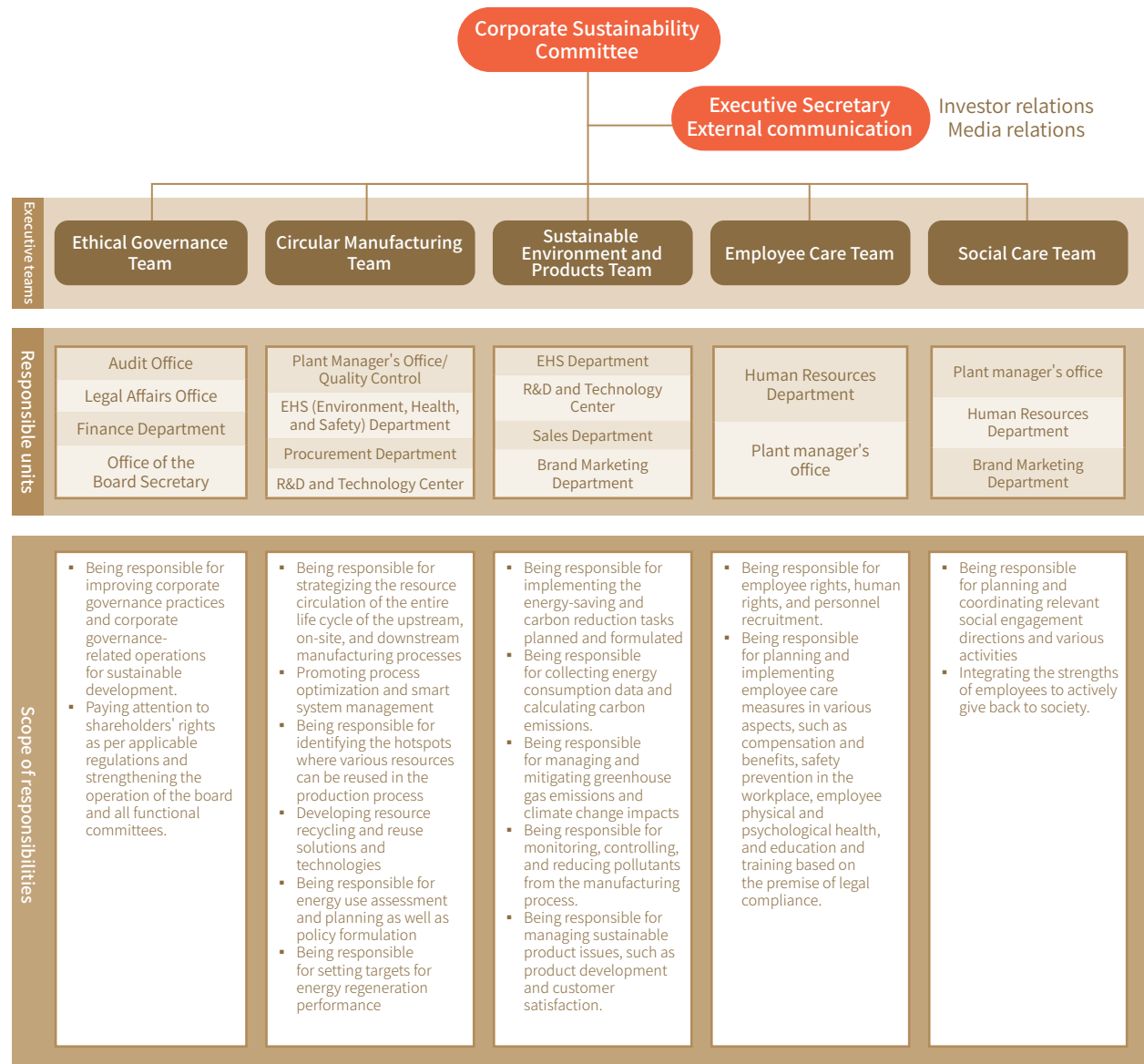
To ensure actions taken to realize corporate sustainable development, CSRC established the Corporate Sustainability Committee in 2018 in accordance with the "Corporate Social Responsibility Policy" and upgraded the committee to a functional committee as approved by the Board of Directors (hereinafter referred to as the "Committee"), with the Chairman and two independent directors serving as members. To improve the overall implementation of the Company's sustainable management, the Committee is responsible for reviewing the sustainability reports and identifying stakeholders' sustainability issues of concern, while being in charge of formulating the Company's sustainability policies, key performance indicators, goals, and plans for each functional group, and reviewing implementation performance. In addition to the routine operations, the Committee regularly reports to the Board of Directors on the targets and the implementation of the policies formulated. The Committee convenes one meeting at least every six months, which may be flexibly adjusted as necessary, but it should convene at least one meeting per year.

To strengthen the connection between corporate sustainability and business operations, CSRC has established an Ethical Governance Team, a Circular Manufacturing Team, a Sustainable Environment and Products Team, an Employee Care Team, and a Social Care Team under the Committee. The top executive of each responsible unit serves as the team members. In addition to the routine meetings between committee members and team members, the chair may invite team members to participate in each meeting according to the content of the agenda. Each team should designate a secretary for their team, who should be responsible for contacting, communicating, and coordinating the duties of the team. CSRC has also formulated the "Corporate Social Responsibility Best Practice Principles," "Corporate Governance Best Practice Principles," and "Ethical Corporate Management Best Practice Principles" to ensure that the concept of corporate social responsibility is integrated into the Company's daily operations.

Matters deliberated or adopted for reference by the Sustainable Development Committee

- Approval of annual targets for various aspects of corporate sustainability
- Approval or adoption (for reference) of implementation plans in various aspects of corporate sustainability
- Follow-up on the implementation of corporate sustainability measures and review of implementation effectiveness
- Approval of the standards for the preparation of sustainability reports
- Approval or adoption (for reference) of other matters related to corporate sustainability

Corporate Sustainability Committee Organization Chart



Sustainable Development Milestones

The Sustainable Development Milestones of CSRC over the years are as follows:

2024

- Established the "Sustainability Information Management Procedures," which were formally approved by the Corporate Sustainability Committee to improve the framework for sustainability information management, enhancing information transparency and corporate governance standards.
- Participated in the EcoVadis sustainability assessment for the first time as the CSRC Group and received the "Silver Medal," ranking within the top 15% globally, demonstrating outstanding overall performance in environment, labor rights, business ethics, and sustainable procurement indicators.

2023

- The scope of the sustainability report includes the entire group, and the TCFD also covers all plant sites within the group to identify climate risks and opportunities.
- The Board of Directors has approved the elevation of the Corporate Sustainability Committee to a functional committee, with the Chairman and two independent directors serving as members.
- Establish a sustainability information management platform to enhance the efficiency of information aggregation.

2022

- Included CSRC (Anshan) in the sustainability reports and TCFD to identify climate risks and opportunities
- Adopted all SASB chemical metrics

2021

- Adopted TCFD in risk management to quantitatively assess financial impacts
- Adopted the SASB and disclosed metric data

2020

- Identify and expose risks and opportunities related to climate change based on the TCFD framework
- Develop ESG-oriented goals

2019

- Formulated a human rights policy
- Established "Cement Academy Scholarship"
- Launch the "Green Finance Action" initiative, a circular economy social charity event

2018

- Published the first CSR Report in English
- Established the Corporate Sustainability Committee

2014

- Published the first CSR Report in Chinese

Stakeholder engagement and material topic analysis GRI 2-29、3-1、3-2

CSRC identifies stakeholders and discloses specific topics in accordance with the AA1000 Stakeholder Engagement Standard (AA1000 SES), while considering external entities that are regular counterparties and important to the Company's daily operations and determining the key stakeholders, including customers, employees, shareholders/investors, suppliers/contractors, government agencies, and neighboring communities, as the Company's six major parties to engage.

Six major parties to engage

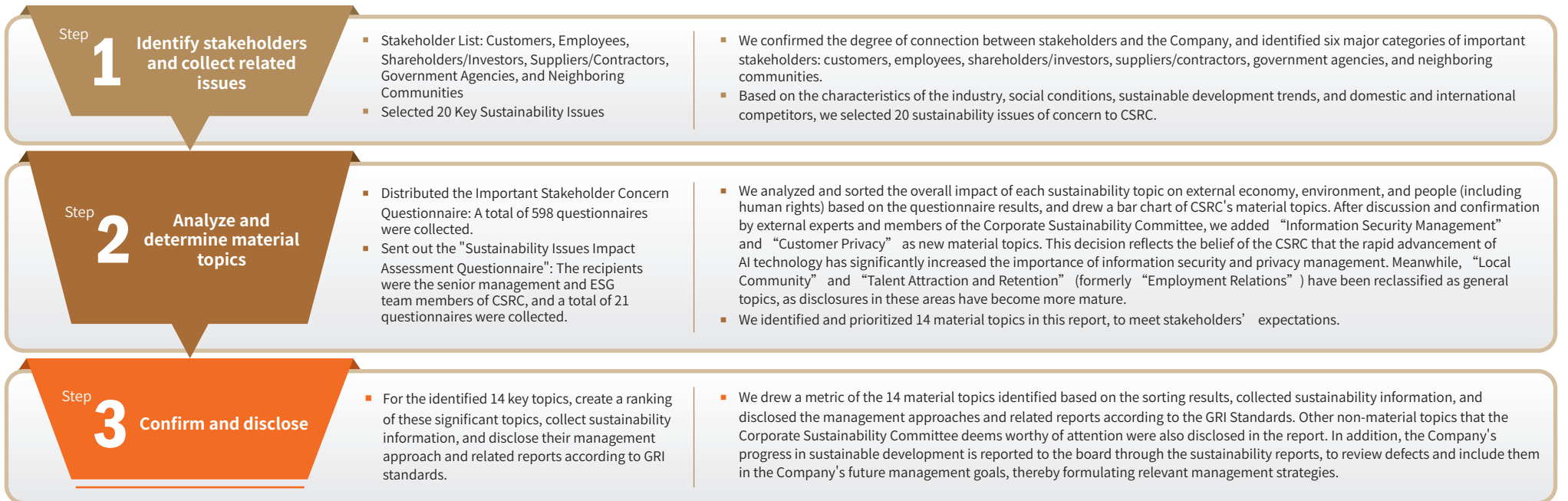
Customers | employees | shareholders/investors | suppliers/contractors | government agencies | neighboring communities

CSRC discloses information in an open and transparent manner and over multiple communication channels. Through communication and mutual interaction with stakeholders, the Company can receive information and give feedback, ensuring that both parties can communicate effectively and enjoy a favorable dialogue. In order to accumulate and continue to make progress in communication and interaction, we have designed a communication and evaluation mechanism for stakeholders and have focused on issue management procedures. By evaluating the goals and results of communication with stakeholders, the opinions from different stakeholders are all properly recorded and managed to achieve the expected communication results.

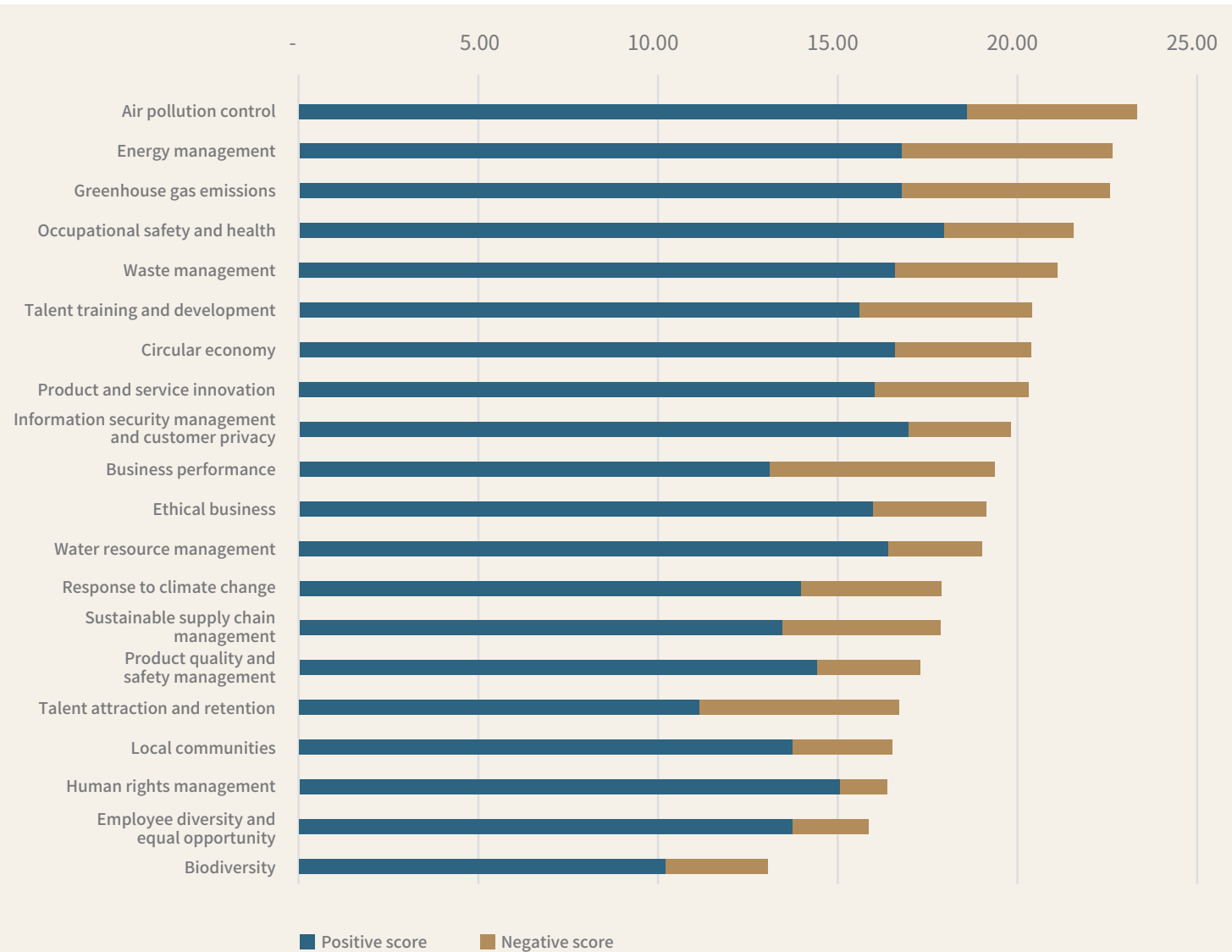
Identification and analysis of material topics

CSRC conducted an analysis of material topics through the materiality identification process in the GRI Standards 2021. Through the process of identification, analysis, and confirmation, we determined 14 material topics out of 20 sustainability issues selected. From there, we set sustainability targets and regularly review related implementation and effectiveness through internal performance indicator checks and comparison with competitors, thereby enhancing management and supervision. As the overall external environment remains aligned and the scope of the report unchanged, CSRC has continued to adopt the materiality assessment results from 2023 for its 2024 reporting.

Material topic identification process



Results of CSRC's material topics



Note: The assessment scores were the result of multiplying the probability of occurrence and the level of positive and negative impacts. The top 14 topics in the ranking are the material topics.

CSRC's material topics

Governance

- Ethical management
- Business performance
- Sustainable supply chain management

G

Environment

- Greenhouse gas emissions
- Response to climate change
- Waste management
- Water resource management
- Air pollution control
- Energy management

E

Social




- Occupational safety and health
- Talent training and development




S

Product

- Product and service innovation
- Circular economy
- Information security management and customer privacy

P

Stakeholders	Importance of stakeholders to CSRC	Issue of concern	Communication method and frequency	Communication performance in 2024	Reflection and response
 <p>Customers</p>	They are stakeholders with the most influence on CSRC's product development and manufacturing, and they pay attention to the trends of economic, environmental, and social issues related to the Company.	<ul style="list-style-type: none"> Product and service innovation Business performance Governance Sustainable Supply Chain Management 	<ul style="list-style-type: none"> Customer service email (anytime) Phone contact (weekly) Visits by sales staff (monthly) Customer satisfaction surveys (annually) 	<ul style="list-style-type: none"> The average customer satisfaction score of the Group reached 8.85 points. 	<ul style="list-style-type: none"> We continuously provide stable quality products with excellent service and smooth communication, complying with relevant operational regulations and environmental laws at our operating locations, to create favorable conditions for long-term cooperation with our customers.
 <p>Employees</p>	Our colleagues stand as the Company's most important asset, and we provide them with comprehensive welfare and care as well as settings and opportunities for living up to their self-worth. This is an important key to continued growth for CSRC.	<ul style="list-style-type: none"> Occupational Safety and Health Talent training and development Product and service innovation Business performance 	<ul style="list-style-type: none"> Convene Pension Supervision Committee (quarterly) Convene Employee Welfare Committee (quarterly) Convene Labor-Management Conference (quarterly) Conduct education and training (monthly) Employee feedback mailbox (anytime) Sexual harassment complaint hotline and mailbox (anytime) 	<ul style="list-style-type: none"> Employees' average annual training hours totaled about 19 hours. The number of sexual harassment complaints by phone or email was zero. As high as 100% of the Group's personnel completed performance evaluations. We regularly convene the Pension Supervisory Committee, the Employee Welfare Committee, and labor-management conferences. 	<ul style="list-style-type: none"> We review the effectiveness of education and training, hoping that employees can grow together with the Company. Meanwhile, we regularly review the remuneration offered and other benefit policies to provide employees with competitive tangible incentives.
 <p>Investors/ Shareholders</p>	Opinions and suggestions of investors/shareholders also constitute an important reference index for the management team to make operational decisions.	<ul style="list-style-type: none"> Ethical management Business performance Product and service innovation Governance 	<ul style="list-style-type: none"> Hold shareholders meeting (annually) Issue annual report (annually) Hold investor conference (annually) Hold meetings with institutional investors (not regularly scheduled) Issue financial statements (quarterly) Market Observation Post System (not regularly scheduled) Investor mailbox (not regularly scheduled) Company's official website (not regularly scheduled) 	<ul style="list-style-type: none"> We held one shareholders' meeting, eight board meetings, and one investor conference, at which we provided investors with the information on market conditions, future trends, growth strategies, and profitability. CSRC also has the Investor Relations Department in place to communicate with investors. It responded to all calls and emails from investors in 2024. 	<ul style="list-style-type: none"> We regularly hold large investor conferences and small seminars to disclose the business operations to investors. Meanwhile, we have a responsible department to respond to investors' opinions and questions to enhance bilateral exchanges and interactions. In the future, CSRC will increase the frequency of communication with investors, improving information transparency and disclosing important Company information.

Stakeholders	Importance of stakeholders to CSRC	Issue of concern	Communication method and frequency	Communication performance in 2024	Reflection and response
 <p>Suppliers/ Contractors</p>	Good suppliers/contractors can provide reliable supplies and services. This in turn allows CSRC to enjoy stable production operations, creating the most favorable business performance.	<ul style="list-style-type: none"> Ethical management Occupational Safety and Health Waste management Product and service innovation 	<ul style="list-style-type: none"> Supplier management system (not regularly scheduled) Supplier bid invitation meetings (not regularly scheduled) Supplier field evaluations (not regularly scheduled) Pre-construction work safety meetings (not regularly scheduled) Supplier strategic alliances (not regularly scheduled) 	<ul style="list-style-type: none"> We completed evaluations of 247 suppliers in Greater China region. We regularly hold safety seminars and related education and training courses for suppliers and contractors. 	<ul style="list-style-type: none"> In-depth cooperation with capable suppliers/contractors that are experts in their fields, jointly developing materials and establishing strategic partnerships.
 <p>Neighboring communities</p>	The living environments of neighboring communities may be affected by the operational activities of our plants. Therefore, we pay considerable attention to implementation results from environmental protection measures in the area around the plant.	<ul style="list-style-type: none"> Waste management Greenhouse gas emissions Occupational Safety and Health Energy management 	<ul style="list-style-type: none"> Sponsor community charity activities (monthly) Resident complaint channel (not regularly scheduled) Undertake visits or phone contact (not regularly scheduled) 	<ul style="list-style-type: none"> We donated a total of NT\$3.615 million to social charity, impacting at least 9,285 people. A total of 144 students benefited from Cement Academy. 	<ul style="list-style-type: none"> Through diverse bilateral communication and exchanges, we can foster closer relationships between CSRC and neighboring communities. These efforts can also let communities understand our operational efforts as well as our dedication to environmental protection.
 <p>Government agencies</p>	Promotion of various policies or formulation/modification of regulations may affect the operations of CSRC.	<ul style="list-style-type: none"> Waste management Water resource management Greenhouse gas emissions Occupational Safety and Health 	<ul style="list-style-type: none"> Hold shareholders meeting (annually) Hold investor conference (annually) Cooperate with relevant review and audit operations (quarterly) Market Observation Post System (not regularly scheduled) Participate in publicity meetings and seminars (quarterly) Declare various types of tax information (monthly) Pollution prevention and control meeting (every two months) 	<ul style="list-style-type: none"> We held one shareholders' meeting and one investor conference We participated in labor-related seminars or awareness-raising sessions hosted by the government 11 times. We participated in finance and accounting-related seminars or awareness-raising sessions hosted by the government three times. We participated in environment and safety-related seminars or awareness-raising sessions hosted by the government 138 times. 	<ul style="list-style-type: none"> The Company keeps abreast of the latest information on applicable laws and regulations, actively cooperates with the policies launched by competent authorities, and complies with various regulations and operational requirements in accordance with existing laws and regulations and the requirements of competent authorities. Actively participate in various meetings, understand the causes of external problems, learn from experience, and put preventative measures in place.

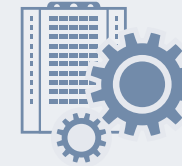
2024 Performance Highlights



In 2024, independent directors accounted for **44%** of CSRC’ s Board of Directors, **exceeding the one-third legal requirement**.



Among the board members, **one seat was held by a female director**.



In the 11th Corporate Governance Evaluation conducted in 2024, CSRC maintained its ranking in the **top 6% to 20%** among listed companies.



CSRC **established and approved new measures** in 2024 for **sustainable information management**, demonstrating proactive compliance with domestic regulations.



No significant incidents of corruption, violations of ethical conduct, or breaches of integrity occurred within CSRC in 2024.



CSRC continued its joint promotion of the “1.5° C Climate Action Declaration” with the Chinese National Association of Industry and Commerce, and the Linyuan Advanced Plant joined **the Kaohsiung Industry Net Zero Alliance**.



In its first group-level participation in the **EcoVadis** sustainability assessment, CSRC was awarded a **Silver Medal**, ranking in the **top 15%** globally—highlighting excellence across environment, labor rights, business ethics, and sustainable procurement dimensions.



CSRC’ s Linyuan Advanced Plant jointly advocated the “**Responsible Care Global Charter**” promoted by the Taiwan Responsible Care Association.



CSRC’ s Maanshan plant in China received the “**Top Ten Enterprises for High-Quality Industrial Development**” award from the Cihu High and New Technology Industrial Development Zone.

United Nations Sustainable Development Goals (SDGs)

1.3 Ethical Management **SDGs 16.5**

1.5 Risk Management and Information Security **SDGs 8.3 、 SDGs 9.5 、 SDGs 13.3**

1.6 Operating Performance **SDGs 8.3**





Management policies - Ethical management

	Medium and Long-Term Targets (2026-2030)	Short-Term Targets (2025)	2024 performance
Percentage of onboarded employees signing the Letter of Commitment to Ethical Best Practice Principles and Ethical Norms	New hires at all global operating locations signing the Letter of Commitment to Ethical Best Practice Principles and Ethical Norms to attain 100%	New hires at Greater China operating locations signing the Letter of Commitment to Ethical Best Practice Principles and Ethical Norms to attain 100%	Greater China 100%
Proportion of employees participating in ethical corporate management courses	The proportion of employees in all global operating locations participating in ethical corporate management-related courses to attain 100%	The proportion of employees in all global operating locations participating in ethical corporate management-related courses to attain 100%	Greater China 100%
Major ethical corporate management risk events	0 cases	0 cases	No major ethical corporate management risk incidents occurred in 2024

Impact description

Description of positive impact:

The Company provides ethics and compliance education and training in accordance with the Ethical Corporate Management Best Practice Principles and adheres to the brand value of integrity, respect, quality, responsibility, and flexibility to ensure alignment with the principles of ethics and integrity in corporate governance.

Description of negative impact:

Without an ethical management system in place, if an incident of corruption occurs to the Company's employees, it will damage the corporate image; an incident of corruption will affect the Company's reputation and investors' decision-making.

Policies and commitments

CSRC adheres to its vision, mission, and core values to care for stakeholders, society, and the environment; establishing a corporate culture of ethical corporate management (anti-corruption, anti-conflict of interest, anti-fraud, anti-money laundering, and anti-unfair business practices) and good business operations. There are standards such as the Ethical Corporate Management Best Practice Principles and Code of Ethical Conduct.

Action plan

Positive impact management:

- In addition to publishing relevant regulations on the corporate website, professional instructors are continuously invited to provide education, training, and advocacy for directors, managers, employees, and people with substantial control.

Negative impact management:

- The types and frequency of corruption incidents are evaluated annually based on the scale of each factory, emergency cases, and project progress, and we develop an audit plan thereby.
 - In particular, we analyze whether warning signs of corruption incidents are present.
- (For more details, please refer to 1.3.3 Anti-Corruption Risk Assessment and Results)

Evaluation of effectiveness

The Audit Office regularly (at least once a year) reports to the Audit Committee and the Board of Directors regarding the ethical management policy, the plan for prevention of dishonest behavior, and their supervision and implementation status; and it lists the following items as constituting its annual performance appraisal:

- Confirm whether the official website of Group's parent company maintains the reporting information.
 - Carry out education, training and advocacy of the Code of Ethical Conduct, Ethical Corporate Management Best Practice Principles, and whistleblowing systems.
 - After the Audit Office receives an email, a call on its dedicated line, or an on-site report, it will complete the open case evaluation confirmation before the end of the following month and report to the Chairperson in writing or by email.
 - As stated above, regarding the reported cases that have been evaluated, the Audit Office must complete the case review before the end of the following quarter. Furthermore, it must submit a written report to the Chairperson and undertake follow-up processing in accordance with inspection regulations.
 - In 2024, there have not been any violations of ethical management or any ethical incidents.
- (For more details, please refer to 1.3.3 Anti-Corruption Risk Assessment and Results)

Responsible units

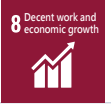
Corporate governance unit, human resources department, audit department

Complaint mechanisms

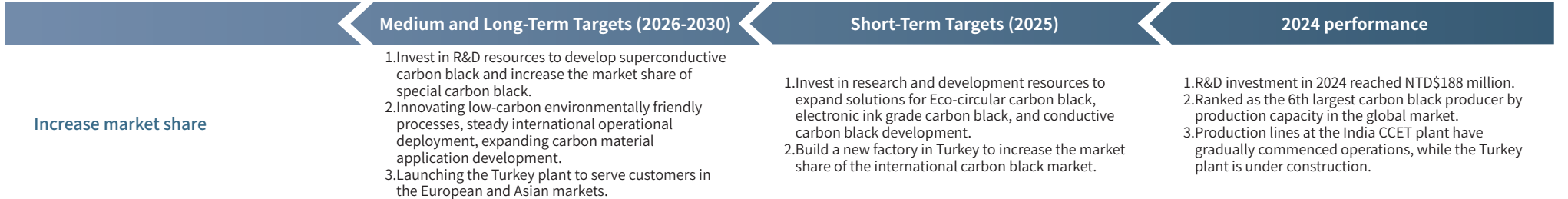
In order to maintain the Company's reputation, protect the safety of its property, and prevent corruption, theft, embezzlement, private practice, fraud, information security breaches, or other unethical and dishonest behaviors that harm the rights and interests of shareholders, employees and partners, we have established whistleblowing channels and processing procedures for CSRC to optimize corporate governance and ensure the legitimate rights and interests of whistleblowers and related parties.

- Email reporting: mp.buster@csrcgroup.com
- Written reports: Audit Office, International CSRC Investment Holdings Co., Ltd., 8F., No.113, Chung Shan N. Rd Sec. 2, 104, Taipei City, Taiwan
- On-site reporting department: The Company's audit department
- The whistleblower can make a named report or an anonymous report, and can provide relevant specific information and documents. If the report is named, it is necessary to provide the name and contact information of the reporter.

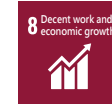
(For more information, please refer to 1.3.4 Reporting System and Channels)



Management policies - Operating performance



<p>Impact description</p> <p>Description of positive impact: We take circular economy as the core concept, sustainable operations as the goal, and production stability and financial stability as the main focus, we flexibly coordinate production and sales of production sites around the world according to market conditions, while continuing to invest in research and development to continue to create economic value.</p> <p>Description of negative impact: Improper operating strategies lead to market recession, loss of dividends to shareholders and investors, and raise the risk to the Company's overall working capital.</p> <p>Policies and commitments Adhere to the Company's vision, mission, and core values, taking care of stakeholders as well as society and the environment. Vision: Eco-friendly civilization Mission: Renewable energy and resources Core Values: Commitment, Synergy, Rebirth, Creativity Please refer to 1.6.1 Operation Results, 1.6.2 Tax Policy.</p>	<p>Action plan Please refer to the descriptions given in the CSRC 2024 Annual Report under "4 Operational Highlights> 4.2 Market and Sales Overview> 4.2.1 Market analysis> 4.2.1.4 Competitive advantage and 4 Operational Highlights>4.1 Business Activities>4.1.4 Long-term and short-term business development plans."</p> <p>Evaluation of effectiveness</p> <ul style="list-style-type: none"> The business unit gathers customer needs every quarter for discussion in departmental meetings. The results of the meetings are reflected in the communications with customers. At the end of the year, senior management will review the operating performance of the year and propose a plan for the next three years to approve the following year's operational goals and metrics (key performance indicators, KPI). 	<p>Responsible units Departments of the Company</p> <p>Complaint mechanisms The CSRC company website has a stakeholder communication mailbox for filing complaints. The mailbox is: csrcir@csrcgroup.com</p>
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Management policies - Information security management and customer privacy

	Medium and Long-Term Targets (2026-2030)	Short-Term Targets (2025)	2024 performance
Proportion of employees participating in information security-related courses	The proportion of employees in all global operating locations participating in information security-related courses to attain 100%	The proportion of employees in all global operating locations participating in information security-related courses to attain 100%	The proportion of employees in all global operating locations participating in information security-related courses to attain 28.4%

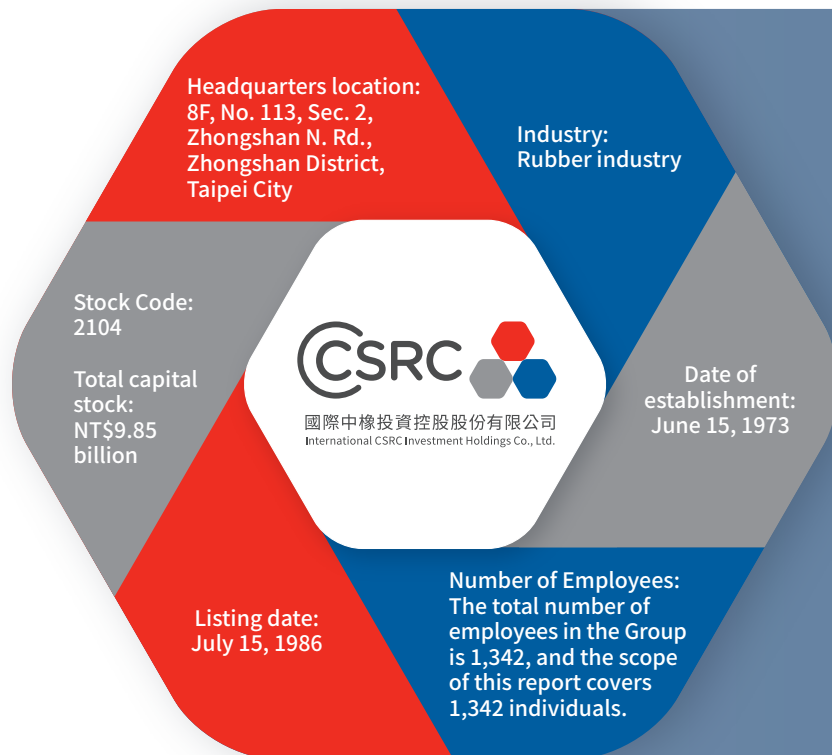
Information security health inspection	Maintain information security and health inspections of the parent Company and global subsidiaries at least once a year	Maintain information security and health inspections of the parent Company and global subsidiaries at least once a year	The parent Company and its global subsidiaries have all undergone one instance of information security and health inspection
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<p>Impact description</p> <p>Description of positive impact: We will enhance the information security protection network, raise employees' information security awareness, prevent hackers' intrusion and customer data leakage, and protect stakeholders' rights.</p> <p>Description of negative impact: Information leakage, theft, or loss of customer data may compromise stakeholders' privacy or expose stakeholders to ransomware risks. This may violate laws and regulations and expose the Company to litigation risks and other negative impacts.</p> <p>Policies and commitments Dedicate efforts to protect the confidentiality, integrity, and availability of the Company's important information systems and data.</p>	<p>Action plan</p> <p>Positive impact management:</p> <ul style="list-style-type: none"> Social engineering drills and information security education and training are to be held regularly every year to strengthen employees' information security awareness. The audit trails of core systems and equipment are to be reviewed regularly to ensure that there are no abnormal access behaviors internally or externally. Introduce vulnerability scanning tools, and regularly perform weak scanning operations on the core systems of the enterprise group and repair the discovered medium- and high-risk vulnerabilities, and continue to track and re-scan until no medium- and high-risk vulnerabilities remain. <p>Negative impact management:</p> <ul style="list-style-type: none"> Employees do not have sufficient security awareness and click on unknown emails or websites, causing data leaks or information system protection vulnerabilities. Abnormal access connections or access may cause internal information or network security disasters. Failure to proactively conduct information security risk inspection and prevention means that when information security issues occur, the scope of the disaster cannot be limited to controllable risks. <p>Evaluation of effectiveness</p> <ul style="list-style-type: none"> Regularly review information security policies and regulations every year, and publish information security requirements to all colleagues in the enterprise group. Regularly perform internal and external audit operations, and take corrective and preventive measures for matters found in audits. In 2024, annual internal and external information security audits were conducted, and all non-conformities have been corrected; ISO 27001:2022 transition certification has been obtained. 	<p>Responsible units Information colleagues in each region and the headquarters Information Security Committee</p> <p>Complaint mechanisms Mailbox: service@tcci.com.tw</p>
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Ch1 Corporate Governance

1.1 About CSRC GRI 2-1 、 2-6 、 2-28

CSRC has two major businesses. The carbon black business, under the brand name Continental Carbon, is the only carbon black manufacturer in Taiwan and sixth largest in the world. To better serve the needs of international customers, it has established four operation centers, four research and technical service centers, and nine production facilities, as well as one technology licensing production facility globally. The biotech business continues to invest in professional pharmaceutical research and development, working together to provide diversified products and cross-industry services, promoting the improvement of the quality of human life. CSRC invests in technology research and development. Through technical excellence, we have joined our customers to demonstrate an outstanding performance internationally. We are actively deploying to better serve our global customers and with an awareness of our role as an important partner in the industry value chain, thereby becoming a world-class manufacturer and leader in integrated services.



Carbon Black Business Group

Continue to pursue breakthroughs and innovation in the carbon black field with the attitude of an international leading brand

Main business

- (1) Manufacturing of synthetic rubber
- (2) Manufacturing of other rubber products
- (3) Manufacturing of industrial rubber products
- (4) Non-public electric power generation
- (5) Thermal energy supply

Global locations

- Greater China — Linyuan Advanced Materials Technology Co., Ltd. Consolidated Resource Company
CSRC's mainland carbon black factories in Maanshan, Anshan, and Chongqing
- India — CCET Plant and CCIPL Plant
- USA — CCC Ponca Plant and CCC Sunray Plant

Biotechnology Business Group

Continue to maintain steady growth and cooperate with hospitals and other research units to develop new drugs

Main business

Biotechnology services

Global locations

- Circular Commitment Company
- Synpac (North Carolina), Inc.

CSRC's Carbon Black Business Unit takes "globalization" as its operating strategy. It continuously improves production technology through various forms of resource integration, ensuring that output scale and product quality are at a leading level globally. Furthermore, a focus on the needs of "customers" and "users" serves as its driving force for continuous quality breakthroughs and product innovation.



Membership in industry associations: CSRC actively participates in industry-related associations, adhering to and promoting the regulations and standards of these organizations. We aim to contribute our efforts and collaborate with our peers to collectively fulfill our social responsibilities. CSRC's participation in associations in 2024 is as follows:

Industry association name	As organization membership
Petrochemical Industry Association of Taiwan	V
Taiwan Rubber & Elastomer Industries Association	V
Chinese National Association of Industry and Commerce, Taiwan ^{Note 1}	V
Taiwan Carbon Capture Storage and Utilization Association	V
Taiwan Responsible Care Association	V
The Third Wednesday Association	V
Kaohsiung City General Industrial Association	V
Chinese Society for Quality	V
The Association of Taiwan Investment Enterprises in Anshan	V
South Side GT Road Industries Association ^{Note 2}	V
Dahej Industrial Association ^{Note 3}	V
Dahej Eco Friendly Society ^{Note 4}	V
Ghaziabad Management Association ^{Note 5}	V
International Carbon Black Association (ICBA) ^{Note 6}	V

Note 1: The Chairman serves as a board member of the Chinese National Association of Industry and Commerce, Taiwan

Note 2: Participation by the CCIPL.

Note 3: Participation by the CCET.

Note 4: Participation by the CCET.

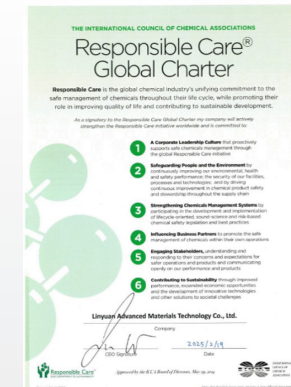
Note 5: Participation by the CCIPL.

Note 6: Participation by CCC.

CSRC has long been committed to corporate social responsibility. As a member of the Chinese National Association of Industry and Commerce, CSRC actively fulfills its sustainability commitments through concrete actions. CSRC's Chairman, Mr. Koo, serves as the convener of the Association's Sustainability Research Committee, jointly initiatives such as the "[1.5° C Climate Action Declaration](#)," highlighting CSRC's leadership in corporate governance and sustainability.

Linyuan Advanced Plant has joined the "Industry Net Zero Alliance" established by the Kaohsiung City Government, which encourages leading enterprises to adopt a "large leading small" approach. This initiative promotes sharing carbon reduction achievements and technologies, leveraging industry-specific experiences to collectively address global climate change challenges. It focuses on improving manufacturing processes, advancing energy transitions, and promoting a circular economy to achieve the 2050 net-zero carbon emissions goal. Key efforts include: establishing professional knowledge through regular exchange meetings and observation activities; sharing carbon reduction technologies, best practices, and innovative supply chain management approaches; and assisting alliance members with energy-saving and carbon reduction improvements, developing energy-resource integration and co-production with cross industries, while supporting supply chain or downstream partners in applying for carbon offset credits to collectively work toward net-zero targets.

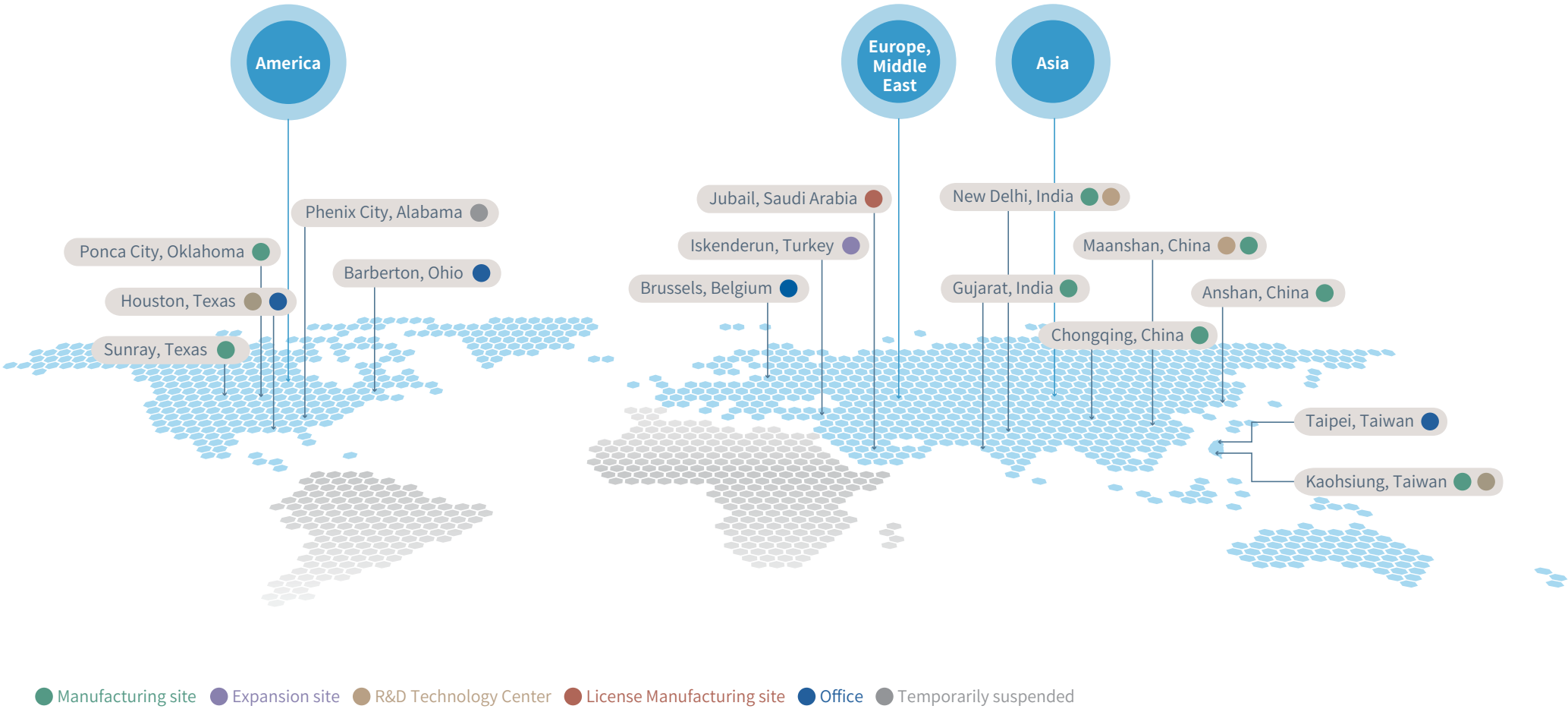
Linyuan Advanced Plant has joined the "Responsible Care Global Charter", promoted by the Taiwan Responsible Care Association. This charter is a core framework for the global chemical industry to advance sustainable development. It aims to enhance corporate performance in environmental, health, and safety areas, fulfilling long-term commitments to society and ecosystems. The charter requires active leadership involvement, continuous improvement in technology and management throughout the product lifecycle, and ensuring the safe production and use of chemicals. It also emphasizes collaboration with supply chain and value chain partners to promote responsible industry practices and transparent performance reporting to address stakeholders' needs and expectations, fostering global Responsible Care practices.



Responsible Care Global Charter
(Linyuan Advanced Plant)

Brand Value

As of the end of 2024, CSRC’ s carbon black business has key overseas operations in North America, Mainland China, and India. Building on its global production and operational systems, professional expertise, diverse talent, and customer trust, CSRC positions itself as a global brand ready to tackle new century challenges and achieve new milestones of excellence. Furthermore, CSRC continues to expand its global footprint, adjusting its worldwide production capacity to meet market demands. This includes the ongoing construction of a plant in Turkey, which, upon completion, will become the country’ s first carbon black plant.



Note : The Phenix Plant ceased production operations on December 31, 2022. On May 10, 2024, the Board of Directors approved a joint venture with Hsueh Chang Hsing Company to invest in the recycled carbon black business at the same site. On March 11, 2025, the Board of Directors approved the equity transfer agreement for the Chongqing Plant in Mainland China and the closure of the Anshan Plant in Mainland China.

The Maanshan Plant has been recognized as one of the 2024 "Top Ten Enterprises for High-Quality Industrial Development" by the Cihu High and New Technology Industrial Development Zone, a key industrial hub in China. To qualify for this prestigious award, enterprises must achieve an annual industrial output value exceeding 100 million RMB and rank among the top ten in growth rate within the zone. This accolade underscores the Maanshan Plant's exceptional contributions to advancing high-quality industrial development. Beyond affirming its industry leadership, the award also reflects the plant's dedication to enhancing competitiveness and pursuing sustainable green practices, serving as a model for peer enterprises.

2024 Top Ten Enterprises for High-Quality Industrial Development Award (Maanshan Plant, China)



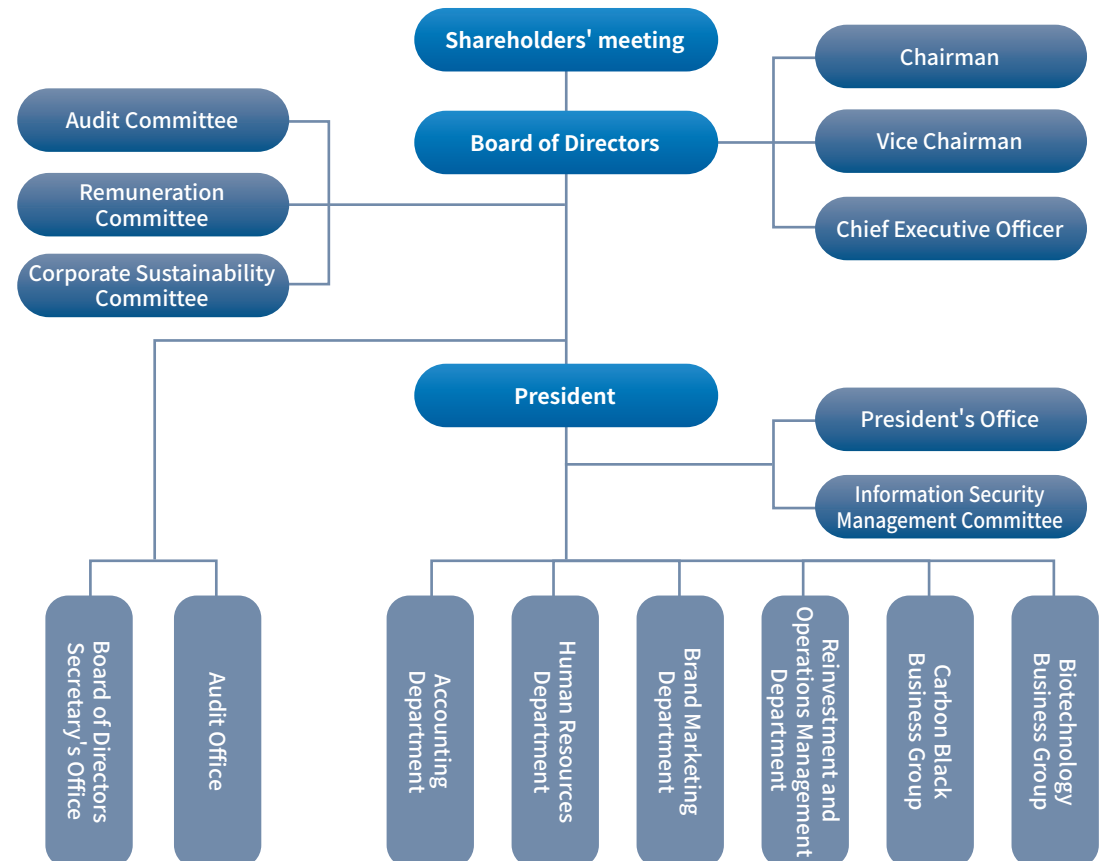
EcoVadis is the world's most trusted sustainability rating platform, evaluating companies' performance in four key areas: environment, labor and human rights, ethics, and sustainable procurement. Its methodology is based on international standards such as the Global Reporting Initiative (GRI), the United Nations Global Compact, and ISO 26000, covering over 200 industries and 175 countries, with more than 100,000 companies assessed globally. EcoVadis' scoring system (0-100) reflects the quality of a company's sustainability management system, with rankings awarding Platinum, Gold, Silver, or Bronze medals to recognize sustainability achievements. In 2024, CSRC participated for the first time as a group and received the EcoVadis Silver Medal, placing it in the top 15% of evaluated companies worldwide. This honor acknowledges CSRC's outstanding efforts in environmental protection, labor rights, ethical standards, and sustainable procurement, demonstrating its strong commitment to sustainability. Moving forward, CSRC will continue to enhance its sustainability management system, aiming for higher goals and creating greater positive impacts for the environment and society.

CSRC Awarded EcoVadis Silver Medal in 2024



1.2 Governance Structure GRI 2-9

CSRC's corporate governance organization structure is represented by the Board of Directors as the Company's business executive authority. We also establish an Audit Committee to perform supervision and establish a Remuneration Committee that is responsible for formulating, reviewing, and evaluating directors, managers and other salary and remuneration related policies. At the same time, the Audit Committee and the Remuneration Committee have also formulated the organizational rules for compliance for these two respective Committees. Furthermore, to thoroughly implement corporate sustainability actions, in 2018 CSRC established the Measures for the Establishment of the Corporate Sustainability Committee. In December 2023, the Board of Directors resolved to elevate the Corporate Sustainability Committee to the level of a functional committee, thereby actively promoting the implementation of corporate sustainability, ethical corporate management, and social responsibility.



1.2.1 Board of Directors

GRI 2-10、2-11、2-12、2-15、2-17、2-18、2-19、2-20、405-1

Composition of the Board of Directors

According to CSRC's Articles of Incorporation, the number of directors ranges from 7 to 11, with a term of 3 years. Chairman Jason Koo also serves as the Group CEO. CSRC Group comprises 25 companies, including 24 subsidiaries. As a holding company, unlike typical listed companies, each subsidiary has its own characteristics in terms of operating projects. The Chairman reports to the Board of Directors and is responsible for business management, major decisions, and promoting corporate sustainability. The Group CEO manages all affairs of the related companies, executes board resolutions, and supervises the managers of the Company and its affiliates, differing from the role of the President of the Company and therefore avoiding any conflict of interest.

The election of directors shall adopt the candidate nomination system in accordance with Article 192-1 of the Company Act, and the shareholders' meeting shall elect directors from the list of director candidates. Directors may be re-elected. In 2024, CSRC had a total of 9 directors, of which 4 are independent directors, accounting for 44%, which exceeds the statutory requirement of one-third. The board includes 1 female director; 6 directors (66.67%) are over 51 years old, and 3 directors (33.33%) are between 41-50 years old. The proportion of directors who are employees is 11.11%.

The 19th Board of Directors of the Company emphasizes diversity, comprising elites from industry and academia. Their industrial experience covers finance, business, investment and mergers and acquisitions, risk management, operations management and other capabilities. They possess expertise in management, international markets, risk management, accounting and financial analysis, law, and ESG and other professional capabilities. Distinguished directors include Jason Koo, Lin Nan-Chou, Chang Chi-Wen, Chang Liang, and Ting Yuan-Wei, who have extensive industrial knowledge; directors Yeh Kuo-Hung and Chia Tze-Nan, who have financial accounting experience; director Liu Feng-Ping, who has extensive management and ESG capabilities and director Hsiao Yu-Chieh, who has legal experience. The Company continues to arrange various advanced training courses for board members to enhance their decision-making quality and supervisory capabilities, and thus strengthen the functions of the Board of Directors. Furthermore, CSRC is committed to promoting diversity and inclusion within its Board of Directors, firmly believing that female directors can bring unique perspectives and expertise to the board, thereby enhancing the comprehensiveness and innovativeness of decision-making. At the shareholders' meeting on May 28, 2024, a complete re-election of the board of directors was conducted. The number of directors increased from 8 to 9, with the addition of one female director.

[Introduction of Board Members](#)、[Board Diversity](#)

Position	Name	Gender	Age	Independent director tenure
Chairman	Taiwan Cement Corporation representative: Jason Koo	Male	41–50 years old	—
Director	Taiwan Cement Corporation representative: Yeh Kuo-Hung	Male	41–50 years old	—
Director	Hsin Chang Investment Co., Ltd.: Liu Feng-Ping	Female	51–60 years old	—
Director	Chang Chi-Wen	Male	61–70 years old	—
Director	Pei Yang Co., Ltd.: Lin Nan-Chou	Male	51–60 years old	—
Independent Director	Chia Tze-Nan	Male	71 years old and over	3-6 years
Independent Director	Chang Liang	Male	71 years old and over	3-6 years
Independent Director	Ting Yuan-Wei	Male	51–60 years old	3-9 years
Independent Director	Hsiao Yu-Chieh	Male	41–50 years old	Under 3 years

Board operation

In 2024, CSRC convened a total of eight board meetings^{Note}, with an average director attendance rate of 96%, complying with the requirement that meetings of the Board of Directors should be held at least once every quarter. Important proposals are disclosed in the shareholder meeting annual report or on the company's website, ensuring transparent and accurate information disclosure. Directors listen to management team reports during Board meetings, and offer guidance and advice while maintaining good communication with the management team. Together, they work to create maximum benefits for shareholders. The remuneration of directors is determined based on their participation in the Company's operations, their contribution value, and the evaluation of compensation levels in the domestic and international industry. The operation of the Board of Directors is based on the indicators of the Corporate Governance Evaluation System. At the same time, it complies with corporate governance standards. As of the end of 2024, all independent directors comply with the regulations concerning independent directors set by the Securities and Futures Bureau of the Financial Supervisory Commission, and there are no circumstances as specified in Article 26-3, Paragraphs 3 and 4 of the Securities and Exchange Act between any directors and independent directors. The Board of Directors of the Company maintains its independence.

[Board of Directors Meeting Practices](#)

Note: The statistical period is from January 1, 2024, to December 31, 2024.

Avoidance of conflicts of interest

The powers of the Board of Directors include business planning, profit distribution, capital increase and decrease, important rules and contract approval, appointment and removal of the President, branch establishment and abolition, budget and final accounts review, real estate trading, investments and other business review, and other important matters. The operation of the Board of Directors does abide by the rules of the Board of Directors and relevant laws and regulations. It supervises and understands Company operations and various existing or potential risks for the Company. It maintains good and timely interaction with management to fully leverage the functions of the Board of Directors.

In respect to meeting matters, if a director or the juristic person represented thereby has a stake in a proposal at the meeting, that director shall state the important aspects of the stake in the meeting, and where there is a likelihood that the interests of the Company would be harmed, shall recuse themselves from any discussion and voting, and may not exercise voting rights as proxy on behalf of another director. For more details on directors' recusal from conflicted-interest matters, please refer to page 27 of the 2024 Annual Report of the shareholders' meeting.

Management Remuneration Policy

The remuneration policy for the President and managers is presented to the Remuneration Committee with reasonable recommendations based on the Company's operational performance, profitability, personal performance and salary market standards etc., before the Board's approval.

Compensation includes quarterly and year-end bonus. Evaluations cover financial performance, including corporate governance, social care and environmental sustainability. By linking compensation with long-term operations, the goal of sustainable management can be achieved.

For more corporate governance practices of CSRC, please refer to:



Official website



Implementation of Board diversity policy of CSRC



Procedures for election of directors of CSRC

Board of Directors Training

CSRC continually arranges a variety of training courses for board members, irregularly providing information on external courses. In 2024, the Company hosted three in-house training sessions: "The Path to Net-Zero Just Transition for Taiwan's Hard-to-Abate Sectors," "Sustainability Financial Disclosure," and "Corporate Governance and Compliance – Insider Trading and Collusive Practices." Expert instructors were invited to deliver these sessions to directors and senior managers. This effort aims to continually enhance the diverse expertise of the directors, strengthen their supervisory capabilities, and thereby enhance the board's functionality and collective intelligence in sustainable development.

Course Name	Number of participating directors	Total hours of director training
 The Path to Net-Zero Just Transition for Taiwan's Hard-to-Abate Sectors	6	3 hours
 Sustainability Financial Disclosure	6	3 hours
 Corporate Governance and Compliance - Insider Trading and Collusive Practices	1	3 hours

Note: For the "Corporate Governance and Compliance - Insider Trading and Collusive Practices" training, the actual number of participating directors was 9. Eight directors have completed the training, and one director has obtained a certificate.

Diverse Director Training to Strengthen Sustainability Education

CSRC prioritizes ESG sustainability. To enhance directors' in-depth understanding of various issues, the company conducted training courses in 2024, including: The Path to Net-Zero Just Transition for Taiwan's Hard-to-Abate Sectors, Sustainability Financial Disclosure, Trends and Risk Management in Digital Technology and Artificial Intelligence, and Director and Supervisor Risks and Corporate Opportunities in Implementing ESG Sustainability. These courses totaled 54 hours, equipping directors with the knowledge to lead the company's future development amidst rapidly changing environments.

Board of Directors Performance Evaluation

To implement corporate governance and enhance the functionality of the Board of Directors, the Company has established the Board of Directors Performance Evaluation Measures, conducting evaluations annually. The scope of the board performance evaluation includes the entire Board of Directors and individual director members. In addition to the internal self-assessment conducted annually in accordance with the law and the Company’ s Board of Directors Performance Evaluation Measures, the external evaluation, which was previously conducted every three years, has been conducted annually since 2023. External experts are engaged to carry out the performance evaluation to strengthen corporate governance and enhance the functioning of the Board of Directors. The results of the internal and external performance evaluations of the Board of Directors shall be completed before the end of the first quarter of the following year. Please refer to the Board of Directors Performance Evaluation Report for 2024 for internal and external Note performance evaluation results.

In addition, the Company and its subsidiaries have purchased “Directors and Officers Liability Insurance” for directors, supervisors, and key executives to cover their indemnity obligations during their terms of office. The insurance policy contents are reviewed annually to reduce the risks borne by directors, supervisors, key executives, and the Company, and to establish and enhance the corporate governance mechanism.

Note: An external professional independent organization evaluated the operations and performance of the company's Board of Directors for the 2024 period (January 1, 2024, to December 31, 2024). The evaluation report was issued before February 28, 2025, and presented at the Board of Directors meeting on March 11, 2025.



1.2.2 Functional Committees

Remuneration Committee	Audit Committee	Corporate Sustainability Committee
<p>Established in 2011</p> <p>The Remuneration Committee is composed of independent directors, with Mr. Chia Tze-Nan serving as the convener. The Committee evaluates, formulates, and reviews the compensation policies and systems for directors and executives from a professional and objective standpoint. It provides recommendations on performance assessment, compensation policies, systems, standards, and structures, submitting relevant decisions to the Board of Directors for review. Committee meetings are to be held at least twice a year and ad hoc meetings may be held at any time as needed. During 2024, the Committee held a total of four meetings with an attendance rate of 100%.</p>	<p>Established in 2012</p> <p>Composed entirely of independent directors, the Committee’ s primary purpose is to strengthen the internal supervision mechanism of corporate governance and enhance the Company’ s operational efficiency. The Audit Committee is responsible for managing the Company’s financial operations and regulatory compliance, establishing internal controls and key financial transaction processing procedures. It ensures that the interests of the directors do not influence company decisions, reviews material transactions, appoints (removes) CPAs, and oversees the accuracy and compliance of financial statements, handling other major matters designated by the Company or regulatory authorities. Committee meetings are to be held at least quarterly and ad hoc meetings may be held at any time as needed. During 2024, the Committee held a total of eight meetings with an attendance rate of 95%.</p>	<p>Established in 2023</p> <p>The Committee is composed of Chairman Jason Koo, independent director Chia Tze-Nan, and independent director Hsiao Yu-Chieh as members. The Committee is dedicated to improving the Company’s overall sustainability practices. Externally, it is responsible for reviewing the Sustainability Report, identifying sustainability issues of interest to stakeholders. Internally, it formulates the Company’s sustainability policies, key performance indicators for each functional group, goals, plans, and reviews performance implementation. In principle, the Committee shall convene every six months. It may be flexibly adjusted when necessary, but it shall be convened at least once a year. In 2024, the committee convened twice, with a 100% attendance rate.</p>

1.2.3 Internal Audit Unit

Composition of the Internal Audit Unit

CSRC’ s internal audit is an independent unit directly under the Board of Directors. In addition to reporting to the Board of Directors, it reports to the Chairman and to the Audit Committee quarterly or when necessary. The auditors are all full-time personnel, including one audit supervisor and one auditor. All are qualified as a Certified Internal Auditor. Appointment and removal of internal auditors is done according to relevant laws and regulations and approved by the Audit Committee and submitted for resolution of the Board of Directors.

The evaluation and salary remuneration of internal auditors are regularly evaluated in accordance with the Measures for Appointment, Removal, Evaluation, and Salary and Remuneration of Internal Auditors, the Performance Management Measures, and the Salary Measures approved by the Company’s Board of Directors on May 11, 2021. The Audit Supervisor shall sign and report to the Chairman of the Board for approval.

Main duties of the Internal Audit Unit

After the audit has undergone risk assessment, the priority of the audit targets and audit items is determined according to the level of risk, and the annual audit plan is formulated. After approval by the Board of Directors and the Audit Committee, then according to the provisions of Financial Supervisory Commission, it shall be submitted for inspection by Financial Supervisory Commission through the Internet information system before the end of December each year. The audit team shall implement internal audit operations according to the annual audit plan, compose internal audit

proposals, and submit audit reports. After the audit report is approved by the Chairman, the units being audited will be notified to improve within a set period of time. Improvement of abnormal matters specified in the internal audit shall be tracked and an internal audit tracking report will be prepared according to the improvement measures developed by the units being audited. After its approval by the Chairman, an "Annual Internal Audit Abnormality Improvement Report" will be prepared and disclosed in the Market Observation Post System before end of May every year and reported to Financial Supervisory Commission for future reference. For a summary of the relevant audit and tracking reports of 2024, please refer to the explanation under 1.5.2 Risk Identification and Early Warning Process.

The Audit Office is responsible for handling matters concerning the self-assessment of the Company’ s internal control system, reviewing the self-assessment report of the internal control system of each unit and subsidiary of the Company and assisting and supervising the implementation of the internal control system of each subsidiary.

The audit supervisor attends the entire Board of Directors and audit committee every quarter. They carry out the business report of the audit office, explaining the audit findings of each inspected unit and the follow-up improvement status. During meetings of the Audit Committee and the Board of Directors, independent directors may provide comments on the content of the audit report, and it will be explained by the audit supervisor. For the approval of the annual audit plan, when the audit office drafts the annual audit plan it will also check the audit key points after the risk assessment. It will list the items to be audited each month in detail, and make detailed explanation to the Audit Committee and the Board of Directors, and it shall be approved by the Audit Committee and the Board of Directors. It is expected that the internal audit operations will meet the needs of corporate governance. In addition to meetings for communication, audit supervisors, accountants and independent directors also directly contact and communicate with each other as needed at any time, maintaining a good interactive relationship.

1.2.4 Investor Communication

In the Corporate Social Responsibility Best Practice Principles, CSRC clearly stipulates that when performing corporate social responsibilities, it should respect social ethics and pay attention to the rights and interests of other stakeholders. While pursuing sustainable operation and profitability, it also attaches importance to environmental, social and corporate governance factors and incorporates them into the Company's management and operation policies. In terms of shareholders' equity, it sets up a dedicated person in charge of investor relations. The spokesperson and investor relations officer accept shareholder suggestions and concerns and handle disputes. Relevant departments will accept suggestions and handle disputes according to the type of problem.

Creating the highest interests for shareholders is the goal of CSRC and all colleagues. In order to maintain good communication channels with investors and disclose information to shareholders, the Company's operations and financial conditions are reported to investors in addition to the regularly-convened annual shareholder meetings, investor conferences, and interim institutional investor meetings. We have established an "Investor Area" on the Company's official website, and use financial information, corporate governance, and shareholder columns to publish relevant financial statements, investor conference information, internal audits, Company regulations, dividend distributions over the years, important information announcements, and so on. We publish the information in the fastest way to provide it to investors for reference.

Shareholders' Meeting:



Investor conferences:



1.3 Ethical management GRI 2-23 、 2-24

1.3.1 Ethical Management Policy

CSRC adheres to the Company's business philosophy of "Modesty leads to harmony; honesty builds credibility" and clearly indicates its ethical management attitude on the Company's official website. In order to establish a corporate culture of ethical management and an optimal business operation model, there are regulations such as the Ethical Corporate Management Best Practice Principles and the Code of Ethical Conduct. The first point of CSRC's brand value is to stick to its promises, and practical rules are as follows:



To ensure sound management of integrity in business operations, CSRC's corporate governance unit is responsible for formulating and supervising the implementation of integrity management policies and preventive measures. They also report to the Board of Directors regularly (at least once a year). Reported items include:

- 1 | Assist in integrating ethics and moral values into the Company's business strategy, and cooperate with the legal system to formulate relevant anti-fraud measures to ensure ethical management.
- 2 | Regularly analyze and evaluate the risk of dishonesty within the business scope, and formulate plans to prevent dishonesty, defining the Procedures and Guidelines for Conduct as applied to work operations within each plan.
- 3 | Plan internal organization, staffing structure and responsibility, and place mutual supervision and checks and balances on business activities with high risks of dishonesty in the business scope.
- 4 | Promotion and coordination of ethical policy advocacy training.
- 5 | Plan the reporting system to ensure the effectiveness of the implementation.
- 6 | Assist the Board of Directors and management to check and evaluate whether the preventive measures established by the implementation of integrity management are operating effectively, and regularly evaluate and follow the relevant business processes and make reports.

In order to make sure that employees, managers, and directors know and follow the Ethical Corporate Management Best Practice Principles, CSRC regularly conducts advocacy and training courses and incorporates them into the internal control system every year. CSRC always pays attention to the development of domestic and foreign standards for ethical management, revising the content from time to time according to the internal and external situation and developments. At the same time, it also encourages directors, managers, and employees to make suggestions while reviewing and improving the Company's Ethical Corporate Management Best Practice Principles so as to enhance the effectiveness of the Company's ethical management. CSRC's Ethical Corporate Management Best Practice Principles and Code of Ethical Conduct are as follows:

Ethical Corporate Management Best Practice Principles		Code of Ethical Conduct	
Directors, managers, employees, or persons with substantial control capabilities are subject to prohibitions of engaging in the following acts:			
<ul style="list-style-type: none"> Prohibition of dishonest behavior Prohibition of bribery and acceptance of bribes Prohibition of providing illegal political contributions 	<ul style="list-style-type: none"> Prohibition of improper charitable donations or sponsorships Prohibition of unreasonable gifts, entertainment or other improper benefits Prohibition of infringement of intellectual property rights 	<ul style="list-style-type: none"> Prohibition of unfair competition Prohibition of discrimination Prohibition of insider trading 	<ul style="list-style-type: none"> Prevention of conflicts of interest Actions in one's own self-interest are not allowed Duty of confidentiality
			<ul style="list-style-type: none"> Implementation of fair trade Proper protection and use of Company assets Statutory compliance

CSRC takes the highest professional ethical standards as a self-requirement, abiding by discipline and zero tolerance for corruption, and does not allow any bribery, fraud, misuse of Company assets or sacrifice of Company interests in exchange for personal gain. In the future, we will continue to evaluate the revisions of regulations such as governance, product liability, and environmental protection, in order to make adjustments in advance to meet regulatory requirements. To strengthen compliance with the Company's Ethical Corporate Management Best Practice Principles, ensuring employees fully understand the Company's regulations regarding receiving hospitality, socializing, gifts, and other benefits, specific Procedures for Receiving Hospitality, Social Interaction, and Gifts as well as Gift Giving and Receiving Management Regulations have been established.

To strengthen our ethical corporate management policy and deepen ESG-related issues, CSRC has proposed a five-point strategy as the basis for future improvement.



The Company firmly believes that incorporating the above strategies into corporate management policies will not only reflect the practice of ethics, sustainability, and responsible business, but also gain the trust of stakeholders and create a better future together.

1.3.2 Policy Communication and Training GRI 205-2

CSRC regularly organizes education, training, and advocacy for directors, managers, employees, and substantial controllers (non-shareholders, but individuals who through investment relationships, agreements, or other arrangements effectively control company actions), making them fully understand the Company’s determination, policies, prevention plans, and the consequences of dishonest behavior violations. In 2024, the directors and employees of CSRC participated in training courses related to corporate governance and integrity, including: Latest ESG Sustainability Policies and Net-Zero Carbon Emissions Impact on Financial Reporting, Analyzing Financial Statements and Enhancing Business Performance from an Operational Audit Perspective, Case Studies on Breach of Trust and Non-Standard Business Transactions: Strategies for Professional Ethics and Fraud Prevention for Auditors, Understanding and Responding to IFRS Sustainability Disclosure Standards S1 and S2: Evolution, Key Concepts, and Objectives, Compilation of Latest Regulations on Annual Reports, Sustainability Information, Financial Reporting, and Internal Control Practices, and Internal Control Practices for New ESG Regulations in Annual Reports. Through external and internal training, these courses strengthened employees’ understanding and awareness of corporate governance, integrity, and ethical behavior regulations. The percentage of employees and board members who underwent anti-corruption communication and training reached 90% across all operational sites, with 100% participation in Greater China, ensuring all employees at these sites are aware of and adhere to CSRC’s core values of integrity. Regarding business partners, CSRC emphasizes reliable supply chain relationships. In Greater China, including the Linyuan Advanced Plant, Maanshan Plant, Anshan Plant, and Chongqing Plant, suppliers accounting for approximately 97% of total procurement value signed integrity commitment statements as required. These suppliers are also required to protect employee human rights and provide legal working conditions while upholding ethical business conduct, achieving a 100% signing rate in 2024.

Note: Contracts signed by CSRC with agents, suppliers, clients, or other business transaction partners include clauses requiring compliance with integrity policies, allowing CSRC to terminate or rescind contracts at any time if the counterparty engages in dishonest behavior.

Year	2024		2023		2022	
Region	Number of people who are aware of and understand the company's business ethics policies and procedures / Number of people who have received business ethics training	Proportion	Number of people who are aware of and understand the company's business ethics policies and procedures / Number of people who have received business ethics training	Proportion	Number of people who are aware of and understand the company's business ethics policies and procedures / Number of people who have received business ethics training	Proportion
Board of Directors	9	100%	7	100%	7	100%
Greater China ^(Note 2)						
Senior Supervisor	9	100%	7	100%	6	100%
Mid-level supervisor	43	100%	37	100%	37	100%
Basic level supervisor	51	100%	68	100%	58	100%
Direct labor	525	100%	649	100%	678	100%
India						
Senior Supervisor	1	100%	1	100%	1	100%
Mid-level supervisor	27	100%	14	64%	11	61%
Basic level supervisor	103	100%	51	56%	22	42%
Direct labor	264	100%	105	43%	42	37%

Year	2024		2023		2022	
Region	Number of people who are aware of and understand the company's business ethics policies and procedures / Number of people who have received business ethics training	Proportion	Number of people who are aware of and understand the company's business ethics policies and procedures / Number of people who have received business ethics training	Proportion	Number of people who are aware of and understand the company's business ethics policies and procedures / Number of people who have received business ethics training	Proportion
USA						
Senior Supervisor	2	100%	2	100%	2	100%
Mid-level supervisor	5	100%	6	100%	8	100%
Basic level supervisor	47	100%	47	100%	52	100%
Direct labor	136	77.7%	123	71.6%	148	74.8%
Total						
Greater China	628	100%	761	100%	779	100%
India	395	100%	171	48%	76	41%
USA	179	78%	178	79%	210	81%
Group	1202	90%	1110	82%	1065	87%

Note 1: Business ethics covers anti-corruption, anti-bribery, money laundering, fraud prevention, etc.
Note 2: Greater China data for 2024 and 2022 do not include Chongqing.
Note 3: Due to slight differences in personnel calculation definitions between 2024 and previous years, the data disclosed in this table has been adjusted.

1.3.3 Anti-Corruption Risk Assessment and Results

GRI 205-1 、205-3 、206-1

CSRC has established a risk assessment mechanism for dishonest conduct in accordance with the Ethical Corporate Management Best Practice Principles. It regularly analyzes and evaluates business activities with a high risk of dishonesty in the business scope and establishes an effective accounting system and internal control system. No off-the-books accounts or secret accounts shall be kept and reviews should be undertaken at any time to ensure that the design and implementation of the system continues to be effective.

The internal audit unit formulates relevant audit plans based on the results of assessments regarding the risk of unethical behavior. These plans include the audit targets, scope, items, and frequency, and are used to examine the implementation and compliance of prevention measures. For example, the Audit Office conducts annual assessments of corruption event types and frequencies based on the scale of each plant, emergency incidents, and project progress (e.g., new construction, expansion, major overhauls, or other special projects), and accordingly develops an annual audit plan. When necessary, external accountants may be engaged to assist. The results of these audits must be reported to senior management and compiled into an audit report submitted to the Board of Directors at least once a year. In addition to routine annual audit tasks, the Audit Office specifically analyzes red flags indicating potential corruption events (such as incomplete approval procedures in procurement cases, lack of authorization by responsible supervisors, or unreasonable designation of suppliers). CSRC conducts annual assessments of corruption-related risks, sending self-assessment forms to each plant, which include questions related to integrity risks. The Audit Office uses the scoring results to carry out the annual audit work. According to the 2024 risk assessment, there were no significant corruption risks, no major fraud, corruption, or violations of ethical business conduct, and no involvement in anti-competitive behavior or lawsuits related to antitrust and monopoly laws within the group.

In 2024, **100%** of CSRC's global operating sites completed corruption-related risk assessments, which were incorporated into the annual audit plan based on their scores. No major anomalies were identified.

Over the past three years, there have been **zero** complaints or confirmed cases of violations of business ethics procedures in all regions where CSRC operates.

Furthermore, to avoid engaging in unfair competition with peers, CSRC holds monthly Production, Sales, and Pricing Committee meetings to discuss reasonable pricing and supply volumes. Feedback is also shared during the annual carbon black industry conference to prevent vicious competition among peers. Participants include senior executives such as the Chairman, President, Chief Strategy Officer, Chief Financial Officer, and representatives from management, sales, procurement, and manufacturing departments. Discussion topics cover raw material supply and demand, customer needs, production and inventory balance, and pricing strategies, which are adjusted based on raw material costs, market demand, and competitor pricing.

1.3.4 Reporting System and Channels GRI 2-26

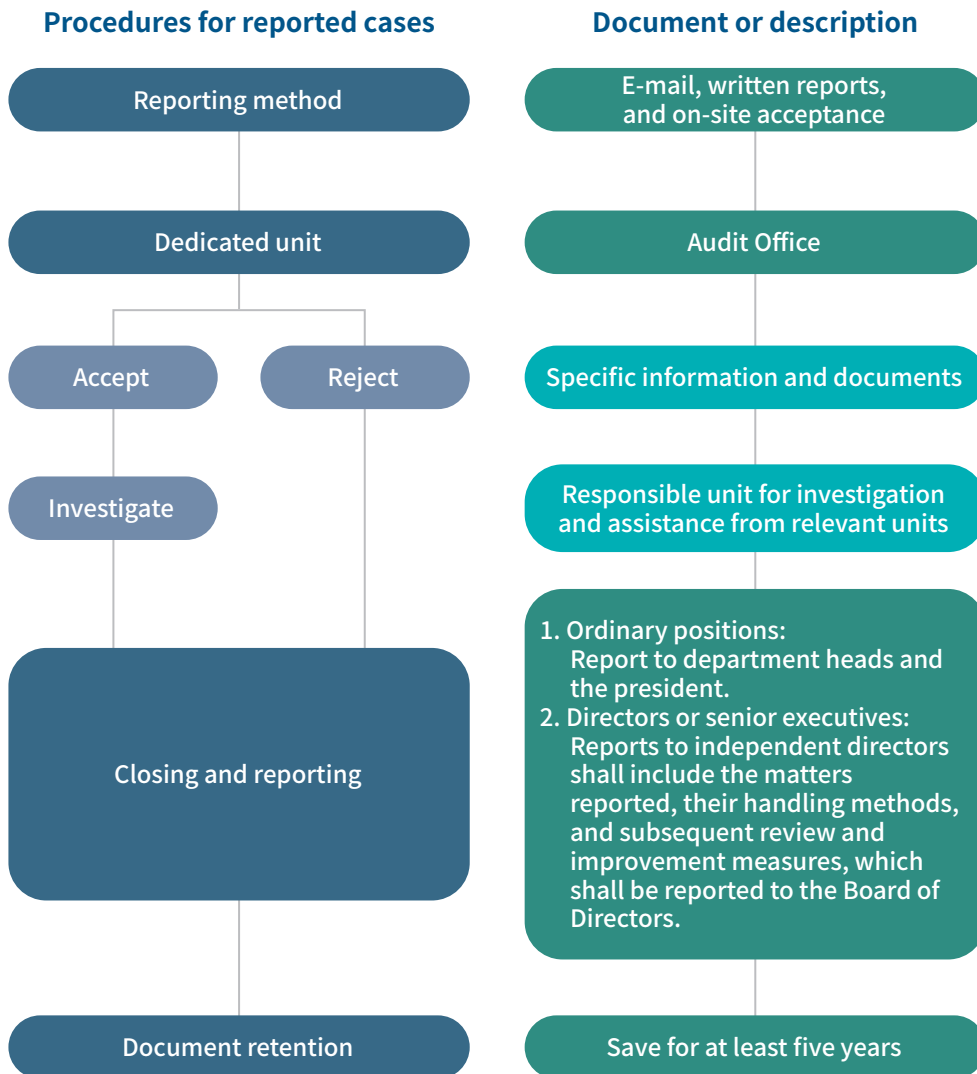
In order to establish an honest and transparent corporate culture and promote sound management, CSRC has a Reporting System for Violations of Professional Ethics. This includes instructions on reporting channels and processing procedures, ensuring the legal rights and interests of informants and related persons. For any internal or external stakeholders of CSRC, if they find anything that may endanger the reputation and the safety of the property of CSRC, or any corruption, theft, embezzlement, private practice, fraud, anti-competitive or other unethical and dishonest behavior, then reports and complaints can be made through the following reporting channels of CSRC:

- 1 | **Email reporting:** mp.buster@csrcgroup.com
- 2 | **Written reports:** Audit Office, International CSRC Investment Holdings Co., Ltd., 8F., No. 113, Section 2, Zhongshan North Road, Zhongshan District, Taipei City
- 3 | **On-site reporting department:** The receiving department is the Audit Office of CSRC

The whistleblower can make a named report or an anonymous report, and can provide relevant specific information and documents. If the report is named, the reporter should provide their name and contact information. If the relevant information and documents are not complete, it will not be accepted.

CSRC has integrated the value of ethical management and ethical behavior into the Company' s business strategy, and cooperates with laws and regulations to establish relevant anti-fraud measures to ensure honest operation and ethical behavior. Through the Reporting System for Violations of Professional Ethics, we ensure that the opinions of internal and external stakeholders can be communicated through unobstructed channels. (The scope of application of this approach includes subsidiaries of CSRC, foundations where direct or indirect donations cumulatively exceed fifty percent, and other group enterprises and organizations with substantial control capabilities.) The dedicated unit is the Audit Office. When necessary, it will cooperate with Regulatory Compliance or other relevant departments to ascertain relevant facts.

For reported cases that are accepted, the identity of the informant, the content of the investigation, the investigation process and the investigation results are all properly kept and access rights are restricted. At the same time, it promises to protect the informant from being improperly dealt with due to the report. If the report is verified to be true, relevant units of CSRC will be instructed to review the internal control system and operating procedures, propose improvement measures and report to the Board of Directors to prevent the same incident from happening again. In addition, we also encourage internal and external personnel to report dishonest behavior or misconduct, and bonuses will be awarded according to the circumstances of the report.



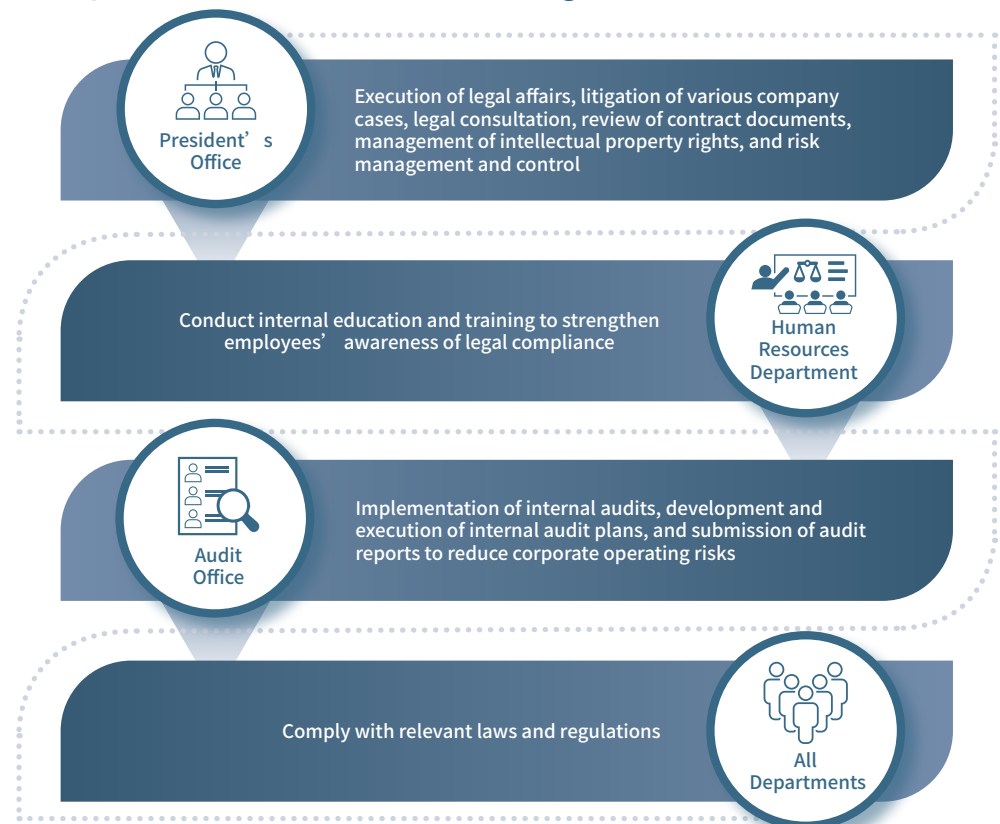
Statistics show that in 2024, no incidents of ethical management violations were reported through the aforementioned reporting system at CSRC Group. There were also no incidents of employees being dismissed or disciplinary actions being taken due to corruption, nor of business partners being terminated or not renewed due to corrupt violations; and there were no legal cases related to corruption among the Company or its employees.

1.4 Statutory Compliance SASB RT-CH-530a.1

1.4.1 Identification and Collection of Laws and Regulations


“Honesty and Integrity” constitutes the core value of CSRC. We value regulatory compliance and strictly abide by local government laws and regulations in order to achieve sustainable operations while also taking responsibility for employees, shareholders, and the overall supply chain. The Company’s operations are based on the concepts of honesty, fairness, and transparency and with zero violations as the management goal. Each unit within CSRC regularly confirms the trends of relevant laws and regulations according to their responsibilities. This is done through regular identification of laws and regulations, collection of internal and external issues, and reporting and implementation of improvement measures against operational risks to ensure that CSRC complies with various laws and regulations in order to avoid the risk of violations.

Compliance related units and management




Regulation identification results

In the future, CSRC will continue to evaluate the revisions of regulations such as governance, environment, product liability, and labor human rights, in order to make adjustments in advance to meet regulatory requirements.




Governance

- Enhance the functions of the Board of Directors and functional committees
- Internal control and internal audit system
- Operational risk control and response
- Information disclosure and transparency
- Corporate Social Responsibility Best Practice Principles
- Corporate Governance 4.0 - Sustainable Development Action Plan for Listed Companies
- Green Finance 3.0




Environment

- Sustainable development roadmap for listed companies
- Taiwan's 2050 Net Zero Emissions Path and Strategy
- Wastewater and waste management
- ISO 14001, ISO 14064, ISO 14064-1, ISO 50001 and CNS 45001 system verification



Products

- IATF 16949 and ISO 9001 system verification
- Product quality control
- Product safety labels



Labor Rights

- Establish human rights policies with reference to international human rights initiatives
- Laws and regulations related to remuneration and labor conditions
- Maintenance of labor-capital relations
- Laws and regulations related to occupational safety and health
- Hazardous Chemical Management
- Emergency management
- Fire safety training
- Occupational safety and health training for employees and contractors
- Build a healthy and friendly workplace

1.4.2 Compliance Training and Advocacy of Laws and Regulations

CSRC regularly conducts relevant education and advocacy training for directors, managers, employees, and actual controllers. In 2024, based on different roles and responsibilities, various ethical corporate management and sustainable development-focused training sessions were provided. This was done to ensure a comprehensive understanding of the violations of ethical principles and to formulate better business strategies in response to sustainability trends. Managers, the Corporate Sustainability Committee, and the management team focused on sustainable operations and audit practices to create an operating environment conducive to sustainable corporate development. Accumulated training involved 22 individuals, totaling 229 hours. Details of relevant training records are as follows:

Course Topic	Participants
Insider Trading Education and Training Course	▶▶▶ President, first-level supervisor
ISO 14064-2:2019 Training	▶▶▶ Safety and Environment Office colleagues
Towards a Zero-Carbon Sustainable Era	▶▶▶ Sales Department colleagues
Carbon Footprint Verifier & Carbon Neutrality Training (ISO 14067 & ISO 14068-1)	▶▶▶ Safety and Environment Office colleagues
Navigating the First Year of IFRS Sustainability Disclosure Standards – Analysis & Corporate Strategies	▶▶▶ Finance & Accounting colleagues
ESG Reporting in Annual Reports – New Regulations & Internal Control Practices	▶▶▶ Finance & Accounting colleagues
New Internal Auditor Training Program	▶▶▶ Audit Office colleagues
Energy Conservation Seminar for the Petrochemical Industry	▶▶▶ Technical Department colleagues
ISO 14064-1 Greenhouse Gas Lead Verifier Training	▶▶▶ Safety and Environment Office colleagues
Case Studies on Breach of Trust & Transactions Not in Accordance with Business Practices – Ethics & Fraud Prevention Strategies for Auditors	▶▶▶ Audit Office colleagues
Operational Auditing: Financial Report Analysis & Performance Improvement	▶▶▶ Audit Office colleagues
Civil, Criminal & Administrative Liability in Occupational Accidents – Case Studies	▶▶▶ Supervisors, Engineering colleagues
Business Ethics Awareness Training	▶▶▶ All colleagues
Latest Regulations on Annual Reports, Sustainability Disclosures & Financial Reporting – Internal Control Practices	▶▶▶ Finance & Accounting colleagues

Note: Directors' training can refer to 1.2.1 Board of Directors Training.

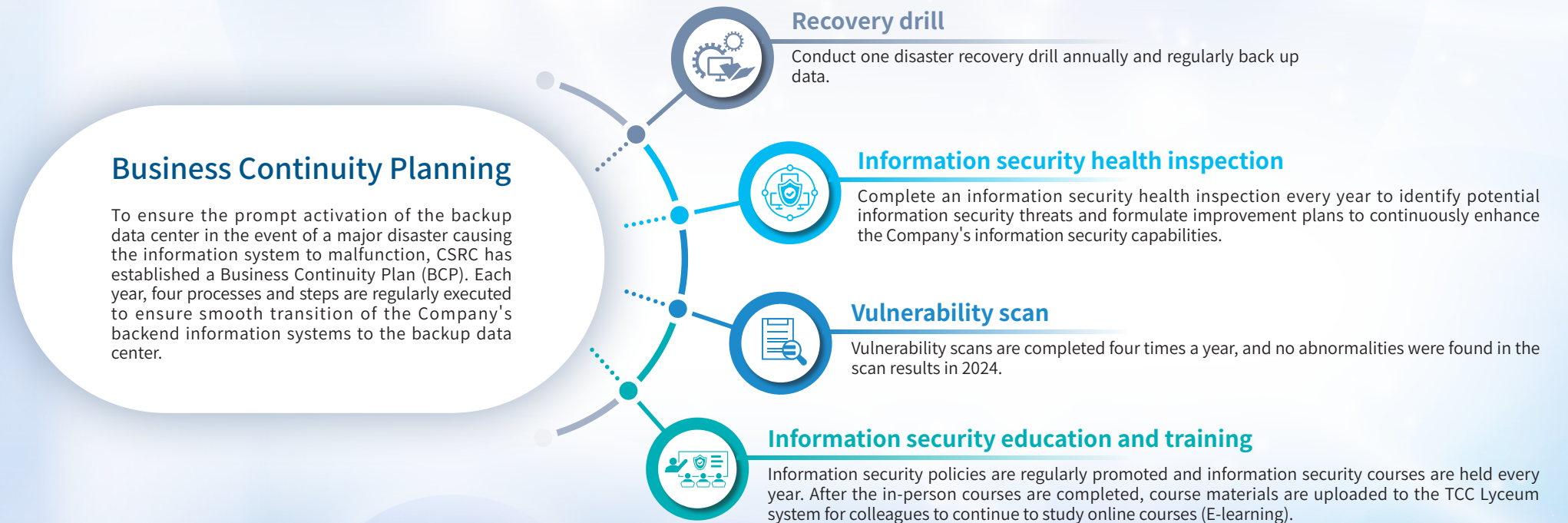
1.4.3 Statutory Compliance and Improvements GRI 2-27 ; SASB RT-CH-140a.2

In 2024, CSRC Group had no major violations of environmental, labor human rights and occupational health and safety (with fines exceeding NT\$500,000). In 2024, there were a total of three non-major violations of laws and regulations, with a total fine of NT\$355,610, with two major regulatory violations sanctioned that did not result in monetary sanctions.

1.5 Risk Management and Information Security

1.5.1 Risk Management Policy

Each department of CSRC assesses various operational risk factors and plans relevant management and control tasks. Internal auditors list high-risk operations as an annual audit plan and they create audit reports from the audit results. They regularly submit reports to the Audit Committee for review and attend the Board of Directors in a nonvoting capacity. In addition, each department conducts self-assessment of the internal control system every year to ensure the effectiveness of system design and implementation. In the future, a dedicated unit shall be established for risk management; more in-depth discussions shall be conducted on the Company’ s risk management priorities, risk assessment, and response measures; and reports shall be made to the Board of Directors on operational risks and management strategies.



1.5.2 Risk Identification and Early Warning Process

Risk management is an important key to business operations. CSRC enhances decision-making effectiveness and increases corporate value by identifying, managing, measuring, and analyzing the short-, medium-, and long-term impacts of internal and external risk factors. In order to continuously improve the risk management mechanism, we control finance, sales, procurement, and engineering for related internal control issues. Recently, we have focused on the risk management of climate change risks and work safety, and formulated corresponding response strategies and plans. Through the risk early warning system, risk items are regularly tracked and countermeasures are proposed in advance. The system automatically generates warnings about abnormalities, reducing associated labor and avoiding omissions. The validity of the risk identification and early warning process is confirmed through regular audits by the Audit Office. The audit supervisor of the Audit Office regularly explains to the Board of Directors the key points of risk management, evaluates and plans corresponding measures, and reports operations-related risks and management strategies.



Internal Audit Scope

In 2024, CSRC's internal audit unit executed and completed 25 audit reports and six follow-up reports in accordance with the annual audit plan, proposing a total of 12 internal control recommendations. Areas covered included procurement, acceptance, production management, real estate plant and equipment management, inventory management, sales and receipts, safety and health, and seal management, all tracked and improved in accordance with regulations.

1.5.3 CSRC Risks and Responses

GRI 418-1 ; SASB RT-CH-530a.1

The challenges and responses to various risks of CSRC at this stage are explained as follows:

Risk management and opportunities for climate change

Following the Paris Agreement, climate change response has become an issue that governments and companies must face actively. Domestic and international greenhouse gas emission regulations are becoming stricter, and natural disasters brought about by extreme climates have a direct impact on the operating premises and will all affect the Company's finances. In response, we have identified risks and opportunities through project meetings based on the TCFD framework (Task Force on Climate-related Financial Disclosures) and set relevant targets to gradually mitigate climate change. In June 2021, we publicly supported the international TCFD initiative and completed the signing of the TCFD. For detailed information on the management of climate-related risks and opportunities, please refer to section 4.1 Response to Climate Change.

Information Security Risk Management

CSRC complies with personal data protection laws and regulations, ensuring that the collection, processing, and use of personal data are in accordance with legal requirements, and safeguarding the rights and interests of personal data. All relevant data of stakeholders, including customers and employees, are properly recorded and managed. Additionally, the concept of confidentiality of stakeholder information is regularly promoted to all relevant colleagues. For website data collection, CSRC has established a privacy policy, using the collected data solely for business-related services. The information is protected by comprehensive information security measures to prevent alteration, deletion, theft, leakage, or unauthorized access. The company has set up a chief information security officer and 3 dedicated information security members on November 9, 2023, a total of 4 people. The information security support team has a total of 30 people, mainly composed of the corporate group- TCC Information Systems Corp. (hereinafter referred to as TCCI) which is responsible for the design of the overall information security architecture, information security maintenance and monitoring, and response and investigation of internal and external information security incidents. The Company's information retention schedule is established based on relevant regulations and requirements, with regular assessments of information security risks to ensure the effectiveness of data protection measures. Additionally, for information security issues, a clear reporting channel is provided to stakeholders (Group Information Security Reporting and Complaint Mechanism Email: service@tcci.com.tw) to promptly identify and address potential risks.

In 2020, the Company established and implemented an information security management system in accordance with the international standard ISO/IEC 27001:2013, adopting the PDCA (Plan-Do-Check-Act) cycle operational model. The information security policy is approved by the highest information security unit of the enterprise group, and by the end of 2020, the Company obtained ISO 27001 certification, valid until January 5, 2024. In December 2023, and then successfully completed the transition to ISO/IEC 27001:2022 version certification. Currently, the certificate is valid from January 5, 2024, to January 4, 2027. A cross-departmental Information Security

Management Committee is convened by the President, meeting annually to review the effectiveness of information security planning and implementation and significant information security decisions, while coordinating the allocation of necessary resources for information security. An Information Security Management Task Force has been established under the Information Security Management Committee. It is primarily responsible for planning, establishing, implementing, maintaining, reviewing, and continuously improving information security management systems, and reporting information security issues to the Information Security Management Committee. The Information Security Management Task Force holds regular meetings to review the implementation status, and reports the implementation status and review to the Board of Directors on a regular basis every year.

The Company also engages external consulting firms to assist in conducting information security audits to assess the effectiveness of the Company's information security management system. Additionally, external technical firms are commissioned to conduct information security technical tests to inspect the security protection of information systems and websites.

Proportion of factories covered by CSRC's IT service provider - TCCI certified by ISO/IEC 27001



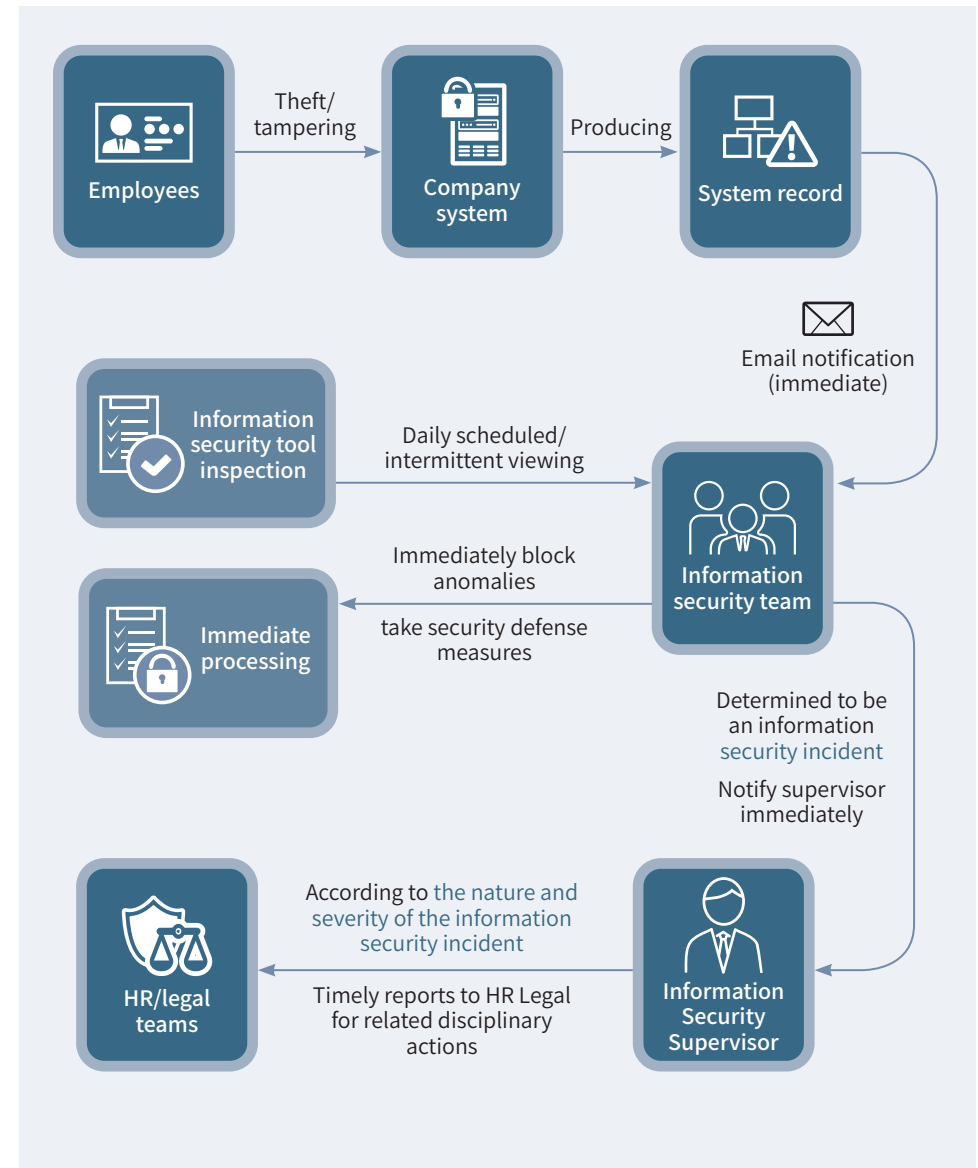
ISO/IEC 27001:2022 transition certificate

Verification standards
ISO/IEC 27001: 2022
Valid until January 4, 2027

Covered plant areas
Greater China:
Linyuan Advanced Plant, Maanshan Plant, Anshan Plant, Chongqing Plant
India:
CCET plant, CCIPL plant

Coverage 75%

IRP Information Security Incident Response Plan Flowchart



Information security control and protection mechanisms

Item	Description
Information security organization	<ul style="list-style-type: none"> The Information Security unit was established in 2022. As of 2024, there are a total of 5 dedicated information security personnel and 30 information security support staff. As of December 2024, a total of 44 information security weekly meetings, eight monthly meetings, four quarterly meetings, two board meetings and two committee meetings have been held, actively discussed information security tool applications, current implementation status of security measures, and future development plans.
Information security awareness	2024 processing: <ul style="list-style-type: none"> Three sessions of information security awareness training were conducted, accumulating approximately 2,612 attendees and about 1,846 hours of training. Four social engineering drills were conducted, with an overall non-compliance rate of 3%.
Network security	<ul style="list-style-type: none"> Core network equipment (such as firewalls, switches, routers, etc.) are all built with high availability (HA) architecture, with firewall rules checked every six months. Router traffic, load, and settings for external service websites are all protected by application firewalls (WAF). Distribute web traffic through filtering and analysis using Akamai to prevent Distributed Denial of Service (DDoS) attacks that could lead to website outages. Use Layer 7 (L7) web behavior monitoring systems to manage employees' internet usage and prevent access to malicious websites. VPN connections require two-factor authentication (MOTP) and permissions are reviewed every three months for suitability.
Asset management	<ul style="list-style-type: none"> Asset inventory software was introduced in 2022 to confirm the current status of assets to prevent infringement. The Company launches an asset inventory for all employees in December every year to ensure asset status.
Access security	<ul style="list-style-type: none"> The password policy is that the user account password must be at least 8 digits long and must be complex. It shall be locked after 3 incorrect inputs, passwords must be changed within 90 days, and they must not be repeated 4 times. System permissions for core business systems are audited regularly, following the Need-to-Use principle for appropriate permissions, and high privilege accounts are securely managed through Privileged Access Management (PAM). The core systems require access through a jump server, which must be bound to the company's internal network.
Physical security	<ul style="list-style-type: none"> Sensitive areas (such as data centers) use two-factor authentication for entry and exit. (RFID card swiping with face recognition) Specific business units issue secure mobile phones to ensure that sensitive information will not be copied or leaked.
Data leakage protection	<ul style="list-style-type: none"> External transmission channels for files are strictly controlled, including portable devices (such as USB drives), cloud drives, instant messaging (IM) apps, file transfer protocols (FTP), and email mechanisms. Encryption systems are optimized for sensitive files to protect core business data and prevent hackers from stealing trade secrets that could impact corporate operations.
System security	<ul style="list-style-type: none"> System patches are regularly updated and anti-virus codes are updated daily. Perform system backup jobs regularly.
Incident detection	<ul style="list-style-type: none"> Abnormal connection behaviors are monitored 24/7 through malicious connection detection mechanisms, promptly notifying system owners and information security personnel upon event occurrence, assessing security levels, and reporting to corresponding management levels. Core business systems and equipment are equipped with a real-time monitoring and alert mechanism (Paessler Router Traffic Grapher, PRTG). In case of abnormal conditions, system administrators can be promptly notified for urgent handling.
Business continuity	<ul style="list-style-type: none"> Annual core system disaster recovery (DR) drills are conducted to switch core systems to alternate data centers and ensure normal system operation.

Implementation performance of information security management

In 2024, none of the plants of CSRC received any complaints about customer privacy violations, information leakage, theft, or loss of customer information.

The number of information security reports and complaints in each region of CSRC in the past three years

Greater China

2022	2023	2024
0	0	0

India

2022	2023	2024
0	0	0

USA

2022	2023	2024
0	0	0

Group

2022	2023	2024
0	0	0

About This Report	Governance	Product		Environment		Social			Value Chain	Appendix
ch1	ch2	ch3	ch4	ch5	ch6	ch7	ch8	ch9		
About This Report	Corporate Governance	Product R&D and Innovation	Circular Economy	Climate Change Response	Water Resources and Waste Management	Employees	Occupational Health and Safety	Local Communities	Sustainable Supply Chain Management	Appendix

Training Programs on Protecting Personal Data, Preventing Data Leaks, and Maintaining Corporate Information Security

Training Program	Description	Total Participants	Target Audience	Training Hours
2024 Information Security Awareness Training	► Recent information Security threat trends and incident case studies ► Strengthening information security awareness ► Corporate information security policy promotion and compliance requirements	2,612	All Colleagues	1,846
Information Security Management System (ISMS) Certification Training	► Information security certification standards ► Compliance requirements for information security management systems	55	IT-related Colleagues	165

Measures in Response to New Sustainability Information Management Regulations :

In response to the amended regulations finalized by the Financial Supervisory Commission (hereinafter referred to as the "FSC") on April 22, 2024, our company has proactively complied with Taiwan's initiatives to enhance the disclosure of sustainability information in annual reports and the preparation of sustainability reports for listed and over-the-counter companies. As mandated by the FSC, listed companies are required to incorporate "Sustainability Information Management" into their internal control systems and designate it as an annual mandatory audit item. To ensure compliance with regulatory requirements while addressing operational needs, our company has established the "Sustainability Information Management Procedures." These procedures were formally approved during the Corporate Sustainability Development Committee meeting and the Board of Directors meeting on December 23, 2024, thereby strengthening the framework for sustainability information management and elevating information transparency and corporate governance standards.

Other risk items

Under the existing management measures, there have been no significant abnormalities in the various risks associated with CSRC in 2024.

Risk	Challenges	Management measure
Risk Management of Unethical Behavior	The scope of dishonest behavior risk management includes: Dishonest behavior such as offering and accepting bribes, providing illegal political contributions, improper charitable donations or sponsorships, unreasonable gifts, entertainment or other improper benefits, infringement of intellectual property rights, and prevention of products or services in a way that is damaging to stakeholders.	In order to prevent occurrences of unethical behavior, a whistleblower system has been established in the form of a "Reporting System of Violations of Professional Ethics." Furthermore, we work regularly through internal control operations, routine audits and so on to reduce the risk of various types of unethical behavior.
Financial Risk Management	The scope of capital risk management includes: Significant capital expenditures are evaluated cautiously and prudently to further enhance the possibility of benefit realization and to set countermeasures for possible derivative risks in advance, so as to reduce and avoid risks that have negative impacts. The financial instruments used by CSRC include equity investments, beneficiary securities investments, accounts receivable, accounts payable, borrowing, and so on, which are prone to exchange rate fluctuations and inflation risks. The exchange rate is mainly affected by fluctuations in the US dollar and RMB market, and since the price of crude oil is linked to the prices of all bulk materials, it will also affect the changes in the cost of raw materials. The extent of the impact on profit and loss depends on the supply and demand of each product market.	1. The financial management department conducts overall planning and coordination of the operation of domestic and foreign financial markets. It monitors and manages related financial risks through internal risk reports of risk level and scope analysis. In addition, a business management analysis department is set up to watch closely the changes in the prices of major raw materials and status of supply and demand, and review the purchasing status of the procurement plan regularly. 2. CSRC also takes out related insurance policies to avoid operational risks such as fire insurance, business interruption insurance, earthquake insurance, typhoon and flood insurance, third-party liability insurance, directors and executive managers liability insurance, etc. to reduce the loss caused by loss from disaster.
Capital Risk Management	The scope of financial risk management includes equity investments, beneficiary securities investments, accounts receivable, accounts payable, and loans, which are prone to risks such as exchange rate fluctuations and inflation.	For customers with accounts receivable, the customer's credit status shall be reviewed and the rating shall be provided regularly, as the basis to approve the line of credit, execute sales to the customer on credit, and control accounts receivable, and the anticipated accounts receivable shall be reviewed every month to achieve the objective of zero bad debts for the year.
Risk Management of Purchases and Sales	Purchase risks include: 1.Unexpected risks caused by occurrences in nature, economic policies, price changes and other factors in the procurement of raw materials. 2.The shortage of suppliers with effective sources may increase the risk of supplier chain disconnection. Sales risks include: 1.The continuous increase in accounts receivable can easily lead to excessively high corporate debt-to-asset ratios. 2.Barter is used to offset accounts with one another, and costs have risen and effectiveness has fallen.	We have established Sales Customer Credit Management Measures and Supplier Evaluation Tasks to regularly evaluate customers and suppliers, evaluate related risk items, and use the SAP system for management and control.

1.6 Operating performance

GRI 2-6

1.6.1 Operational results GRI 201-1 、201-4

CSRC’ s core business group is Carbon Black. In 2024, CSRC recorded consolidated revenue of approximately NT\$18.06 billion, with earnings per share (EPS) of negative NT\$2.80. The Carbon Black business contributed NT\$17.78 billion in revenue, accounting for 98% of the full-year total. Geographically, sales were concentrated in the Americas and Asia, representing 35% and 62% of total sales, respectively.

In 2024, geopolitical risks continued to escalate. Under a high-interest-rate environment, global economic performance diverged across regions. In CSRC’ s key operating markets, Taiwan remained relatively stable. However, U.S. consumer demand for cars remained weak due to inflationary pressures; India faced competition from low-priced imports; and in mainland China, an oversupply of Carbon Black intensified market competition. Furthermore, increasing imports of Carbon Black from Russia further exacerbated the supply-demand imbalance, putting additional pressure on the Carbon Black business.

Looking ahead, CSRC has streamlined its operations in mainland China, with each plant focusing on standardized production of niche, high-value products. The company continues to integrate group-wide technologies to secure competitively advantaged feedstock. On the product side, CSRC is expanding into export markets and non-tire applications. On the business side, efforts are focused on engaging and expanding first-tier customer relationships to seize growth opportunities.

In response to international automakers and tire manufacturers setting targets for sustainable material usage, CSRC, as a tire raw material supplier, has developed corresponding strategies and actions. These include the development of high-durability (high-wear resistance) and low rolling resistance tire formula; production of Eco-circular Carbon Black; partnerships for recycled pyrolysis oil; development of bio-based Carbon Black; and other advanced carbon materials. CSRC is also co-developing a circular supply chain with waste tire pyrolysis partners to promote recycled feedstock reuse and actively build a green, sustainable enterprise.

CSRC is committed to staying ahead of environmental regulations by strengthening its pollution control systems and ensuring compliance with local environmental standards. Despite tightening regulations in various countries, CSRC has continued its operations and production, sustaining growth. Guided by the principles of “results-oriented,” “precise,” “simple,” and “accurate” operations, CSRC will continue to promote R&D projects aimed at developing energy-saving equipment and methods, reducing emissions, and improving resource efficiency—creating positive growth momentum and striving to maximize value for its shareholders.

Sales by business group over the years

Unit: NTD million

	Carbon black	Biotechnology ^(Note)	Others
2024	17,779	-	281
2023	17,416	225	234
2022	21,724	1,333	311

Note: The biotechnology royalty patent rights expired in Q1 2023, consequently no revenue was recognized in 2024. For detailed explanations, please refer to pages 120-121 of the 2024 Annual Shareholders’ Meeting Report. Regarding the financial performance of the biotechnology segment, please see Note 40 (Segment Information) on page 76 of Chapter 9 in the 2024 Consolidated Financial Statements.

Sales by region over the years

Unit: NTD million

	Americas	Asia	Others
2024	6,398	11,116	547
2023	7,126	9,842	907
2022	11,044	11,294	1,030

Direct economic value generated and distributed by CSRC

Unit: NTD million

		2022	2023	2024
Production of direct economic value	Revenue	23,368	17,875	18,060
	Operating costs	20,042	16,221	17,235
Distribution of direct economic value	Employee remuneration and benefits	1,586	1,503	1,399
	Payments to investors	692	788	842
	Payments to the government	176	135	180
	Community investment	1	-	-
Retained economic value		871	(772)	(1,596)

Government financial subsidies

Unit: NTD

Region	Greater China		Total
	Taiwan	China	
Tax deduction	11,000	572,526	583,526
Subsidy	6,121,114	10,845,034	16,966,148
R&D subsidies	-	-	-
Financial rewards	-	3,539,185	3,539,185
Total subsidy amount	6,132,114	14,956,745	21,088,859

Note: No government financial subsidies were received from India and the United States in 2024.

1.6.2 Tax Policy GRI 207-1、207-2、207-3

CSRC is committed to information transparency and regulatory compliance in its tax policy and risk management. It formulates relevant tax policies in response to international trends in tax governance, effectively controlling tax risks and implementing sustainable corporate development to enhance shareholder value. The Board of Directors serves as the highest decision-making and oversight body for tax governance. Major transactions undergo appropriate assessments to facilitate management and control of tax risks. Regular reviews of the tax status of Group companies include examining the overall investment structure, operational and transaction activities, functional roles and risk allocations, international tax law changes, and engaging external experts to assist in assessing Company risks, ensuring tax compliance, and addressing potential tax risks. CSRC proactively communicates and discusses with tax authorities regarding ambiguities in the application of tax laws. Upon receiving correspondence from tax authorities, the Company fully cooperates by providing requested information, aiming to establish a relationship of mutual respect with tax authorities and a mechanism for building trust and communication with stakeholders.

CSRC has operating locations all over the world. Therefore, following local tax laws is the highest principle. To support government measures to promote enterprise innovation, research and development, and economic growth, we perform our corporate citizenship responsibilities.

Five commitments

- Honest declarations** We follow the tax laws and regulations of various countries to declare and pay taxes honestly. We do not conduct transactions for tax avoidance purposes only; as is the duty of good taxpayers, we fully fulfill our social responsibilities.
- Mutual trust and communication** Based on mutual trust and information transparency, we establish a mutually respectful relationship with tax authorities.
- Due diligence** The Company's important decisions all consider the impact of taxation and carefully evaluate the operating environment while conducting tax risk management and control.
- Improving professionalism** We strengthen the professional quality and talent training of tax affairs. Facing changes in relevant tax laws and regulations, we can quickly formulate corresponding countermeasures.
- Information transparency** Financial reporting information is transparent, and tax disclosures are handled in compliance with relevant local regulations.

CSRC's tax situation in each country/region

Unit: NTD thousand

Region	Taiwan	China	India	United States	Total
Operating revenue	3,648,494	3,155,189	4,374,626	6,881,579	18,059,888
Proportion (%)	20%	17%	24%	38%	100%
Profit and loss before tax	(326,451)	(1,842,669)	(492,320)	194,116	(2,467,324)
Proportion (%)	13%	75%	20%	(8%)	100%
Income tax payable for the current year	125,977	0	0	135,866	261,843
Proportion (%)	48%	0%	0%	52%	100%
Income tax number of payments	125,977	0	0	135,866	261,843
Proportion (%)	48%	0%	0%	52%	100%

Income taxes

Unit: NTD thousand

Financial Disclosures	2022	2023	2024
Net profit before tax	1,472,526	(114,638)	(2,467,324)
Income tax expense	809,544	428,067	425,913
Income tax paid	87,458	472,264	261,843

Effective tax rate

Unit: %

Year	2022	2023	2024
Effective tax rate on book basis (%) ^{Note 1}	55%	(373%)	(17%)
Effective tax rate on cash basis (%) ^{Note 2}	6%	(412%)	(11%)

Note 1: Effective tax rate on book basis (%) = Income tax expense / Profit before tax

Note 2: Effective tax rate on cash basis (%) = Income tax paid / Profit before tax

Note 3: Tax-related information can be found in Note 27 of Chapter 9, "Income Taxes on Continuing Operations," on page 57 of the 2024 consolidated financial statements.

2024 Performance Highlights

PRODUCT



The group's research investment reached **NT\$188 million**.



In 2024, CSRC's cumulative number of patent applications reached **74**, with **62** patents successfully granted.



In 2024, CSRC continued to operate the **new circular economy model**.



In 2024, CSRC's post-modified product EREBOS series production volume increased by at least **4** times compared to 2023.



In 2024, Linyuan Advanced Plant in Greater China region passed **264** hazardous substance tests; the U.S. plant passed **102** tests; the CCET plant in India passed **240** SVHC and **30** RoHS tests, while the CCIPL plant passed **228** SVHC and **30** RoHS tests. The pass rate for all products reached **100%**.



In 2024, the Group's average customer satisfaction score reached **8.85**.



In 2024, the Group's green product revenue accounted for **36.2%**.



In 2024, by implementing a new circular economy model, the Group achieved an overall waste reuse rate of **78.9%**.



In 2024, CSRC used a total of **8,763 tons** of recycled waste to reproduce as raw materials for downstream building materials.

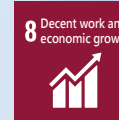


In 2024, the **Ponca and Sunray plants** in the United States obtained **ISCC PLUS** certification.

United Nations Sustainable Development Goals (SDGs)

- 2.1 Innovation and R&D **SDGs 7.3**、**SDGs 8.3**、**SDGs 9.5**
- 2.2 Green Products **SDGs 9.5**
- 2.3 Product Quality and Safety **SDGs 12.4**
- 2.4 Customer Relationship Management **SDGs 12.4**

- 3.1 Innovation and Circularity **SDGs 7.3**、**SDGs 8.3**、**SDGs 9.5**、**SDGs 12.2**、**SDGs 12.4**、**SDGs 12.5**
- 3.2 Practicing New Circular Economy Model **SDGs 7.3**、**SDGs 12.2**、**SDGs 12.5**





Management policies - Product and service innovation

Medium and Long-Term Targets (2026-2030)	Short-Term Targets (2025)	2024 performance
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Revenue contributions from green products	45 %	40 %	36.2%
Percentages of products containing Globally Harmonized System of Classification and Labeling of Chemicals (GHS) Category 1-2 substances hazardous to health and the environment	Maintain 0%; if there are new hazardous substances for such items, the quality indicators will be 100% in line with local regulations.	To maintain 0%	0 %

Impact description

Description of positive impact:

The sustainable development of an enterprise requires constant innovation and surpassing oneself. In order to maintain market competitiveness, we must continue to invest in research and development. Through the concept of product innovation and research and development, this forms the core competitiveness of growing together with customers for CSRC.

Description of negative impact:

A lack of innovation and R&D capabilities may result in development bottlenecks for the Company.

Policies and commitments

As a leader in the carbon black industry, CSRC's Carbon Black Business Group development plan uses "the most advanced processes and technologies" to innovatively produce and apply carbon black. We develop solutions and services that enhance the coexistence of civilization and nature, taking circular economy as the main axis of product innovation and R&D.

Action plan

Positive impact management

- In response to international customers' emphasis on environmental protection and carbon reduction, developing new grades of low-carbon and environmentally friendly carbon black products, assisting customers in making end products durable and meeting green requirements, and helping customers improve processing efficiency
- Introduction of ISO 9001:2015 quality management system
- Strengthen the development of new carbon materials and expand the diversity of applications

Negative impact management

- Improvement and adjustment of process equipment to enhance product quality and oil efficiency
- Improvement in the quality of carbon black, reduction of the defective rate, and increase in operating range of client processing
- Reduction in the number of carbon black impurities and improvement in carbon black coloring
- Introduction of an atomization system and conducting carbon black impurity analysis data
- Evaluate the raw oil pretreatment system and the new granulating binder to improve the process stability and product yield
- Evaluate and improve the reactor combustion mode to improve the efficiency of carbon black feedstock oil

Evaluation of effectiveness

- Must meet various environmentally friendly, low-carbon, and high-quality development specifications to meet customer needs
- Ensure the normal operation of the product quality management system and pass external audit evaluations
- Review the achievement of goal setting in internal operation meetings on a monthly and yearly basis and formulate a target plan for the following year
- Meet IATF 16949:2016 automotive industry quality management system requirements

Responsible units

Carbon Black Business Group: R&D Department, Quality Assurance Department, Production Department, EHS Department, EHS Office at each plant

Complaint mechanisms

The Company's website has a communication mailbox for stakeholders that can be used for complaints.

Email: csr@csrgroup.com



Management policies - Circular Economy

	Medium and Long-Term Targets (2026-2030)	Short-Term Targets (2025)	2024 performance
Waste recycling rate	86%	81%	77.5%
Wastewater recovery rate	An increase of 6% from 2023, reaching 95%	An increase of 1% from 2023, reaching 90%	80.3%

Impact description

Description of positive impact:

To achieve the goal of carbon neutrality, circular economy can help enterprises effectively reduce the consumption of energy and resources. It is one of the important development strategies at present. The current circular economy trend in the market will inevitably result in the scarcity of renewable resources. CSRC's key customers are seeking circular economy solutions. The CSRC Carbon Black Business Group is a model of circular economy practice, meeting market and customer demands.

Description of negative impact:

Failure to effectively implement a circular economy causes resource wastage and may also increase production costs for enterprises, failing to meet customer and regulatory trend requirements, resulting in lost orders and reputation.

Policies and commitments

CSRC uses residual materials such as tower bottom oil from petrochemical and steel industries as raw materials to produce carbon black and steam, adding new value; we further extend circular economy downstream in the value chain, using recycled carbon black and pyrolysis oil from waste tires to produce low-carbon emission carbon black, to meet the carbon reduction needs of major international tire manufacturers and brand customers, contributing to carbon reduction in the industry chain.

Action plan

Positive impact management:

- Incorporate recycled oil into carbon black production processes
- Diversified development of renewable oil sources
- Promote steam recovery and power generation, and collect excess steam as an energy source in the plant
- Promote water cycle management and collect wastewater from the manufacturing process and return it to the plant for reuse
- Recycling of the remaining waste in the process as raw materials for downstream building materials, etc.
- Implement waste removal and transportation controls in the plants
- Actively develop green and low-carbon products to meet market demand

Negative impact management:

- Continuously improve circular economy technology to adapt to policy changes

Evaluation of effectiveness

Review the achievement of goal setting in internal operation meetings on a monthly and yearly basis and formulate a target plan for the following year

Responsible units

Departments of the Group

Complaint mechanisms

The Company's website has a communication mailbox for stakeholders available for complaints.

E-mail: csrcir@csrcgroup.com

ch2 Product R&D and Innovation

2.1 Innovation and R&D

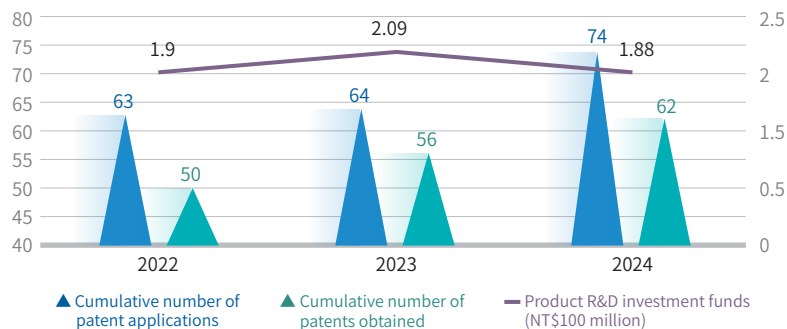
2.1.1 R&D Team and Results

The R&D team of CSRC is dedicated to grasping global trends. Through technical excellence and continuous improvement of equipment and manufacturing processes, we have repeatedly demonstrated outstanding performance with our customers internationally. We have eight carbon black production plants located in Greater China, India, and the United States, along with four R&D centers and one technology licensing factory. We are committed to developing a wider range of carbon black applications, researching various new carbon black products and end applications to become a world-class carbon black manufacturing and integrated service leader, continuously innovating to strengthen our positioning and competitive advantage. R&D expenses invested in 2024 by CSRC's Carbon Black Business Unit reached NT\$188 million; CSRC has accumulated a total of 62 patents.

A patent certification reward system has been established to encourage the employees of CSRC to actively innovate, implement research and development results, and improve product quality and functions. In 2024, 10 patent applications were submitted, 6 patents were granted, and 5 employees received bonuses.

Note: The cumulative number of patents includes patents in the biotechnology business.

Number of patents and R&D expenditures over the years



Carbon black product R&D status in 2024

Related to energy saving and carbon reduction

Greater China

- Zero-emission plasma process technology: A prototype system has been developed for the production of hydrogen and nano carbon materials.
- A key high-temperature purification process for the modified recycled carbon black (R010) has been developed, and a patent application has been submitted.

USA

- The laboratory conducted tests to replace virgin carbon black (vCB) with recycled carbon black (rCB) recovered from tire pyrolysis, and it was determined that one type of rCB can replace vCB by up to 15%.
- Evaluating the performance of a range of renewable/recycled oils, two sources of natural oils and another source of Tire Pyrolysis Oil (TPO) have been identified that are suitable for the manufacture of carbon black.

Carbon black for green tires (low rolling resistance, high wear resistance tires)

Greater China

- Developed the CC series of Eco-circular carbon black with a 30% content of recycled carbon black (rCB) using the Ouroboros solution.

USA

- Continex-LH can improve the fuel efficiency of truck tires and has obtained relevant patents. The plan is to scale up from laboratory scale to pilot production line scale. This work has continued into 2024 with further progress made in tread wear resistance. In truck tires, Continex-LH can enhance durability, extend tire life, and reduce tread wear particle emissions. With the assistance of colleagues in the Greater China region, initial expansion activities have been initiated.

Post-modification product EREBOS series

Production volume: Increased by at least 4 times in 2024 compared to 2023.

Conductive carbon black series

- The development of new specifications for conductive carbon black has been introduced into the cathode formulation by a lithium battery company and has entered the pilot production testing phase.

Carbon Nanotubes (CNTs)

- Single-walled carbon nanotubes (SWCNTs) synthesized using the FCCVD (Floating Catalyst Chemical Vapor Deposition) method exhibit excellent quality.
- Established processes for purification of carbon nanotubes and preparation of carbon nanotube suspensions.
- Production capacity has scaled up from laboratory level to pilot production line level.

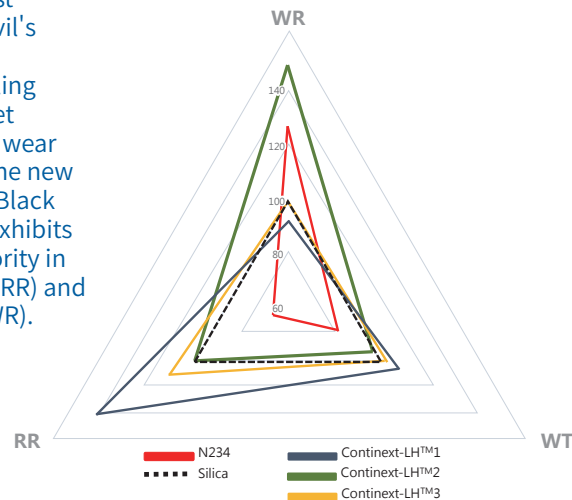
2.2 Green Products GRI 2-6

Based on our professional carbon black technology, CSRC is constantly pursuing product innovation. Based on our core concepts and principles, our most important green products are “New LH Series Carbon Black” and “Non-Toxic Carbon Black Series” as well as “Eco-circular Carbon Black.”

2.2.1 “New LH Series Carbon Black”

CSRC is actively developing "New LH Series Carbon Black" with high rigidity, low rolling resistance, good thermal aging resistance, and buckling resistance characteristics. These features enhance tire durability and performance for tire manufacturers and facilitate excellent results on tire label. Through practical testing, tires manufactured using the "New LH Series Carbon Black (Continex-LH™)" show optimized rolling resistance and improved tread wear resistance, in turn reducing vehicle fuel consumption and carbon emissions. According to EU statistics, comprehensive adoption of energy-efficient tires for vehicles across the EU could annually reduce carbon dioxide emissions by 4 million tons, equivalent to removing 1.3 million passenger cars from EU roads each year. CSRC's R&D Center in the United States has obtained relevant patents, including applications for passenger car tire treads and truck tire treads, and will initiate laboratory-scale trials.

Excellent tires must adhere to the "Devil's Triangle Law," encompassing rolling resistance (RR), wet traction (WT), and wear resistance (WR). The new LH Series Carbon Black (Continex-LH™) exhibits significant superiority in rolling resistance (RR) and wear resistance (WR).



Features of LH series carbon black

Good tear strength

- Effectively solves the problem that low aspect ratio tires rupture easily
- Improves resource usage efficiency

Good dispersion with less mixing time required

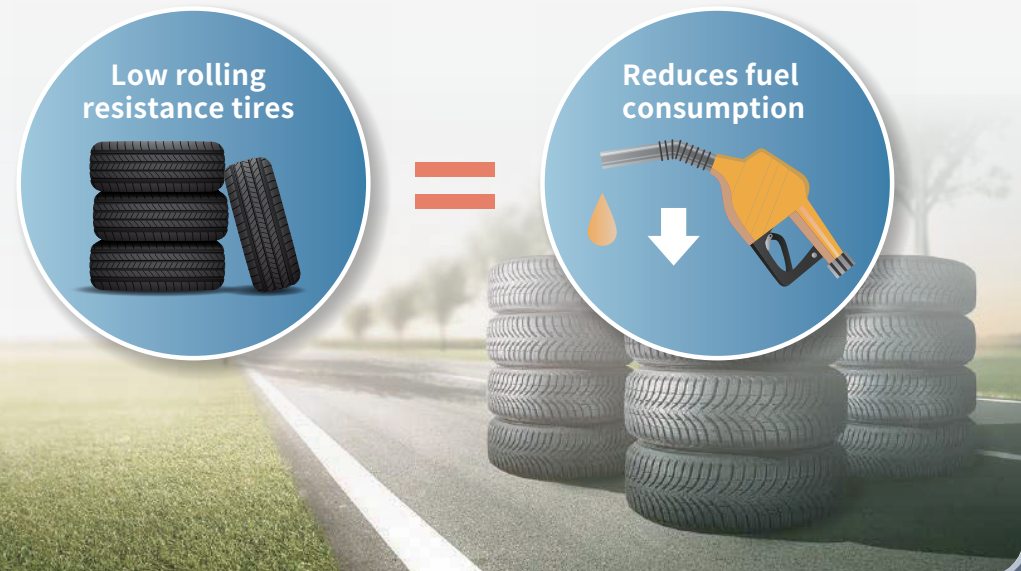
- Contributes to scheduling of downstream mixing plants, increasing production efficiency
- Reduces energy consumption

Low rolling resistance

- Effectively reduces energy consumption when the tire deforms while the vehicle is moving
- Reduces fuel consumption

Good wear resistance

- Extends the service life of tires
- Reduces the generation of waste tires



2.2.2 “Non-Toxic Carbon Black Series” GRI 416-1

Rubber and plastic (such as ABS and PP) and transparent paints and coatings on natural materials may contain highly hazardous materials such as polycyclic aromatic hydrocarbons (PAHs). In addition, studies have shown that PAHs are most harmful to the human skin and respiratory tract. As persistent organic pollutants, they have been listed as carcinogens by the International Cancer Research Center. In view of this, we are committed to reducing the content of PAHs in carbon black, complying with the second-category requirements of German Safety (GS) standards as issued by Germany's Product Safety Commission (AfPS), and conducting annual tests for PAH limits and content in carbon black, thereby allowing customers to purchase and use our products with peace of mind. In 2024, the Linyuan Advanced Plant in the Greater China region passed 264 hazardous substance tests; the six carbon black products in the U.S. region each passed 17 tests related to Polycyclic Aromatic Hydrocarbons (PAHs) and extractable substances, totaling 102 tests; the CCET plant in India passed 240 substances compliant with SVHC (Substances of Very High Concern) and 30 substances compliant with RoHS (Restriction of Hazardous Substances) tests. Meanwhile, the CCIPL plant passed 228 substances compliant with SVHC and 30 substances compliant with RoHS, with a product pass rate of 100% for all tests.

Applications of Non-Toxic Carbon Black Series products



Comply with German BfR testing standards

Limits and verification of polycyclic aromatic hydrocarbons in carbon black

PAH content	Product test results		Unit	Maximum
	CSRC internal inspection	Third-party inspection agency testing		
Benzene[a]pyrene	<0.2	<0.2	ppm	0.5
Total amount of phenanthrene, pyrene, anthracene, fluoranthene	1.5	0.7	ppm	10
Total amount of 15 polycyclic aromatic hydrocarbons	3.0	2.4	ppm	20

Note: Taking carbon black N220 as an example

- CSRC uses an internally developed PAHs rapid screening method to measure the content of 15 or 18 PAHs. This method is applied at various stages, including during production, after packaging, and before shipment. Additionally, third-party testing agencies are periodically engaged to obtain reports.
- The hazardous substance (specific chemicals) testing conducted in carbon black production is monitored through photo (toluene translucency), with testing frequency occurring every four or eight hours.



Greater China Linyuan Advanced Plant REACH SVHC test report



Greater China Linyuan Advanced Plant PAHs test report



India CCET plant PAHs test report



USA CCC plants PAHs test report

2.2.3 Eco-circular carbon black

In response to the global net zero emissions trend, we are further introducing the "New Circular Economy Model." Starting from raw materials, we collaborate with waste tire recycling and pyrolysis plant operators to utilize recycled carbon black and pyrolysis oil. Through R&D technology adjustments in carbon black formulation and processes, we produce new "Eco-circular carbon black." This not only meets the tire and rubber industry's demand for sustainable raw materials, but also achieves a closed-loop system for carbon black, thereby achieving the goal of reducing carbon emissions.

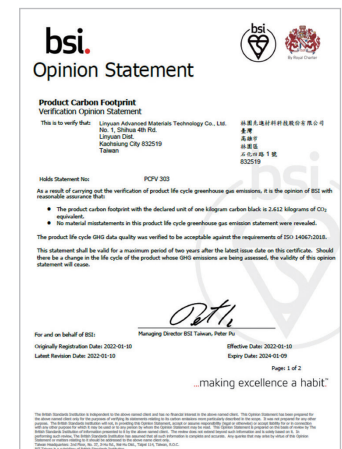
The Company continues to invest in R&D to explore various sustainable/renewable materials and energy sources, optimize production processes, improve energy utilization efficiency, and produce stable high-quality "Eco-circular carbon black" suitable for different requirements. Through rigorous quality control, in addition to ensuring tire quality remains unaffected when using low-carbon products, advanced production and blending technologies ensure the physical properties of Eco-circular carbon black match those of virgin carbon black, reducing variability in tire rubber formulations. To meet customer carbon reduction goals, we collaborate with the development needs of downstream tire customers to develop products that meet circular economy requirements and achieve carbon reduction.

In response to international customers' emphasis on product environmental protection and carbon reduction, CSRC actively develops new grades of low-carbon and environmentally friendly carbon black products. The Linyuan Advanced Plant in Greater China obtained carbon black carbon footprint certification in 2022, assisting end customers in meeting green requirements.



2.2.4 Green product sustainability benefits SASB RT-CH-410a.1

Classification	Products	Production plant area	Product sustainability benefits
New LH Carbon Black	LH series carbon black	<ul style="list-style-type: none"> Greater China USA 	<ul style="list-style-type: none"> Reduce tire rolling resistance by more than 10%, improve wear resistance, reduce vehicle fuel consumption and reduce carbon emissions
Non-toxic carbon black	Low PAH series	<ul style="list-style-type: none"> Greater China USA 	<ul style="list-style-type: none"> Use carbon black with low PAHs content to replace traditional carbon black, reducing the risk of PAHs hazards in products
	Post-modified EREBOS series	<ul style="list-style-type: none"> Greater China 	<ul style="list-style-type: none"> Produced by a green process, the virgin carbon black is post-modified. Various conditional parameters of post-modification reaction can be adjusted in real time, effectively improving the quality and production efficiency of modified carbon black products Compared with the traditional strong acid modification, this new modification technology does not produce waste gas or waste liquid, greatly reducing the environmental impact Applicable to customers' environmentally friendly water-based application formulations
Eco-circular carbon black	CC series and T series	<ul style="list-style-type: none"> Greater China 	<ul style="list-style-type: none"> Collaborating with waste tire recycling and pyrolysis operators to incorporate recycled carbon black and pyrolysis oil into the carbon black production process, establishing a closed-loop for tire application carbon black and promoting an industrial circular economy.



Greater China Linyuan Advanced Plant ISO 14067:2018

Cases of Industry-Academic Cooperation in 2024

Development of High-Performance Carbon-Silicon Anode Materials for Lithium-Ion Batteries (Professor Chih-Tsung Lee's Laboratory, Department of Chemistry, National Sun Yat-sen University)



Button Cell Fabrication Process: Coating the battery slurry, followed by rolling to form electrode sheets, and final assembly.

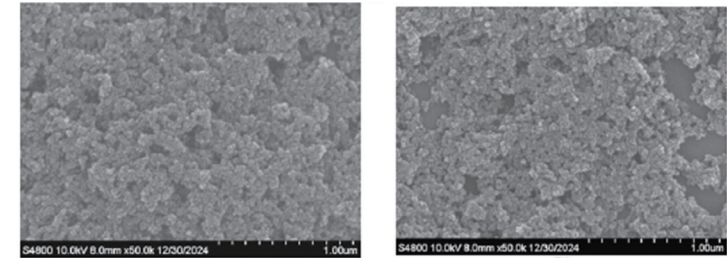
Collaboration with Professor Chih-Yung Chen at National Cheng Kung University to Launch a Feasibility Assessment Project for Carbon Dioxide Capture



The project utilizes Professor Chen's patented potassium acetate sorbent to replace traditional amine-based absorbents, achieving low-energy desorption of CO₂. Additionally, it incorporates a microbubble CO₂ capture device co-developed with Professor Chen's team to enhance capture efficiency. The goal is to develop sustainable technology with commercial value.

Development of Carbon Black Nanofluid Process, Characteristic Analysis, and Heat Dissipation Performance Evaluation

SEM images of the first batch of 1205 carbon black before and after refinement:



(a) Before treatment

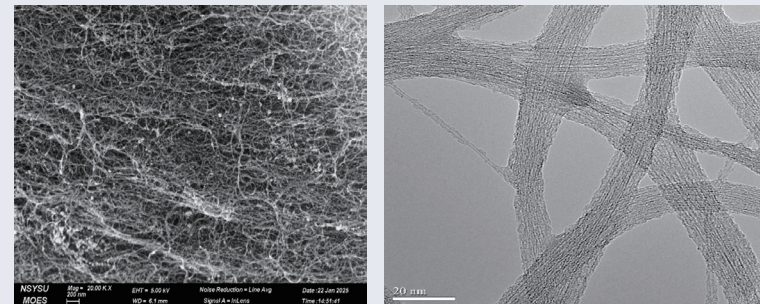
(b) After treatment

We are actively promoting product value enhancement and energy conservation with carbon reduction. In collaboration with Professor Deng Dunping from National Taiwan Normal University, we have launched the project "Development of Carbon Black Nanofluid Process, Characteristic Analysis, and Heat Dissipation Performance Evaluation." This project applies CSRC's carbon black materials to the energy industry, developing nanofluids suitable for low-range heat dissipation (40-70° C), aiming to increase product value and application range. The focus is on developing heat dissipation fluids that are stable over long periods, meet the target temperature range, and are environmentally friendly. We ensure that the additives and processing procedures comply with environmental standards, and through characteristic analysis and heat dissipation performance evaluations, we aim to promote the practical and commercial use of nanofluids.

Product R&D Highlights in 2024

SW-CNTs were observed for their microscopic surface and structure using Scanning Electron Microscope (SEM) and Transmission Electron Microscope (TEM).

In 2024, single-wall carbon nanotubes (SWCNTs) were successfully developed. Under SEM, dense bundles of carbon nanotubes were observed, while TEM confirmed the single-layer nanotube structure, demonstrating the advantage of a high aspect ratio. Additionally, the carbon nanotubes exhibited excellent quality, with an IG/ID ratio greater than 30 in Raman analysis. Furthermore, the processes for purifying the carbon nanotubes and preparing carbon nanotube suspensions were established, with production scaling up from laboratory-level to pilot production line levels.



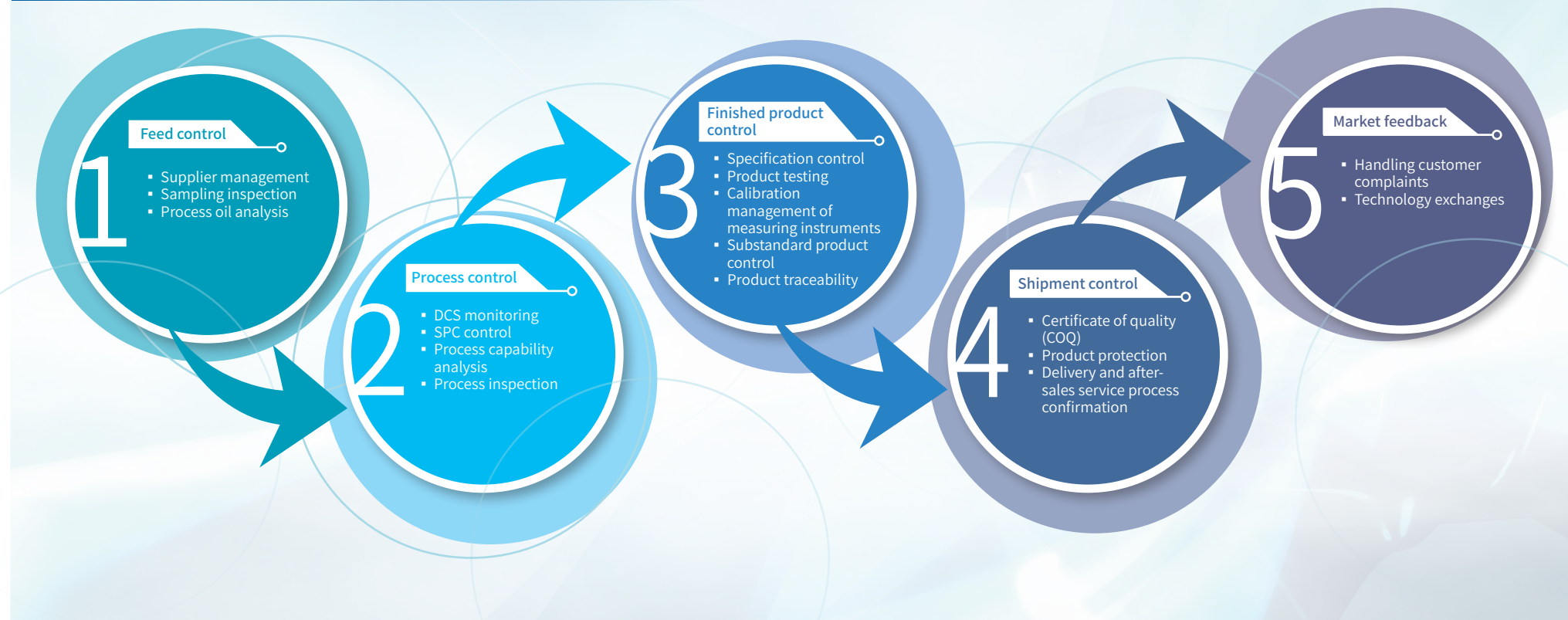
2.3 Product quality and safety GRI 416-2

We stand by the idea of "Full Participation, Customers First" for our quality policy, establishing a quality management system based on international environmental standards to ensure the good quality of our products. In addition, we also encourage colleagues to actively participate in international seminars every year. Content includes the latest foreign production technology, pollution prevention technology, equipment development, and so on. In this way, colleagues can obtain domestic and foreign market information as well as insights into industry development directions and bring them back to their plants to share with colleagues. Furthermore, technical exchanges among the eight global quality assurance laboratories facilitate the integration of relevant resources and maximization of resource utilization.

2.3.1 Product quality and management process

CSRC is committed to meeting customer needs, adopting an organized quality management process, and implementing a "Five-Stage Quality Control Model" that details operational items at each stage. This approach effectively ensures product quality consistency. Through this "Quality Management System," we ensure strict implementation of quality management across departments and conduct checks on compliance with packaging regulations. For products requiring special specifications, we adopt a manual review process, requiring approval from the Quality Assurance Supervisor, Plant Manager, Technical Department Manager, and Sales Department Manager, ensuring delivery to customers only after meeting standards. This series of measures ensures the stability and reliability of product quality, supporting continuous improvement and implementation of the quality management system. To enhance product control and customer trust, some customers visit the plant site annually for second-party audits. Please see 2.4 Customer Relationship Management for details. Each plant obtains relevant external third-party testing for product quality management, such as IATF 16949:2016 automotive quality management system certification and ISO 9001:2015 quality management system certification.

Five-stage quality control model



Quality management related verification certificate

Greater China Linyuan Advanced Plant and Consolidated Resource Plant



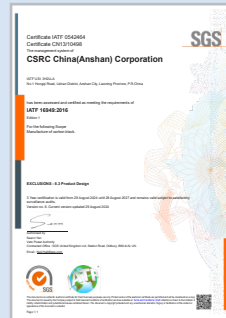
Valid until : 2026/11/15

Greater China Maanshan Plant



Valid until : 2026/12/27

Greater China Anshan Plant



Valid until : 2027/08/28

India CCET plant



Valid until : 2027/06/12

India CCIPL plant



Valid until : 2027/03/12

USA CCC

IATF 16949 :
2016

ISO 9001 :
2015

ISO/IEC 17025:
2017



Valid until : 2027/12/09



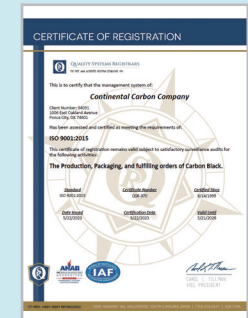
Valid until : 2026/12/27



Valid until : 2027/08/28



Valid until : 2026/03/28



Valid until : 2026/05/21



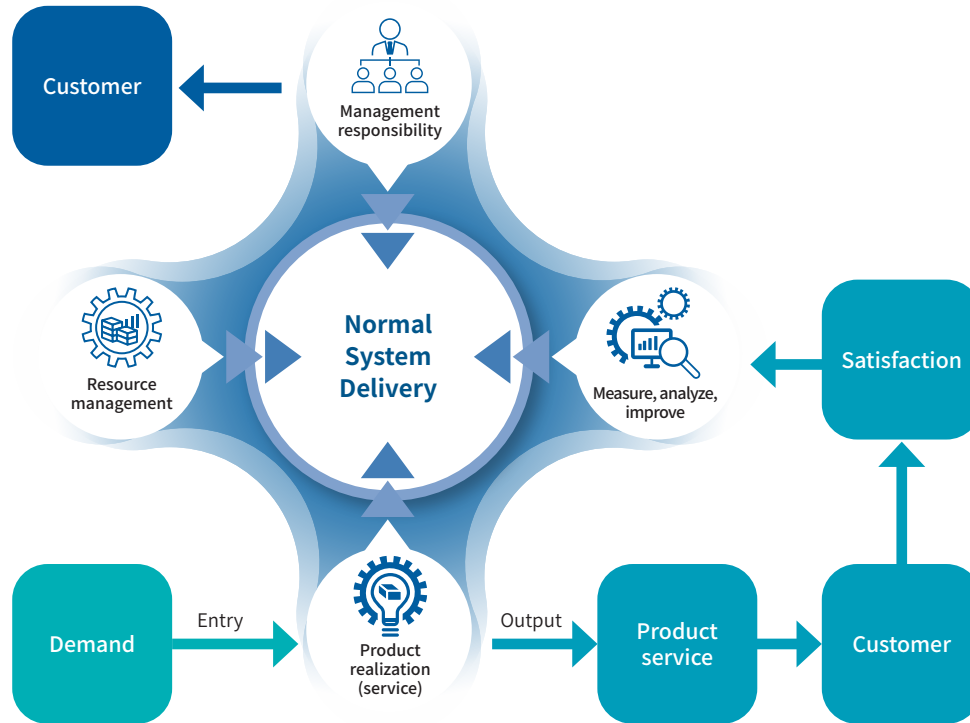
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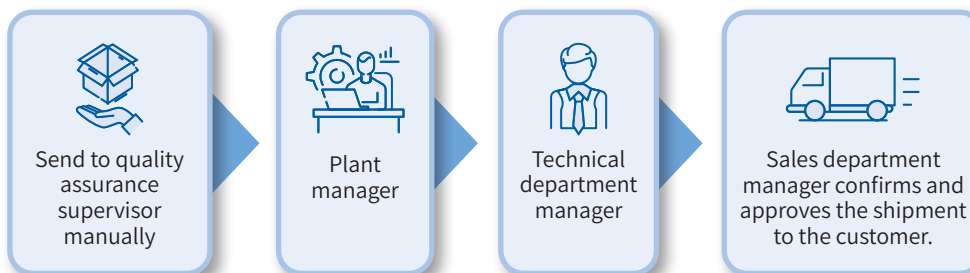
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Quality management system process

Normal System Delivery



Special Manual Delivery



In addition, we also use the PDCA mechanism (Plan, Do, Check, Act) in a continuously dynamic cyclical process to review quality management procedures, adjusting and optimizing at any time to pursue higher product quality. In case of non-conforming products, they will be handled in accordance with the internally formulated non-conforming control procedures.

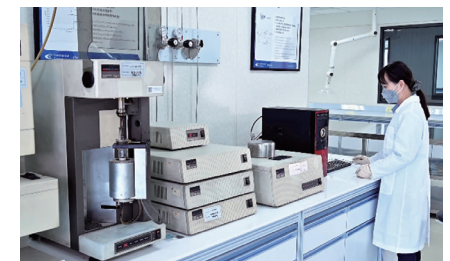
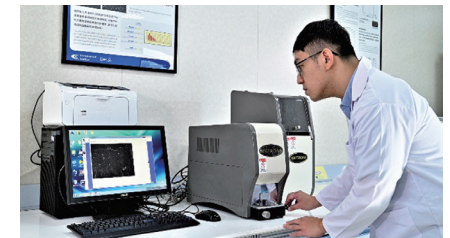
CSRC self-inspects product quality in all aspects to enhance product safety. Among these, the carbon black laboratory of the Linyuan Advanced Plant in Greater China has been accredited by the Taiwan Accreditation Foundation (TAF) and announced as a TAF certified laboratory. Details of self-inspection items for CSRC products are as follows:

Test Item

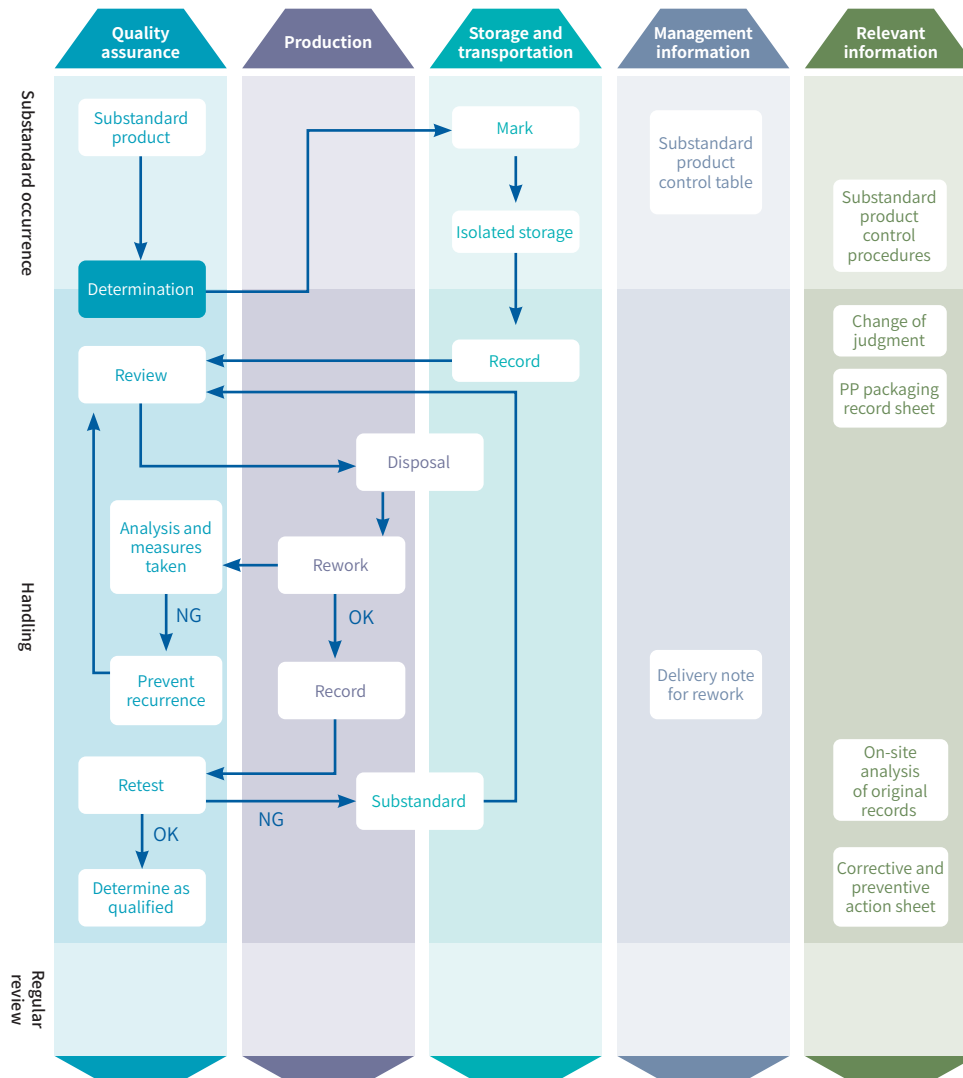
- Raw oil moisture
- Feed oil distillation range and BMCI
- Feedstock pitch content
- Sulfur and chlorine content of raw oil
- Feedstock oil API gravity
- Raw material asphalt quality
- Raw material micro carbon residue
- Raw material viscosity
- Heating loss
- Carbon black structure OAN/COAN
- Carbon black color strength
- Carbon black NSA total surface area/STSA external surface area
- Carbon black ash
- Carbon black grit
- Carbon black PH value
- Carbon black volatile
- Carbon black particle hardness
- Carbon black fine powder content/ carbon black size distribution
- Carbon black toluene decolorization
- 300% fixed elongation stress



Certificate of TAF certification

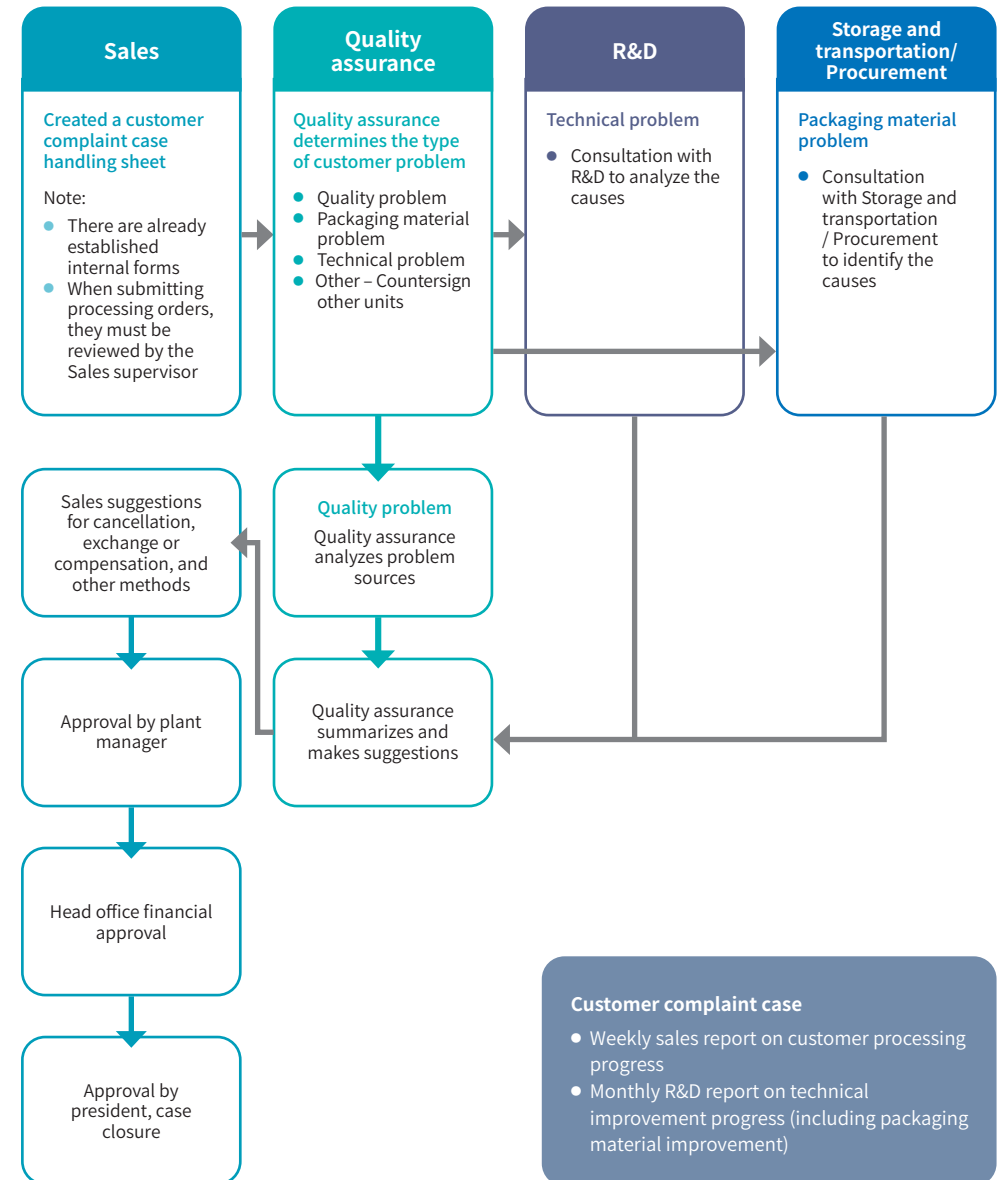


Substandard product control flow chart



To ensure that all products provided consistently meet customer requirements and standards, CSRC also provides channels for customers to lodge complaints regarding product quality. In case of product-related complaints, they are processed according to the product incident handling procedures.

Product complaint incident handling process



2.3.2 Product safety labels GRI 417-1、417-2

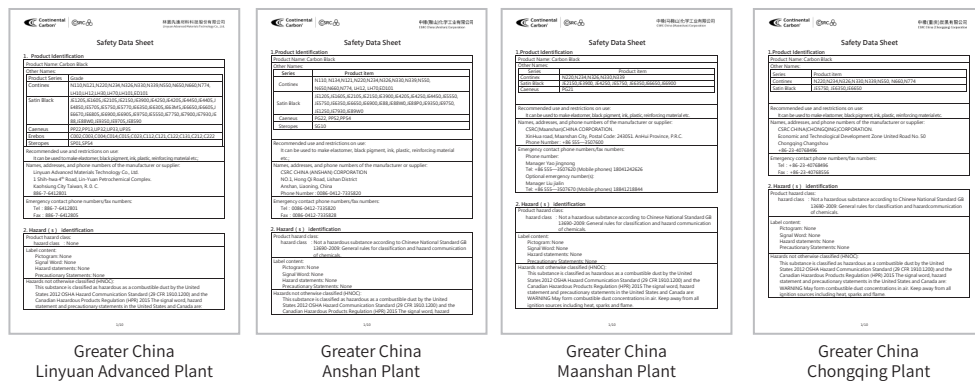
All production processes of CSRC comply with international environmental standards to achieve an optimal balance between corporate development, ESG responsibility, and environmental protection. To enhance the transparency of product information, we regularly update the material safety data sheet (MSDS) and proactively provide product safety features, disposal methods, and other safety information for customers' reference and use. The percentage of products that have undergone regulatory assessment by CSRC is 100%, confirming that all carbon black products are compliant, as they have been fully evaluated and verified.

Items included in the material safety data sheet

Chemical and manufacturer information	Firefighting measures	Physical and chemical properties	Disposal methods
Hazard identification information	Leak handling methods	Stability and reactivity	Shipping information
Component identification information	Safe handling and storage methods	Toxicity information	Regulatory information
First aid measures	Exposure precautions	Ecological information	Other information

Product safety label examples

CSRC product safety labeling instructions



At the same time, we cooperate with national transportation regulations, to carefully handle all types of transportation permit qualification certificates before shipping products. We also meet the legal requirements of the country where the product is to be imported, pasting required label contents on the packaging to indicate batch, production date, product name, place of origin, safety, etc. and provide safe and environmentally friendly product information to avoid client and consumer misuse. In 2024, CSRC had no violations related to product safety labeling, and product-related health & safety regulations.

2.4 Customer Relationship Management GRI 418-1

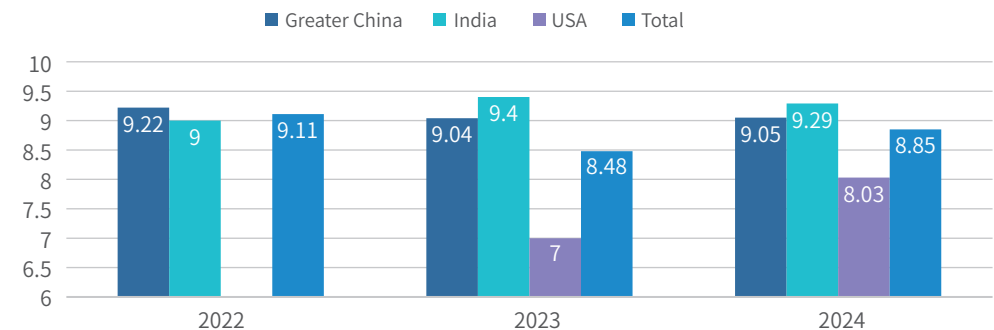
CSRC is committed to delivering the best service to customers, believing that customer service is key to enhancing customer satisfaction and loyalty. Customer feedback is systematically recorded and managed, with a strong emphasis on customer privacy. Information regarding inquiries, procurement, and business dealings is strictly limited to the business department, and all business colleagues are regularly briefed on the concept of customer information confidentiality. Regarding customer data collection, CSRC has established a privacy policy. The collected customer data is used solely for business-related services and is protected by comprehensive information security measures to prevent alteration, deletion, theft, leakage, or unauthorized access. In 2024, CSRC Group received no complaints regarding the disclosure of customer privacy.

CSRC regularly organizes customer satisfaction surveys every year, covering regions including Greater China, India and USA. The full score for each evaluation is 10 points, and the target value is 8.5 points. Five aspects are evaluated: technical services, product quality, delivery arrangements, sales staff service, and overall satisfaction.

Customer satisfaction survey results for 2024 are as follows: Average satisfaction in Greater China is 9.05 points; in India, 9.29 points; in USA, 8.03 points. The overall of three regions average customer satisfaction reached 8.85 points, approaching CSRC's set target, demonstrating customer recognition of CSRC's products and services.

Customer satisfaction of CSRC Group and operating location areas

CSRC Customer Satisfaction by Region



Note: Customer satisfaction surveys began in the USA starting in 2023.

Satisfaction survey Item score	Greater China			India			USA			Total		
	2022	2023	2024	2022	2023	2024	2022	2023	2024	2022	2023	2024
Technical services	9.10	8.99	8.86	8.8	9.5	9.05	-	8	8.1	8.95	8.80	8.72
Product quality	9.20	9.20	9.12	9.6	9.6	9.55	-	8	8.2	9.40	8.93	9
Delivery arrangements	9.27	9.24	9.15	8.8	9.1	9	-	6	7	9.04	8.11	8.58
Sales staff service	9.31	9.14	9.06	8.8	9.5	9.55	-	10	9.4	9.06	9.55	9.27
Overall satisfaction	9.22	9.04	9.05	9	9.4	9.29	-	7	8.03	9.11	8.48	8.85

Customer audit at plants in 2024

As a raw material supplier for downstream customers, CSRC strictly maintains product quality and plays the role of a good supplier. We also attach great importance to the health and safety of customers, and therefore also set goals related to customer health and safety. In 2024, CSRC's plants in Greater China were audited by three customers; in India, by four customers; and in the United States, by one customers. Through the thorough preparation and proactive improvement of audit items raised by customers, all audit evaluations were passed successfully.

India CCET Plant



ch3 Circular Economy

3.1 Innovation and Circularity GRI 2-6

The core philosophy of CSRC emphasizes “Renewable energy and resources” . Through proactive product research and innovation, we aim to develop innovative products of high added value in collaboration with our customers. Not only does this enhance product efficiency, but it also significantly reduces the environmental impact of industrial activities, promoting the entire carbon black industry toward low-carbon, sustainable development.

3.1.1 CSRC 6R Concept

CSRC’ s Carbon Black Business Group actively embraces the operational model of a circular economy to address the resource depletion issues inherent in traditional linear economies. This includes the repetitive use of energy and resources, extending resource lifespans, and reintroducing end-of-life materials into production to maximize resource reuse. CSRC has established a continuously cycling value chain 6R model: Reuse, Redefine, Redesign, Reduce, Recycle, and Renew. This strategy encompasses all stages, from raw material selection and manufacturing processes to product use. Through continuous research and innovation, CSRC aims to become a leader in sustainable development, guiding the industry toward a future of low-carbon production.

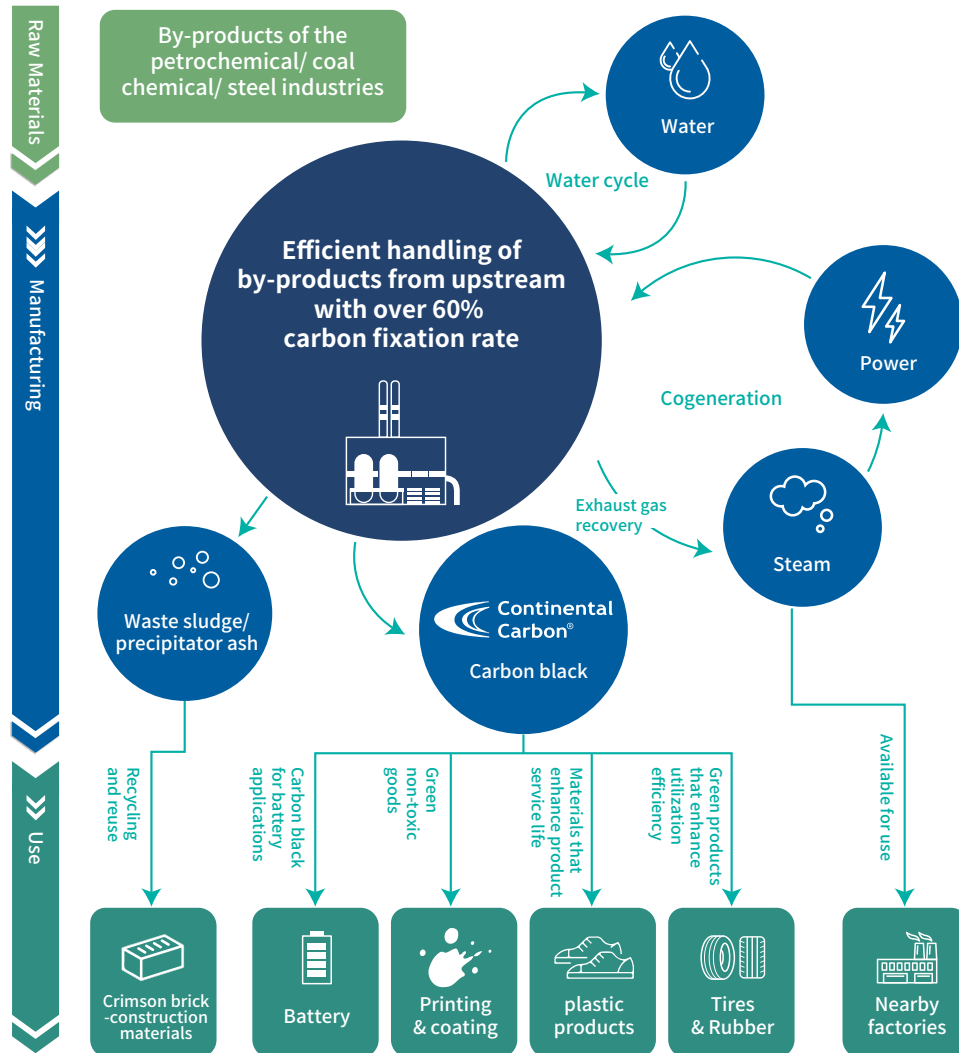
Circular Economy Management Principles

6R concepts	Description	Implementation stage	Related sustainability actions
Recycle	Return to the original end of use for reuse	Manufacturing	<ul style="list-style-type: none"> Water recycling and reuse Incorporation of rCB and recycled pyrolysis oil into process reengineering Reuse of packaging materials and pallets Tail gas combustion reuse
Reuse	Non-return to the original end of use for reuse	Product end-of-life	<ul style="list-style-type: none"> Non-hazardous sludge used as cement kiln fuel Waste FIBC bags used as auxiliary fuel Waste refractory bricks used as aggregate raw material
Reduce	Reduce hazards and energy resource consumption generated during the production process	Raw Material	<ul style="list-style-type: none"> Reduction of air pollutant VOC emissions Reduce SOx, NOx and PM emissions of air pollutants during the production process Remove toxic ingredients from raw materials Reduction of production water consumption
		Manufacturing	
		Product end-of-life	
Redefine	Adjust operating parameters to achieve energy savings and emission reduction in the manufacturing process.	Manufacturing	<ul style="list-style-type: none"> Reduce greenhouse gas emissions Improve energy efficiency Reduce raw material usage Enhance product quality Reduce solid waste generation
Redesign	New product development - Environmentally friendly green products	Usage Stage	<ul style="list-style-type: none"> Green product development Reduce product carbon footprint
Renew	Promote digital transformation, leveraging AI modules to enhance factory production stability	Manufacturing	<ul style="list-style-type: none"> Install online monitoring modules for process rotating equipment to improve equipment reliability Introduce smoke image recognition systems for real-time alerts to reduce incident risks

The carbon black industry chain is a paradigm of the circular economy model. Its raw materials come from residual byproducts, such as bottom oil from the refining processes of upstream petrochemical and steel industries. These low-value residuals, after chemical treatment and reuse, can produce high-value products like carbon black, along with byproducts such as steam and electricity, while also sequestering carbon. Typical incinerators operate at temperatures of 600–800°C, and burning industrial waste still results in air pollution emissions. In contrast, the reactor furnace in the carbon black process reaches temperatures of 1,800°C, allowing CSRC to process residuals (bottom oil) from the petrochemical and steel industries. At such high temperatures, it can eliminate many environmentally harmful substances, such as dioxins. This carbon black cycle not only fully utilizes residuals from traditional processes and reduces environmental pollution risks but also fosters new industries and technologies, creating an economic model for resource recycling.

Beyond considerations for its own operations, CSRC extends the circular economy to downstream supply chains and external partners. By assessing potential risks and opportunities related to energy and raw material usage, we formulate corresponding actions and strategies.

CSRC Circular Economy Pathway



Circular economy management framework

Product lifecycle	Resources	Potential Risks	Opportunities and value creation
Raw Materials	End-of-life residues from steelmaking and oil refining industries	If the end-of-life residues from the steelmaking and oil refining industries are not properly disposed of, they will cause environmental pollution.	<ul style="list-style-type: none"> End-of-life residues from steelmaking and oil refining industries are reused as raw materials to produce carbon black for multiple applications → Creation of a new industry chain
Manufacturing	Reactors and boilers	Production of air pollutants (SOx, NOx, PM, TSP, VOC), greenhouse gases, precipitator ash, fuel consumption	<ul style="list-style-type: none"> Implementation of air pollution control equipment to reduce emissions of air pollutants → Improvement of environmental and health quality Reactors utilize high temperature combustion to remove dioxin in the raw oil → Improvement in health and environmental quality Optimization of process technology to reduce per unit product oil consumption → Improvement of resource utilization efficiency Precipitator ash is collected and processed together with red brick raw materials for transformation into building materials → Creation of a new industry chain
Sales	Carbon Black, Steam	Insufficient diversity in carbon black products and excess steam leading to energy waste.	<ul style="list-style-type: none"> R&D of green carbon black products → Improvement in health and environmental quality Reuse excess steam to generate electricity → Improve resource utilization efficiency R&D of high-end, multi-application carbon black → Improved market competitiveness
Product Final Stages	Carbon Black Packaging, Condensation water	The disposal cost of paper bag packaging and the failure to recover condensate result in a waste of water resources	<ul style="list-style-type: none"> Packaging changed to environmentally friendly PE materials → Improvement in customer productivity and reduction in waste Partnering to recycle condensate → Creation of a new industry chain

3.1.2 Waste Heat Recovery and Steam Power Generation

Recover waste heat to produce steam for process use, with surplus steam used for power generation in the plant or sold to nearby partners

In terms of energy recovery and reuse, all plant sites are equipped with cogeneration boilers that use carbon black tail gas as fuel for power boilers. This not only effectively improves energy utilization efficiency but also fully leverages tail gas generated during the process as fuel. While treating tail gas, heat is recovered, achieving the goals of a circular economy. Due to the high moisture content of carbon black tail gas, higher combustion temperatures are required. Additionally, the carbon black process often experiences fluctuations in tail gas due to cooling factors, leading to unstable combustion under stringent temperature and pressure conditions, posing certain risks to the system.

To ensure safety in the use of carbon black tail gas combustion and to enhance efficiency, CSRC has specifically constructed "Online heat recovery boiler" for heat exchange with flue gas. This reduces the flue gas temperature before entering the filter bags while also reducing the moisture content of the tail gas, achieving water conservation and heat recovery, thereby reducing energy consumption within the plant. These boilers also produce steam for heating oil tanks or use in carbon black production lines. Surplus steam can be reused for power generation, supplying internal operations or sold to nearby plants. By using CSRC's steam, nearby plants can reduce fuel oil usage and associated air pollutants, achieving positive benefits in enhancing energy resource reuse and reducing environmental impact.



Online heat recovery boiler of Linyuan Advanced Plant, Greater China



Online heat recovery boiler (overall heat exchanger section) of Maanshan Plant, Greater China



Online heat recovery boiler (steam drum) of Maanshan Plant, Greater China



Online heat recovery boiler (steam separator) of Maanshan Plant, Greater China



Online heat recovery boiler of Anshan Plant, Greater China (1/2)



Online heat recovery boiler of Anshan Plant, Greater China (2/2)

3.1.3 Waste Reuse GRI 301-2 ; SASB RT-CH-410b.2

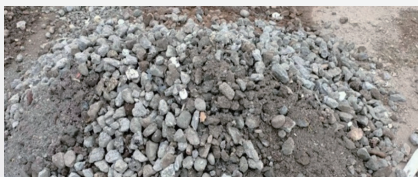
Recycled Building Materials: Waste recovery and reprocessing into downstream building materials

Specific solid waste produced by CSRC, after disposal, can be reprocessed into recycled materials. For example, precipitator ash undergoes physical treatment for detoxification, waste sludge undergoes heat treatment, and waste refractory materials undergo physical treatment, all of which can be reprocessed into building materials. Waste insulation cotton can be physically treated and recycled into insulation materials, and desulfurization gypsum can be used as a raw material for cement production. The recycling of these materials not only reduces the amount of waste sent to landfills or disposed of by CSRC but also effectively minimizes environmental impact and resource consumption.

At the Linyuan Advanced Plant in the Greater China region, waste generated from the carbon black process, including sludge, refractory materials, and FIBC bags, is collected. Of this, 133.86 tons of FIBC bags are processed for use as fuel, while 275.38 tons of waste refractory materials and 637.93 tons of sludge, totaling 913.31 tons, are physically treated to produce recycled granular CLSM (Control Low-Strength Material), used as engineering aggregate. In the U.S. region, the CCC plant used 5,242.5 tons of desulfurization gypsum in 2024 for road stabilization lime and agricultural lime.



Recycled aggregates (controlled low-strength backfill material CLSM)



Recycled granules 30-100 mm

At the Maanshan Plant, Anshan Plant, CCET Plant, and CCIPL Plant in the Asia region, desulfurization and denitrification systems are utilized in the production lines. During the process, desulfurization waste—specifically flue gas desulfurization (FGD) gypsum—is generated. After being tested and verified by a third party, the FGD gypsum was confirmed to meet the standards for use as a raw material in cement manufacturing. We have established circular reuse partnerships with local cement plants, and in 2024, a total of 2,607.43 metric tons of FGD gypsum was delivered to partner cement plants for use as raw material in cement production.



Waste Management Diagram of the Anshan Plant in the Greater China Region

Waste name	Waste refractory materials	Waste thermal insulation cotton	Waste Fiber	Inorganic sludge (process/ditch)	Non-hazardous precipitator ash	General waste	Waste activated carbon
Waste code	D-0501	D-0403	D-0801	D-0902	D-1099	D-1801	D-2403
Photo							
Source	Reactor \ Rotary dryer	Reactor \ Rotary dryer	Baghouse dust collector	Wastewater treatment plant	Baghouse dust collector/ Production scrap	Life output	Sand filter tower

3.1.4 Waste reduction

In addition to recycling and reusing internally generated waste (see 5.2.1 Waste Handling), CSRC promotes waste reduction strategies and actions across its plants as follows:

	Action plan	Explanation	Performance
Reduce	Promotion of environmentally friendly pallets: Using shared pallets or replacing wooden pallets with plastic pallets	Replacement of disposable wooden pallets with reusable plastic pallets to reduce waste from wooden pallets	<ul style="list-style-type: none"> The proportions of environmentally friendly pallets used in Greater China: 54.2% at Maanshan Plant 、40% at Linyuan Advanced Plant 、30% at Chongqing Plant and 27.5% at Anshan Plant India: CCET Plant 100%, CCIPL Plant 73.38%
	Reduce oil consumption per unit of carbon black	Improving process technology to increase carbon black production capacity per unit of feedstock oil, reducing the amount of oil required for carbon black manufacturing	Reduce raw oil use by 6,408 tons/year
	PE packaging to replace paper bags	Using PE plastic film packaging bags, taking advantage of PE's solubility in rubber, customers can include the packaging bag when feeding materials, reducing the manpower and time required for handling the packaging bags.	<ul style="list-style-type: none"> A total of 748,414 bags were used Estimated reduction of 181.2 tons of paper waste
Reuse	Raw oil reuse	After quality inspection, the raw oil is returned to the production process for reuse	Recycling and reuse volume of 3.4tons/year
	Recycling and reuse of waste carbon black	-	Recycling and reuse volume of 667.4tons/year
	Reuse of waste FIBC bags	Recycle used FIBC bags from clients and reuse them instead of incinerating	122.08 tonnes of waste PP bags sold
Recycle	Reuse of waste solvents in the plant	Waste solvent recovery process produced in the laboratory for reuse	1.0 tons/year hazardous waste recycling project
	Recycling and reuse of lubricating oil	Reuse the lubricating oil used by the Engineering & Material Department for equipment maintenance and reuse it on the rotary dryer	Recycling usage volume of 2.04 tons/year

Office waste reduction measures

In addition to reducing the waste generated in the carbon black process, some factory sites are also actively promoting the following office waste reduction measures:

Implement garbage classification

Effectively collecting and planning the recycling of recyclable materials to reduce general waste (D-1801) transportation costs and decrease incineration, thereby reducing environmental impact

- Non-resource waste: General waste such as plastic bags
- Resource waste: Metal, paper, bottles, etc.



Set up resource reuse zone

Set up a "resource reuse zone" for centralized organization to avoid messy placement and maintain a beautiful environment

Reducing paper use

- Regularly review the amount of paper used by each plant and review abnormal usage
- Encourage the use of e-mail to send information
- Encourage double-sided printing to save paper
- A "wastepaper recycling area" is placed next to each photocopier for recycling and printing
- Paper sign-offs are replaced with electronic sign-offs, thereby reducing paperwork
- Recycling of old envelopes

Reducing the use of disposable tableware

- Prepare ceramic cups and other communal tableware
- Encourage colleagues to bring their own cups, environmentally friendly chopsticks, etc.

Smart warehousing enabled

The Linyuan Advanced Plant has introduced a smart warehouse system, integrating warehouse management systems with the SAP database to enhance efficiency in the supply of warehouse materials, spare parts, and components. Users scan barcodes through PDAs to control inbound and outbound management such as warehousing, acceptance, shelving, picking, and outbound delivery.

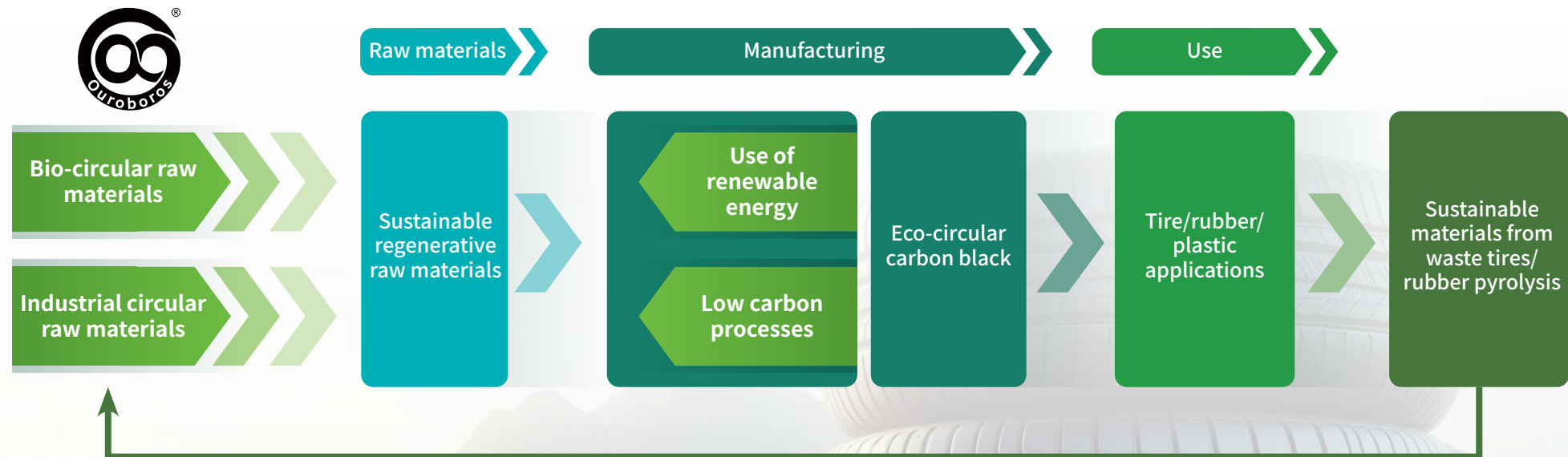
Real-time access to warehousing data can control the accuracy of inventory quantities to reduce warehouse costs and maximize warehouse efficiency. At the same time, digitization of warehouse management and control will reduce the use of paper for receiving materials.

3.2 Practicing new circular economy model GRI 2-6

CSRC strives for excellence in the journey toward a "circular economy," optimizing and upgrading its original circular economy pathway. Through sustainable industrial and biological cycles, renewable raw materials, and technological R&D and process optimization to promote recycling and carbon reduction, we adopt a multi-pronged approach to enhance the circular economy pathway to achieve carbon reduction targets.

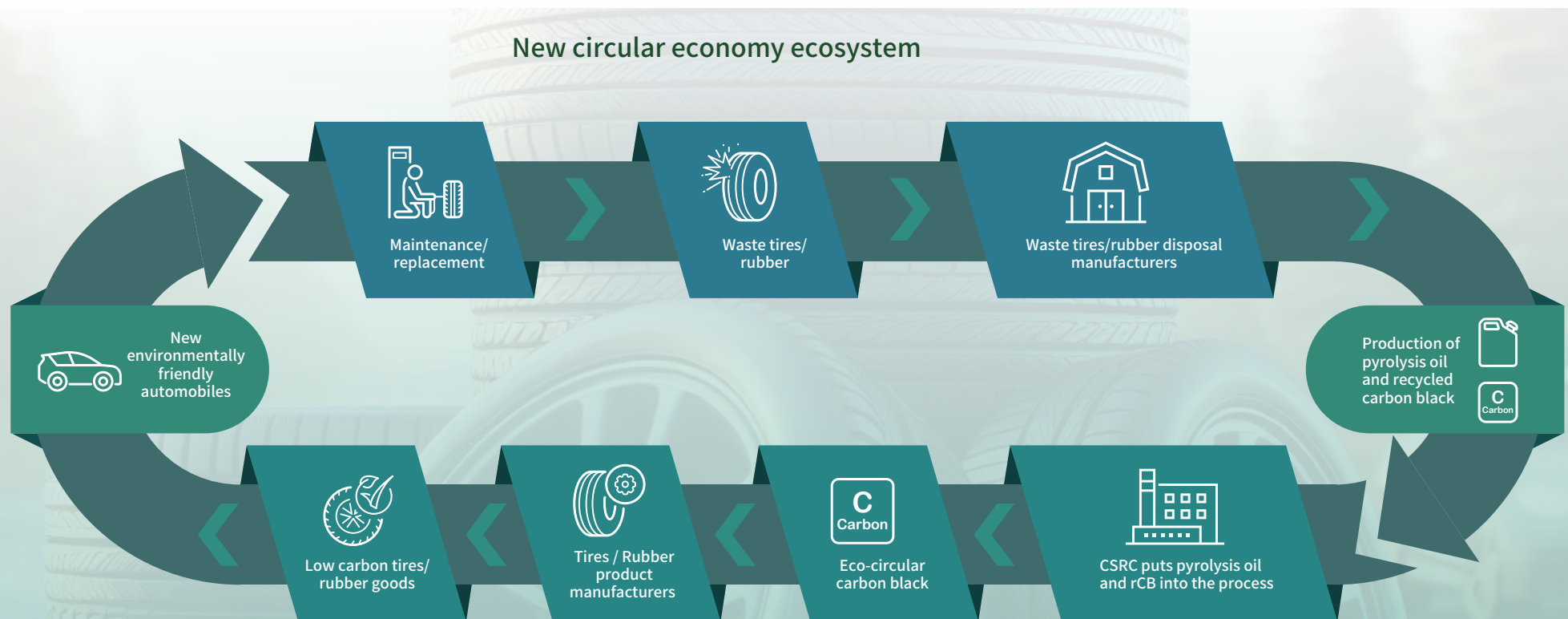
At the raw material stage, we introduce bio and industrial circular materials, and at the manufacturing stage, we use renewable energy. Through our decarbonization processes, we produce Eco-circular carbon black for downstream customers. Through our decarbonization processes, we produce Eco-circular carbon black for downstream customers.

CSRC's Circular Economy Pathway Upgrade: Ouroboros – A Sustainable and Regenerative Circular Solution



Waste tire pyrolysis oil returned to manufacturing process GRI 301-2 ; SASB RT-CH-410b.2

Leading multinational automobile and parts manufacturers have identified sustainability and the use of regenerative materials as core development strategies. As carbon black is essential in tire manufacturing, it is a key part of the circular value chain and crucial for achieving supply chain net-zero emissions. CSRC aims to be a pioneer in circular economy and net-zero transformation by integrating circularity into our operations. Through partnerships with pyrolysis recyclers of end-of-life tires, we reuse recycled carbon black and recycled pyrolysis oil in production. Using proprietary technologies, we refine carbon black formulations to create Eco-circular carbon black. This closed-loop system supports sustainability and meets customer demands for greener materials. In 2024, our Ponca city and Sunray plants in the U.S. received ISCC PLUS certification under this model.



Based on internal testing and evaluation, the incorporation of recycled materials into carbon black production has demonstrated a reduction in carbon emissions by at least 5–25% compared to standard-grade carbon black (e.g., ASTM N660). At the same time, the physical properties of the recycled-content carbon black remain highly comparable to traditional carbon black, ensuring both performance and safety while advancing circular economy objectives. This approach supports the tire industry in achieving resource circularity and collaborative carbon reduction across the supply chain. In 2024, the Linyuan Advanced Plant and Maanshan Plant in the Greater China region utilized 3,424 metric tons of recycled pyrolysis oil from end-of-life tires as an alternative raw material. For historical procurement data, please refer to Chapter 9.3.2 "Green Procurement" in the Supply Chain section.



Eco-circular carbon black

CSRC collaborates with end-of-life tire pyrolysis recyclers to utilize recycled carbon black (rCB) and recycled pyrolysis oil. Through advanced R&D and technical refinement of carbon black formulations and manufacturing processes, we produce environmentally circular products under the CONTINEX CC series, contributing to our carbon reduction goals. In addition, the recycled carbon black is professionally modified and developed into the EREBOS R series for ink and coating applications. This series features low volatility, high resin compatibility, and excellent dispersion, making it suitable for a wide range of coating applications, including high jetness pigment pastes.

CSRC’ s Eco-circular carbon black offers significant benefits to tire manufacturers:



2024 Performance Highlights

ENVIRONMENT



In 2024, CSRC's water intensity for carbon black production decreased by **15.1%** compared to 2023.



In 2024, the Group's overall waste reuse rate was **78.9%**.



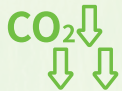
In 2024, all plants adopted PE packaging to replace paper bags, resulting in a total reduction of **181.2 metric tons** of paper waste across the group.



In 2024, the Ponca and Sunray plants in the United States purified and recycled all process wastewater for **100%** reuse in the process cycle; in addition, both plants achieved a **100%** rainwater recycling rate.



In 2024, the Maanshan Plant maintained a **Grade B rating** in heavy pollution weather performance evaluation for two consecutive years.



In 2024, the Linyuan Advanced Plant and Chongqing Plant in Greater China replaced heavy fuel oil with natural gas, reducing carbon emissions by **12,621 tCO₂e**.



In 2024, the Maanshan Plant in Greater China was rated as a **Water-Saving Enterprise** for three consecutive years

United Nations Sustainable Development Goals (SDGs)

4.1 Response to Climate Change **SDGs 13.1** 、 **SDGs 13.3**

4.2 Energy and Greenhouse Gas Management **SDGs 7.2** 、 **SDGs 7.3** 、 **SDGs 13.3**

4.3 Air Pollution Prevention and Control **SDGs 11.6**

5.1 Water Resource Management **SDGs 6.3** 、 **SDGs 12.2**

5.2 Waste Management **SDGs 11.6** 、 **SDGs 12.2** 、 **SDGs 12.5**





Management policies - Climate change response and greenhouse gas emissions

Base year	Medium and Long-Term Targets (2026-2030)	Short-Term Targets (2025)	2024 performance
Greenhouse gas emissions (Scopes 1 and 2) 2018	1. The intensity in 2030 will be reduced by 16% compared to 2018. 2. The emissions in 2030 will be reduced by 21% compared to 2018.(After the inclusion of CCET, the total production of the group is expected to increase by 5% compared to 2018.)	The intensity in 2025 will be reduced by 3% compared to 2018.	The emissions in 2024 reduced by 19.7% compared to 2018.

Impact description

Description of positive impact:

The Sustainable Environment and Products Team under the Corporate Sustainability Committee of CSRC is responsible for implementing the energy conservation and carbon reduction tasks planned and formulated, calculating carbon emissions and greenhouse gas emissions, and managing and mitigating impacts of climate change.

Description of negative impact:

Failure to actively respond to climate/carbon reduction-related issues will result in physical risks, such as flooding in plants, droughts, or failure to prevent and respond in advance; the country's transition risks due to climate change, such as the launch of carbon fees or carbon emission trading, will expose the Company to high climate change risks, which may cause negative financial impacts and raise concerns from competent authorities, investors, and business partners at places where the operating sites are located.

Policies and commitments

The Sustainable Environment and Products Team under the Corporate Sustainability Committee of CSRC is responsible for implementing the energy conservation and carbon reduction tasks planned and formulated, calculating carbon emissions and greenhouse gas emissions, and managing and mitigating impacts of climate change.

Action plan

Positive impact management

- We offer carbon management-related education and training
- We conduct annual greenhouse gas inventories to confirm energy conservation and carbon reduction performance and formulate improvement strategies.
- We adopt natural gas to replace fuel oil and introduce waste tire pyrolysis oil containing biomass to reduce greenhouse gas emissions.
- Timely adjust carbon reduction targets and plans, and include carbon reduction performance as a criterion for performance bonus evaluation.

Negative impact management

- Each plant conducts an inventory according to the local government's regulations and regularly make public the carbon reduction performance.
- To achieve the greenhouse gas emission reduction targets, we have formulated reduction strategies for Scopes 1 and 2 greenhouse gas emissions, respectively. To reduce Scope 1 emissions, we regularly evaluate the performance of the improvement to our process equipment and set the target of replacing old equipment with new one. We also manage to reduce the use of crude oil by improving production efficiency. To reduce Scope 2 emissions, we replace energy-efficient equipment to save power, enhance waste heat recovery to generate electricity for our own use, and purchase and use local renewable energy.
- We regularly review key performance indicators (KPIs) of greenhouse gas emissions and update the management status on the internal carbon management platform.
- Each plant conducts inventories in accordance with local government regulations and regularly disclose carbon reduction performance through public information channels.
- Each plant conducts a comprehensive Scope 3 inventory and develop carbon reduction strategies targeting significant emission sources.

Evaluation of effectiveness

- Management review: Each plant reviews its management system in accordance with ISO 14064-1 per year and conducts inventories and discloses the results in accordance with the local government's regulations.
- Regular KPIs assessment: Each plant reviews the greenhouse gas emission KPIs on a monthly and quarterly basis, updates the management status on the internal carbon management platform, and timely adjusts carbon reduction targets and plans, while the plants in the Greater China region include carbon reduction performance in the performance bonus evaluation.

Responsible units

EHS department, EHS offices of all operating plants, and operating departments of each plant

Resources

Regularly prepare a budget every year to invest in compliant, high-performance, and low-polluting machinery and equipment

Complaint mechanisms

The Company's website has a communication mailbox for stakeholders that can be used for complaints.

E-mail: csrcir@csrcgroup.com



Management policies - Energy management

	Medium and Long-Term Targets (2026-2030)	Short-Term Targets (2025)	2024 performance
Cumulative percentage of energy saved	27%	22%	Cumulatively 31.2% from 2021 - 2024
Percentage of self-produced energy	24%	19%	21% in 2024
Percentage of renewable energy used	4%	1.5%	0.73% in 2024

Impact description

Description of positive impact:

CSRC is committed to process improvement, production parameter and equipment optimization, green energy introduction and take direct and effective measures to reduce energy consumption, while indirectly recovering thermal energy and tail gas to actively achieve the goal of energy conservation.

Description of negative impact:

Energy-intensive enterprises cannot meet the expectations of investors and the public for energy conservation and carbon reduction, which may lead to a negative corporate image in the long term and the difficulty of obtaining funds; failure to implement energy conservation plans will result in increased electricity consumption, increased costs of electricity bills, and negative impact on the environment.

Policies and commitments

The Sustainable Environment and Products Team under the Corporate Sustainability Committee is responsible for collecting energy use data, confirming the effectiveness of energy conservation and carbon reduction, formulating improvement strategies, and setting energy performance targets for monitoring.

Action plan

Positive impact management

- We recycle tail gas from the carbon black production lines and convert it into steam for reuse and power generation.

Negative impact management

- Power factor improvement for large energy-consuming electrical equipment (such as motors or capacitors)
- Replacement and renewal of older high-energy-consuming equipment
- We examine energy-saving and carbon reduction performance and formulate improvement strategies.
- We set energy performance targets for monitoring and measurement.

Evaluation of effectiveness

- Internal auditing: Each operating plant conducts an internal audit once per year.
- Management review: All operating plants are working to align their operations with the ISO 50001 energy management standard, improve energy efficiency, and cooperate with government policies to improve the performance of energy-efficient motors.
- Regular KPIs evaluation: We evaluate energy consumption KPIs per year.

Responsible units

All operating departments of each plant

Resources

Regularly prepare a budget every year to invest in compliant, high-performance, and low-polluting machinery and equipment

Complaint mechanisms

The Company's website has a communication mailbox for stakeholders that can be used for complaints.

E-mail: csrcir@csrcgroup.com

Management policies - Air pollution prevention and control

Medium and Long-Term Targets (2026-2030)	Short-Term Targets (2025)	2024 performance
Cumulative reduction in emission intensity Cumulative reduction by another 2-3% compared to 2025	Cumulative reduction by another 1% compared to 2023.	From 2021 to 2024, the Group achieved cumulative reductions of 80% in SOx, 80% in NOx, and 43% in TSP. In 2024, compared to 2023, SOx and NOx emissions were further reduced by 9%, while TSP emissions increased by 23%.

<p>Impact description</p> <p>Description of positive impact:</p> <p>Clean production and eco-friendliness are CSRC's business philosophy and are issues that we will continue to pay attention to and improve. In particular, we care about the environmental quality of the neighborhood and the health of our employees. Therefore, CSRC has adopted high-efficiency pollution prevention and control equipment in advance and regularly examines the prevention and control efficiency to ensure that our operations meet the legal requirements in advance and the standards for ultra-clean emissions.</p> <p>Description of negative impact:</p> <p>Inefficient polluting facilities and uncontrolled air pollution emissions will affect the environment around the operating sites and undermine the quality of life and may result in fines due to failure to comply with regulatory requirements.</p> <p>Policies and commitments</p> <p>The Sustainable Environment and Products Team under the Corporate Sustainability Committee is responsible for monitoring, controlling, and reducing pollutants in the manufacturing process. We continue to maintain the efficiency and stable operation of environmental facilities and pay attention to new technologies and methods to reduce air pollutant emissions in the future and respond to the trend of stricter legal requirements.</p>	<p>Action plan</p> <p>Positive impact management</p> <ul style="list-style-type: none"> All the plants of CSRC have installed De-SOx desulfurization equipment in the exhaust chimneys and low-nitrogen burners in the production and boilers. The equipment with low emission facilities will reduce the emissions of sulfur oxides and nitrogen oxides, to minimize air pollutant emissions. <p>Negative impact management</p> <ul style="list-style-type: none"> Implement air quality monitoring and carry out the maintenance and construction of air pollution control equipment We replace filter bags, maintain waste gas collection facilities, and monitor specific facility use fees and equipment status to reduce dust emissions. <p>Evaluation of effectiveness</p> <ul style="list-style-type: none"> Internal auditing: Each operating plant conducts an internal audit once per year. Management review: Each plant reviews the environmental management system in accordance with the ISO 14001 standard on a yearly basis. In Greater China, an online monitoring mechanism for SOx and NOx, connected with the government's network has been adopted. Internal monitoring systems have also been set up by plants in India and the United States. Regular assessment of KPIs: Each operating plant assesses the KPIs of air pollution emissions per year. 	<p>Responsible units</p> <p>Monitoring by the EHS department and implementation by the EHS offices of all operating plants and operating departments of each plant</p> <p>Resources</p> <ul style="list-style-type: none"> Regularly prepare a budget every year to invest in compliant, high-performance, and low-polluting machinery and equipment Invest in the EBF desulfurization and denitrification system, and install an SCR to reduce NOx emissions, a dry scrubber to reduce SOx emissions, and a filter (PJFF) to reduce PM. <p>Complaint mechanisms</p> <p>The Company's website has a communication mailbox for stakeholders that can be used for complaints.</p> <p>Email: csrcir@csrcgroup.com</p>
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Management policies - Water resource management

	Medium and Long-Term Targets (2026-2030)	Short-Term Targets (2025)	2024 performance
Wastewater recovery rate	Increased by 6% compared to 2023, reaching 95%	Increased by 1% compared to 2023, reaching 90%	In 2024, reached 80.3%
Water use intensity for carbon black production	Decreased by 10% compared to 2023, reaching 5.07 m ³ /ton	Decreased by 5% compared to 2023, reaching 5.35 m ³ /ton	In 2024, reached 4.78 m ³ /ton

Impact description

Description of positive impact:

We effectively manage water resources risks, improve water resource use efficiency, and strengthen the Company's resilience to climate change risks.

Description of negative impact:

Wastewater discharge causes damage to the environment around the operating sites. When the risks of water resources, such as water shortage and decreasing water source quality, increases, the Company's normal operations are affected by water shortages due to improper management of water resources.

Policies and commitments

The 3Rs (reduce, recycle, and reuse) are an important approach of CSRC for water resource management. We will continue to recycle and reuse water resources to reduce water use intensity, thereby eventually achieving zero wastewater discharge. This is also the ultimate goal of the Company. We will continue to take water-saving actions and measures, expand the influence of the water cycle, and actively improve the water consumption in each operating plant.

Action plan

Positive impact management

- We implement a water resource balance project to examine and monitor water consumption in each plant.
- We work with external enterprises to jointly promote water recycling and reuse.

Negative impact management

- We continue to improve the sewage treatment facilities at each plant.
- We expand the water recycling and water-saving measures taken in each plant.
- We improve the process water efficiency in each plant.

Evaluation of effectiveness

- We continue to monitor each plant's wastewater quality and water intake and set KPIs for water resource management to regularly follow up and review.
- Each plant inspects, analyzes, and manages the water consumption every month, and reports to the general plant manager and the President on a regular basis.
- We conduct an internal audit and management review of the environmental management system once per year.

Responsible units

All operating departments of each plant

Complaint mechanisms

The Company's website has a communication mailbox for stakeholders that can be used for complaints.

E-mail: csrcir@csrcgroup.com



Management policies - Waste management

Medium and Long-Term Targets (2026-2030)	Short-Term Targets (2025)	2024 performance
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Waste recycling rate	86%	81%	78.9%
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Impact description

Description of positive impact:

CSRC emphasizes the circular economy concept for waste reuse, properly disposes of business waste, complies with the requirements of various waste laws and regulations, and seeks opportunities for resource reuse.

Description of negative impact:

Waste that cannot be properly reduced will lead to higher transportation and waste treatment costs. Storage of waste on site or improper disposal by the waste disposal service providers may cause pollution to the land and the environment.

Policies and commitments

CSRC adopts the 3R as an important policy for internal waste management. This not only reduces resource consumption but also prevents environmental pollution. For example, waste at the end of the process is reused, including raw material storage tanks (sludge heat recovery), replacement of process consumables, packaging materials, and pallets, and further improvement is made at the source.

Action plan

Positive impact management

- Promote the reduction and recycling of waste in plants
- We continue to improve pollution prevention and control equipment based on the principles of resource recycling and reduction.
- We take resource recycling actions, such as the use of PE bags, reduction of waste wood pallets, and recycling and reuse of waste refractory bricks, inorganic sludge desulfurized gypsum, and slag.

Negative impact management

- We make sure that waste in each plant is in compliance with local law and regulations.
- We work with third-party service providers that can recycle waste for reuse, if possible.

Evaluation of effectiveness

- We continue to monitor the amount of various types of waste resources generated in the plants and set waste management KPIs for regular follow-up and review.
- Each plant reviews the effectiveness of the relevant action plans implemented on a monthly basis and reports to the general plant manager and the President on a regular basis.

Responsible units

EHS department and all plants' EHS offices, storage and transportation teams, and production teams

Complaint mechanisms

The Company's website has a communication mailbox for stakeholders that can be used for complaints.

E-mail: csrcir@csrcgroup.com

ch4 Climate Change Response

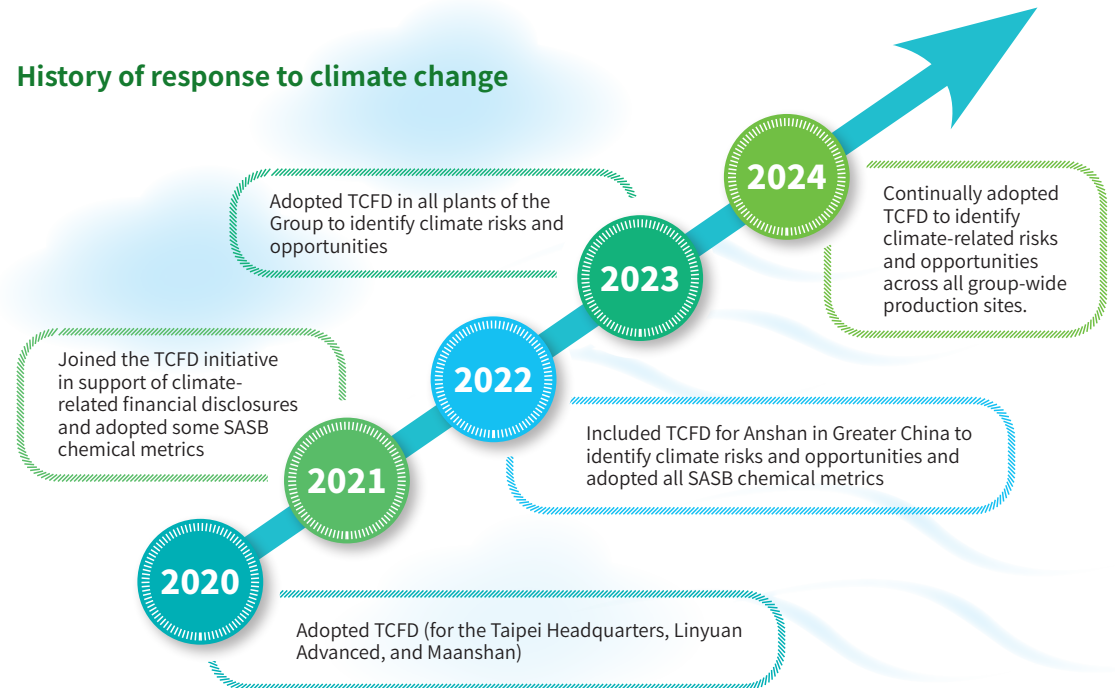
4.1 Response to climate change

4.1.1 Climate change risks and opportunities and financial impacts GRI 201-2

Since the Paris Agreement in 2015, responding to climate change has become an issue that both governments and enterprises must actively address. After the 2021 Climate Change Conference (COP26), representatives from various countries proposed the goal of achieving “Net-Zero by 2050.” COP27 in 2022 reaffirmed the importance of limiting global temperature rise to below 1.5°C. At COP28 in 2023, the first global stocktake of the Paris Agreement was conducted, revealing that efforts to curb global warming remained insufficient. The conference once again urged governments and enterprises to accelerate the transition toward net-zero or low emissions and to invest in low-emission technology research and development (R&D) to reduce carbon emissions. In 2024, COP29 focused on key issues such as climate financing, the establishment of a carbon market, and the phased-out use of unabated coal-fired power plants and inefficient fossil fuel subsidies. However, meaningful progress in climate action remained limited, indicating that further efforts are still required from all nations.

The government of Taiwan also officially announced “Taiwan's Pathway to Net-Zero Emissions in 2050 and Strategy” in 2022, and released the “beta version” of Taiwan’s NDC 3.0 in 2025. The proposed targets aim to reduce net greenhouse gas emissions by 28±2% by 2030 and by 38±2% by 2035, compared to 2005 levels. Given the tightening of domestic and international greenhouse gas regulations, as well as the potential direct impacts of natural disasters caused by extreme weather events on business operations, both transition and physical climate-related risks are expected to affect corporate financial performance. Since 2020, in line with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), CSRC has identified climate risks and opportunities through discussions in ad-hoc meetings and set response targets to gradually mitigate these risks. The scope of assessment has been expanded year by year. In 2023, we incorporated all group-wide production sites — including those in Greater China (Taipei Headquarters, Linyuan Advanced, Consolidated Resource, Maanshan, Anshan, and Chongqing), India (CCET and CCIPL), and the United States (Ponca and Sunray) — achieving 100% identification of climate risks and opportunities. We aligned our reporting boundaries with the TCFD framework, adopted all Sustainability Accounting Standards Board (SASB) chemical sector metrics, and signed the TCFD statement of support.

History of response to climate change

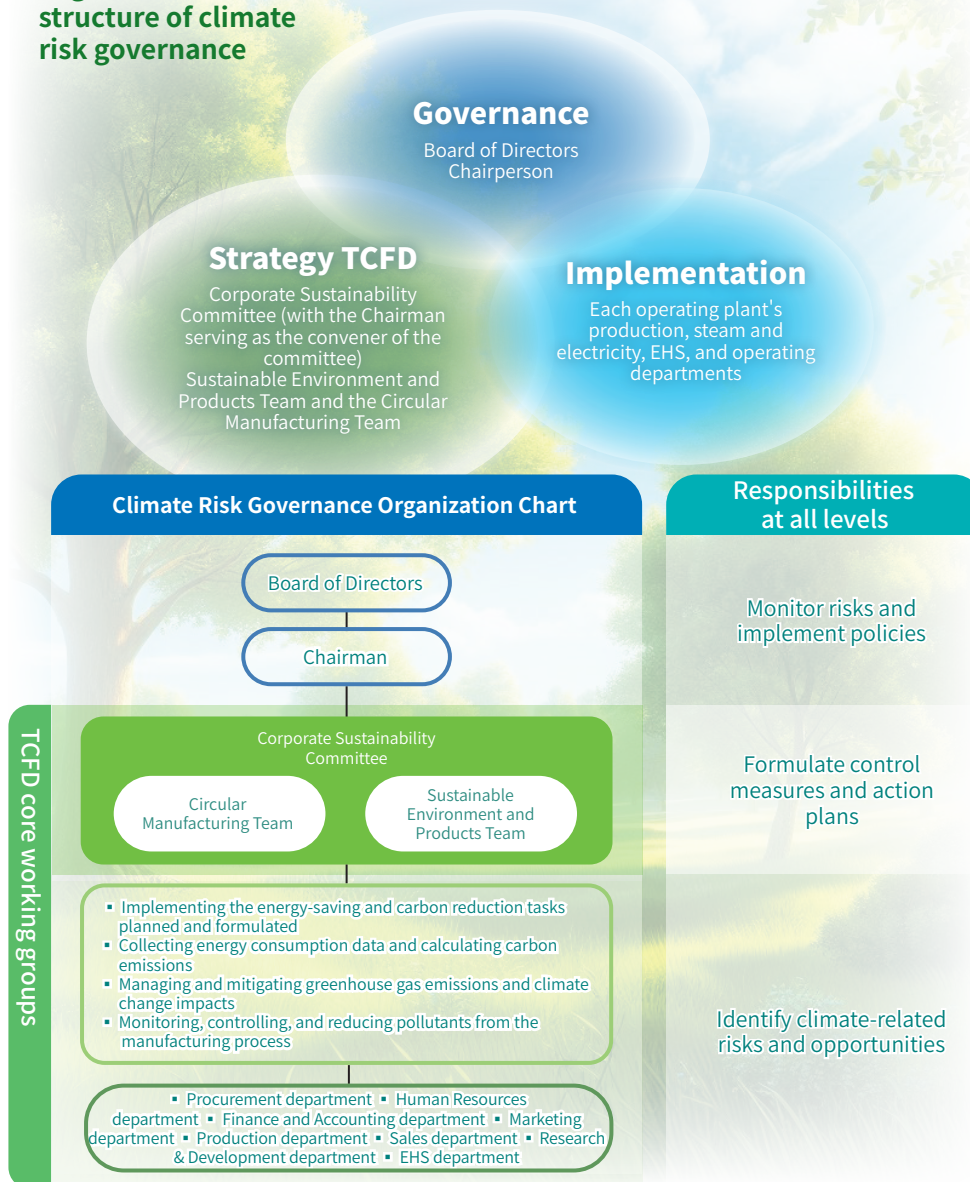


Governance

In climate governance, the Board of Directors serves as the Group’s highest governing body overseeing climate change strategies and initiatives. The Corporate Sustainability Committee has established the “Sustainable Environment and Products Team” and the “Circular Manufacturing Team”, which operate across plants and business units. These teams are responsible for planning and implementing carbon reduction, greenhouse gas emission control, and climate change impact management and mitigation measures. We identify relevant climate change risks and opportunities through each operating plant and department, develop countermeasures, and report the identification results to the Corporate Sustainability Committee on a regular basis. The Corporate Sustainability Committee formulates control measures and action plans for various climate change-related risks and opportunities, adjusts and identifies climate change factors in a timely manner, and assigns each working team to implement control and action plans in accordance with the environmental policies. The Corporate Sustainability Committee regularly reports the core climate risks and opportunities faced by CSRC, countermeasures, and the implementation results to the Board of Directors per year, so that the board can keep abreast of the climate-related risks and opportunities, decide on the relevant management policies, and supervise the implementation.

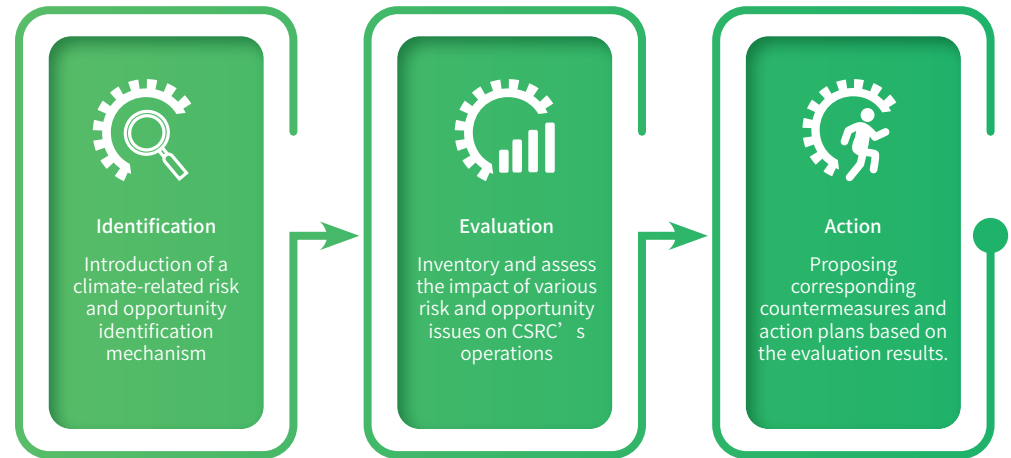
Note: For the complete sustainability governance organizational chart and corresponding responsibilities, please refer to Sustainability blueprint of this report.

Organizational structure of climate risk governance



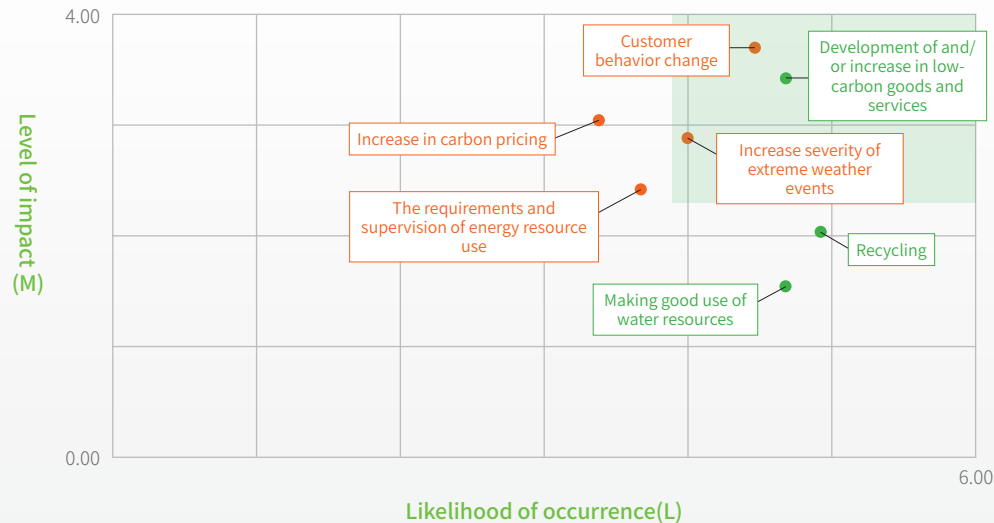
Strategy

CSRC's strategy for climate-related risks and opportunities includes the three major steps of identification, evaluation, and action. A climate-related risk and opportunity identification mechanism has been adopted to fully examine and evaluate the impact of various risks and opportunities on the operations of CSRC and manage them. In 2024, we adopted the same framework to update the examination and evaluate climate-related risks and opportunities.



A matrix of climate change-related risks and opportunities is drawn based on the results of the evaluation of the level of impact and likelihood of impact. It is found that the top two potential risks that CSRC should pay attention to include "customer behavior change" in market risks and "increased severity of extreme weather events" in physical risks; the biggest potential opportunity identified is "development of and/or increase in low-carbon goods and services". CSRC proposes corresponding countermeasures based on the climate-related risks and opportunities identified and regularly tracks the implementation results. In addition, we continue to pay attention to international benchmarking companies in the same industry, sustainability trends, and emerging climate-related risks and opportunities, hoping to strengthen CSRC's operational resilience to climate change and effectively reduce the impact of our operations on the environment.

Matrix of climate change-related risks and opportunities in 2024



Risk ranking

Risk ranking	Risk No.	Type of risk	Risk factor	Time of occurrence
1	R01	Transition risk - market	Customer behavior change	Short-term
2	R02	Physical risk - immediacy	Increase in severity of extreme weather events	Short-, medium-, and long-term
3	R03	Transition risk - policies and regulations	Increase in carbon pricing	Short-term
4	R04	Transition risk - policies and regulations	Requirements and supervision of energy resource use	Short-term

Opportunity ranking

Opportunity ranking	Opportunity No.	Type of opportunity	Opportunity factor	Time of occurrence
1	O1	Opportunity - goods and services	Development of and/or increase in low-carbon goods and services	Short-, medium-, and long-term
2	O2	Opportunity - resource use efficiency	Recycling	Short-term
3	O3	Opportunity - resource use efficiency	Making good use of water resources	Short-term

Note: As for the time of occurrence, short-term ranges from zero to three years, medium-term three to five years, and long-term is five years or above.

Risk Management

In order to understand the impact of climate change on the operations of CSRC, we gradually focus on and manage major risks and opportunities issues through the following identification mechanisms. First, we screened out eight risks and six opportunities related to the chemical industry based on the characteristics of the industry and then handed them over to the manager of each operating plant and various departments to collect domestic and foreign regulations and market/technology issues through literature research and case studies, to fully understand the impacts of various climate risks and opportunities. Then, based on the three aspects of time (short-term, medium-term, or long-term), likelihood of occurrence, and level of impact on operations, we selected significant potential climate risks and opportunities and identified two significant risks and one major opportunity after sorting and ranking through the climate change risk and opportunity matrix. Finally, the senior management reviewed the results to confirm the relevant risks and opportunities and proceeded to take relevant countermeasures.

In order to better understand the impact of climate change on the Company, the two significant risks and one major opportunity identified were qualitatively and quantitatively analyzed through scenario analysis to assess the Company's resilience to climate change risks under different external conditions under physical risk scenarios and transition risk scenarios.

Physical risk scenarios:

We used the RCP8.5 scenario (assuming that all countries in the world do not take any new reduction actions in the future, resulting in an atmospheric radiation reaching 8.5 Wm^{-2} and a carbon dioxide concentration of over 1,370 ppm, which is the most severe scenario among the four scenarios, representing different greenhouse gas concentrations, proposed by the UN Intergovernmental Panel on Climate Change (IPCC) in the Fifth Assessment Report (AR5) and the climate assumptions in international journals for each region for analysis. The relevant assumptions for 2050 are as follows:

- **14%** increase in torrential rain and **50%** in smog in **Greater China**
- **200%** increase in smog in **India**
- **40%** decrease in blizzard in **the United States**

Physical risk considerations:

Increase in the severity of extreme weather events, such as typhoons, floods, (unusual) heavy rains during the plum rainy season, heavy snowfalls, and smog.

Transitional risk scenarios:

CSRC has plants in Greater China, India, and the United States, so we have responded to Taiwan's Pathway to Net-Zero Emissions in 2050 and Strategy and the Climate Change Response Act announced by the government of Taiwan and evaluated transition risks using BAU and IEA B2DS scenarios in line with international trends, law and regulations, and stakeholders' requirements for commitment to net zero by 2050. With that, CSRC will face the following impacts:

Transition risk and climate opportunity considerations:

- 1.Customer behavior change: In response to customers' requirements, the Group participated in sustainability ratings and obtained sustainability certifications, including EcoVadis rating and ISCC PLUS certification.
- 2.Development of and/or increase in low-carbon goods and services:
 - a.Through the R&D of low-carbon technology, we provide the market with new low-carbon solutions and launch low-carbon products to meet customer needs, so as to increase orders received and improve performance.
 - b.We use more efficient production and distribution processes, including replacing energy-saving equipment to save electricity, building new waste heat boiler heat exchangers to increase steam generation efficiency, and replacing high-temperature air preheaters (APHs) to reduce fuel consumption.
 - c.We use low-emission energy sources, including solar and power generated from steam, sell electricity to external parties; increase self-consumption of electricity through solar power generation and purchase of renewable energy certificates to reduce power purchase costs.

Risk	R01	Risk description
Market risks	Customer behavior change	The increase in the awareness of climate change has caused changes in customer preferences for products/services, which may lead to changes in procurement policies. If the products do not meet customer requirements or standard for low-carbon products, product sales and market share may be affected.
Impact on the Company		Countermeasures
The financial impact accounts for 72% of the total financial impact within the TCFD scope.		

Impacts on the Group's plants:

- Customers require participation in the EcoVadis rating. The rating results may affect customers' purchase intention and orders.
- Plants that do not pass the following certifications will affect the orders placed by customers.
 1. Customers require passing of ISCC PLUS certification.
 2. Customers require setting a carbon reduction commitment in accordance with the Science Based Targets initiative (SBTi) methodology.
 3. Customers require participation in the Carbon Disclosure Project (CDP).
 4. Customers require products to be certified by product carbon footprint (ISO 14067) and life cycle assessment (LCA).

Measures taken by the Group's plants:

- Obtaining EcoVadis certification and formulating improvement plans based on the rating results. (In 2024, the Group achieved a Silver Medal ranking, placing in the top 15%.)
- Preparing documents required for the ISCC PLUS certification (The U.S. plant obtained ISCC PLUS certification in 2024, while the Linyuan Advanced Plant received certification in January 2025. The Maanshan Plant and India's CCET are expected to obtain ISCC PLUS certification within 2025.).
- Preparing for the sustainable product certification system, including product carbon footprint (ISO 14067) and LCA.
- Preparing CDP-related materials and hiring professionals for coaching.
- Conduct a comprehensive inventory of Scope 1 to 3 emissions across all facilities, research the SBTi (Science Based Targets initiative) methodology, and establish decarbonization commitments.

Risk	R02	Risk description
Physical risk	Increasing severity of extreme weather events	Extreme climate events (typhoons, floods, (unusual) heavy rains during the plum rainy season, heavy snowfalls, smog, etc.) lead to power outages, water rationing, or equipment damage, resulting in work stoppages and business interruption, interruption of supply of raw materials, resulting in the inability to produce; or inaccessible roads, resulting in goods failing to be delivered as scheduled.
Impact on the Company		Countermeasures
The financial impact accounts for 28% of the total financial impact within the TCFD scope.		

<p>Greater China:</p> <p>Linyuan Advanced</p> <ul style="list-style-type: none"> ▪ Flooding: The plant was flooded due to a typhoon. The flooding caused by wind disasters over the past five years is relatively minor, and only the roads inside the plant were flooded, obstructing the travel of personnel. <p>Maanshan</p> <ul style="list-style-type: none"> ▪ Flooding: As it is only 1 kilometer away from the Yangtze River in China and it is located in low-lying areas, the plant was inundated by about 50cm of water in 2020 due to torrential rain and the failure to open the main drainage valve of the local government in time. The plant was forced to shut down the production line for one day. ▪ Smog: In 2019, during heavy pollution weather, enterprises below Grade A were required to stop operations. In 2022, Maanshan successfully upgraded from Grade C to Grade B. ▪ Blizzard: In 2023, a heavy snowfall only hindered commuting but did not affect the normal production of the production lines and the supply of raw materials and the delivery of products. <p>Anshan</p> <ul style="list-style-type: none"> ▪ Smog: Production was suspended between 2021 and 2022 due to heavy pollution weather. <p>India:</p> <p>CCIPL</p> <ul style="list-style-type: none"> ▪ Smog: Production was suspended at the end of 2018 due to severe air pollution. <p>USA:</p> <p>CCC Ponca and CCC Sunray</p> <ul style="list-style-type: none"> ▪ Blizzard: There were two severe power outages in 2023 and 2024 due to winter storms, causing half a month of work stoppages and significantly affecting profitability. 	<p>Greater China:</p> <p>Linyuan Advanced</p> <ul style="list-style-type: none"> ▪ Flooding: It desilts regularly and confirms supplies and disaster prevention measures before wind disasters. It closes iron gates and water-controlling gates in the plant and preparing sandbags to prevent flooding in the event of heavy rains. <p>Maanshan</p> <ul style="list-style-type: none"> ▪ Flooding: It ensures smooth drainage and has emergency supplies in place, such as flood-controlling sandbags. It cooperates with government policies and regularly holds emergency response exercises during flood-prone periods. ▪ Smog: It adds environmental equipment to reduce emissions, implements 6S management on-site, reduces leakage from equipment pipelines, strengthens equipment maintenance, and reduces fugitive emissions. It strives to improve the national emission level. ▪ Blizzard: It has added snow removal tools, regularly checks the load-bearing capacity of building roofs, and holds emergency exercises. <p>Anshan</p> <ul style="list-style-type: none"> ▪ Smog: It adds environmental equipment to reduce emissions, implements 6s management on-site, reduces leakage from equipment pipelines, strengthens equipment maintenance, and reduces fugitive emissions. It strives to improve the national emission level. ▪ Blizzard: It has added snow removal tools and regularly checks the load-bearing capacity of building roofs <p>India:</p> <p>CCIPL</p> <ul style="list-style-type: none"> ▪ Smog: It has installed halogen lamps to control visibility. During heavy smog, shipments are affected and buffer time is needed. ▪ It has formulated and implemented a comprehensive Emergency Response Plan (ERP) to quickly and effectively mitigate the impact of extreme weather events. <p>USA:</p> <p>CCC Ponca and CCC Sunray</p> <ul style="list-style-type: none"> ▪ Blizzard: It confirms that the blizzard contingency procedures are up-to-date, repairs and protects the affected equipment during the most recent blizzard, and confirms the equipment required for a blizzard.
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Risk	R03	Risk description
Policy and regulation risk	Increase in carbon pricing	Operational sites are required to reduce carbon emissions due to the total quantity control mandates from various governments in order to achieve net-zero targets, such as the European Union, the United States, India, mainland China and Taiwan, if a company is a major carbon emitter, the organization may be required to increase carbon offsets, or pay higher carbon fees, or need to purchase carbon credits through carbon trade to offset emissions. The price per ton of carbon emissions may increase year by year, putting pressure of higher capital expenditure on organizations.
Impact on the Company		Countermeasures
<p>Greater China:</p> <p>Linyuan Advanced</p> <ul style="list-style-type: none"> The main source of carbon emissions is Scope 1 (feedstock oils). Due to the decrease in the carbon number of feedstock oil in recent years, it is necessary to use more feedstock oil to produce the same amount of carbon black, indirectly leading to an increase in greenhouse gas emissions and an increase in operating costs (increase in the purchase of feedstock oil and carbon fees paid). Based on Taiwan's Climate Change Response Act, the cost of carbon fees will increase. <p>Maanshan</p> <ul style="list-style-type: none"> At present, the Chinese government has not yet imposed total quantity or intensity-based emission controls on the Maanshan Plant. <p>Anshan</p> <ul style="list-style-type: none"> In 2021, Anshan was listed as a key emitting enterprise in the chemical industry by the local government of China. However, the government has not yet implemented control over the total amount and intensity of emissions. <p>Chongqing</p> <ul style="list-style-type: none"> Chongqing plant is included in Chongqing’ s list of key greenhouse gas emitters in 2021 and 2022. In March 2024, in accordance with the Notice from Chongqing Municipal Ecology and Environment Bureau on the Requirements for the Chongqing Carbon Market’ s Carbon Allowance and Settlement of 2021 and 2022 Carbon Emissions, Chongqing purchased carbon allowance to fill the gap and fulfill the contract at a cost of RMB 310 thousands. <p>India:</p> <p>CCET and CCIPL</p> <ul style="list-style-type: none"> The Indian government is currently evaluating a carbon emission tax system and has only provided a draft policy framework but has not yet finalized the implementation timeline, so there is no risk of impact at present. (CC IPL is an enterprise included in the consideration by the Indian government.) <p>USA:</p> <p>CCC Ponca and CCC Sunray</p> <ul style="list-style-type: none"> CCC Ponca and CCC Sunray’ s emissions and industry are in line with the requirements of the U.S. Clean Competition Act (CCA), but the implementation timeline is not yet clear. 		<p>Greater China:</p> <p>Linyuan Advanced</p> <ul style="list-style-type: none"> It regularly reviews greenhouse gas emissions and appoints a third party to verify its greenhouse gas inventory. It is actively seeking low-carbon alternative raw materials, enhancing equipment processing efficiency, and optimizing production processes to reduce carbon emissions. <p>Maanshan and Anshan</p> <ul style="list-style-type: none"> They appoint a third party to verify greenhouse gas inventories per year and continue to calculate carbon emissions independently (monthly) to control carbon emissions by reducing the use of materials. They have established an e-carbon management system and formulated carbon reduction plans and targets at the beginning of each year. <p>Chongqing</p> <ul style="list-style-type: none"> It appoints a third party verify greenhouse gas inventories per year. It works to increase the furnace temperature to reduce fuel consumption per unit of production and reduce the consumption of feedstock oil. In 2022, the low-nitrogen burner of Line U1 was equipped with a flue gas recirculation system, and the existing burner was replaced with a low-nitrogen one, and the carbon black tail gas was used to replace natural gas to reduce the natural gas used in the waste gas furnace. <p>India:</p> <p>CC IPL</p> <ul style="list-style-type: none"> It engages in regular research, monitoring, and analysis on climate change and changes in emission policies around the world and in regions and has formulated a comprehensive carbon management strategy in line with global best practices and regulatory requirements. It analyzes product carbon footprint, including tracking and reporting emissions and setting emission reduction targets. It offers training to employees on climate risk awareness, mitigation strategies, and sustainability practices. <p>CCET</p> <ul style="list-style-type: none"> Investing in waste heat recovery power generation, which operates without external power input, helps reduce carbon emissions. It has replaced reactors and heat exchangers and purchased backup heat exchangers to reduce carbon emissions. <p>USA:</p> <p>CCC Ponca and CCC Sunray</p> <ul style="list-style-type: none"> They improve process efficiency, reuse tail gas, and invest in cogeneration equipment to produce and sell electricity and steam.

Risk	R04	Risk description
Policy and regulation risk	Requirements and supervision of energy resource use	1. Due to the impact of the national water-saving policy, heavy water users will be subject to water conservation charges, which will increase operating costs. 2. In addition to water-saving policies, other energy resources, other energy resources-related laws and regulations, such as electricity (big electricity users), oil, or natural gas, may also increase operating costs.
Impact on the Company		Countermeasures
Greater China: Linyuan Advanced <ul style="list-style-type: none"> Taiwan Water Consumption Fee: NT\$3 per cubic meter for water consumption exceeding 9,000 cubic meters. Charging period: From November of the prior year through April of the year, and the charge is made once per year. Maanshan <ul style="list-style-type: none"> As per Maanshan Urban Fixed Public Water Use Management Regulations of China: The first stage is water consumption within a fixed amount, which is determined according to the tap water sales price in a corresponding category announced by the competent authority (hereinafter referred to as the "base water price"); the second stage is for water use that is 20% or less than the amount, and an additional water fee is charged at 0.5 times the base water price; the third stage is for water use exceeding the amount by more than 20%, with an additional water fee charged at one time the base water price. Anshan <ul style="list-style-type: none"> As per the Water Law of the People's Republic of China implemented in Liaoning Province, the water allocation program of the administrative area is formulated by the local water administration authority and implemented after being reported to the local government at the same level for approval. The fixed amount of water intake for carbon black is ≤ 24.5 m³ /t. 		Greater China: Linyuan Advanced <ul style="list-style-type: none"> Linyuan Advanced aims to increase the use of reclaimed water to reduce the impact of the Water Consumption Fee. It aims to maintain the stable operation of the wastewater plant to produce reclaimed water and increase the wastewater recycling rate. Maanshan <ul style="list-style-type: none"> Applied for a water use quota: the permitted water usage for 2024 was 834,257.4 m³, while the actual usage was 662,943 m³, demonstrating water-saving efficiency in compliance with national requirements. It works to increase the wastewater recycling rate and reduce wastewater discharge. Anshan <ul style="list-style-type: none"> It works to increase the wastewater recycling rate and reduce wastewater discharge. Chongqing <ul style="list-style-type: none"> There is a wastewater treatment plant on-site, and no wastewater is discharged, and the wastewater recycling rate is 100%.



Opportunities	O01	Description of opportunities
Opportunities from Goods and service	Development of and/or increase in low-carbon goods and services	<ol style="list-style-type: none"> Through the R&D of low-carbon technology, we provide the market with new low-carbon solutions and launch low-carbon products to meet customer needs, so as to increase orders received and improve performance. We use more efficient production and distribution processes, including replacing energy-saving equipment to save electricity, building new waste heat boiler heat exchangers to increase steam generation efficiency, and replacing high-temperature APHs to reduce fuel consumption. We use low-emission energy sources, including solar and power generated from steam, sell electricity to external parties; increase self-consumption of electricity through solar power generation and purchase of renewable energy to reduce power purchase costs.
Description of impact on the Company		Countermeasures
The potential financial impact is projected to increase by approximately 5% in 2025 and around 17% in 2030 under the Business-As-Usual (BAU) scenario.		

Impacts on the Group's plants:

- Based on the technical test of the alternative oils (tire pyrolysis oil, TPO), the oils can reduce carbon emissions and improve resource utilization rate.
- Recycled carbon black (rCB) mixed with carbon black can reduce product carbon emissions and improve resource utilization rate without affecting product performance.
- Replacing APHs can effectively increase the temperature of the reactor and make carbon black burn more completely, which in turn helps to reduce oil consumption per unit of production and increase carbon black output with the same oil input.

Greater China:

Linyuan Advanced

- Due to the increasing attention paid to energy efficiency in the electric vehicle and the automobile industries, it has developed low-rolling resistance carbon black series, CC series, and T series, to increase market share.

Greater China:

Linyuan Advanced

- The introduction levels of TPO and rCB are adjusted based on process parameters to ensure the stability of carbon black quality.
- APH units are regularly cleaned to maintain heat exchange efficiency and are replaced as needed; aging pipelines are also phased out accordingly.
- New waste heat boiler heat exchangers were installed to increase steam generation efficiency.
- Solar power is generated for self-consumption and bulk sale; tail gas at the end of the process is recycled and converted into steam for neighboring factories or its own operations.

Maanshan

- The introduction levels of TPO are adjusted based on process parameters to ensure the stability of carbon black quality.

Maanshan, Anshan, and Chongqing

- Modifying the APH specifications can increase the furnace temperature and reduce the fuel consumption per unit of carbon black production.
- Low-nitrogen burners were installed to reduce natural gas consumption and carbon emissions.
- Power equipment was replaced with energy-saving motors to reduce electricity consumption.
- New waste heat boiler heat exchangers were installed, and the steam generation efficiency increased.
- The waste heat is used for heat exchange to produce steam, and the steam will be used for steam power generation; the electricity generated will be transported to the national grid for sale of electricity.

India:

CCET

- Natural gas, rather than oil fuel, has been used as the fuel to start boiler burners. The prices of natural gas in India are high due to government control. If the prices are reduced in the future, it will be able to be used to produce carbon black to offset the carbon tax.

CCET and CCIPL

- The waste heat is used for heat exchange to produce steam, which is then utilized for steam power generation. The electricity generated is sold to other factories.

USA:

CCC Ponca and CCC Sunray

- The Ponca plant utilizes waste heat recovery for self-generated power.
- Ongoing discussions are underway to implement carbon capture and storage (CCUS) technology to reduce carbon emissions, which is expected to achieve carbon reduction and create new business opportunities.
- They purchase renewable energy.

Opportunities	O02	Description of opportunities
Opportunities from resource use efficiency	Recycling	Through material recycling (such as waste heat recovery and reuse, pallets, waste recycling), it is possible to extend the life cycle and reduce operating costs.
Description of impact on the Company		Countermeasures
<p>Impacts on the Group's plants:</p> <ul style="list-style-type: none"> Recovered process tail gas is sent to cogeneration units for power generation or to produce steam for external sale, thereby increasing revenue. <p>Greater China:</p> <p>Linyuan Advanced</p> <ul style="list-style-type: none"> Waste is recycled and reused, such as waste bulk bag, waste bricks, and remade into SRF. Waste heat is recycled and reused. <p>Maanshan, Anshan, and Chongqing</p> <ul style="list-style-type: none"> Pallets (made of plastic and reused by two or three customers) are shared. Ground carbon are sold. Flue gas desulfurization waste - desulfurization gypsum is transported to partner cement manufacturers to be used as a raw material in cement production. Waste heat is recycled and reused. <p>India:</p> <p>CCET 、CCIPL</p> <ul style="list-style-type: none"> Plastic pallets are reused. Flue gas desulfurization waste is processed into gypsum and sold to local cement manufacturers. High-efficiency waste heat recovery equipment was installed. 		<p>Greater China:</p> <p>Linyuan Advanced</p> <ul style="list-style-type: none"> The efficiency of waste heat recovery and reuse is monitored. Waste disposal documents are sorted according to the storage location, regularly audited by the EHS Department, and passed ISO 14001 certification every year. It actively seeks waste recycling companies. <p>Maanshan, Anshan, and Chongqing</p> <ul style="list-style-type: none"> The efficiency of waste heat recovery and reuse is monitored. They continue to use the pallet rental service. Pallet rental companies are responsible for recycling as many pallets as possible, and each supplier does not need to purchase additional pallets. In 2024, a total of 1,528.96 tons of desulfurized gypsum was transported to partner cement plants for use as raw material in cement production. <p>India:</p> <p>CCET</p> <ul style="list-style-type: none"> In 2024, a total of 1,078.47 tons of desulfurized gypsum was transported to partner cement plants for use as raw material in cement production.

Opportunities	O03	Description of opportunities
Opportunities from resource use efficiency	Making good use of water resources	1. Recycled water, rainwater, and wastewater in the plants for reuse can reduce the use of water resources and reduce operating costs. 2. The leakage of water in the production process is reduced, such as water consumption, thus reducing operating costs.
Description of impact on the Company	Countermeasures	
<p>Impacts on the Group's plants:</p> <ul style="list-style-type: none"> Recycling of process and wastewater in each operating plant helps to reduce raw water intake, thereby reducing water costs. <p>Greater China:</p> <p>Linyuan Advanced</p> <ul style="list-style-type: none"> Linyuan Advanced stopped the operation of part of its production lines due to drought and water shortage. Recycling process wastewater can effectively reduce water consumption. Recycling water can reduce the problem of excessive water costs caused by Water Consumption Fee and reduce water costs. <p>India:</p> <p>CCET</p> <ul style="list-style-type: none"> A wastewater recycling system was installed. Recycling steam condensate from nearby customers who buy our steam could help reduce the use of fresh water. 	<p>Greater China:</p> <p>Linyuan Advanced</p> <ul style="list-style-type: none"> At present, we continue to repurchase the steam condensate from LCY Chemical Corp. back to our plant. The operation of the wastewater treatment plant has remained stable. Steam generated during operations is sold to neighboring factories, increasing revenue, while the condensate from the leftover steam is returned to the Linyuan Advanced Plant by these neighboring factories. Through this water balance project, the reclaimed water from the cooling water tower is returned to the desulfurization tower, the effluent of the air dryer in the steam and power zone is recycled, the wastewater from the rainwater tank is recycled, and the backwash water regenerated from the purified water equipment is recycled. <p>Maanshan</p> <ul style="list-style-type: none"> The desulfurization wastewater is treated and filtered before being reused in the process. The process wastewater is recycled and purified in the in-house sewage treatment plant. After purification, at least 95% of the wastewater is recycled and used in the manufacturing process, and the rest is used for floor cleaning and other purposes, replacing tap water. Maanshan has formulated the Wastewater Treatment Plant Operating Regulations with reference to "IATF 16949-2016 Automotive Industry Quality Management System", "ISO 9001-2015 Quality Management System", and "GB/T 19022-2003 Measurement Management System Measurement Process and Measurement Equipment Requirements", to regulate the operation of sewage treatment equipment, abnormal accident handling procedures, and occupational safety requirements to ensure that the sewage treatment plant can efficiently manage and achieve the purpose of water purification. <p>India:</p> <p>CCET</p> <ul style="list-style-type: none"> Developed a plan and worked closely with steam buyers to recover steam condensate from the steam sold to customers. A wastewater treatment and recycling system has been installed, and the construction of on-site rainwater harvesting facilities is under consideration and will be launched in the next three to five years. <p>USA:</p> <p>CCC Ponca and CCC Sunray</p> <ul style="list-style-type: none"> They recycle all water around the plants and reuse all water resources. 	

Indicators and targets

As Taiwan's Pathway to Net-Zero Emissions in 2050 and Strategy and the Sustainable Development Roadmap for TWSE/TPEx Listed Companies released by the Financial Supervisory Commission (FSC), key indicators are used to measure and manage climate-related risks (including physical and transition risks) and opportunities, including greenhouse gas emissions, energy use, customer behavior change (circular economy), and the development and/or increase of low-carbon goods and services. Annual targets are set for each indicator for management and performance tracking. For the details of the targets sets (short-, medium-, and long-term targets) of each key indicator and the implementation performance in 2024, please refer to the corresponding chapters in the sustainability report.

Indicator	Item	Sustainability report chapter
Greenhouse gas emissions	<ul style="list-style-type: none"> Conducting ISO 14064-1 greenhouse gas inventory and verification Renewable energy generation 	Chapter 4.2 Energy and Greenhouse Gas Management
Energy use	<ul style="list-style-type: none"> Enhancing energy efficiency Recycling process tail gas for self-generation of electricity Adopting high-efficiency equipment 	Chapter 4.2 Energy and Greenhouse Gas Management
Customer behavior change (Circular economy)	<ul style="list-style-type: none"> Increasing the number and revenue of green product lines Establishing a green supply chain 	Chapter 3.2 Practicing New Circular Economy Model Chapter 2.2 Green Products
Development of and/or increase in low-carbon goods and services	<ul style="list-style-type: none"> Researching and developing low-carbon technology to launch new low-carbon solutions on the market, such as low-rolling resistance carbon black series, CC series and T series. 	Chapter 2.2 Green Products

4.2 Energy and Greenhouse Gas Management

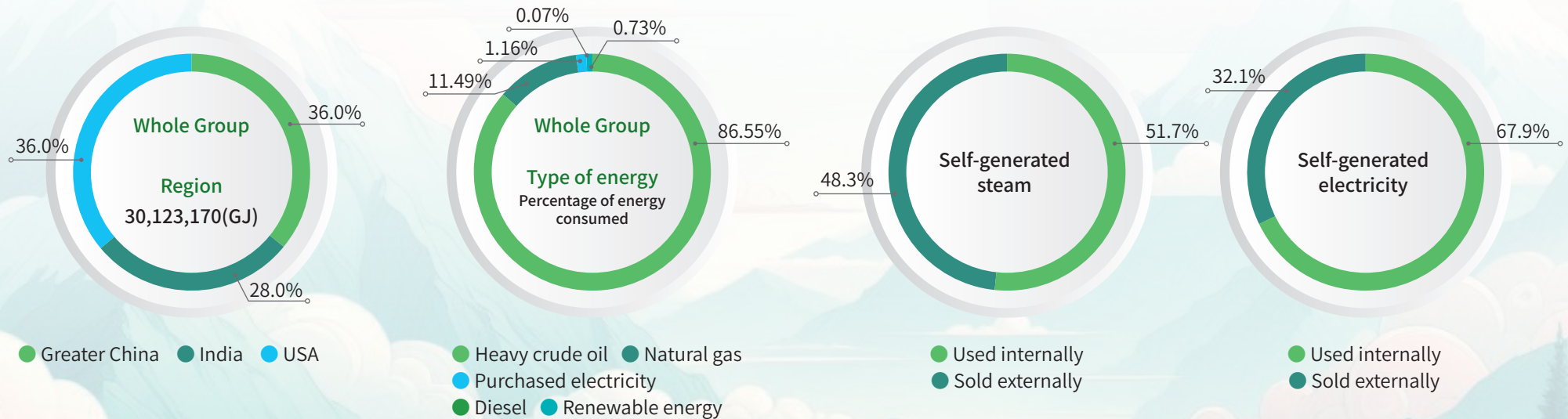
4.2.1 Enhancing energy efficiency GRI 302-1 、302-3 、302-4 、305-5 ; SASB RT-CH-130a.1

In the process of manufacturing carbon black, CSRC primarily uses energy sources including heavy oil, purchased electricity, natural gas, diesel, self-generated electricity, and process tail gas. Some plants also utilize renewable energy. In 2024, the group's total internal energy consumption reached 30,123,170 GJ, with Greater China accounting for 36%, India 28%, and the United States 36%. Although the total carbon black production increased compared to 2023—resulting in higher overall energy consumption—the plants continued to improve process technologies and recover waste heat to maintain the group's energy intensity. In 2024, the group's overall energy intensity was 77 GJ per metric ton of product. The regional energy intensities were 71 GJ/ton in Greater China, 73 GJ/ton in India, and 88 GJ/ton in the United States.

Regarding self-use ratios of steam and electricity in 2024, Greater China had 39.8% steam self-generation and self-use, and 73.2% self-use of self-generated electricity. India had 90% steam self-generation and self-use, and 58.4% self-use of self-generated electricity. The United States had 1.9% steam self-generation and self-use, and 74.7% self-use of self-generated electricity. For the entire group, steam self-generation and self-use accounted for 51.7%, while self-use of self-generated electricity was 67.9%.

CSRC will continue to track each operating plant's carbon black output, gas output and electricity consumption per ton of carbon black, power generated per unit of steam, boiler use status, and steam feedwater quality for energy use efficiency management, while repairing and maintaining equipment to ensure that the equipment is operating with high energy efficiency.

Energy usage



Note: Purchased renewable electricity is included in the renewable energy ratio in this figure.

Energy consumption by region over the past three years

Unit: GJ

Category		Greater China			India			USA			Group		
		2022	2023	2024	2022	2023	2024	2022	2023	2024	2022	2023	2024
Heavy crude oil		12,869,061	10,307,568	9,980,383	4,200,306	5,153,092	8,383,299	9,186,073	7,751,492	7,707,190	26,255,440	23,212,152	26,070,872
Purchased electricity		364,588	263,116	222,661	798	57,397	39,037	127,573	150,864	88,658	492,959	471,376	350,356
Purchased renewable power		0	0	0	0	0	0	52,967	22,172	88,658	52,967	22,172	88,658
Biomass fuel		238,682	163,855	132,091	0	0	0	0	0	0	238,682	163,855	132,091
Natural gas		281,619	311,568	500,733	151	26,745	8,108	2,291,546	2,955,965	2,951,606	2,573,315	3,294,277	3,460,447
Diesel		11,241	11,938	6,107	12,068	7,640	7,166	1,278	6,895	7,473	24,587	26,473	20,746
Total internal energy consumption		13,765,191	11,058,045	10,841,975	4,213,323	5,244,874	8,437,610	11,659,437	10,887,388	10,843,585	29,637,950	27,190,305	30,123,170
Energy intensity (GJ/ ton)		74	72	71	77	74	73	87	87	88	79	78	77
Process tail gas		3,203,701	2,614,760	2,619,780	955,290	1,297,980	1,419,474	2,039,393	2,048,016	2,029,966	6,198,384	5,960,756	6,069,220
Self-generated steam	Self-use	1,723,522	1,443,166	650,172	55,995	1,105,775	2,096,862	52,486	44,637	26,126	1,832,003	2,593,578	2,773,160
	Sold externally	1,596,774	1,269,678	985,414	120,137	118,098	232,256	1,205,581	1,096,313	1,377,640	2,922,492	2,484,089	2,595,310
Self-generated electricity	Self-use	190,180	185,416	193,688	128,527	59,901	250,301	336,996	307,366	296,113	655,703	552,683	740,102
	Sold externally	35,735	35,663	70,849	121,177	144,180	178,624	227,729	165,639	100,297	384,641	345,482	349,770

Note:1. There are two sources of process tail gas. One is the tail gas from the pyrolysis of the oil used to produce carbon black. The tail gas consists of H₂, C₂ H₂, CH₂, and CO, and is flammable; the other source is the carbon black gas after the carbon black in the gas-solid phase generated during combustion is separated from gas-solid separation in the baghouse dust collector. The carbon black gas, plus the aforementioned tail gas from the pyrolysis of the oil can be collected using a tail gas recirculation method, can be used for drying carbon black in pelletizing and burning fuel for steam power boilers.

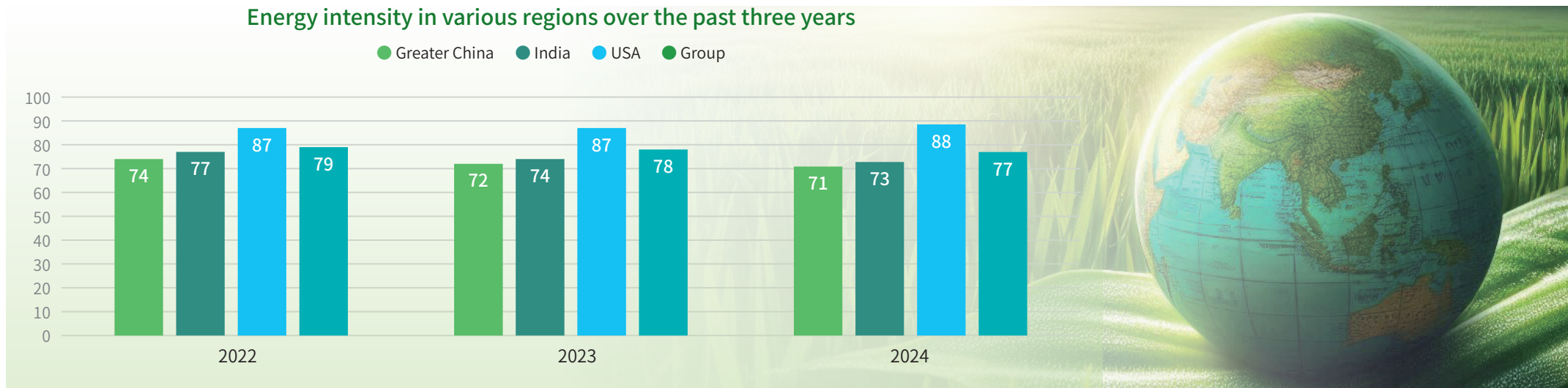
2. The total internal energy consumption is calculated based on the actual fuel and energy types used, including heavy oil, purchased electricity, purchased renewable electricity, biomass fuel, natural gas, and diesel. Process tail gas, self-generated steam, and self-generated electricity are by-products of burning raw fuel oil and are therefore excluded from the calculation to avoid double counting of energy consumption.

3. The calorific values for energy conversion are based on the unit heat values announced by the Bureau of Energy, Ministry of Economic Affairs in 2024. For process tail gas, since the process conditions are similar across plants, the calorific value is based on the 2024 tail gas composition analysis of the Linyuan Advanced Plant, which is 644.2 kcal/m³. The calorific values for the three plants in Mainland China are calculated according to China’ s national emission standard, “Energy Consumption Limits for Carbon Black Unit Products.”

4. Energy intensity refers to the energy consumption (GJ) per unit of carbon black production (tons). It is calculated as energy intensity = total internal energy consumption ÷ 2024 carbon black production. The group’ s 2024 carbon black production totaled 391,502 tons, with 152,998 tons in Greater China, 115,965 tons in India, and 122,539 tons in the United States. In addition to four production bases, the Greater China region also includes Xieyuan and the Taipei Headquarters.

5. In 2024, the Greater China region increased natural gas usage due to fuel oil conversion initiatives aimed at carbon reduction.

6. Diesel and steam energy consumption in the US plants for 2023 were recalculated and corrected this year due to unit conversion errors.



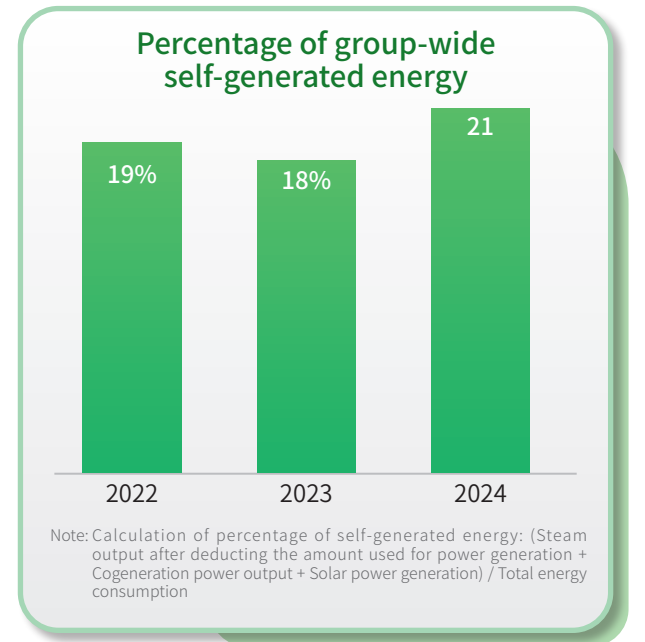
Energy management

CSRC’ s energy management is divided into two main directions: energy structure management and improving energy use efficiency. Energy structure management primarily focuses on adjusting towards a circular economy model. Examples include recovering process tail gas to convert into steam for power generation used internally and externally, installing solar power systems to increase renewable energy production, and using biomass fuels to reduce greenhouse gas emissions as part of energy-saving and carbon reduction initiatives. Improving energy use efficiency mainly involves enhancing equipment electricity efficiency, maximizing value by reusing heat energy, reducing purchased electricity demand, and regularly maintaining and replacing major equipment to sustain heat exchange efficiency.

To improve energy management performance, CSRC regularly compiles energy usage data from all operating sites to guide adjustments in energy policies. All related data are audited by the Management Department to ensure accuracy. The General Manager and Chief Strategy Officer participate periodically in these meetings to guide the company’ s operational direction on energy conservation and emission reduction.

In 2024, CSRC total power generation from energy-saving projects related to energy structure management across all operating sites was approximately 304,284.1 MWh, including 1,610.7 MWh from renewable energy generation. For energy efficiency improvement projects, modifications to the reactor air preheater increased heat exchange area and efficiency, resulting in a total reduction of 4,677.6 tons CO₂e in greenhouse gas emissions.

All operating sites will continue to enhance their energy management capabilities. Since 2023, they have planned system assessments for replacing fuel oil with natural gas and renewable oil products. By gradually replacing high-emission fuel oils, the plan effectively reduces greenhouse gas emissions. The implementation of this plan in 2024 is expected to reduce emissions by a total of 14,588 tons CO₂e.



Group-wide energy conservation and carbon reduction projects in 2024

Energy conservation projects		Description	Performance in 2024
Energy structure management	Process tail gas was recovered and converted into steam for power generation.	The steam from the waste heat boilers in the production lines can be supplied for heating in oil tanks or used in the carbon black production lines or supplied to the neighboring factories. If there is still residual steam, it can also be used to generate electricity for our own operations.	The Group's power generated was 302,673,400 kWh, accounting for 92.4% of the total power consumption.
	A solar power system was installed.	The idle space on the rooftop of an on-site warehouse was provided to the solar energy company (Chailease), and a solar system was installed on the rooftop.	Greater China <ul style="list-style-type: none">Linyuan Advanced had an installed capacity of 1382.4 kWh, generated 1,610,730 kWh of power, and reduced carbon emissions by 795.7 tCO₂e.
	Natural gas was used to replace heavy crude oil as fuel.	Greenhouse gas emissions were reduced.	Greater China <ul style="list-style-type: none">Linyuan Advanced and Chongqing reduced carbon emissions by about 12,621 tCO₂e.
	Recycled oil (TPO) was used as fuel.	Greenhouse gas emissions were reduced.	Greater China <ul style="list-style-type: none">Linyuan Advanced and Maanshan reduced carbon emissions by 1,967.36 tCO₂e (calculated based on 55% biomass content).
	Usage of renewable energy	Greenhouse gas emissions were reduced through the use of renewable energy.	A total of 22,246 MWh of renewable energy was used in the United States.
Enhancing energy efficiency	Process has been improved.	The main blower was modified to a steam turbine, and the steam condensate was recovered.	India <ul style="list-style-type: none">The CCET plant recovers exhaust heat from the steam turbine to reduce the thermal load on the cooling tower. The condensed steam from the turbine outlet is recycled and used as make-up water for the steam boiler, resulting in a total recovered heat of 142,780 GJ. This corresponds to a carbon reduction of 444 tCO₂e.
		Tracking Energy Consumption per Unit of Major Products and Ongoing Oil-Saving Efforts	Greater China <ul style="list-style-type: none">The Anshan and Chongqing plants reduced oil consumption by 5,807.8 tons, corresponding to a decrease of approximately 17,594.6 tCO₂e.
		Upgrading C2 Air Preheater to Increase Air Temperature	Greater China <ul style="list-style-type: none">The Maanshan plant upgraded the U6 air preheater and increased the heat exchange area, resulting in an oil consumption reduction of 1,627.8 tons and a carbon emission reduction of 4,496 tCO₂e United States <ul style="list-style-type: none">The Ponca plant performed retubing of its air preheater to enhance heat exchange efficiency, leading to an oil consumption reduction of 65.7 tons and a carbon emission reduction of 181.6 tCO₂e.
	Equipment optimization	Re-selection of rotating equipment, redesign of impellers for wind turbines and pumps with overcapacity design.	United States <ul style="list-style-type: none">The Sunray plant reduced electricity consumption by 550,243 kWh, which translates to a carbon reduction of 271.8 tCO₂e.
		Ongoing Replacement with High-Efficiency Energy-Saving Motors such as replacing wind turbine motors with ultra-high efficiency electric motors, etc.	India <ul style="list-style-type: none">The CCIPL plant replaced fan motors with high-efficiency motors, saving a total of 6,712 kWh, which translates to a carbon reduction of 3 tCO₂e.
Implementation of the ISO 50001 Energy Management System		ISO 50001 energy management system is implemented.	Greater China <ul style="list-style-type: none">Linyuan Advanced has completed the establishment of the ISO 50001 energy management system.

High-efficiency electromechanical equipment was replaced.



Coverage of production and operation sites adopting environmental sustainability-related ISO management system standards:

Verification standards	Plants	Group coverage	Certification and verification institution
ISO 14001:2015	Greater China: Linyuan Advanced Plant, Maanshan Plant, Anshan Plant, Chongqing Plant India: CCET plant, CCIPL plant	75%	GCL、CQC、CQM、SGS、IRCLASS、DNV
ISO 50001:2018	Greater China: Linyuan Advanced	12.5%	BSI

ISO 50001 energy management system certification statement



Linyuan Advanced
ISO50001:2018
Valid until: 2026/01/10

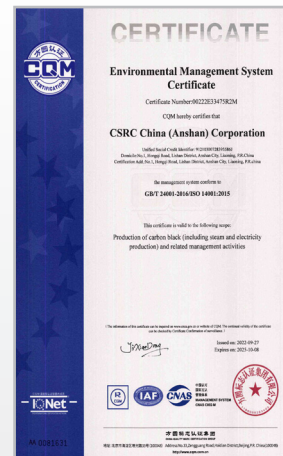
ISO 14001 energy management system certification statement



Linyuan Advanced Plant
ISO14001:2015
Valid until:2027/07/23



Maanshan Plant
ISO14001:2015
Valid until:2027/01/25



Anshan Plant
ISO14001:2015
Valid until:2025/10/08



CCET Plant
ISO14001:2015
Valid until:2026/03/28



CCIPL Plant
ISO14001:2015
Valid until:2027/03/09



Chongqing Plant
ISO14001:2015
Valid until:2027/01/27

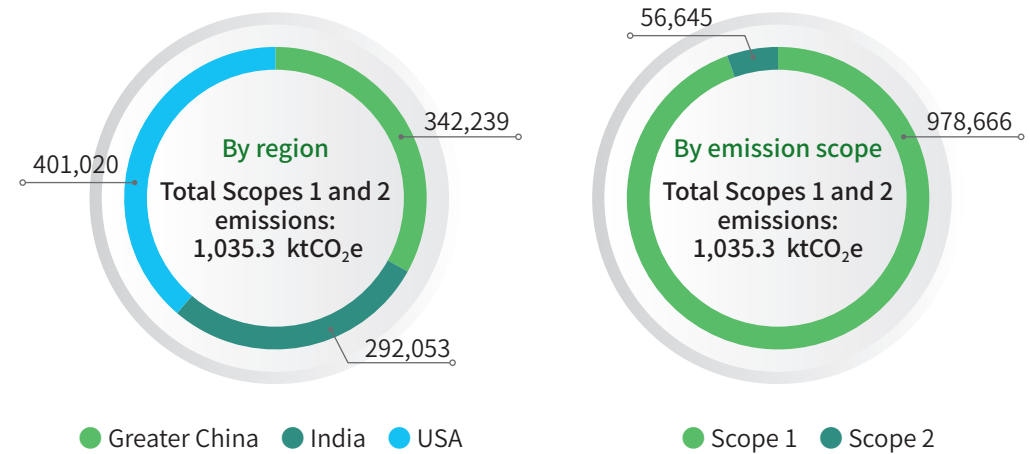
4.2.2 Reduce greenhouse gas emissions

GRI 305-1、305-2、305-4、305-5；SASB RT-CH-110a.1、RT-CH-110a.2

Greenhouse gas inventories

CSRC is concerned about the issue of global climate change. In order to mitigate the impact of the carbon black manufacturing process on the environment, we voluntarily conduct greenhouse gas inventory of each of our plants around the world every year. The accuracy of the inventory data in Greater China has been verified by a third party. To ensure the completeness of the data disclosed, the plants in the United States and India have been included in the scope of disclosure since 2023. Each operational plant and building conducts follow-up, review, and adjustments based on the inventory results to clarify the operational efficiency of production equipment and the effectiveness of operational processes.

In 2024, CSRC's greenhouse gas emissions totaled 1,035,312 tCO₂e, of which Scope 1 emissions were 978,666 tCO₂e and Scope 2 emissions were 56,645 tCO₂e. In the future, we will continue to pay attention to carbon emission trends, supervise and track the consumption of various energy sources, implement sustainable management concept and energy conservation and environmental protection policies, to reduce the impact of our business on the environment.



Statistics of GHG emissions in the regions where CSRC operates over the past three years

Item	Greater China			India			USA			Group		
	2022	2023	2024	2022	2023	2024	2022	2023	2024	2022	2023	2024
Scope 1 (tCO ₂ e)	395,017	322,020	311,382	151,361	190,479	284,290	424,458	397,113	382,994	970,835	909,611	978,666
Scope 2 (tCO ₂ e)	37,416	36,751	30,857	160	11,400	7,762	20,242	18,482	18,026	57,818	66,633	56,645
Total emissions (tCO ₂ e)	432,433	358,771	342,239	151,521	201,879	292,053	444,700	415,595	401,020	1,028,653	976,244	1,035,312
Emission intensity (tCO ₂ e/t)	2.32	2.35	2.24	2.77	2.85	2.52	3.31	3.32	3.27	2.74	2.80	2.64

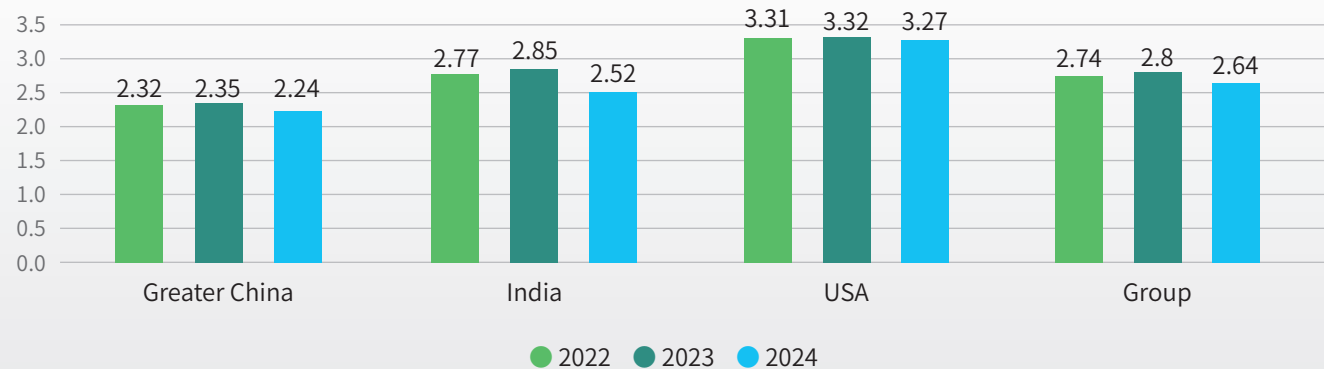
Notes: 1. Scope of statistics: There are a total of eight production sites, Consolidated Resource, and Taipei Headquarters, accounting for 100% of the production sites in this report.
2. The data from 2022 through 2024 covered four plants in Greater China, two in India, and two in the United States. The new CCET plant in India was completed at the end of 2022, so only the data of 2023 and 2024 were included.
3. The Greater China region covers Taiwan and China. We conducted inventory of plants in Taiwan according to the Greenhouse Gas Emissions Inventory Registration Management Regulations. The calculation formula is activity data x emission factor x GWP (the emission factors are primarily based on the original factors published by the Intergovernmental Panel on Climate Change (IPCC) in 2006.; and the GWP in the IPCC Fourth Assessment Report (2007)) was adopted). Greenhouse gases include a total of seven gases: carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and hexafluorocarbons, sulfur hexafluoride, and nitrogen trifluoride. For plants in China, a coefficient approach is used to calculate the emissions in accordance with the China Chemical Engineering Production Business Greenhouse Gas Emissions Calculation Method and Reporting Guidelines (Trial). Taipei Headquarters has been included in the scope since 2022; Consolidated Resource's data, estimated based on the electricity bills, from 2021 through 2024 was included.
4. For plants in Taiwan, the 2023 carbon emission factor of electricity announced by the Bureau of Energy of 0.494 kg CO₂e/kWh was used for calculation. The Maanshan Plant uses the electricity carbon emission factor of 0.5366 kg CO₂e/kWh, as announced in the "Announcement on the Release of the 2022 Electricity Carbon Emission Factors," for its calculations. For Anshan, the carbon emission factor of electricity of 0.7769 kg CO₂e/kWh announced in the "Notice on Doing a Good Job in 2023-2025 Reporting and Management of Greenhouse Gas Emissions of Power Generation Enterprises" was adopted. For Chongqing, the carbon emission factor of electricity of 0.4743 kg CO₂e/kWh in the "Chongqing Power Grid Average Emission Factor" was used for calculation.
5. In the India region, the definition of electricity consumption for 2022-2023 was incorrect, as self-generated and self-consumed electricity was mistakenly included in the calculation. Therefore, the definition was revised in 2024, and the Scope 2 carbon emissions for 2022-2023 were corrected accordingly.
6. CSRC's Taipei Headquarters has conducted a greenhouse gas inventory since 2023, and the data of 2022 has also been included in the calculation. The data of 2022 was calculated, but the impact of the data of this operating site on the overall data is very small. Consolidated Resource's greenhouse gas data from 2022 through 2024 has been included, with Scope 2 as the main emissions (purchased electricity were 20.81, 16.78 and 18.42 tons of CO₂e, respectively).
7. The Scope 1 data of the plants in the United States is disclosed in the Annual GHG report. The electricity factor for this region is based on USA Emission data: 0.401 tCO₂/MWh in 2022, 0.390 tCO₂/MWh in 2023, and 0.366 tCO₂/MWh in 2024.
8. The greenhouse gas emission intensity varies widely among regions, mainly due to the difference in the statistical methods for carbon emissions depending on each region's requirements. The coefficient approach is adopted in Greater China, the direct monitoring approach in India, and the material balance approach in the United States.
9. Carbon Emission Intensity Calculation Formula: Total Emissions (tCO₂e) / Carbon Black Production Volume (tons).

In 2024, the greenhouse gas emissions from plants in the Greater China region totaled 342,239 tCO₂e, with an emission intensity of 2.24 tCO₂e per ton of product. The significant reduction in total emissions was primarily driven by the transition from liquid fuels (fuel oil) to gaseous fuels (natural gas), thereby reducing the use of high-carbon liquid fuels. As a result, Scope 1 emissions—the main source of greenhouse gas emissions—amounted to 311,382 tCO₂e. The emissions inventory included sources such as, heavy crude oil, acetylene, diesel, automotive gasoline, liquid fertilizer, and liquefied petroleum gas (LPG). Scope 2 emissions totaled 30,857 tCO₂e, originating solely from indirect emissions associated with purchased electricity. The decrease in Scope 2 emissions in 2024 was mainly due to increased use of self-generated electricity compared to 2023.

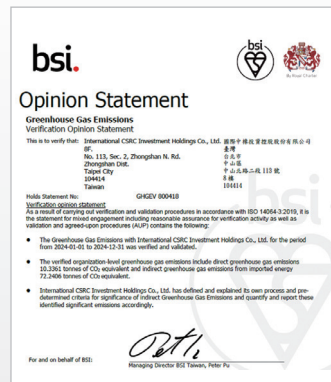
In 2024, the India region reported greenhouse gas emissions totaling 292,053 tCO₂e, with a GHG emission intensity of 2.52 tCO₂e per ton of product. Compared to the previous two years, total emissions increased significantly, mainly due to the commissioning of the CCET plant at the end of 2022 and higher production volumes in 2024 compared to 2023. The notable decrease in Scope 2 emissions was primarily due to the increased availability of self-generated tail gas at the India plants in 2024 compared to 2023. As a result, internal power generation through the cogeneration process increased throughout the year, leading to a significant reduction in purchased electricity.

Due to differences in carbon content stemming from variations in carbon emission calculation methods and types of oil products across regions, emissions from plants in the United States are slightly higher than those in Greater China and India. In 2024, greenhouse gas emissions in the U.S. totaled 401,020 tCO₂e, with an emission intensity of 3.27 tCO₂e per ton of product. The reduction in total carbon emissions compared to 2023 was mainly due to the retubing of air preheaters in the United States, which enhanced the heat exchange efficiency of the heat exchangers and consequently reduced fuel consumption.

Greenhouse gas emission intensity



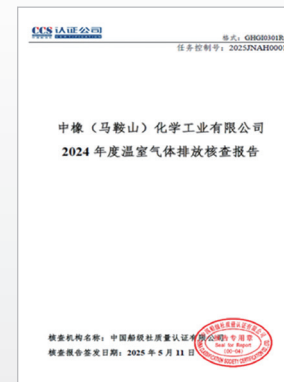
Greenhouse gas inventory verification statement held by each plant in 2024



Greenhouse Gas Emissions
Verification
Statement of CSRC



Greenhouse Gas Emissions
Verification
Statement of Linyuan
Advanced Plant



Third-party Audit Report on
Greenhouse Gas Emissions
of Maanshan Plant



Greenhouse Gas Emissions
Verification Statement of
CCET Plant

Greenhouse Gas Emissions management

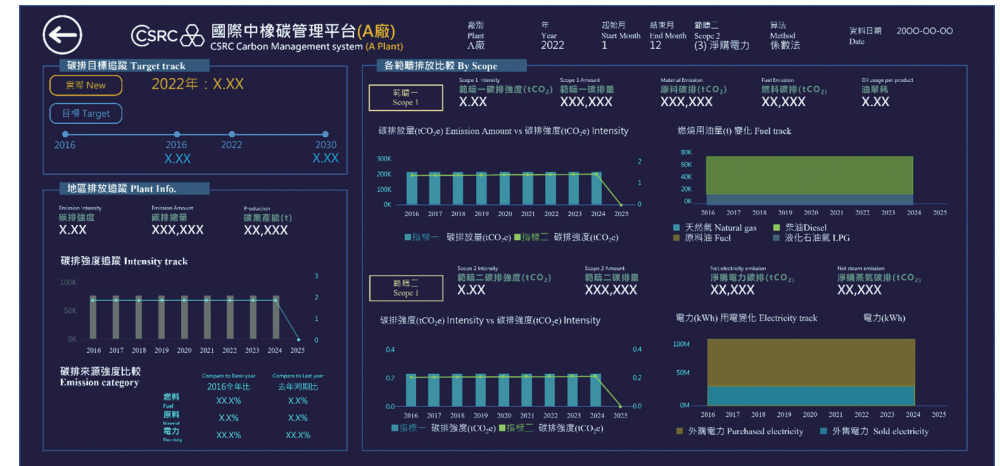
Faced with global climate change, CSRC is continuously enhancing the Group's resilience to climate-related risks and remains committed to mitigating greenhouse gas (GHG) emissions. CSRC conducts annual GHG inventories and formulates management policies based on the inventory results. These policies lead to the establishment of reduction targets and corresponding measures, including replacing traditional energy sources with low-emission alternatives and gradually introducing carbon capture technologies. Based on the GHG emissions and management conditions of each operating site, the Group has set a long-term carbon reduction target of a 21% reduction by 2030 compared to the base year of 2018.

To continually achieve our GHG emission reduction targets, the Group has developed specific strategies addressing both Scope 1 and Scope 2 emissions. For Scope 1 emissions, efforts are focused on enhancing energy efficiency, upgrading process equipment, and setting goals for equipment renewal. Additionally, the Group seeks to reduce crude oil consumption by improving overall production efficiency. In the Greater China region, the Linyuan Advanced Plant and Chongqing Plant transitioned to natural gas as a cleaner alternative to heavy fuel oil in 2023. In order to effectively improve the combustion efficiency of the heating furnace, the Maanshan Plant has upgraded the U6 air preheater and increased the heat exchange area to raise the air inlet temperature, thereby reducing fuel consumption. In the United States, tail gases are utilized to generate steam and electricity for on-site use, supporting energy self-sufficiency and contributing to the energy needs of surrounding communities. In India, the facilities are continuously optimizing process parameters and upgrading the tail gas dryer systems to reduce future dependence on high-carbon fuels.

In terms of Scope 2 emissions reduction, the Linyuan Advanced Plant in Greater China has repurchased solar panels previously operated by Chailease, and is gradually planning to increase the use of renewable energy in the future. At the CCIPL Plant, wind turbine motors have been replaced with high-efficiency models, effectively reducing energy consumption while achieving both economic and emission reduction benefits. In the United States, the facility has re-evaluated and optimized the selection of rotating equipment to enhance operational efficiency. Additionally, the site has partnered with local utility providers to purchase renewable electricity. This strategic shift toward renewable energy serves as a cornerstone of the Group's GHG mitigation strategy. Moving forward, the Group will actively explore opportunities to integrate more renewable energy sources into its operations.

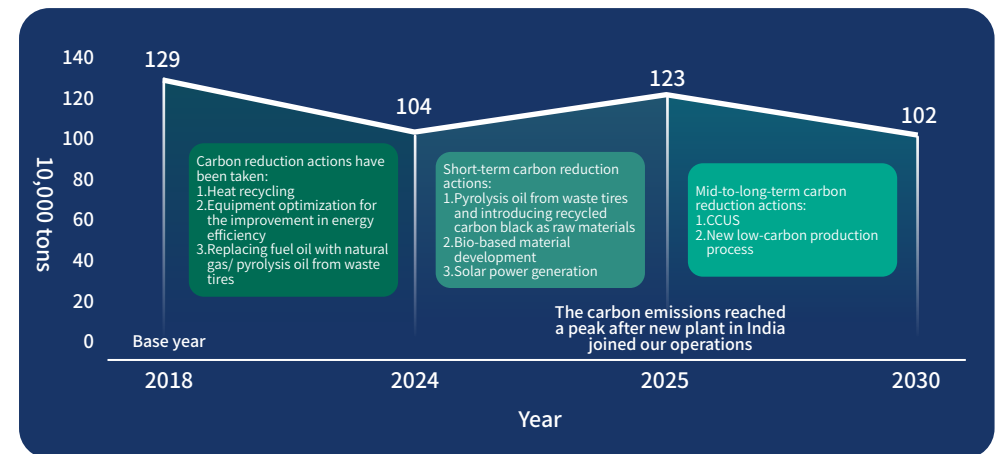
To effectively achieve greenhouse gas emissions reduction targets, the Group has established a Carbon Management Task Force comprising members from the Technology Department, the EHS Department, and representatives from each operating site. In the Greater China region, a cross-site digital carbon emission monitoring system has been implemented, allowing real-time tracking of carbon emissions. Each month, CSRC calculates the financial impact based on local carbon pricing, providing this information to each site for review and improvement. Globally, CSRC holds regular meetings to review and track GHG emissions, with progress reports submitted to the Board of Directors. In addition, each plant is encouraged to share its emission reduction initiatives and performance results, fostering mutual learning among sites. The Greater China region has also incorporated monthly and quarterly GHG emission intensity figures into each plant's key performance indicators (KPIs), which are linked to performance bonuses. This approach aims to motivate all employees to actively contribute to energy conservation and emission reduction efforts.

CSRC Carbon Management System

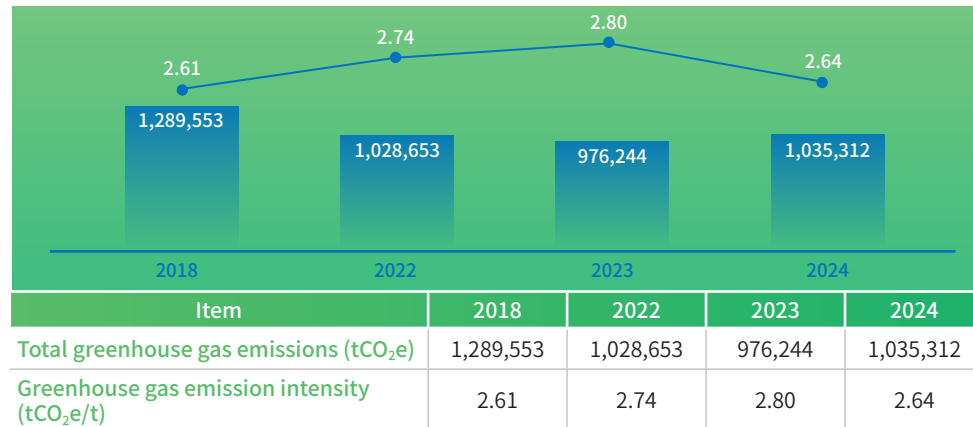


To realize the concept of environmental sustainability, CSRC has continuously invested in various environmental projects in recent years. In order to further advance the low-carbon transition, the company has allocated budgets specifically for greenhouse gas management initiatives, promoting short-, medium-, and long-term low-carbon transition pathways. Progress and outcomes are regularly reported to the Board of Directors.

Roadmap for low-carbon transition of CSRC



Note 1: The Group's baseline year is adjusted to 2018 to align with the inclusion of the plants in the United States and India in the scope.
Note 2: The Scopes 1 and 2 emissions of all production sites are included in this report.



Note: The increase in total emissions in 2024 compared to 2023 is mainly due to the higher production volume at the India CCET plant in 2024.

Highlights

New Carbon Reduction Measures at CSRC for 2024

1. Energy Structure Adjustment

In 2024, the Maanshan plant adjusted its energy structure to improve steam utilization, increase power generation, and reduce purchased electricity by 56,252,100 kWh, resulting in a total carbon emission reduction of 13,500 tCO₂e.

2. Heat Exchanger Efficiency Improvement

Through collaborative R&D among technical centers at various plants, heat exchangers were redesigned to enhance heat exchange efficiency and reduce process waste heat loss. In 2024, the Maanshan plant optimized the U6 production line's air preheater design, increasing the inlet air temperature and reducing fuel oil consumption from 2.032 tons/ton to 2.0 tons/ton. This led to a reduction of 1,627.8 tons of fuel oil usage and a yearly CO₂ emission reduction of 4,496 tCO₂e.

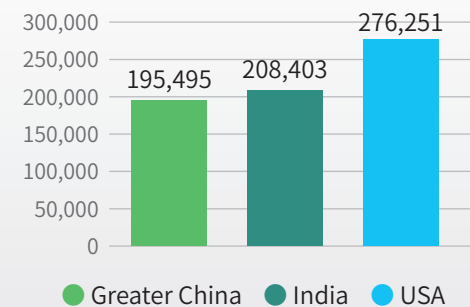
3. Equipment Optimization

The Ponca plant in the United States conducted retubing improvements on related equipment to enhance heat exchange efficiency. This saved fuel oil consumption and reduced production costs, achieving approximately 181.6 tons of CO₂ emission reduction.

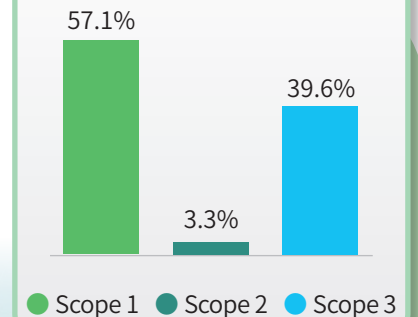
These three projects collectively reduced carbon emissions by about 18,178 tCO₂e in 2024. CSRC will continue advancing process and equipment technological upgrades, aiming not only to lower production costs but also to contribute to CO₂ emission reductions, fulfilling our commitment to carbon mitigation.

CSRC currently adheres to the ISO 14064 standard to conduct carbon inventory for significant Scope 3 emission sources. Scope 3 emissions in the Greater China region amount to 195,495 tCO₂e, 208,403 tCO₂e in India region, and 276,251 tCO₂e in the United States region. Altogether, Scope 3 emissions account for approximately 39.6% of the Group's total carbon emissions. Following this inventory of significant Scope 3 categories, the Group will also undertake a comprehensive review of non-significant Scope 3 items to gain a clear understanding of carbon emissions across all plants. Moving forward, the Group will continue to pursue technological upgrades and process optimization to reduce specific oil consumption and improve energy efficiency, thereby lowering carbon emissions across all scopes.

By region Scope 3 emissions



By emission scope Proportion of Scope 1, 2, and 3 Emissions

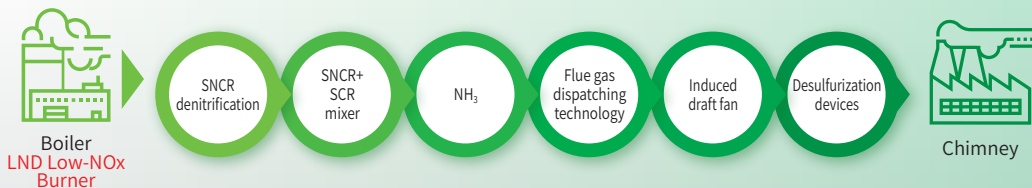


4.3 Air pollution control GRI 305-7 ; SASB RT-CH-120a.1

Air pollutant emissions management

CSRC produce carbon blacks through combustion and thermal cracking of feedstock oil in the reactor, which produces volatile organic compounds (VOCs), sulfur oxides (SO_x), nitrogen oxides (NO_x), particulate pollutants (total suspended particulates (TSP)), and hazardous air pollutants (HAPs). In order to reduce air pollution during the production of carbon black, we constantly monitor gas emission data as the basis for management and actively plan air pollution reduction and control measures.

CSRC's air pollution control measures



Control of volatile organic compounds (VOCs)

In order to control the VOCs in the feedstock oil and the oil tank, CSRC continues to adjust the manufacturing process and formula and has installed an oil and gas collection system above each storage tank, installed a connector on the breather valve, and adopted a powered fan to extract air to maintain slight negative pressure in the tank. Then, the waste gas is extracted into the combustion furnace for air to achieve the control effect of end-of-pipe treatment.



Breather valve connecting pipe setup

Sulfur oxide (SO_x) control

The raw materials used in the carbon black production process can only meet the standards for emission of air pollutant SO_x after desulfurization. To this end, CSRC has installed De-SO_x desulfurization equipment in the exhaust pipes of the chimneys in parts of its plants in Greater China, India, and the United States. After limestone desulfurization, the average monthly SO_x emission concentration was successfully reduced from 160 ppm to below 22 ppm, and low-emission facilities are used to minimize the emission of air pollutants. Each plant continues to adjust its manufacturing process and formula, and some of the fuels are replaced with low-sulfur fuels (such as diesel and LPG) for heating. The installation of environmental equipment in the United States has been completed to ensure compliance with the U.S. EPA's emission standards for sulfur dioxide (SO₂), nitrogen oxides (NO_x), and suspended particulates. For example, CCC Ponca has completed the installation of SCR denitrification devices and Cogen to reduce SO_x and NO_x. In order to reduce SO_x emissions, some plants have installed circulating dry scrubbers (CDS).

Advantages of De-SO_x desulfurization tower

- Material usage of the scrubber is only a traditional 1/2 or 1/3
- The pressure loss is relatively small, and the power required for air supply is also small
- It can still operate continuously in suspension conditions
- No nozzle is needed for liquid supply, and the power for sending liquid needed is small.
- Easy to start, stop and operate
- It can maintain a stable desulfurization rate even when the amount of gas changes significantly
- It is not easy to lead to gas drift, and is particularly suitable for large-scale operations.
- Good gas absorption efficiency and dust removal efficiency
- The system has a long operating time, stable operations, and convenient maintenance and repair



Nitrogen oxide (NOx) control

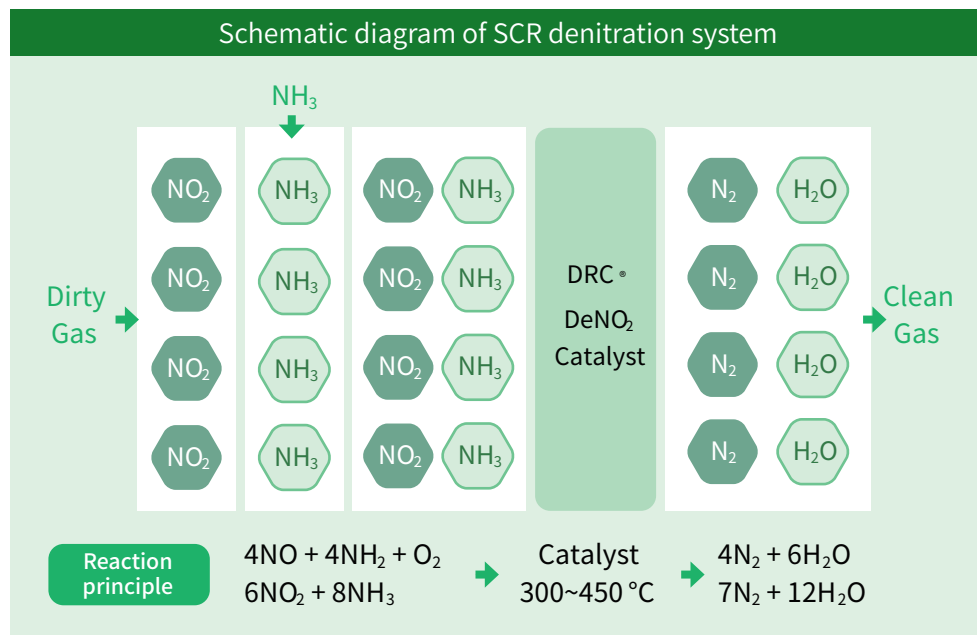
The nitrogen oxide (NOx) reduction methods currently adopted by CSRC include:

1 Flue gas recirculation and combustion over stages:

The flue gas is divided into three stages of combustion. In the first stage, part of the flue gas is returned to the combustion zone of a boiler to supply an amount of air smaller than that of air completely combusted, to dilute the oxygen concentration so that the nitrogen in the fuel cannot generate NOx. In the second and third stages, residual fuel and air are combusted. Because of its slower burning speed, it can lower the flame temperature. It also forms a low oxygen concentration environment to reduce NOx production.

2 Selective catalytic reduction (SCR) denitrification system:

It is currently the most common technology with the highest denitrification efficiency. Its principle is to inject the reductant ammonia gas into the flue at 300 - 450°C downstream of the boiler economizer. Under the action of the catalyst, NOx in the flue gas is reduced to harmless N2 and H2O; the NOx removal rate can reach 90% or more (calculated at NOx emission concentration of 30 ppm announced by the Environmental Protection Administration). This has successfully addressed the problem of NOx emissions from the boiler tail gas from flues in various plants.

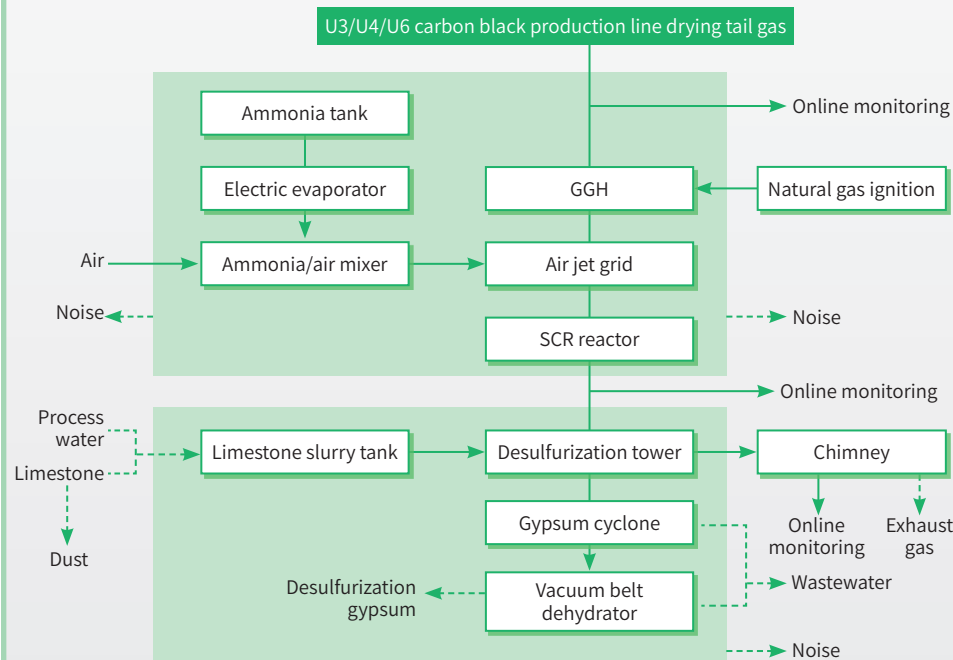


Desulfurization and denitrification system for EBF production line

All plants of CSRC have installed desulfurization and denitrification equipment. The desulfurization and denitrification system of the EBF production line at Maanshan in Greater China was officially put into operation in December 2020, and in 2021, it effectively reduced emissions of SOx, effectively improving air quality. The desulfurization and denitrification system of the EBF production line at Linyuan Advanced was completed in 2022 and put into trial operation. It is expected to further reduce the emissions of SOx and NOx. Additionally, the desulfurization and denitrification of the EBF production line at the Anshan plant also began operation in 2023.



Processing flow chart



Particulate pollutant (total suspended particulate, TSP) control

CSRC continues to improve the production equipment to reduce pollutants, such as replacing the filter bags of baghouse dust collectors in advance and developing round pulse jet baghouse dust collectors, to collect up to 99% of particulate pollutants. We have also adopted the personal digital assistant (PDA) inspection system to keep track of the production status and make real-time adjustments, effectively solving the problems of the original baghouse dust collector (prone to clogging, carbon deposition, and smoke leakage).

Air pollutant emissions

CSRC complies with the local governments’ emission standards and reduces air pollutants emitted from production through process optimization and equipment upgrades. Regarding management, since 2023, all global plants have been included in the scope of inventory, and the operational headquarters has set short-term and long-term targets for the cumulative reduction of air pollutant emission intensity, which are a cumulative reduction of 1% by 2025 compared to 2023, and a further cumulative reduction of 2-3% by 2030 compared to 2025.

By reviewing the emissions of air pollutants and substances in 2024, the results showed that the emissions of NOx, SOx, were lower than those in 2023. The main reason is that in 2024, each plant continued to adjust the process and formula and used low-sulfur fuel for heating (such as diesel and LPG) to effectively remove SOx; meanwhile, through flue gas recirculation and combustion over stages and the SCR denitrification system, NOx emissions have been effectively reduced. In 2024, total suspended particulate (TSP) emissions slightly increased compared to 2023. The plants will plan improvements to production equipment to reduce TSP generation. Additionally, premature replacement of filter bags in baghouse dust collectors will be implemented, along with the development of round pulse jet baghouse dust collectors to ensure effective reduction of TSP emissions.

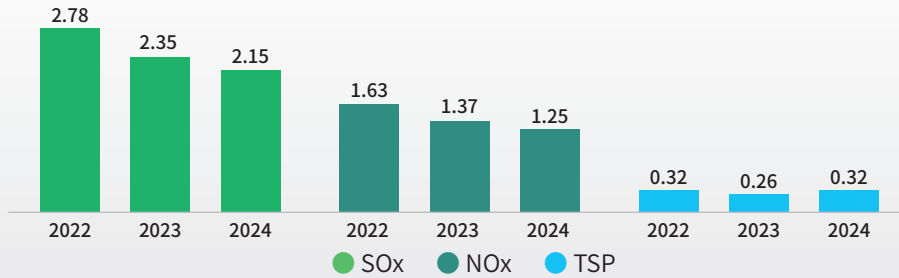
Absolute emissions of air pollutants by CSRC over the past three years

Region	Greater China			India			USA			Group		
Air pollutant emissions (kg)	2022	2023	2024	2022	2023	2024	2022	2023	2024	2022	2023	2024
VOCs	8,721	4,700	3,482	0	0	0	46,448	60,781	42,799	55,169	65,481	46,281
SOx	103,644	85,672	50,888	73,730	281,454	145,503	846,385	575,155	645,388	1,023,760	942,281	841,779
NOx	292,344	141,329	112,102	28,808	109,400	51,823	278,143	299,371	323,655	599,295	550,099	487,580
TSP	27,063	19,085	13,288	13,441	18,374	41,008	76,521	66,224	72,327	117,025	103,683	126,623

Note:

- 1.CCET in India was put into operation in 2022. Therefore, the data for 2022 in India only covered CCIPL, while CCIPL and CCET did not calculate the VOCs emissions, and its SOx, NOx, and TSP data are the data converted into annual data based on the average of the data monitored by a third party in real time.
- 2.The Chongqing and Maanshan plants in the Greater China region did not conduct VOCs testing.
- 3.In compliance with the Environmental Protection Department’ s fixed pollution source hazardous air pollutant (HAP) emission standards, the Group has no government-prioritized regulated 22 species; therefore, disclosure of HAPs will not be conducted starting from 2024.

Air pollution intensity of the Group over the past three years



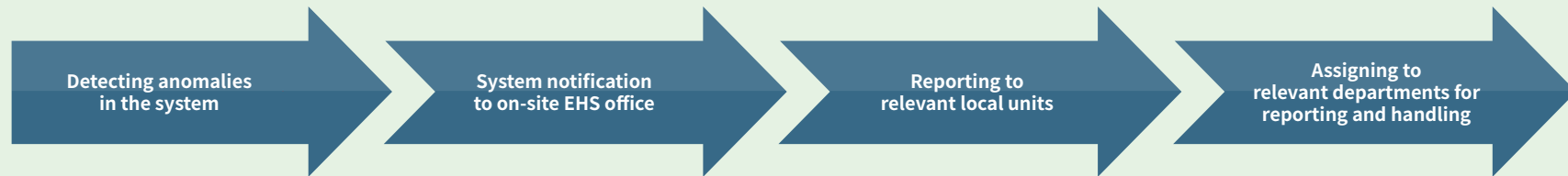
Year	2022	2023	2024
SOx	2.78	2.35	2.15
NOx	1.63	1.37	1.25
TSP	0.32	0.26	0.32

Note: 1. The tail gas from the combustion in CSRC's process is recycled and reused to remove VOCs at the same time; the emissions of VOCs are extremely low, resulting in a very low VOCs pollution intensity. It is also not the air pollution target set by the Group, so there is no such data in this report.
 2. Air pollution intensity = Emission volume / Carbon black production.

Procedures for reporting abnormal air pollutant emissions

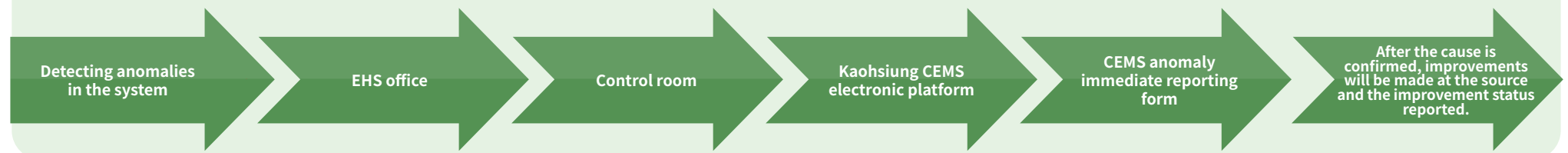
To ensure that air pollutants are properly handled and monitored, CSRC has established a comprehensive air pollutant reporting and handling process. If the air pollutant monitoring system detects abnormal emissions (e.g., air pollution concentration exceeds the standard), it will be handled according to each plant's reporting procedure according to the local law.

CSRC's procedures for reporting abnormal air pollutant emissions



Take Linyuan Advanced in Greater China as an example, once its system detects an anomaly, it will report to the Kaohsiung CEMS electronic platform. After the cause is confirmed, it will make improvements at the source and report the improvement status. In 2024, there were no abnormal emissions detected and no air pollution-related complaints from the plants in each region.

Report handling procedures



ch5 Water Resources and Waste Management

5.1 Water resource management

5.1.1 Water usage management

GRI 303-1、303-3、303-4、303-5；SASB RT-CH-140a.1

CSRC strictly controls the use of water resources and continues to improve the efficiency of water circulation to prevent damage to the surrounding environment caused by excessive water intake. Linyuan Advanced in Greater China and the operating plants in the United States have implemented a water balance project and continue to adjust the water resource consumption on a rolling basis. They work with neighboring factories to sell steam to neighboring factories, and the external partners transport the condensate generated in their processes back to the plants for reuse. Other internal water-saving actions include the following: diverting cooling water discharged to the desulfurization absorption tower as a supplementary water source, to expand the scale of water cycle; and regularly examining and repairing leaks in the plant's pipelines to reduce the risk of water waste. In 2024, we continued to take water-saving measures and reviewed the room for improvement in practical operations to achieve the best water resource use efficiency.

Water resource management methods and implementation plan of CSRC



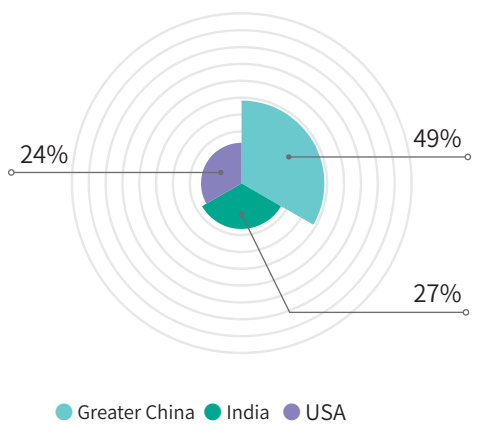
- #### Establishment of management mechanisms and systems
- Managing water source risk and setting KPIs for water resource management to regularly follow up and review
 - Monitoring water quality
 - Regular tracking water consumption and water-saving projects



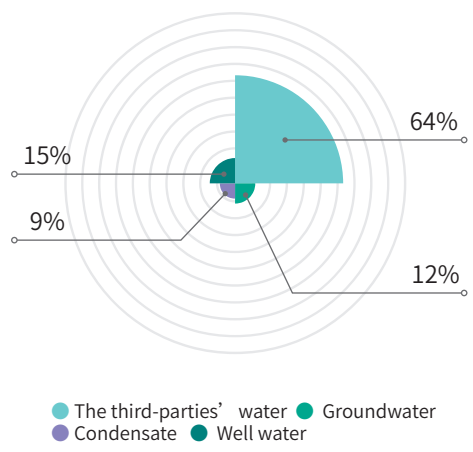
- #### Collaboration with neighboring factories to promote water-saving measures.
- Implementing a water balance project and collaborating with external partners to transport the condensate generated from their processes back to the plant for reuse.
 - Directing the water discharged from the cooling water to the desulfurization absorption tower as a supplementary water source to expand the scale of water cycle.

In 2024, CSRC's total water intake was 4,783 thousand m³, which came from third-parties' water, groundwater, well water, and condensate, and the water was used for processes, packaging, and office administration in the Group as a whole. Water intake was 2,321 thousand m³ in Greater China, 1,295 thousand m³ in India, and 1,167 thousand m³ in the United States. The reason for the increase in water withdrawal in the India region in 2024 is the higher production volume at the CCET plant in 2024 compared to 2023.

By region
Total water intake 4,783 thousand m³



By source
Total water intake 4,783 thousand m³

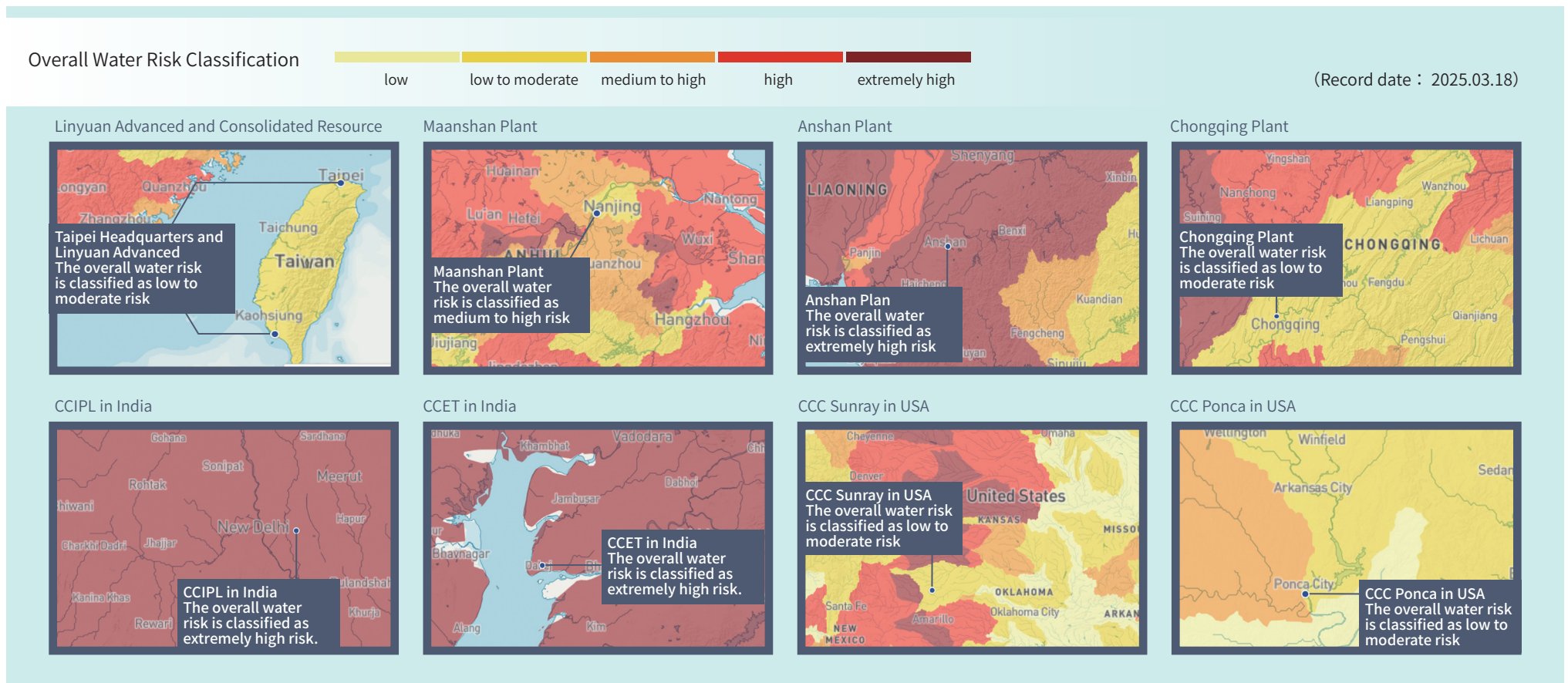


In terms of water resources management, CSRC continues to examine the process water consumption in the plants and implements water conservation and recycling projects to make the most effective use of water resources. In 2024, the wastewater recycling rates of the plants in Greater China were 46% for Linyuan Advanced, 99.9% for Maanshan, 100% for Chongqing and 81.2% for Anshan; the said rates of the plants in India were 100% for CCET and 92.6% for CCIPL; the said rates of the plants in the United States were 100% for CCC Sunray and 100% for CCC Ponca.

Water risk identification and management

CSRC regularly evaluates overall water risk classification according to the Aqueduct Water Risk Atlas by the World Resources Institute (WRI). In Greater China, Taipei Headquarters and Linyuan Advanced are at low-to-medium risk, Maanshan at medium-to-high risk, Anshan at extremely high risk, Chongqing at low-to-medium risk; in India, CCIPL is at extremely high risk. As the main water source of CCIPL is groundwater-tube wells, there is no risk of water shortage. Although CCET is rated as extremely high risk for the overall water risk, the plant is not facing issue of water shortage or flooding. In the United States, the overall water risk of the two plants is rated as low-to-medium risk.

CSRC's operations located in areas of high or extremely high water-stressed account for 32.4% of the group's total water withdrawal. Among these, the wastewater recovery rate reaches 93.6%, and the discharge volume accounts for only 0.22% of the group's total water withdrawal. This demonstrates a strong commitment to valuing and efficiently utilizing water resources, significantly increasing wastewater recovery to alleviate pressure on local water supplies.



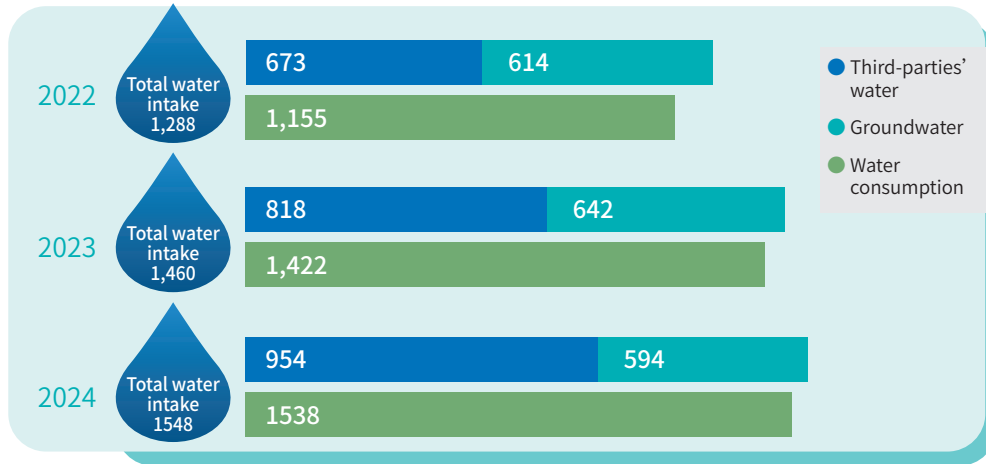
Note: This is the result of an overall water risk assessment for each plant using the Aqueduct Water Risk Atlas of the WRI.

Water intake and consumption by production sites in water-stressed regions

Unit: 1000m³

Item		2022	2023	2024
Total water intake		1,288	1,460	1548
Water source	Third-parties' water	673	818	954
	Groundwater	614	642	594
Water consumption		1,155	1,422	1538

Note : 1. The scope of statistics covers three production sites located in water-stressed regions, including Anshan in Greater China and CCET and CCIPL in India.
2. The reason for the increase in water withdrawal in the India region in 2024 is the higher production volume at the CCET plant in 2024 compared to 2023.



In 2024, the Greater China region recorded a water intake of 2,321 thousand cubic meters (m³). Water usage significantly declined compared to 2023, as all plants in the region implemented improvements in process waste heat recovery and steam condensate reuse. The water sources in the Greater China region all come from tap water, not natural water bodies, reducing the environmental impact of water withdrawal. To safeguard against potential droughts or water shortages, the Anshan Plant maintains an emergency water reserve of 3,000 m³ to ensure operational continuity. Plants across the region actively pursue water-saving initiatives and improve wastewater recovery rates. Notably, the Maanshan Plant received the local government's Water-Saving Enterprise Award for the third consecutive year in 2024.

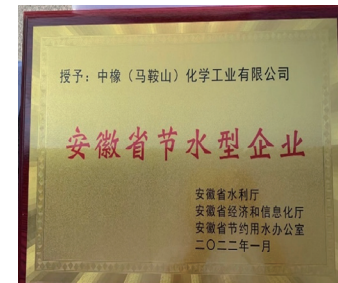
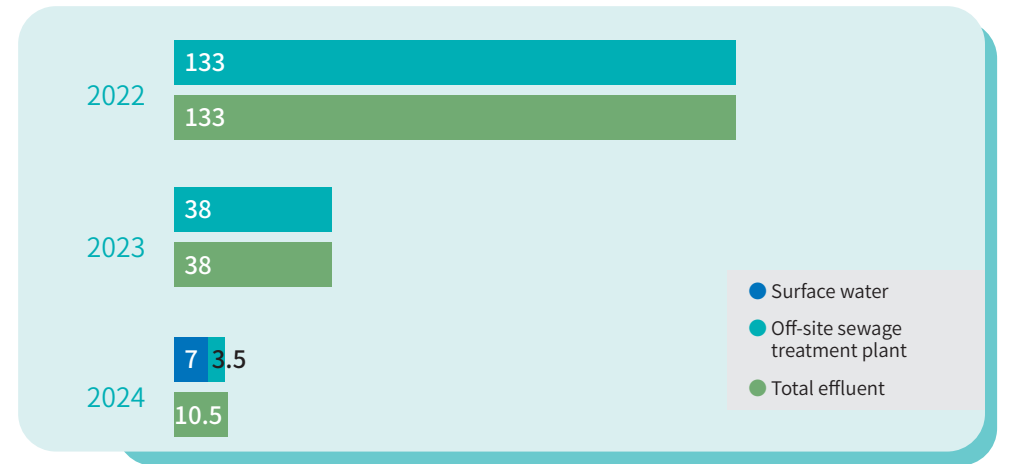
CCIPL's water intake in India comes from tube wells of groundwater; CCET's water intake comes from tap water. In 2024, the water intake of the plants in India was 1,295 thousand m³. In the United States, CCC Sunray's water sources are rainwater, tap water, and water circulated in the process and the steam production process. Rainwater is collected through the drainage system and ponds in the plant, and the water is treated and used in the process. CCC Ponca's water sources are tap water and well water. Both plants have set up their own zero-discharge facilities for sewage, without sewage discharge to avoid impact on the local water environment. In 2024, the water intake of CCC two plants was 1,167 thousand m³.

Effluent by production sites in water-stressed regions

Unit: 1000 m³

Item		2022	2023	2024
By discharge location	Surface water	0	0	7.0
	Off-site sewage treatment plant	133	38	3.5
	Other purposes	0	0	0
Total effluent		133	38	10.5

Note : 1.The statistical scope covers three production sites located in water-stressed regions. Wastewater treatment methods are as follows: Anshan Plant and CCIPL Plant treat wastewater in-house to meet discharge standards before releasing it into municipal sewage systems for further processing by sewage treatment facilities. CCET Plant is equipped with zero-discharge facilities, resulting in no wastewater discharge.
2.Due to production and sales adjustments in 2024, Anshan Plant operated fewer hours compared to 2023, leading to a reduction in wastewater discharge compared to the previous year.



序号	企业名称
20	铜陵市铜官山区铜官山铜矿有限公司
21	铜陵市铜官山区铜官山铜矿有限公司
22	铜陵市铜官山区铜官山铜矿有限公司
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41	铜陵市铜官山区铜官山铜矿有限公司
42	铜陵市铜官山区铜官山铜矿有限公司

Note: After receiving the award in the first year, the title of Water-Saving Enterprise must be maintained through annual evaluations by the local government. Since receiving the award in 2022, the Maanshan Plant has passed every annual evaluation, and thus the 2022 certificate and list are presented.

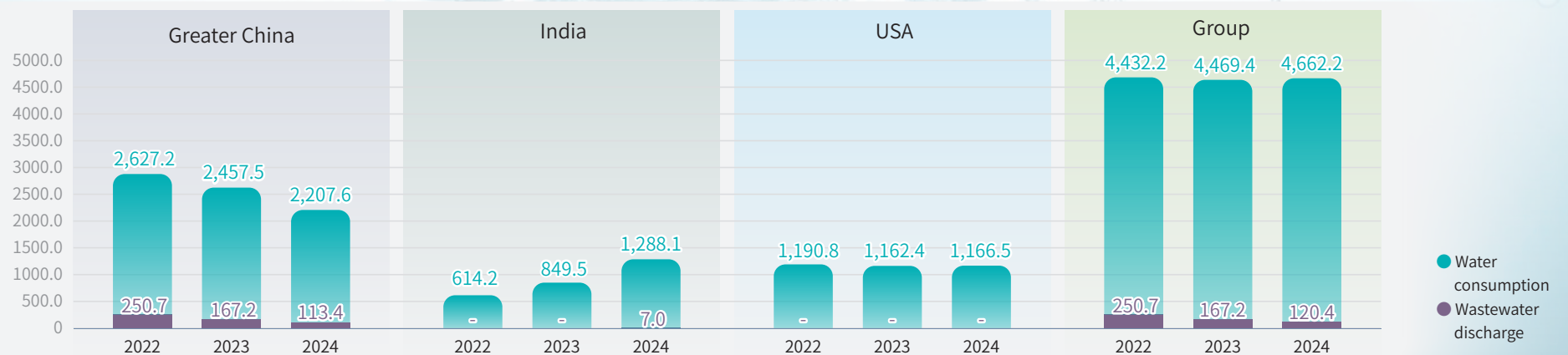
Group-wide data of water resources over the past three years

Unit: 1000 m³

Item		Greater China			India			USA			Group		
		2022	2023	2024	2022	2023	2024	2022	2023	2024	2022	2023	2024
Total water intake		2,877.9	2,624.7	2,321.0	614.2	849.5	1,295.1	1,190.8	1,162.4	1,166.5	4,682.9	4,636.6	4,782.6
Water source	Third-parties' water	2,877.9	2,617.2	2,311.1	0	207.7	701.4	41.1	64.2	55.7	2,919.0	2,889.1	3,068.2
	Groundwater	0	0	0	614.2	641.8	593.7	0	0	0	614.2	641.8	593.7
	Condensate	0	7.5	9.9	0	0	0	499.3	422.3	419.7	499.3	429.8	429.6
	Well water	0	0	0	0	0	0	650.4	675.9	691.1	650.4	675.9	691.1
Wastewater discharge		250.7	167.2	113.4	0	0	7.0	0	0	0	250.7	167.2	120.4
Water consumption		2,627.2	2,457.5	2,207.6	614.2	849.5	1,288.1	1,190.8	1,162.4	1,166.5	4,432.2	4,469.4	4,662.2
Wastewater discharge rate		8.7%	6.4%	4.9%	0.0%	0.0%	0.5%	0.0%	0.0%	0.0%	5.4%	3.6%	2.5%

Note : 1.Water intake is for process, packaging, and office administration.
2.Water consumption = water intake - wastewater discharge
3.Wastewater discharge rate = wastewater discharge ÷ water intake
4.In addition to third-parties' water and condensate, Linyuan Advanced uses rainwater but has not yet installed a flow meter, so the data is not available.
5.The Greater China region includes the data of Taipei headquarter and Consolidated Resource.
6.The increase in water usage in the India region is due to the CCET plant starting production on its first line at the end of 2022, with full-line production throughout 2024, leading to higher output and increased water usage compared to 2023.
7.The CCIPL plant, due to maintenance of its wastewater treatment equipment in 2024, generated a discharge of 19 KL/day (below the government-permitted limit of 500 KL/day)

Water consumption and Wastewater discharge for each region in the past three years



Group water resource management implementation plan



Water saving measures

Plants in all regions aim to achieve zero discharge of wastewater as the primary goal and implement wastewater recycling measures to reuse nearly 100% of wastewater.

- Installed a flow meter to control the process water consumption in real time.
- Checking the water balance, discovering and fixing anomalies in the pipe network in real time, and replacing some concealed pipes with exposed ones to reduce water consumption.
- Examine whether the water-cooled heat exchanger can perform waste heat recovery to reduce the cooling tower heat load.
- The plants in India plan to return the cooling water from the boiler feed pumps to the cooling tower to reduce water intake.
- The plants in the United States collect rainwater with ponds and recycle it for use in the manufacturing process to reduce water intake.



Equipment optimization

Greater China:

Linyuan Advanced has improved the air-cooling and water-cooling efficiency; Maanshan has stepped up inspections to eliminate water and air leaks from the equipment and adopted new technologies and equipment to strengthen the recycling of circulating water and reuse of reclaimed water. Anshan upgraded equipment to use reclaimed water and replaced the cast iron valves with stainless steel ones to reduce the risk of water leakage.

India:

CCET recycles condensate to reduce water intake and plans to install a condensate recycling system at the steam sale line by the end of 2025. CCIPL installed a 2-stage RO system to recycle water for use in the cooling tower and added an iron filter in the front of the resin line to reduce the cleaning frequency.



Management optimization

Greater China:

Linyuan Advanced recycles and reuses customers' steam condensate to optimize the water treatment system so as to supply water to advanced processes. Maanshan has strengthened the management of a fixed amount of water consumption, monitors water intake and discharge, regularly tests and tracks changes in water consumption, improves water consumption management, and enhances water-saving training for employees. Anshan uses the qualified wastewater after treatment for floor cleaning, has set up water-saving signboards, and continues to implement a wastewater reuse plan.

India:

CCET regularly inspects and repairs pipeline leaks, and plans to launch a rainwater harvesting project; CCIPL recycles and reuses the cooling water from boiler feed pumps.

USA:

The wastewater from the production process needs to be transported to a collection tank and recycled.

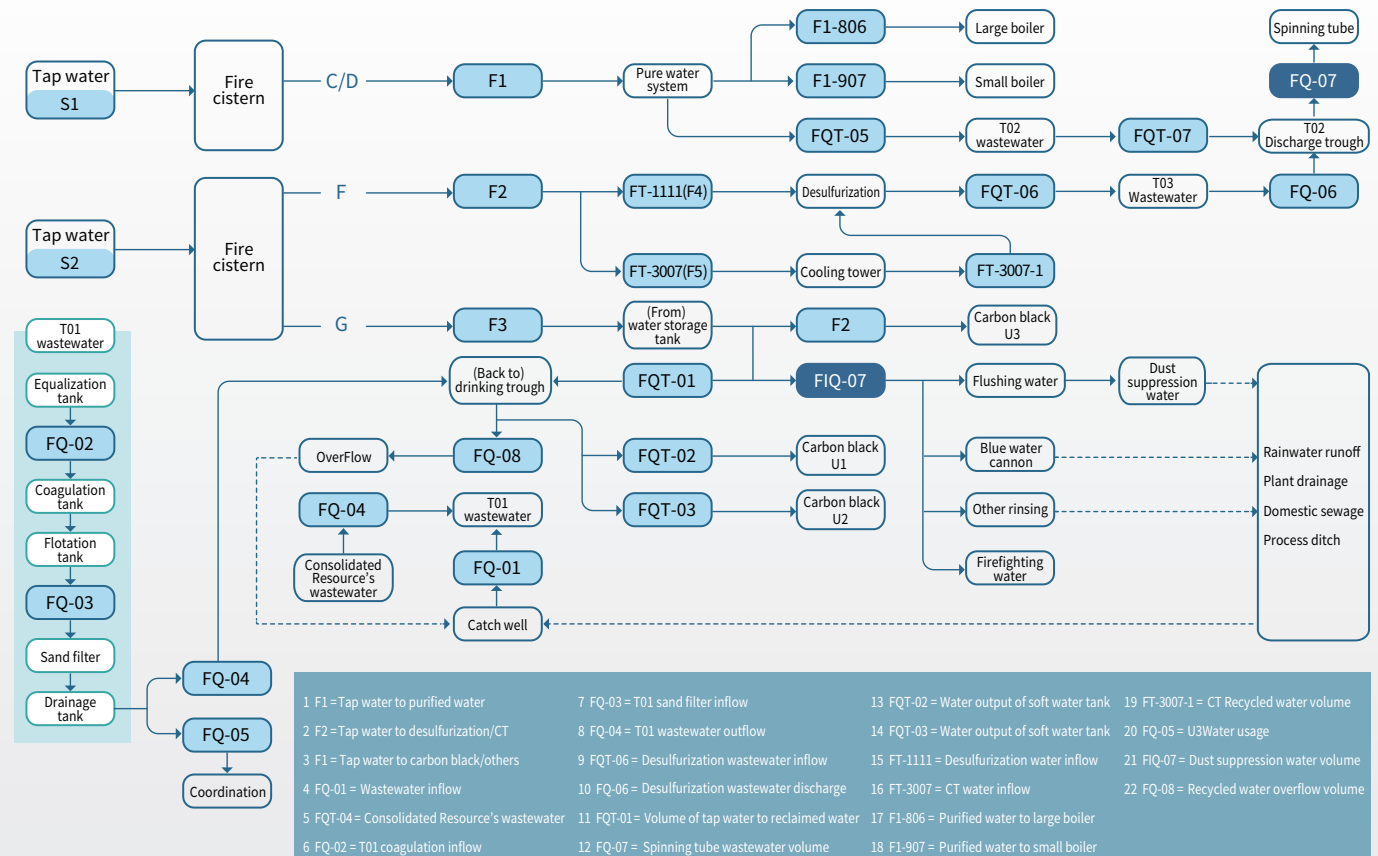
Water balance project :

Linyuan Advanced in Greater China has implemented a water balance project since 2020. By adding flow meters to the process equipment, it aims to effectively keep abreast of the water consumption in the plant and has set the ultimate goal of achieving zero wastewater discharge. Reducing water-related risks in the face of the threat of climate change. We also supply steam to our nearby partners, who then return the condensate generated from their manufacturing processes to Linyuan Advanced in Greater China for reuse, in order to achieve the economic benefits of water recycling. In 2024, a total of 9.9 thousand m³ of condensate was used (accounting for 0.4% of the total water intake of Linyuan Advanced in Greater China). It is estimated that our partners can provide nearly 1.2 tons of condensate per hour (maximum volume is 20 tons). CCET has set up a condensate recycling system, which is still in the testing stage.

Cooling water is recycled to the environmental system for water resource reuse.

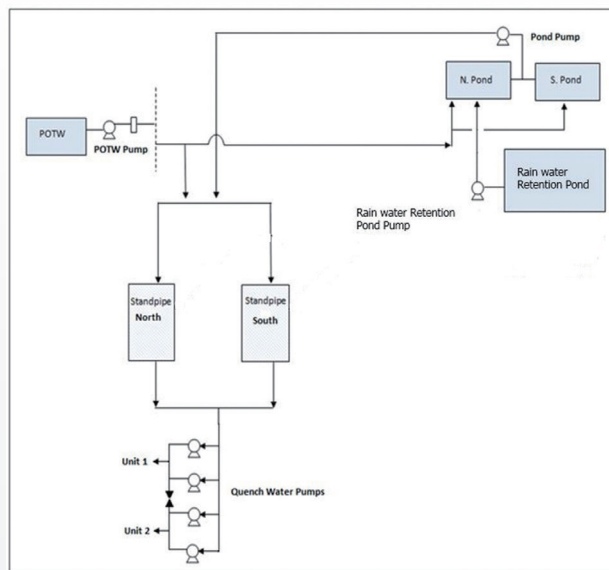


Water balance pipeline flow meter



CCC's reclaimed water balance project in USA

CCC in USA has installed flow meters in the existing water wells to monitor the water volume every day. The daily average consumption of well water in the plant for flushing and equipment maintenance is about 144,000 gallons. Due to evaporation, only 140,000 gallons are retained in the sedimentation tank. About 30,000 gallons of rainwater (from the surface of the buildings, such as the plant, parking space, gravel paved areas, and grass areas) is also collected in the sedimentation tank every day (estimated at annual rainfalls of 34 inches of runoff). If it is estimated at full load without planned downtime, the shortfall of about 77,545 gallons per day is in a balanced state.



CCC has a quench water system, with POTW running 24/7 at a flow rate of 400 gpm, except for Fridays). During normal operations, the risers are filled with water from the pond through the pond pump. POTW pump fill the tank to ensure a continuous supply of quench water. POTW pumps can also be used to fill risers directly.

Rainwater and drainage from green plants are collected in rainwater reservoirs and pumped into the rainwater tank.

There are four emergency pumps in total. Units 1 and 2 are equipped with one active emergency pump and one standby emergency pump.

5.1.2 Wastewater Management

GRI 303-2 ; SASB RT-CH-140a.3

Each plant has set up sewage treatment facilities in accordance with local regulations and standards to treat the pollutants in the process wastewater to meet the management standards of the industrial zone or purifies wastewater and reuses it as process water, in an effort to use resources in a circular economy model. Maanshan and Anshan have also formulated internal wastewater treatment regulations to regulate the operation of wastewater treatment equipment, abnormal accident handling procedures, and occupational safety requirements to ensure the efficient management of the sewage treatment plants and achieve the purpose of water purification. Plants in both the United States and India have effluent treatment plants (ETP) on-site, which not only save water but also avoid the discharge of wastewater, and have formulated a zero-discharge policy. In 2024, CSRC's regional operations were not in violation of water quality-related laws and regulations.

Effluent treatment method and final discharge location

	Production site	Effluent treatment method and final discharge location
Greater China	Linyuan Advanced	The generated wastewater is treated physically and chemically within the plant and then discharged into the Linyuan Industrial Park Wastewater Treatment Plant in Kaohsiung, ultimately being released into the sea.
	Maanshan Plant	Maanshan has signed an effluent discharge agreement with the Cihu High-tech Zone Wastewater Plant, to agree that wastewater must be treated on-site first until it fully meets the discharge standards before being discharged to the Cihu High-tech Zone Wastewater Plant and eventually to the Yangtze River in China.
	Anshan Plant	Wastewater is managed by the local government. Once the discharge standards are fully met, wastewater is discharged to the Dongtai Wastewater Treatment Plant for treatment and eventually discharged into the Nansha River in China.
	Chongqing Plant	All the wastewater in the plant is treated and reused, and no sewage is discharged.
India	CC IPL	Wastewater is managed by the local government. Once the discharge standards are fully met, wastewater is discharged to the government notice place.
	CC ET	The plant is equipped with zero-discharge facilities, and no sewage is discharged to avoid impact on the local water environment.
USA	CCC Sunray	The plant is equipped with zero-discharge facilities, and no sewage is discharged to avoid impact on the local water environment.
	CCC Ponca	

CCC Zero Liquid Discharge (ZLD) commitment

CSRC's plants in USA have formulated a strict policy of zero discharge of wastewater and pledged not to discharge any wastewater to external water bodies, including rivers, oceans, lakes, or public sewage systems, to prevent any potential environmental pollution caused by the manufacturing process.

Internal disposal and reuse:

All wastewater generated by the plants is fully treated by the ETP set up on-site to ensure that it meets or exceeds the regulatory and internal quality standards. The treated reclaimed water is reused in on-site operations, mainly for the following two operations:

- 1 | **Carbon black manufacturing:** Treated reclaimed water is returned to the carbon black manufacturing process to ensure water resource efficiency and minimize our operational footprint.
- 2 | **Steam production:** The treated reclaimed water is also used to generate steam, which is critical to all stages of our operations.

Wastewater recycling rate of CSRC's plants over the past three years

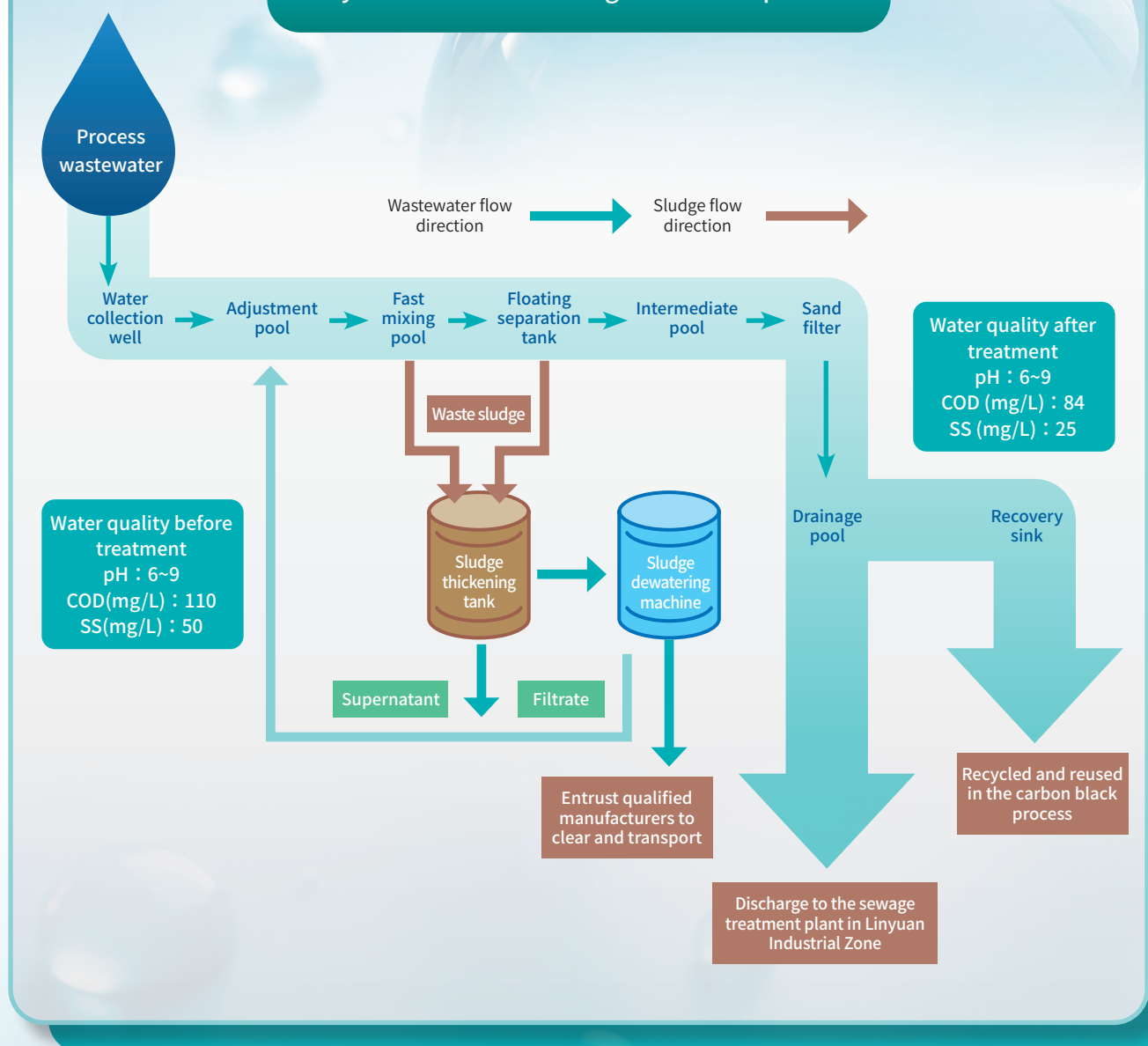
Region		2022	2023	2024
Greater China	Linyuan Advanced	100%	56%	46%
	Maanshan Plant	80%	90%	99.9%
	Anshan Plant	-	22%	81.2%
	Chongqing Plant	100%	100%	100%
India	CCET	-	100%	100%
	CC IPL	41%	100%	92.6%
USA	CCC Sunray	97%	100%	100%
	CCC Ponca	100%	100%	100%
Group		82%	89%	80.3%

Note: Wastewater recycling rate = reclaimed water volume / (reclaimed water volume + water discharge)

Due to the characteristics of the industry, the wastewater discharged by CSRC contains carbon black particles and a small amount of grease. Each regional plant has built-in sewage treatment systems or has commissioned nearby treatment plants, and discharges wastewater in accordance with the sewage discharge standards set by the local governments. In 2024, the quality of effluents from each plant met the effluent discharge standards.

In the Greater China region, the wastewater discharged by Linyuan Advanced is mainly process washing water, desulfurization tower wastewater, and purified water system wastewater. After treatment of coagulation, pressurized flotation, and sand filtration, wastewater is returned to the production process for reuse. However, the wastewater from the desulfurization tower and the purified water process cannot be recycled at present, so the pH value in the plant is adjusted to neutrality, and SS and COD are strictly controlled to ensure that the water quality is in compliance with regulations before it is discharged to the Linyuan Industrial Park's sewage treatment plant for subsequent processing. Maanshan has formulated the Wastewater Treatment Plant Operating Procedures for internal management with reference to "IATF 16949-2016 Quality Management System for the Automotive Industry," "ISO 9001-2015 Quality Management System," and "GB/T 19022-2003 Measurement Management System - Requirements for Measurement Process and Measuring Equipment," to regulate the sewage treatment process and ensure that the discharge quality meets the standards. Anshan has also formulated "Wastewater Treatment Plant Operating Procedures" as per "Liaoning Provincial Comprehensive Wastewater Discharge Standards", to standardize the plant's sewage treatment process, abnormal accident handling procedures, and occupational safety requirements, to ensure that the sewage treatment plant can be effectively managed and can operate as expected. The sewage treatment procedures of both plants include grit chambers, air flotation equipment, and silica sand filters. In addition to being used for washing of floors in the plants, part of the qualified treated sewage is returned to the clean water tank for use in the production process, and the remaining sewage is discharged to the sewage treatment plant. All the wastewater inside Chongqing is recycled and reused, without wastewater discharged outside.

Linyuan Advanced's sewage treatment process



CCET in India have zero-discharge sewage treatment facilities in place (as shown in the figure below). The treated water is not discharged outside the plants but recycled in zero liquid discharge (ZLD) plant and returned to the production process and will not discharge any liquid wastewater into surface water. The plants in the United States do not have sewage discharge equipment, and sewage is not discharged to other sewage treatment plants. All water is discharged to the evaporation pond for treatment and then recycled and reused.



Effluent quality from plants in Greater China over the past three years

	Greater China															
	Linyuan Advanced Plant				Maanshan Plant				Anshan Plant				Chongqing Plant			
Water quality parameters	2022	2023	2024	Minimum standards	2022	2023	2024	Minimum standards	2022	2023	2024	Minimum standards	2022	2023	2024	Minimum standards
pH	8	7.9	7.7	6~9	6.9	7.6	8.1	6~9	7.4	7.52	7.6	9	7.6	8.3	-	9
COD (mg/L)	14.3	16.9	17.8	90	14	24	30	300	37	23	95	300	56	109	-	500
SS (mg/L)	3.2	5.1	17.2	25	32	18	8.5	400	16	21	5	300	7	30	-	400
Grease (mg/L)	1.6	3.7	4.8	10	0.39	2.61	0.77	10	0.06	0.06	0.21	20	-	-	-	-
Phenols (mg/L)	0.0054	ND	ND	1	<0.01	<0.01	0.020	0.5	ND	ND	ND	0.5	-	-	-	-
Ammonia nitrogen (mg/L)	0.59	19.5	8.6	-	0.079	0.12	0.34	25	3.69	1.57	1.0	30	2.15	13	-	45

Notes:

1.If the sample analysis result is below the method detection limit, it is indicated as ND (Not detected).

2.Linyuan Advanced Plant complies with the "Linyuan Industrial Zone User Wastewater Discharge into Sewer System Water Quality Standards."

3.The India and U.S. regions do not directly discharge wastewater to any wastewater treatment plant, so no relevant testing data is available.



5.2 Waste management

5.2.1 Waste disposal

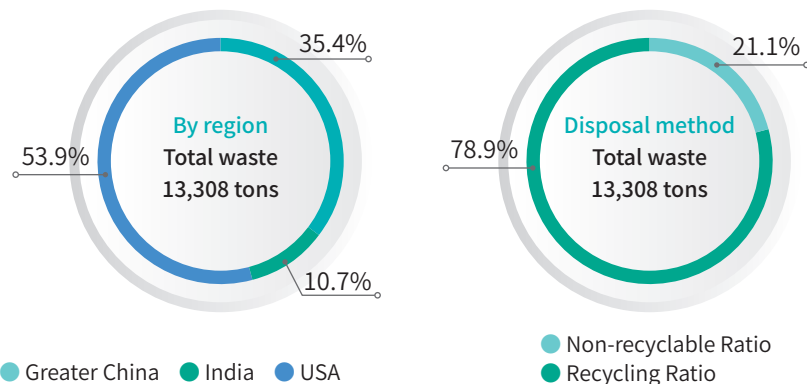
GRI 306-1、306-2、306-3、306-4、306-5；SASB RT-CH-150a.1

CSRC complies with various waste disposal laws and regulations to ensure that all waste generated is properly disposed of. In order to live up to the spirit of responsible production and circular economy, each plant has kept abreast of the source, type, and quantity of various waste resources, and ensured that their disposal methods and flows are in compliance with all environmental laws and regulations, to further achieve the goals of cleaner production, resource recycling and industrial waste reduction to achieve the goals of pollution reduction, waste reduction, and environmental protection. In 2024, the Group achieved a waste recycling rate of 78.9%, of which 84.5% in Greater China, 89.5% in India, and 73.1% in the United States. Each plant within the group will continue to strive for waste reduction improvements to achieve short-term goals.

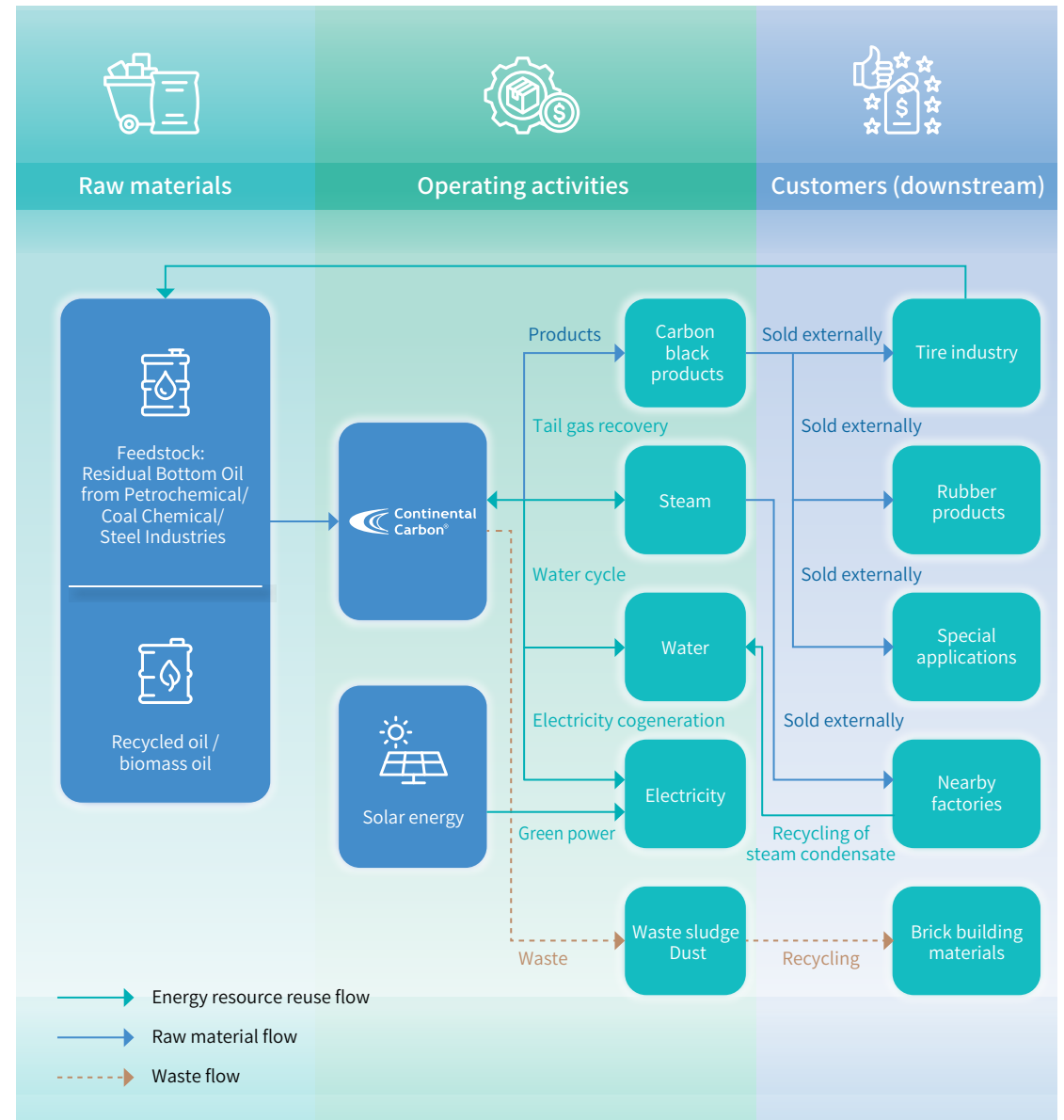
In 2024, CSRC Group's total waste generation was 13,308 metric tons^{Note}, a decrease from 13,727 metric tons in 2023, primarily due to enhanced waste management at the Ponca plant in the U.S., which reduced non-hazardous waste output.

Note: Total waste generated = non-hazardous waste + hazardous waste

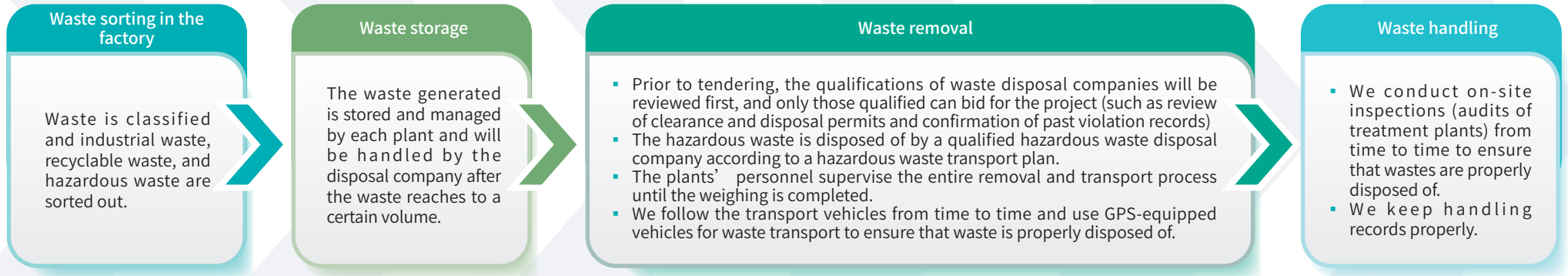
Waste volume in 2024



CSRC's material input & waste output flow chart



CSRC's waste management process



All CSRC plants in Greater China manage waste in accordance with local regulations. The Linyuan Advanced Plant achieves a waste recycling rate of 79.3%. To reduce waste emissions and enhance reuse, the plant implements thorough waste sorting, effectively collecting and planning for recyclable materials while minimizing general waste transportation costs and incineration volumes. Additionally, the plant has established a dedicated reuse zone, where pallets recovered from clients are categorized into three types for reuse: (1) pallets in good condition are sold to vendors in need, (2) remaining pallets are reused within the factory, and (3) damaged, unusable pallets are processed through the waste disposal system.

Waste generated at the Maanshan, Anshan, and Chongqing plants is managed in compliance with mainland China regulations, with all waste handled off-site. Waste is sorted into industrial waste, recyclable waste, and hazardous waste, temporarily stored in designated hazardous waste areas, and transported by licensed third-party organizations to authorized hazardous waste disposal facilities for legal treatment. Specifically, the Maanshan Plant achieved a waste recycling rate of 99.6% in 2024, primarily through the recycling of desulfurization gypsum and sewage sludge, which are repurposed into cement and brick-based construction materials like bricks, with the remaining general industrial waste recycled for power generation through incineration. The Anshan Plant recorded a 90.9% waste recycling rate in 2024, mainly through incineration and various recycling initiatives, including desulfurization gypsum repurposed for cement production, as well as the recycling and reprocessing of scrap iron, steel, PP bags, and pallets. At the Chongqing Plant, hazardous waste is disposed of through incineration as required by regulations, while non-hazardous waste is landfilled. All waste is temporarily stored in hazardous waste areas and transported by licensed third-party organizations to authorized hazardous waste disposal facilities for legal treatment.



Signs of waste storage locations and related responsibility systems at Maanshan in Greater China

CCET in India has formulated relevant standard operating procedures for waste collection, removal, and disposal. Waste insulation materials, waste petroleum sorbent pads, chemical sludge, and evaporators should be placed in the specified containers, and hazardous waste should be stored in specified hazardous sites and disposed of at the TSDF facilities and incineration plants registered according to the GPCB. In order to manage waste, CCET has obtained membership from a third party authorized by the government. The total waste generated by CCET in India in 2024 was 1063 metric tons, 857 tons of which was non-hazardous waste gypsum. The waste recycling rate in 2024 was 98.7%. CCIPL is equipped with a confined space for the storage of hazardous waste, and its disposal is outsourced to qualified hazardous waste treatment companies. The waste removal and disposal are strictly controlled to reduce the impact on the environment. The plant implements a waste classification and packaging system and packages waste according to types and regulatory requirements to prevent leakage from causing environmental pollution. To avoid hazards to humans, personnel are required to use appropriate personal protective equipment (PPE) and follow regulations during waste handling, loading, and transport to disposal facilities. CCIPL constantly reviews and updates its waste management policy, hoping to effectively reduce waste and increase waste recycling. In 2024, CCIPL total amount of waste was 355 tons.

About This Report	Governance	Product		Environment		Social			Value Chain	Appendix
About This Report	ch1 Corporate Governance	ch2 Product R&D and Innovation	ch3 Circular Economy	ch4 Climate Change Response	ch5 Water Resources and Waste Management	ch6 Employees	ch7 Occupational Health and Safety	ch8 Local Communities	ch9 Sustainable Supply Chain Management	Appendix

All waste generated by CCC Sunray in the United States is in compliance with laws and regulations, and qualified third parties are appointed for disposal. All waste is landfilled, and the plant does not generate hazardous waste. The same types of materials are recycled and reused in the plant to actively reduce waste output. CCC Sunray waste generated in 2024 was 120.9 tons. The waste generated by CCC Ponca in the United States is landfilled, and recycled in accordance with the laws and regulations of the United States. CCC Ponca total waste in 2024 was 7,054.5 tons, and the waste recycling rate was 74.3%, mainly for hydrated lime for roadbed stabilization and agricultural use.

Waste amount of CSRC over the past three years

Unit: Ton

			Greater China			India			USA			Group		
Waste Type	Disposal Location	Disposal Method	2022	2023	2024	2022	2023	2024	2022	2023	2024	2022	2023	2024
Non-hazardous waste	Off-site	Incineration (energy recovery)	577.6	506.5	336.8	0.0	0.0	0.0	0.0	0.0	0.0	577.6	506.5	336.8
		Incineration (excluding energy recovery)	44.4	0.0	18.7	0.0	21.1	101.5	0.0	0.0	0.0	44.4	21.1	120.2
		Burial	510.7	108.7	0.0	0.0	0.0	10.2	905.9	914.1	921.8	1416.6	1022.8	932.0
		Heat treatment	144.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	144.4	0.0	0.0
		Physical handling	310.0	237.3	513.6	0.0	0.0	0.0	0.0	0.0	0.0	310.0	237.3	513.6
		Recycling	3181.9	2785.3	2475.3	123.0	206.8	1270.6	0.0	0.0	0.0	3304.9	2992.1	3745.9
		Others	145.5	226.3	637.9	0.0	0.0	0.0	546.8	706.6	890.2	692.3	932.9	1528.1
	On-site	Burial	0.0	0.0	0.0	0.0	0.0	0.0	15.7	3.4	120.9	15.7	3.4	120.9
		Recycling	0.0	0.0	0.0	0.0	0.0	0.0	6849.3	7224.5	5242.5	6849.3	7224.5	5242.5
Total			4914.5	3864.1	3982.4	123.0	227.9	1382.3	8317.7	8848.6	7175.4	13355.2	12940.6	12540.0
Hazardous waste	Off-site	Incineration (energy recovery)	178.1	506.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	178.1	506.1	0.0
		Incineration (excluding energy recovery)	1012.2	216.2	709.2	41.7	27.6	13.8	0.0	0.0	0.0	1053.9	243.8	723.0
		Burial	0.0	0.0	1.7	0.0	31.6	23.8	0.0	0.0	0.0	0.0	31.6	25.5
		Recycling	0.0	4.2	17.2	0.0	0.0	0.0	0.5	0.0	0.0	0.5	4.2	17.2
	On-site	Recycling	3.4	0.6	1.8	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.6	1.8
Subtotal			1193.7	727.1	729.9	41.7	59.2	37.6	0.5	0.0	0.0	1235.9	786.3	767.5
Total			6108.2	4591.2	4,712.3	164.7	287.1	1,419.9	8318.2	8848.6	7175.4	14591.1	13726.9	13,307.5
Waste recycling rate			74.3%	92.9%	84.5%	74.7%	72.0%	89.5%	82.3%	81.6%	73.1%	78.9%	85.2%	78.9%

Note 1: In the Greater China region, Linyuan Advanced uses stabilization treatment as the alternative disposal method for non-hazardous waste; Anshan plant uses recycling and selling as the alternative disposal method for non-hazardous waste.

Note 2: The first production line of the CCET plant in India was commissioned at the end of 2022, therefore there is no data for 2022.

Note 3: In USA, due to different definitions of waste in 2022-2023, the production volume of desulfurization gypsum was not included in the calculations. Therefore, the data for 2022-2023 has been retrospectively corrected.

Note 4: Waste recycling rate = [volume of recycled waste (including heat treatment, physical treatment, recycling, and sales of the recycled) + volume of waste incinerated with energy recovery] ÷ total waste generated

2024 Performance Highlights

SOCIAL



In 2024, CSRC's employment of persons with disabilities **exceeded the legally mandated hiring quotas.**



In 2024, CSRC provided parental benefits superior to the current Labor Standards Act for male and female employees with newborns under six months old, granting an **additional 3 days of paid parental leave.**



In 2024, CSRC had no incidents of human rights violations.



In 2024, CSRC obtained **ISO 45001** certification covering **6 plants**, accounting for **75% coverage rate.**



In 2024, CSRC conducted occupational safety and health training for a total of **9,962** employees, contractors, and transporters, with a total training duration of **34,808** hours.



In 2024, CSRC invested **NT\$3.615 million** in promoting social welfare.



As of the end of 2024, the Dr. Cecilia Koo Botanic Conservation Center has collected **34,712** plant species from around the world.



In 2024, to promote traditional opera culture, the tourist theatre, TaipeiEye reopened after the Lantern Festival with **133** performances; total attendance reached **13,126**. Among international audiences, Japanese visitors were the largest group, followed by Koreans, accounting for 36% and 28% respectively.

United Nations Sustainable Development Goals (SDGs)

6.2 Talent Cultivation **SDGs 4.5**

6.3 Salary and Benefits **SDGs 10.4**

7.1 Safety and Health Policy **SDGs 8.8**

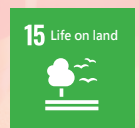
7.2 Occupational Safety Risk Management **SDGs 3.9**、**SDGs 12.4**

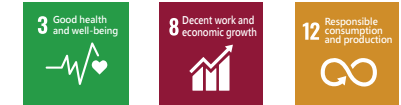
7.5 Occupational Safety and Health Education and Training **SDGs 8.8**

8.1 Social Feedback **SDGs 4.1**、**SDGs 4.7**

8.2 Maintaining Biodiversity **SDGs 15.4**、**SDGs 15.6**、**SDGs 15.a**

8.3 Cultural Promotion **SDGs 11.4**





Management policies - Occupational Safety and Health

Medium and Long-Term Targets (2026-2030)	Short-Term Targets (2025)	2024 performance
Disabling injury frequency rate (FR) FR 1.6	FR 2.6	Group FR was 1.2
Disabling injury severity rate (SR) SR 119.5	SR 191.2	Group SR was 256
Hazard notification to contractors before entering the plant Implementation rate of 100% for hazard notifications given to contractors before entering the plant	Implementation rate of 100% for hazard notifications given to contractors before entering the plant	<ul style="list-style-type: none"> Greater China implementation rate 100% India implementation rate 100% USA implementation rate 100%

Impact description

Description of positive impact:

The safety of employees in the workplace is the foundation of CSRC's development. We aim to provide a safe working environment, enhance employees' safety competence, awareness, and operational skills, and conscientiously prevent health and safety risks during business operations. This ensures the health and safety of employees in the workplace.

Description of negative impact:

During the Company's operations, improper occupational safety and health management would result in occupational injuries, occupational illnesses, and work safety accidents among employees. If the casualties are serious, work may be forced to stop which will affect the Company's normal operations.

Policies and commitments

CSRC takes "safety first, prevention first, comprehensive management, putting people first; safety development, full participation, pursuit of excellence, and continuous improvement" as our occupational health and safety policy, and our highest guiding principle is accident prevention. We have established occupational safety, health, and environmental policies based on ISO 45001 occupational health and safety policies and local regulations in various regions, including Taiwan's Occupational Safety and Health Act, Process Safety Management, and Labor Health Protection Act. We also comply with mainland China regulations such as the New Safe Production Law, the Basic Law on Labor Protection, the Prevention and Control of Occupational Diseases Law, and India's Factories Act 1948, along with requirements from the Occupational Safety and Health Administration (OSHA) in the United States. These policies aim to safeguard the safety and security of employees, contractors, and communities, enhance efficiency, reduce environmental impact, prepare for emergencies, and create a safe environment.

Action plan

Positive impact management:

- Establish risk assessment E-management and control: After identifying risk factors, each risk management unit shall formulate an appropriate measurement method as the basis for risk management.
- Provide employees with occupational health and safety services; introduce relevant safety and health mechanisms; conduct workplace hazard inspections; establish an occupational hazard management system; implement, track, and improve related processes.
- Formulate annual training plans for each operational site and department of the Company. Through training and effect evaluation, ensure that all employees who are engaged in activities that affect occupational health and safety performance have the required capabilities (including environmental factors and the ability to identify hazards).
- Each risk and hazard will be assessed and analyzed to ensure comprehensive identification and evaluation of all potential hazards and risks, and to determine corresponding control measures to reduce or eliminate risks and hazards

Negative impact management:

- Continue to improve labor safety related management methods; comply with labor safety management standard procedures.
- Enhance emergency response execution capability and conduct drills at each operational site.
- Strengthen management work inspections.

Evaluation of effectiveness

- After identifying the laws and regulations related to the management system and the needs and expectations of stakeholders, this information is to be distributed to relevant units for compliance assessment.
- The impact of risks on the Company is used as a reference for subsequent formulation of risk control priorities and selection of response measures.
- For quantifiable risks, rigorous statistical analysis methods and techniques should be adopted for analysis and management.
- Other risks that are currently difficult to quantify are to be measured qualitatively. Qualitative risk measurement refers to the expression of the possibility of risks occurring and their degree of impact through textual description.
- Formulated standardized production safety guidelines and management by objectives systems and safety and health organizations, as well as monitoring responsibilities.
- Implement internal audit regularly to provide necessary information to meet the requirements of the management system.
- Regularly review the management system to ensure the appropriateness, adequacy, and effectiveness of its continuous improvement.

Responsible units

EHS department and EHS office of each plant

Complaint mechanisms

Complaint mailbox: csirc@csrcgroup.com

Management policies - Talent training and development

	Medium and Long-Term Targets (2026-2030)	Short-Term Targets (2025)	2024 performance
Appointment rate of local residents	80%	78%	58%
Number of complaints regarding child labor/forced labor/discrimination in hiring/harassment	0 cases	0 cases	0 cases
The ratio of plants with employee forums to all plant sites	100%	87.5%	67%
The ratio of plants implementing employee personal development training to all plant sites	75%	25%	12.5%
Coverage rate of employee benefits	100%	100%	100%

Impact description

Description of positive impact:

Establish employee training and related performance assessment systems to enhance staff capabilities and work efficiency, thereby increasing Company revenue; improve educational training and career development planning, which helps enhance employees' identification with the Company and fosters the creation of corporate momentum.

Description of negative impact:

Failure to provide employees with a complete career development plan may reduce their sense of belonging, leading to increased turnover rates and reduced competitiveness of the Company

Policies and commitments

Provide employees with a comprehensive and reassuring working environment, establish a high-quality and respectful workplace; commit to improving the appointment rate of ethnic minorities to comply with regulatory requirements; promote a people-oriented and open communication corporate culture, promote a diverse and inclusive workplace environment, create a continuous learning, safe and motivating work atmosphere.

Action plan

Positive impact management:

- Provide platforms to encourage employees to propose suggestions beneficial for operational improvements.
- Encourage colleagues to exchange and share experiences, implement experience transfer, and enhance the professional knowledge and skills system of employees.
- Encourage colleagues to recommend outstanding personnel, enhancing employee participation in Company growth.
- Formulate actions for organizational development and employee talent development, and standardize procedures for employees to participate in internal or external training to enhance self-improvement, thereby stimulating employee potential.
- For reserve cadres, department heads are assigned to serve as mentors when they join the Company, and they can assist in solving problems encountered in various aspects during the training period.

Negative impact management:

- Branch departments held employee symposiums and invited non-supervisory employees to talk with the human resources department to collect employees' opinions.
- In terms of employee communication, we conducted satisfaction surveys for new hires/departures to collect employee feedback and we held staff forums across various locations to listen to employee voices, aiming to better understand employee needs in each region and to gather suggestions for the sustainable development of the Company.

Evaluation of effectiveness

Use various approaches to conduct evaluations of effectiveness:

- Proposal incentive measures: An organizational review committee conducts preliminary and secondary reviews of proposal suggestions, and approves scoring. Awards are presented for each stage to those passing or showing substantial benefits.
- Internal instructor management measures: Conduct internal instructor training seminars and invite internal and external experts to conduct internal lecturer reviews. Those who pass the review are awarded instructor certificates and are publicly recognized on formal occasions.
- Employee referral incentive policy: Upon the successful hiring of a new employee referred by existing staff, incentives will be provided at milestones of the new employee's probation period completion, six-month mark, and one-year mark.
- Training management methods: Conduct annual training needs survey and assessment, conduct training plans according to the needs of each position, implement the plan, and conduct acceptance of training results.

Responsible units

Human Resources Department

Complaint mechanisms

csrc_hr@csrcgroup.com, in-plant and office suggestion boxes

Ch6 Employees

6.1 Human resources

6.1.1 Talent recruitment

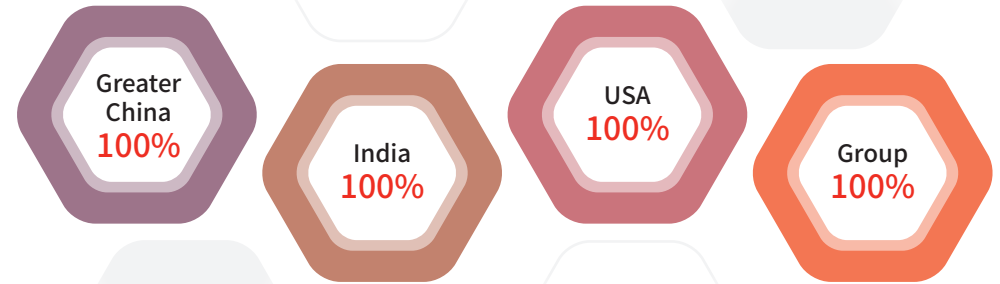
CSRC regards talent as a crucial factor in corporate development, adhering to the principles of placing talent appropriately and employing solely based on merit. We do not consider an individual's race, color, religion, gender, age, ethnicity, sexual orientation, disability, nationality, or marital status. In line with our global strategy and commitment to sustainable operations, we actively recruit outstanding talent to meet the challenges of the new century and jointly explore new milestones of excellence.

CSRC locations worldwide are recruiting personnel in accordance with the "Regulations on Recruitment and Appointment of Newcomers." The recruitment process includes talent demand application, talent selection, admission, and On-board. We advertise recruitment openly through the CSRC official website, job banks, LinkedIn, and campus recruitment events. We also offer employee introduction incentives. After opening recruitment needs, we encourage colleagues to recommend outstanding individuals to join the Company. We have also engaged external management consulting firms for recruitment, with the recruitment fees paid by CSRC. In addition, CSRC is committed to cultivating talent in product development and application research, global business management, and upstream and downstream supply chain management to meet the evolving demands of global markets and their supply chains. The labor contract signing coverage rate in each region is 100%.

Recruitment methods

Greater China
Taiwan
Official website, 104 Job Bank, 1111 Job Bank, Linkedin, Campus recruitment, etc.
China
Goodjobs.cn, 51job.com, Zhaopin Recruitment Network, Huibo Talent Network
India
Linkedin Naukri
USA
Official website, Indeed

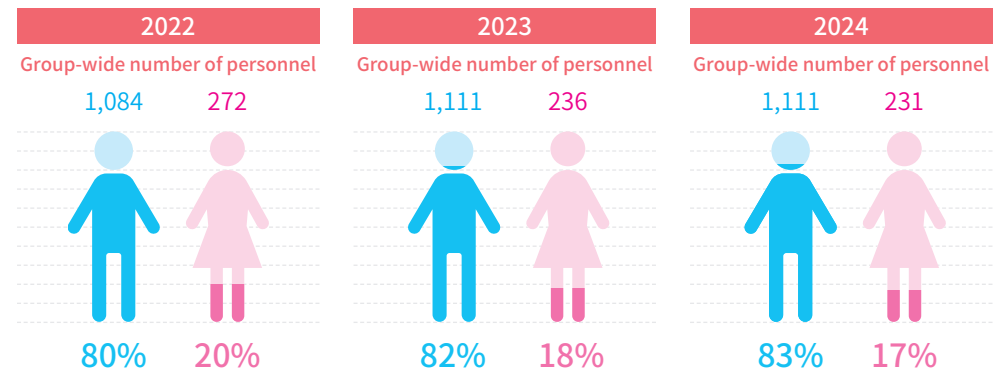
Employee labor contract signing coverage ratio in each CSRC region



6.1.2 Workforce structure GRI 2-7、2-8、401-1、405-1

As of the end of 2024, the total number of employees in the Group was 1,342. Due to the characteristics of the industry, the majority of employees are male, accounting for 83%. Common types of non-employee workers in CSRC Group in 2024 included cleaning staff, security guards, packers, etc., totaling 737 individuals. Additionally, CSRC values workforce diversity. In 2024, the Group's employment of physically and mentally handicapped individuals exceeded statutory standard appointment quotas.

Gender ratio of CSRC employees



Employee structure by gender, region, and employment contract, 2024

Region			Greater China			India			USA			Group		
Age			<30 years old	30-50 years old	>50 years old	<30 years old	30-50 years old	>50 years old	<30 years old	30-50 years old	>50 years old	<30 years old	30-50 years old	>50 years old
Male	Regular position	Full time	53	321	101	137	214	22	57	93	43	247	628	166
	Contract position	Full time	14	48	8	0	0	0	0	0	0	14	48	8
	Total males		67	369	109	137	214	22	57	93	43	261	676	174
Female	Regular position	Full time	18	118	6	9	12	1	7	16	13	34	146	20
	Contract position	Full time	4	27	0	0	0	0	0	0	0	4	27	0
	Total females		22	145	6	9	12	1	7	16	13	38	173	20

Numbers and proportions of new employees, 2024

		Greater China		India		USA		Group	
		Number of personnel	Proportion	Number of personnel	Proportion	Number of personnel	Proportion	Number of personnel	Proportion
<30 years old	Male	13	1.17%	52	4.68%	54	4.86%	119	10.71%
	Female	4	1.73%	5	2.16%	7	3.03%	16	6.93%
	Subtotal	17	1.27%	57	4.25%	61	4.55%	135	10.06%
31-50 years old	Male	25	2.25%	50	4.50%	42	3.78%	117	10.53%
	Female	7	3.03%	3	1.30%	3	1.30%	13	5.63%
	Subtotal	32	2.38%	53	3.95%	45	3.35%	130	9.69%
>51 years old	Male	4	0.36%	3	0.27%	1	0.09%	8	0.72%
	Female	0	0%	0	0%	1	0.43%	1	0.43%
	Subtotal	4	0.30%	3	0.22%	2	0.15%	9	0.67%
Total		53	3.95%	113	8.42%	108	8.05%	274	20.42%

Numbers and proportions of employees departing, 2024

		Greater China		India		USA		Group	
		Number of personnel	Proportion	Number of personnel	Proportion	Number of personnel	Proportion	Number of personnel	Proportion
<30 years old	Male	15	1.35%	29	2.61%	40	3.60%	84	7.56%
	Female	8	3.46%	2	0.87%	6	2.60%	16	6.93%
	Subtotal	23	1.71%	31	2.31%	46	3.43%	100	7.45%
31-50 years old	Male	45	4.05%	43	3.87%	45	4.05%	133	11.97%
	Female	16	6.93%	3	1.30%	2	0.87%	21	9.09%
	Subtotal	61	4.55%	46	3.43%	47	3.50%	154	11.48%
>51 years old	Male	10	0.90%	10	0.90%	8	0.72%	28	2.52%
	Female	1	0.43%	0	0%	2	0.87%	3	1.30%
	Subtotal	11	0.82%	10	0.75%	10	0.75%	31	2.31%
Total		95	7.08%	87	6.48%	103	7.68%	285	21.24%

Note: The calculation method for the ratio of new or departing male employees by region and age group is the number of new or departing male employees in that region and age group divided by the total number of male employees in the group at the end of 2024;The calculation method for the ratio of new or departing female employees by region and age group is the number of new or departing female employees in that region and age group divided by the total number of female employees in the group at the end of 2024;The calculation method for the ratio of new or departing employees by region and age group is the number of new or departing employees in that region and age group divided by the total number of employees in the group at the end of 2024.

Employee type



Diversity

Proportions of minority or disadvantaged groups employed by CSRC in the past three years

		Greater China	India	USA	Group
2022	Number of personnel	8	0	121	129
	Proportion	1.0%	0.0%	46.7%	11%
2023	Number of personnel	9	0	110	119
	Proportion	1.2%	0.0%	48.7%	9%
2024	Number of personnel	9	0	108	117
	Proportion	1.3%	0.0%	47.2%	8.7%

Note: Minority disadvantaged groups at Linyuan Advanced Plant in the Greater China include individuals with disabilities as well as indigenous peoples. In 2024, six disabled persons were employed, exceeding the legally required quota. In China, minority groups in three plants mainly consisted of non-Han ethnic groups; in the United States, minority groups include non-white indigenous peoples, Latinos, African Americans, Asians, etc.

CSRC's proportions of minorities or disadvantaged groups in middle and senior management positions in the past three years

		Greater China	India	USA	Group
2022	Number of personnel	1	0	2	3
	Proportion	13%	0.0%	1.7%	2%
2023	Number of personnel	1	0	2	3
	Proportion	11%	0.0%	1.8%	3%
2024	Number of personnel	1	0	0	1
	Proportion	11.1%	0.0%	0.0%	5.0%

Note: The ratio is calculated as the number of individuals from minority or disadvantaged groups in mid- to senior-level management positions divided by the total number of minority or disadvantaged individuals employed.

CSRC's proportions of women in senior management positions in the past three years

		Greater China	India	USA	Group
2022	Number of personnel	2	0	2	4
	Proportion	29%	0.0%	22%	25%
2023	Number of personnel	1	0	2	3
	Proportion	17%	0.0%	25%	21%
2024	Number of personnel	1	0	0	1
	Proportion	8%	0.0%	0.0%	7%

Note: The ratio is calculated as the number of women in senior management positions divided by the total number of individuals in senior management roles.

6.2 Talent cultivation

6.2.1 General functional training GRI 404-1、404-2

CSRC Group actively promotes talent cultivation and has drafted “Training Management Measures” to address international development and future operational needs. Additionally, to uphold the brand spirit, five comprehensive training programs are designed for new personnel training, core functions, management capabilities, professional skills, Environmental Safety and Health. The scope includes regular employees of CSRC and its directly managed subsidiaries.

	New personnel training	<p>Basic training and onboarding guidance activities for new employees include: carbon black product applications and basic knowledge, production process introduction, safety health / environmental protection / fire safety awareness, and actual factory tours. Online courses are provided for colleagues to review and apply again.</p>
	Core functions	<p>General training activities for all levels that link the core values or strategies of the organization, such as CSRC Brand and Value Training, carbon management education training, and cross-cultural seminar explanations.</p>
	Management functions	<p>Training activities planned according to the management abilities and responsibilities required by supervisors at all levels are as follows:</p> <ol style="list-style-type: none"> 1. New supervisors: Roles and responsibilities of frontline supervisors; 2. Frontline and middle management: Goal setting and performance management; 3. Senior management: EMBA. To expand the systematic and diversified management perspectives of senior executives
	Professional functions	<p>Each department organizes relevant courses in response to the professional knowledge and skills required for job responsibilities, as well as corporate transformation trends, such as AI generative educational training, corporate sustainability management, carbon rights management, greenhouse gas inventory, and so on. Starting from 2023, senior colleagues also wrote technical department professional knowledge materials, completed production-related operational logic materials, and prepared for recording online courses to strengthen the operational knowledge of technical and production personnel.</p>
	Environmental Safety and Health	<p>In compliance with government regulations and company policy requirements for environmental safety and health-related training, such as specific chemical operations training, on-the-job education and training for first aid personnel, organic solvent operation supervisor training, PSM management, process safety assessment personnel education and training, and so on.</p>

CSRC Internal Digital Courses

The internal digital training courses at CSRC not only cover topics such as carbon black product applications and production processes but also include regulatory compliance, quality awareness, cultural shaping, carbon trends and management, advanced technologies, strategic leadership, and more. The purpose is to enable employees to learn autonomously and freely, without the constraints of time and space, and to arrange learning in a more diverse range of fields.

We conduct training surveys and interviews with department supervisors to understand their needs and provide appropriate training materials and courses. This strengthens employees' skills and experience. In 2024, the average training hours for the International CSRC Group was 19 hours. We will continue to optimize in-person classroom courses and, in response to the digital technology trend, plan to increase more online courses to provide employees with sufficient learning and training resources.

Training status of the Group and each region in 2024

Percentage of CSRC employees in each region receiving vocational or skills-related training in 2024

		Greater China	India	USA	Group
2022	Number of personnel	576	145	179	900
	Proportion	74%	77%	69%	73%
2023	Number of personnel	571	302	183	1,056
	Proportion	75%	84%	81%	78%
2024	Number of personnel	448	255	179	882
	Proportion	62%	60%	78%	64%

Percentage of CSRC employees in each region receiving environmental (carbon reduction and climate change) or skills-related training in 2024

		Greater China	India	USA	Group
2022	Number of personnel	125	22	9	156
	Proportion	16%	12%	3%	13%
2023	Number of personnel	99	30	8	137
	Proportion	13%	8%	4%	10%
2024	Number of personnel	43	20	80	143
	Proportion	6%	5%	35%	11%

Average training hours for the Group and each region

Employee category	Gender	2022				2023				2024			
		Greater China	India	United States	Group	Greater China	India	United States	Group	Greater China	India	United States	Group
Senior Supervisor	Male	32	-	5	37	16	-	5	21	4	3	20	8
	Female	19	-	-	19	20	-	-	20	18	-	-	18
Mid-level supervisor	Male	19	4	17	40	17	2	20	39	20	13	8	15
	Female	25	5	17	47	9	-	20	29	20	-	20	20
Basic level supervisor	Male	21	12	18	51	18	9	17	44	35	14	4	19
	Female	41	23	18	82	15	12	17	44	24	12	5	13
Professionals	Male	27	7	20	54	22	14	23	59	16	14	3	14
	Female	24	6	20	50	14	10	23	47	10	15	2	7
Direct staff	Male	23	6	28	57	33	13	36	82	31	13	2	23
	Female	20	-	28	48	54	-	36	90	29	-	2	17
Total		24	8	25	20	27	12	25	22	27	14	3	19

Note: Data for Greater China: 2022 does not include the Chongqing plant.

CSRC has established diversified educational training courses in response to rapid global environmental changes and industry-specific needs, systematically cultivating each kind of talent required for organizational operations and Group development. At the same time, CSRC also cares about the actual feelings of employees and feedback after class. All internal training initiated by the Human Resources Department and colleagues applying for external training courses themselves will conduct a satisfaction survey, focusing on aspects such as curriculum design, lecturer performance, and individual learning outcomes to assess learning responses. If necessary, further training and related assignments will be arranged to facilitate the validation of learning effectiveness and enhance overall course efficiency.

6.2.2 Employee function improvement project

Experience Inheritance and Knowledge Building Project

CSRC deeply understands the importance of internal knowledge exchange among employees. In addition to formulating the “Internal Lecturer Measures” (applicable to full-time employees of CSRC and its directly governed subsidiaries) to cultivate and encourage employees to teach, the Company also conducts regular seminars on consensus cohesion strategy for senior executives. Through these activities, management consensus is gathered to jointly establish future operation strategies as the basis for the development of various department goals and serve as a channel for the exchange of internal senior and high-level employees.

In 2019, we have launched the “Experience Inheritance and Knowledge Building Project,” through which senior employees use a mentoring system to transform their years of accumulated knowledge and technical experience into important teaching materials. During the knowledge building project, mentoring and mutual discussion between masters and apprentices have created a knowledge repository that enhances workflow optimization and improves work efficiency.

In 2022, CSRC has promoted the Carbon Black Academy as a talent cultivation blueprint. We have completed the production unit training blueprint and gradually expanded to non-production units.

In 2023, the Linyuan Advanced Plant introduced and implemented the “New Employee Mentor System” in production units. Each new employee is assigned a dedicated mentor for six months of close guidance to help them quickly adapt to their roles. This system is based on job descriptions to promote the development of professional skills, with the ultimate goal of achieving the required job performance. Corresponding courses and training durations are designed accordingly.

In 2024, to further enhance the effectiveness of education and training in practical applications, we will launch the “Carbon Black Learning Map” project. This project will conduct an in-depth inventory and classification of the professional skills and knowledge required for various positions and levels within the production units: Carbon Black and Cogeneration. It will clearly list the corresponding training items needed, establish appropriate training methods and verification mechanisms, and continuously develop comprehensive educational training materials. In conjunction with the “New Employee Mentor System,” we will initiate capability assessments, training guidance, and verification for new employees in production units, thereby more accurately enhancing employee capabilities.

Rehiring senior staff as consultants

In addition, CSRC fully leverages the skills and experience of its senior staff by rehiring retired senior employees as consultants. In 2024, the Linyuan Advanced Plant in Greater China rehired four retired senior employees, the Mannshan Plant rehired one, and the India region rehired two under professional service contracts. These senior employees, with nearly 30 years of practical experience, will assist in training new and current employees, establishing a knowledge base for production processes, integrating and promoting improvement projects across various plants, and building a talent pipeline.

Global Elite Program

CSRC actively supports the United Nations Sustainable Development Goals. In response to the expansion of the group’s overseas presence, CSRC has launched the “Global Elite Program” to actively recruit and cultivate global management talent. From 2023, the training period has been adjusted to 15 months. The program now includes increased hands-on experience in the initial phase, followed by in-depth participation in medium to large-scale cross-departmental and cross-plant projects in the later phase. Finally, participants will undergo practical overseas internships to develop and enhance their cross-functional breadth and professional depth. By 2024, a total of 33 elites will have been trained over seven cohorts, with 10 of them becoming overseas executives for CSRC, stationed in plants in China, India, and Turkey. These executives will manage the operations and production of overseas plants and assist with new plant construction projects.



Mentorship Program for New Employees

A six-month mentorship program is provided for new colleagues in production and manufacturing units. A senior colleague guides them in professional skills and job knowledge through practical work execution, supported by the “Carbon Black Learning Map” capability assessment. The program includes learning reviews and feedback at 3 and 6 months to help new employees adapt quickly. In 2024, four new employees successfully passed the validation stages and smoothly transitioned into their roles with the help of this program.

6.3 Salary and benefits

6.3.1 Salary and performance GRI 404-3 、405-2

Salary and incentives

CSRC provides employees with comprehensive salary benefits. It conducts regular surveys of external salary markets each year, taking into account individual expertise in performance evaluation to calculate competitive salaries in the market. This ensures that colleagues' salary levels maintain a certain degree of advantage over external markets. For key positions we also design salary packages that are better than market conditions and we cultivate excellent talent to serve as an aid to the continued growth of CSRC's operations.

In addition to the fixed salary, CSRC also provides qualified peer performance bonuses and rewards to effectively link the Company' s operating results, the performance of each plant, and individual performance. This is done to improve team morale, increase productivity in the organization, and ensure that the overall rewards are more competitive to attract outstanding personnel to join.

CSRC will initiate a Living Wage survey and assessment to ensure that, beyond the statutory minimum wage, employees and their families can lead a decent life. The planned phased work includes:



CSRC places a high value on gender equality and equal pay for equal work. The company's compensation standards and base salaries are not influenced by gender. Instead, they are determined based on factors such as business performance, industry salary levels, job evaluations, and the company's future operational needs. The policy of wage equality is also a key focus in the training and guidance provided to human resources and hiring managers. Due to the unique gender composition within the industry chain that CSRC operates in, most professional technical positions in the factories are held by male, while female predominantly occupy administrative/support roles. This results in a disparity in salaries between male and female employees across different factory locations, as market standards dictate varying pay levels for different job types. To manage the differences in salary structures among employees in various regions, the Human Resources Department conducts regular annual surveys of both internal and external market compensation. This ensures the appropriateness and fairness of salary distributions. In an effort to create a more equitable workplace and prevent unfair situations where employees performing the same work receive different pay due to information asymmetry, CSRC discloses [Salary information for full-time employees who are not in a managerial position](#) ^{Note} on the Market Observation Post System (MOPS). This disclosure includes both the average and median salaries for these employees over the years.

Note: The path to access the salary information for full-time employees not in supervisory roles is as follows: Market Observation Post System (<https://mops.twse.com.tw/>) > Corporate Governance > Information relating to ESG> Information relating to employee benefits and compensations > Information about salary of full-time employees who are not in a managerial position

Male-to-female average salary ratio by job level for CSRC over the past 3 years (Male: Female)

	Greater China		
	2022	2023	2024
Senior Supervisor	1.35 : 1	1.47 : 1	1.33 : 1
Mid-level supervisor	0.72 : 1	0.84 : 1	1.14 : 1
Basic level supervisor	1.04 : 1	1.11 : 1	1.04 : 1
Professionals	1.06 : 1	1.17 : 1	1.13 : 1
Direct staff	1.15 : 1	1.13 : 1	1.16 : 1
	India		
	2022	2023	2024
Senior Supervisor	-	-	-
Mid-level supervisor	1.48 : 1	1.47 : 1	1.07 : 1
Basic level supervisor	1.47 : 1	1.42 : 1	1.30 : 1
Professionals	1.36 : 1	1.21 : 1	1.13 : 1
Direct staff	-	-	-
	USA		
	2022	2023	2024
Senior Supervisor	-	-	-
Mid-level supervisor	-	-	0.80 : 1
Basic level supervisor	1.08 : 1	1.10 : 1	1.10 : 1
Professionals	1.08 : 1	1.10 : 1	1.21 : 1
Direct staff	1.08 : 1	1.10 : 1	1.10 : 1
	Group		
	2022	2023	2024
Senior Supervisor	-	-	1.33 : 1
Mid-level supervisor	1.10 : 1	1.15 : 1	1.00 : 1
Basic level supervisor	1.20 : 1	1.21 : 1	1.15 : 1
Professionals	1.17 : 1	1.16 : 1	1.16 : 1
Direct staff	1.11 : 1	1.12 : 1	1.13 : 1

Note:1.Only the Greater China Taipei headquarters has female senior executives.

2.There are no female senior supervisors or direct staff in the India region.

Due to the differing job function preferences between male and female employees, with a higher proportion of women occupying administrative and clerical positions, there exists a noticeable disparity in salary ratios at equivalent job levels. When calculating the salary ratio for identical job functions and grades, the male to female salary ratio is approximately 1.02:1.

Performance Appraisal

CSRC's annual performance appraisal work mainly targets colleagues who are currently under appraisal and who have completed three months of service. Colleagues who have been employed for less than three months will be evaluated based on the standards of newcomers, considering that organizational adaptation and individual performance are still under observation. In 2024, 100% of CSRC Group employees successfully completed the annual performance assessment.

In addition, we introduced an online performance management platform starting from 2019 to enable colleagues to respond to performance more conveniently and with greater immediacy. In addition to being able to fully record the performance achievements and evaluation history of colleagues over the years, it can also connect the goals and results between supervisors and colleagues.

Completion of regular performance assessments by the Group and each region over the past three years

	Greater China	India	USA	Group
Assessment ratio for 2024	100%	100%	100%	100%
Assessment ratio for 2023	100%	100%	100%	100%
Assessment ratio for 2022	100%	100%	100%	100%

6.3.2 Employee benefits GRI 201-3、401-2、401-3

Insurance system of each country

Taiwan

- ◆ Social insurance (labor health insurance, labor pension)
- ◆ Group insurance (term life insurance, accident insurance, accident medical insurance, cancer insurance)
- ◆ Travel insurance
- ◆ Employers' liability insurance

China

- ◆ Five types of insurance and one housing fund
- ◆ Employers' liability insurance
- ◆ Heating expenses (Anshan Plant)
- ◆ High-temperature subsidies (Anshan Plant)

India

- ◆ Social insurance (labor health insurance ESI/ WC, labor pension PF)
- ◆ Group insurance (accident insurance, accident medical insurance)

United States

- ◆ Medical insurance (choice of preferred provider organization PPO, high deductible health plan HAS/HDHP)
- ◆ Two types of medical savings account (respectively Health Savings Account (HSA) and Flexible Spending Account (FSA))
- ◆ Dental insurance, critical illness insurance, basic life insurance, accident insurance.
- ◆ Travel loss insurance

Proportions of employees covered by medical insurance in each region of CSRC in the past three years

	Greater China	India	USA	Group
2022	100%	100%	100%	100%
2023	100%	100%	100%	100%
2024	100%	100%	100%	100%

Retirement system

CSRC assists employees in proper pre-retirement planning, and each region has formulated relevant retirement systems in accordance with laws and regulations, as shown in the table below.

Taiwan

We have set up a "Labor Retirement Reserve Supervision Committee" to regularly allocate retirement funds to Bank of Taiwan Co., Ltd., and we regularly convene committees to review the amount of employee retirement reserves, storage and expenditure, payments, and other matters to ensure employees' rights and interests. Among them, more than half are labor representatives. In addition, for employees who choose to adopt the new labor pension system, 6% of the monthly salary shall be paid to the employee's personal pension account in the Labor Insurance Bureau in accordance with laws and regulations, to protect the rights and interests of employees.

China

The retirement system is planned according to the "Social Insurance Law" stipulated by the government of the People's Republic of China. Approximately 16% is allocated as pension insurance with a legally mandated contribution rate. The retirement pensions of all current and retired employees are centrally arranged by the local government. The pension system covers 100% of employees. After onboarding, the Company purchases five types of insurance for employees (i.e., pension insurance, medical insurance, unemployment insurance, work-related injury insurance, and maternity insurance). When employees are eligible for retirement, Human Resources will assist with the retirement procedures. The pension insurance department calculates retirement benefits based on the years of service and account balance purchased by employees, and pensions are disbursed post-retirement by the pension insurance department.

India

From their time of onboarding, the Company deducts and pays retirement funds (PF) on behalf of employees. Upon meeting retirement conditions, the Company handles retirement procedures for them. Retirement benefits are disbursed by the social insurance agencies.

United States

The Company offers a retirement savings plan (401K Plan) for employee enrollment. This plan operates in the form of an account, with both employer and employee contributing fixed percentages of monthly salaries into the account. The Company matches "Non Bargaining" employees with Safe Harbor contributions – 100% of the first 6% of employees' eligible compensation contributed to the plan, and matches "Bargaining" employees – 100% of the first 3% of employees' eligible compensation contributed to the plan, with these benefits fully vested after three years.

Other welfare measures

Number of benefit usage instances in 2024

Welfare item	Greater China	India	Total number of Group usage instances
Birth announcement gift	9	-	9
Wedding congratulation gift	12	4	16
Children's educational stipends	3	-	3
Medical treatment subsidies	-	-	-
Health check subsidies	362	-	362
Funeral condolence allowance	30	-	30
Personal travel allowances	191	-	191
Group travel allowances	232	-	232
Festival Vouchers for Lunar New Year and Diwali	693	402	1095
Birthday Celebration Activities	403	24	427

Note: Due to the implementation of the "Total Rewards Program" points scheme in the United States, relevant statistics are not compiled and therefore not included.

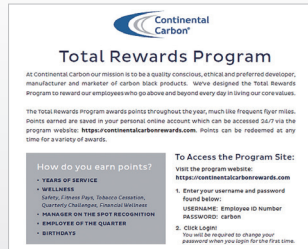
Employee stock ownership trust plan

CSRC has implemented an employee stock trust plan since 2019. Colleagues can choose to allocate a certain amount from their monthly salary, with the Company matching the same amount as a reward. Through regular investment in Company stock, this plan motivates employees to progress together with the Company, linking employee benefits to shareholder interests, thus creating a win-win-win situation for the Company, employees, and shareholders. In addition to allocating a certain amount from their monthly salaries, starting from November 2021, the "Retiring Employees' Additional Contribution Plan" and "Single Withdrawal Increased Amount Sharing Plan" have been implemented. Colleagues may apply in May and November each year, enhancing the Company's overall welfare and early retirement savings accumulation.

"Total Rewards Program" launched in the United States region

To promote the connection between employee performance and the company's encouraged positive values, we are launching the "Total Rewards Program." Employees will earn corresponding points based on various reward items outlined in the program, which can be accumulated and redeemed for prizes.

The reward program includes items such as work performance that aligns with the company's brand values of integrity, innovation, proactiveness, and mutual benefit. It also recognizes milestones in employee tenure, the development of healthy habits (such as regular exercise and participation in smoking cessation programs), and other activities like employee birthdays and preventive health care activities, which also offer welfare points. Employees can accumulate these points to redeem incentive prizes. This program is applicable to all employees in the United States.



Number of Recipients of the "Total Rewards Program" in the U.S. Region in 2024:

Item	Number of Recipients
Years of Service Award	22
'n the Spot' Award	80
Employee of the Quarter' Award	6
Tobacco Cessation	-
Health and/or Financial Wellness Challenges or Activities	90
Preventative Care Activities	50
Fitness Pays Facility Reimbursement Points	100
Birthday Gifts	50

Emergency relief plan

During employment, colleagues may apply to resign from the employee stock trust by submitting a request to the employee stock trust representative in case of significant emergencies or other unavoidable major reasons. Upon approval by the Employee Stock Trust Committee, the colleague's trust account assets will be refunded.

Childcare

CSRC upholds the belief in gender equality. During pregnancy and childbirth, female employees are entitled to pregnancy leave without pay, prenatal check-up leave, and maternity leave. Male employees are entitled to paternity leave when their spouse gives birth. For employees with childcare needs, CSRC adheres to the regulations of the "Gender Equality in Employment Act" and the "Implementation Measures for Unpaid Parental Leave" to manage parental leave procedures. Upon the completion of their leave, employees are reinstated to their original positions and units, with active support provided to help them reintegrate into the workplace. Parental leave policies are consistent regardless of gender, position, or work location.

In Taiwan, female employees are entitled to two breastfeeding breaks per day (each lasting 30 minutes). Both male and female employees can apply for unpaid parental leave. Additionally, CSRC offers parental benefits that exceed the current Labor Standards Act, granting an extra three days of paid childcare leave to both male and female employees with infants under six months old.

In China, in accordance with government regulations, male employees are entitled to 10 days of paid paternity leave, while female employees receive 158 days of paid maternity leave. In India, employees are entitled to 26 weeks of maternity leave as per government regulations. In the United States, employees are entitled to up to 12 weeks of parental leave.

CSRC Group's parental leave application and reinstatement retention statistics

	2022		2023		2024	
	Male	Female	Male	Female	Male	Female
Total number of employees eligible for parental leave (A)	10	21	9	22	21	13
Total number of employees actually using parental leave in 2024 (B)	6	10	4	8	1	7
Total number of employees expected to return to work in 2024 following parental leave (C)	7	7	4	7	2	4
Total number of employees actually returning to work in 2024 following parental leave (D)	6	7	4	6	2	3
Total number of employees who resumed work in 2023 after taking parental leave in the previous year (E)	3	3	3	5	4	6
Total number of employees who took parental leave in 2023 and were still working 12 months after reinstatement (F)	2	3	3	5	4	6
Application rate for unpaid parental leave (B/A)	60%	48%	44%	36%	5%	54%
Reinstatement rate (D/C)	117%	70%	100%	88%	100%	75%
Retention rate (F/E)	100%	100%	100%	100%	100%	100%

Note: The India CCET plant was commissioned at the end of 2022 and will therefore only be included in statistics for 2023.

Our human rights policy encompasses the principles of diversity, inclusion, and equal employment opportunities, while also ensuring a safe and healthy work environment. We adhere to local regulations in various regions, such as Taiwan's "Act of Gender Equality in Employment," China's "Special Provisions on Labor Protection for Female Employees," and the spirit of the United States' "PUMP for Nursing Mothers Act." In alignment with these regulations, we have established the "Lactation Room Management Guidelines" to support our female employees in balancing their family and work responsibilities. We have designated lactation rooms or rest areas for pregnant employees at all company locations to accommodate those who need breastfeeding facilities, thereby fully protecting maternal employment and family care. In India, in accordance with the "Maternity Act," we have also provided childcare facilities.

To ensure our colleagues work with peace of mind and to promote children's welfare, the Linyuan plant has signed a preferential childcare contract with kindergartens accredited by the Kaohsiung City social and governmental authorities. This initiative aims to leverage the Company's support to alleviate the childcare burden for laborers.



Pregnant Women's Rest Area

Other benefits or systems

Beyond providing a caring and comfortable working environment, CSRC cares about the lives of our employees as we adhere to a "people-oriented" ideal. With the support and encouragement of the Company, we plan various subsidies or welfare measures for festivals, life events, health insurance, and learning, so as to achieve a balanced life that promotes work, study, and leisure.

Employee cafeteria	CSRC attaches great importance to employee food hygiene issues. There is a staff restaurant that emphasizes the use of seasonal ingredients, cooking with less oil and less salt to provide employees with healthy meals.	Study grants	In addition to providing scholarships and stipends for the children of employees, it also provides remedial assistance for employees, and the company pays for the expenses when employees are selected for training in external institutions.
Fitness plaza	The Company provides a fitness room (with treadmill, various fitness equipment, and weight training equipment) and a sports area (with yoga space, basketball shooting machine, pool table) for employees' convenience.	Festive gifts	We provide gift vouchers, birthday gift vouchers, and New Year gift vouchers including for the Chinese New Year, Dragon Boat Festival, and Mid-Autumn Festival.
Relief Massage Area	The "Relief Massage Room" sympathizes with colleagues' hard work and provides free professional massage masters to help employees relieve stress.	Wedding and funeral subsidies	CSRC cares for all employees. Whenever there is marriage, childbirth or death of relatives, the Company will give congratulatory gifts or condolence stipends to support colleagues through all important stages of their lives.
Employee Rest Area	A dedicated floor has been specially designed for employee interaction and relaxation. This floor features a comfortable and well-furnished space with numerous movable tables and chairs, as well as small meeting rooms, allowing employees to choose between open or private conversations. Additionally, there are reading areas and beverage stations available. These spaces not only help employees maintain their best state during working hours but also allow them to use the facilities with their families during off-hours, enhancing the connection between the company and employees' families.	Flexible working hours	CSRC has a flexible working hours system in place for non-shift employees. Each quarter, employees can choose their own working hours.
Volunteer system	CSRC provides employees with two days of leave per year to encourage participation in social welfare services and showing enthusiasm for service outside of work. By doing so, we aspire to implement the spirit of service and of devotion to giving back to society. In 2024, employees took a total of 5 days of volunteer leave.	Annual gatherings	The Greater China region holds Spring Banquets and corporate year-end parties; the US region hosts holiday parties, and other activities every year to foster employee relationships.

Fitness plaza



Employee rest area



6.3.3 Labor–management relations

Employee communication channels

CSRC values positive employee relations and actively establishes diverse, two-way communication channels. In accordance with local labor regulations at each operational site, CSRC holds labor-management meetings at least once per quarter in each region. During these meetings, both parties discuss a range of topics, including but not limited to compensation and benefits, working conditions, Employee Assistance Programs (EAP), and vacation planning. The company adheres to relevant labor laws and emphasizes labor-management harmony. Through a variety of measures, CSRC ensures zero-distance communication with employees. These measures include the establishment of labor unions in accordance with local regulations, regular labor-management meetings, and occasional small-scale employee forums. In Taiwan, although a corporate union has been established, but no collective agreement has been signed. For related discussions, the company utilizes the aforementioned diverse channels to achieve two-way communication. If employees have any grievances, they can email the union president. The union will review and communicate the grievance content, facilitating mutual understanding and consensus through meetings, thereby fostering a harmonious working environment.

The Linyuan Advanced Plant in Greater China registered a labor union in 2019, with 172 employees participating in 2024 and accounting for 73% of the plant's workforce. According to the “Articles of the Kaohsiung Labor Union of Linyuan Advanced Materials Technology Co., Ltd.”, the union will assist members in the following tasks:

- 1 The conclusion, modification, or termination of collective agreements.
- 2 The promotion of matters related to the improvement of working conditions and member welfare.
- 3 The handling of labor disputes or member conflicts.
- 4 Recommendations on the formulation, amendment, or abolition of labor laws.
- 5 Mutual cooperation among group members to ensure labor rights.
- 6 Assisting members in researching and improving production skills, enhancing quality, reducing costs, and developing production enterprises.
- 7 The organization of member savings.
- 8 The establishment of cooperatives for production, consumption, and credit.
- 9 The organization or promotion of member recreation, medical facilities, mutual aid projects, and labor education.
- 10 The establishment of libraries and the publication of printed materials.
- 11 The investigation of member livelihoods and the compilation of labor statistics.

In the Greater China region, none of the factories in China have established labor unions. However, all factories have set up employee suggestion boxes to solicit feedback and suggestions from employees. The keys to these suggestion boxes are kept by the plant managers, who open them once a month to compile employee feedback. Each piece of feedback and suggestion is promptly addressed and responded to. In the India region, the CCIPL plant has a union with 7 members, representing 4% of the total workforce. The CCET plant does not have a union. In the United States, all factories have established labor unions. The total number of employees participating in the unions across the two plants is 67, which constitutes 29% of the total workforce in the United States.

Number and proportion of CSRC employees participating in unions over the past three years in each region

	Greater China		India		USA		Group	
	Number of employees	Percentage	Number of employees	Percentage	Number of employees	Percentage	Number of employees	Percentage
2022	163	83%	13	7%	113	44%	289	24%
2023	168	70%	9	5%	104	46%	281	21%
2024	172	73%	7	4%	67	29%	246	18%

Note: The three plants in China have not established labor unions; CCET Plant in India has not established a labor union.

CSRC is committed to providing a comfortable working environment while encouraging colleagues to balance family life, physical and mental health, and work enthusiasm.

The company actively maintains a positive relationship between labor and management by offering diverse internal communication channels. These include regular labor-management meetings, union communication and coordination, internal company website announcements, newsletters, and other ad-hoc meetings.

To better understand employees' opinions and voices, regular employee forums have been held since 2021. These forums collect feedback and suggestions from employees, and the company regularly responds to these inputs through announcements. We have partnered with Hsinchu Lifeline to offer Employee Assistance Programs (EAP), leveraging professional psychological counseling services to enhance communication channels while ensuring confidentiality and protecting employee privacy. In 2024, the Linyuan plant in the Greater China region has hosted four labor-management meetings. Feedback and issues raised during these meetings will be included in the improvement process and tracked for resolution.

In 2024, there was a total of one labor dispute case between CSRC Group and its employees. After full communication and consultation with employees, all differences have been put aside and resolved. The Company also reviewed internal regulations related to the dispute, adjusted operational procedures based on the actual dispute situation, and aimed to prevent similar cases from arising. If there are any labor rights or welfare suggestions or complaints, all employees of CSRC Group can express their opinions through the employee communication mailbox (csrc_hr@csrcgroup.com) or the suggestion boxes provided in the plant and office.

Employee satisfaction survey

At CSRC, we prioritize our employees' perspectives. In addition to regular, smooth labor-management meetings, we conduct employee opinion surveys to understand their level of recognition and engagement with the company. Based on employee feedback, we continuously improve our practices. We assess individual employee needs while striving to meet the expectations of the majority, aiming to respond to individual requirements and provide a platform for employees to realize their own value. Our goal is to establish a positive mechanism that offers employees developmental direction. The principle of being people-oriented is the foundation of our company's development philosophy, and we continuously enhance various company measures to boost employee recognition and retention rates.

In addition to the group-wide employee opinion surveys, the Maanshan and Anshan plants have separately conducted employee satisfaction surveys. The results showed an average recognition rate of 85% and 98%, respectively. Based on the statistical analysis of the surveys, the Maanshan plant has replaced traditional festival gifts with supermarket vouchers or festival bonuses and reviewed welfare measures to better meet employees' actual needs. The Anshan plant, addressing lower satisfaction levels regarding the work environment, succession and training, and welfare systems, has convened mid-level management meetings to propose and implement improvement plans for the onsite environment. Experienced senior employees and engineers have been tasked with developing training content for internal training. Additionally, employee suggestions for salary adjustments proportional to local living costs have been incorporated into the continuous improvement plan.

In India, no employee satisfaction survey was conducted this year; however, there were no labor disputes, indicating that employees are still communicating through other channels. In the United States, employee forums were held this year in place of satisfaction surveys, with a participation rate of 50%.

Employee satisfaction survey dimensions



6.4 Human rights management

GRI 2-23 、 2-24

6.4.1 Human rights policy

CSRC deeply understands that employees are the cornerstone of the company's growth. We are committed to establishing a workplace that is equal and respectful, providing employees with a comprehensive and secure employment environment. This commitment is fundamental to our social responsibility and sustainable business practices.

CSRC strictly adheres to international human rights conventions such as the United Nations Global Compact, the Universal Declaration of Human Rights, and the International Labour Organization's Declaration on Fundamental Principles and Rights at Work, as well as labor-related regulations in the locations where we operate. We have established the " CSRC Human Rights Policy," which applies to CSRC Group, its domestic and international subsidiaries, joint ventures, and other group-affiliated organizations with substantial control, covering 100% of our operations. We also comply with personal data protection laws to safeguard and protect the personal data rights of all employees. This policy fully reflects our responsibility to respect and protect human rights, treating and respecting current employees with dignity. We firmly believe that only when employees are happy and respected can they fully utilize their talents and grow together with the company.

The company has conducted internal human rights reviews and assessments of human rights impacts, covering five key areas: workplace inclusion and diversity, forced labor, excessive working hours, sexual harassment, workplace misconduct, child labor, and employment and occupational discrimination. These assessments cover 60% of our facilities. In 2024, there were no incidents of labor rights violations.

CSRC's Human Rights Policy and Implementation Status in 2024



Prohibition of Child Labor, Prohibition of Forced Labor

CSRC adheres to local labor laws across all plant locations and has established internal policies that prohibit the use of child labor, forced labor, and employment discrimination. We are dedicated to creating a diverse, open, equal, and harassment-free work environment.

We strictly prohibit the employment of child labor under the age of 16. In 2024, our company did not employ any child labor and there were no incidents of forced labor.



Diversity, equality, and anti-discrimination

CSRC's policy strictly prohibits any form of differential treatment or any form of discrimination based on an individual's gender, sexual orientation, race, social class, age, marital status, language, ideology, religion, political affiliation, place of origin, birthplace, appearance, facial features, or physical and mental disabilities, and so on. In 2024, there were no reported disputes or complaints related to discrimination within our company.



Freedom of assembly and association and of collective bargaining

CSRC values two-way communication and respects employees' rights to assembly and association. We strive to establish a positive and proactive employee relationship by providing diverse internal communication channels. These include regular labor-management meetings, union communication and coordination, internal company website announcements, newsletters, and other ad-hoc meetings. These channels are designed to listen to employees' opinions and voices and to express feedback. In 2024, the number of external audit deficiencies at all our operational sites was zero. The number of employee grievances was also zero at all sites except for the India region, which recorded 11 grievances. The grievances in India primarily involved employees not adhering to standard operating procedures (SOPs) and poor work attitudes. Appropriate communication and disciplinary actions have been taken with the concerned employees.



Employee health and safety

Providing a safe and healthy work environment and necessary health and emergency facilities, eliminating hazards that may affect employee health and safety in the workplace, reducing occupational safety risks, and complying with local government occupational safety regulations at each plant. In 2024, the Company had no disputes or complaints related to health and safety.

CSRC Human Rights Policy

In the Greater China region, 100% of personnel have completed the online reading and advocacy of the human rights policy in 2023. The content of the human rights policy, which includes prohibitions against employment discrimination, promotion of diversity and inclusion, equal employment opportunities, anti-discrimination and harassment, prohibition of child labor, prohibition of human trafficking, and prohibition of forced labor, has been incorporated into the training materials for new employees. This ensures that all new hires receive training on these policies, maintaining a 100% completion rate of human rights policy advocacy among employees in the Greater China region.

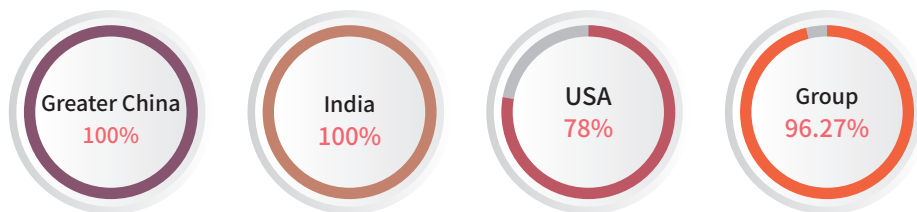
In India, the human rights policy is also included in the training for new employees at both plants, which covers the advocacy of the sexual harassment policy. Additionally, a mandatory annual sexual harassment prevention seminar is conducted in accordance with legal requirements.

CSRC will continue to utilize online platforms for educational training and will employ various methods to promote human rights advocacy and training. This approach aims to ensure the practice of human rights advocacy across all operational sites.

Percentage of CSRC employees in each region who received training on diversity, discrimination, harassment, or related topics over the past three years.

		Greater China	India	USA	Group
2022	Number of personnel	779	188	233	1200
	Proportion	100%	100%	90%	98%
2023	Number of personnel	761	360	203	1324
	Proportion	100%	100%	90%	98%
2024	Number of personnel	718	395	179	1292
	Proportion	100%	100%	78%	96.27%

Coverage rate of human rights policy training advocacy



6.4.2 Prohibition of forced labor GRI 408-1 、409-1

CSRC’s human rights policy ensures compliance with all national labor laws. It explicitly prohibits child labor and forced labor, with these issues incorporated into the annual audit program. Regardless of whether employees work overtime, shifts, or during holidays/day-off, appropriate measures are in place to protect their rights and interests, thereby reducing the risk of forced labor. In 2024, no incidents of forced labor were reported across the CSRC Group.

“Administrative Measures for Overtime Work”

To standardize employees’ overtime applications and ensure adherence to all overtime procedures, overtime management policies have been established. These policies cover overtime pay, meal compensation, and compensatory leave for weekdays, rest days, holidays, weekends, and on-call overtime ^{Note 1}.

“Measures for Shift Management”

In response to plant operations, there is a shift system that provides a nighttime stipend for shift employees. Related duties include mid-shift duties, night shifts, day shifts, etc.

“Holiday/Day-off Duty Supervisor and On-duty Engineer Rotation Procedure”

In order to maintain the operation of the factory, there is a rotation system for regular holidays (leave) for supervisors and production engineers on duty and setting of relevant allowances. The supervisor on duty on regular holidays will be given a duty allowance and can apply for a day off. If a rotating engineer is on duty in accordance with shift rules, a monthly allowance will be given. If it is not in accordance with the shift, the allowance will be given proportionally.

“Attendance Alert Notification for Regular Holidays”

There is an internal notification mechanism for working overtime on regular holidays to notify department heads to avoid forced labor.

“Leave Management Measures”

To ensure that employees have clear guidelines for taking leave, we have established Leave Management Measures. Employee leave is categorized into fifteen types: marriage leave, personal leave, family care leave, ordinary sick leave, full-paid sick leave, menstrual leave, bereavement leave, occupational injury leave, prenatal check-up leave, maternity leave, paternity leave, official leave, special leave, parental leave, and volunteer leave. To encourage employees to actively participate in public service and contribute to society, the company offers 2 days of volunteer leave per year, reinforcing our commitment to corporate social responsibility and making a positive impact on the community.

Note 1: on-call overtime means that if there is an abnormality in equipment in urgent need of repair in the middle of the night, the on-duty engineering colleagues will go to the plant temporarily for repairs.

6.4.3 Anti-discrimination and harassment GRI 406-1

CSRC has set up “Measures for Prevention and Control of Sexual Harassment in the Workplace and Measures for Complaints and Handling of Cases” to provide a working environment free from sexual harassment for all employees, dispatched personnel, and job applicants. Furthermore, we take appropriate preventive, corrective, disciplinary, and handling measures to protect the rights and privacy of the parties. The scope of application of the Measures includes all employees of subsidiaries under the direct jurisdiction of the Company. The sexual harassment complaint process involves submitting a complaint to the Human Resources Department after an incident occurs. Upon receiving a complaint, a handling committee is formed to conduct an investigation confidentially. Based on the investigation results, appropriate actions are taken. In accordance with the relevant work rules, the accused will be subject to appropriate disciplinary action, which will be recorded in their personnel file. Follow-up actions include tracking, evaluating, and supervising related behaviors to ensure the effective implementation of disciplinary or handling measures and to prevent recurrence or retaliation. If the involved parties require counseling or medical assistance, they will be referred to professional counseling or medical institutions for treatment and counseling upon request. Additionally, the Employee Assistance Program (EAP) will be involved to provide professional psychological counseling services.

In addition to incorporating anti-recruitment discrimination and anti-career development discrimination policies into the "New Employee Recruitment and Employment Measures" and promoting these policies among HR colleagues and hiring managers, we also conduct training on the prevention of sexual harassment. This includes providing new employees with information on the definition of sexual harassment, behavioral patterns, the company's complaint channels, and internal investigation procedures. For instance, at the Linyuan Advanced Plant in the Greater China region, new employees are required to sign the "Linyuan Advanced Prohibition of Workplace Sexual Harassment Written Statement." Additionally, a complaint mailbox has been established for reporting incidents: csrc_hr@csrcgroup.com.

To prevent workplace violence, we have established the "Linyuan Advanced Workplace Misconduct Prevention Plan." This plan addresses incidents of workplace violence by providing affected employees with health and psychological counseling, as well as making necessary work adjustments. We also assist in mediating between the parties involved in workplace violence, including providing necessary legal assistance and internal disciplinary actions. Subsequent reviews and improvements will be conducted, and relevant records will be retained for at least three years.

In the Greater China region, the Maanshan Plant regularly promotes related policies and supervises employee behavior to prevent workplace violence, sexual harassment, and discrimination.



In India, both the CC IPL and CCET plants have established anti-sexual harassment policies. These policies, based on the principles of gender equality, clearly define prevention regulations and complaint channels. They are also included as fundamental topics in the onboarding training for every employee.

Additionally, to protect the rights of individuals with disabilities and ensure their equal participation in social, political, economic, and cultural opportunities also to promote their independence and development, in response to the Ministry of Health and Welfare's People with Disabilities Rights Protection Act., the Linyuan Advanced Plant in the Greater China region has installed accessible restrooms and ramps for individuals with disabilities. Similarly, the CCET plant in India has also installed ramps for individuals with disabilities to improve their working environment. In 2024, there were no incidents of discrimination or harassment reported within CSRC Group.

Number of discrimination or harassment reports in the past three years at CSRC

	Greater China	India	USA	Group
2022	0	0	0	0
2023	0	0	0	0
2024	0	0	0	0

Accessible facilities at the Linyuan Advanced Plant in the Greater China.



Accessible facilities at the CCET Plant in the India.



ch7

Occupational Safety and Health

7.1 Safety and health policy

7.1.1 Safety and health policies and concepts GRI 403-4

CSRC attaches great importance to the safety and health of all employees in the working environment. Our policy guidelines for occupational health and safety constitute "safety first, prevention first, comprehensive management, people-centric, safety development, full participation, pursuing excellence, and continuous improvement." Our highest guiding principle is accident prevention. The CSRC Safety and Environmental Center is responsible for coordinating the safety and health regulations, formulating strategies, conducting hazard assessments and risk identification, planning safety and health family activities participation, and monitoring and managing the environmental safety performance of its operating units. Occupational Safety and Health Committees are established at each of our global operating locations, with plant managers serving as chairpersons. Committees in Greater China and India meet every three months, while those in the United States convene monthly. The meetings primarily focus on communicating and discussing occupational safety and health policies, management and implementation plans, environmental monitoring plans, safety and health education and training implementation plans, occupational incident investigation reports, on-site safety and health management performance, and other related occupational safety and health management matters.

Number and Representation Ratio of the 2024 Occupational Safety and Health Committee Members of CSRC

Region	Greater China	India	USA	Group
Total number of individuals	57	132	4	193
Labor representation ratio	49%	35%	50%	39%

CSRC Safety and Health Policies and Concepts

- 1 | Comply with all applicable laws, regulations and other requirements.
- 2 | Provide appropriate protective measures, equipment or work control to prevent injuries and occupational diseases.
- 3 | Strengthen equipment maintenance and continuous improvement to eliminate or reduce any harm arising from equipment.
- 4 | Carry out safety and health education for relevant personnel with employees’ awareness of hazards in the workplace; improve independent safety and health management capabilities.
- 5 | Establish good communication channels for participation in consultation, enabling stakeholders and employees to understand safety and health management policies and related requirements. Work together to improve inappropriate issues and create a safe and comfortable working environment.
- 6 | Provide the necessary resources to maintain the effective operation of the occupational safety and health management system, and continuously improve safety and health management and performance.

The key communication topics for the Occupational Safety and Health Committee of each business location in 2024 were as follows:

- ♦ Recommendations on Occupational Safety and Health Policies
- ♦ Coordinate and recommend occupational safety and health management plans.
- ♦ Review implementation plans for safety and health education and training.
- ♦ Review the operational environmental monitoring plan, monitoring results, and measures to be taken.
- ♦ Review health management, occupational illness prevention, and health promotion matters.
- ♦ Consider various safety and health proposals.
- ♦ Review automatic inspection and safety and health audit matters among business units.
- ♦ Review preventive measures for machinery, equipment or raw materials, and hazards from materials.
- ♦ Report on occupational hazard inquiry review.
- ♦ Assess on-site health and safety management performance.
- ♦ Review health and safety management matters among contracting businesses.
- ♦ Review of comprehensive emergency response plans for sudden incidents, project responses, and on-site disposal plans.
- ♦ Review of annual safety production responsibility system assessments.
- ♦ Specialized advocacy on occupational safety and health knowledge. Examples include unsafe actions and conditions, accident and fire drill simulations, arc flashes, safety boots, hearing protection, gloves, Management of Change (MOC) procedures, cleanliness, and safe electricity use.
- ♦ Review occupational safety and health management matters among contractors.
- ♦ Annual employee health check-up arrangements and discussions of women’s health initiatives.
- ♦ Review and declaration of occupational safety goals.

Executive Management Support and Involvement in Occupational Safety and Health

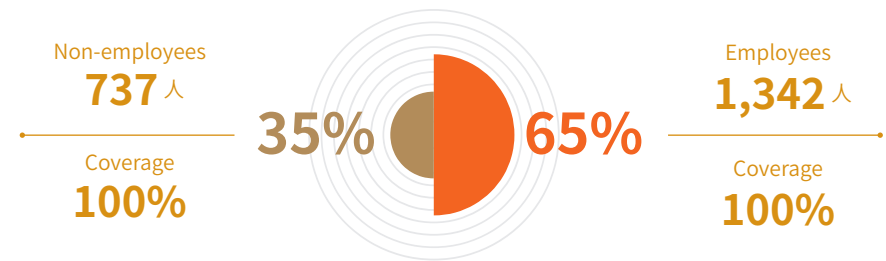
CSRC holds a monthly occupational safety meeting for the Greater China region, attended by plant managers and the environmental health and safety center director, reporting execution status to the Chairman, President, and executive team. Each production site implements related improvements as per meeting resolutions to enhance occupational health and safety management. A total of 12 safety meetings were held in 2024.

7.1.2 Safety and health management system GRI 403-1、403-8

CSRC continues to promote the operation of ISO 45001 and GBT management systems through dedicated safety and environmental units at each plant. The company strengthens emergency response drills to achieve disaster reduction and damage mitigation. During major overhauls, contractor management is implemented to reduce the occurrence of accidents. Health services are provided, and health promotion is actively pursued. By utilizing management systems, the company continuously reduces occupational safety and health risks to achieve set goals.

We comply with the laws and regulations of each region, including Taiwan's Occupational Safety and Health Act, Process Safety Management, and Labor Health Protection Rules. In mainland China, we adhere to regulations such as the New Safe Production Law, the Basic Law on Labor Protection, and the Law on the Prevention and Control of Occupational Diseases. In India, we follow regulations such as the Factories Act 1948. In the United States, we comply with the requirements of the Occupational Safety and Health Administration (OSHA) and integrate occupational safety and health systems. Based on these, we establish occupational safety, health, and environmental policies.

Coverage ratio of CSRC's occupational health and safety system for 2024:



Workers defined by CSRC's occupational health and safety management system include company employees and non-employees (such as contractors). Management scope covers all employee workplaces and commuting routes, where contractors follow employer (or agent employer) instructions and handle labor-related affairs in designated areas.

As of the end of 2024, ISO 45001 certification has been obtained for all six production sites globally, including the Greater China and India regions, achieving 100% coverage in system specifications for employees and non-employees^{Note}. In the US region, internal occupational health and safety system coverage also reaches 100%.

Note: The main types of non-employee workers include cleaning staff, outsourcing contractors, security guards, engineering service contractors, storage, transportation and packaging outsourcing services, etc.

Passed the certification Occupational Safety and Health Management System ISO 45001: 2018	Linyuan Advanced Plant, ISO 45001 Expiration date: October 1, 2026	Maanshan Plant, ISO 45001 Expiration date: January 24, 2027	Anshan Plant, ISO 45001 Expiration date: January 18, 2026	CCET Plant, ISO 45001 Expiration date: March 28, 2026	CCPL Plant, ISO 45001 Expiration date: August 11, 2025	Chongqing Plant, ISO 45001 Expiration date: January 27, 2025

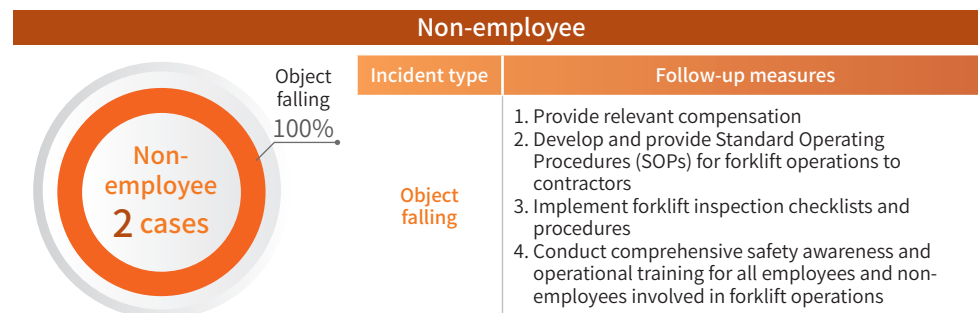
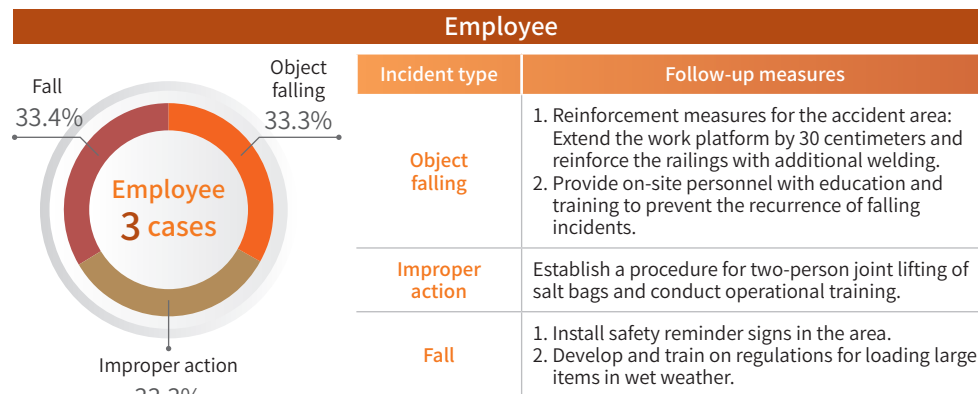
7.1.3 Occupational injury statistics

GRI 403-9 ; SASB RT-CH-320a.1 、 RT-CH-540a.1 、 RT-CH-540a.2

CSRC prioritizes the safety and health of its employees, dedicating itself long-term to providing a safe working environment and maintaining the physical and mental well-being of employees. We firmly believe that only healthy employees can contribute to the Company's success. To implement safety and health policies, CSRC sets various safety and health management goals every year based on annual objectives and follows the safety and health management system to promote continuous operational improvements. This is aimed at reducing hazardous factors that jeopardize safety and health, preventing accidents, and enhancing the safety and health of employees.

2024 Employee occupational injury statistics

This year, there were a total of 3 employee occupational injuries and 2 non-employee occupational injury incidents. The follow-up measures for these incidents are as follows:



CSRC Group Occupational Injury Statistics for Employees in the Past 3 Years

Year	2022	2023	2024
Total working hours	2,295,319	2,504,293	2,497,786
Number of general occupational injuries	10	7	2
Number of severe occupational injuries	4	1	1
Number of deaths	0	0	0
Total number of recordable occupational injuries	14	8	3
Total Recordable Injury Rate (TRIR) ^{Note 1}	1	0.64	0.24
Severe occupational injury rate ^{Note 2}	2	0.40	0.4
Resulting from occupational injuries Death rate ^{Note 3}	0	0	0
Disabling injury frequency rate (FR) ^{Note 4}	6	3.19	1.20
Lost days ^{Note 5}	332	599	640
Severity of disability injury (SR) ^{Note 6}	145	239	256

Note: Covers 100% of group employees, except for the India CCET Plant which commenced operations at the end of 2022 and is thus included in the statistical scope starting from 2023.

Note 1: Total Recordable Injury Rate (TRIR) = (Recordable number of occupational injuries x 200,000 working hours) / Total working hours

Note 2: Severe occupational injury rate (excluding deaths) = [Number of serious occupational injuries (Excluding deaths) x 1,000,000 working hours] / Total working hours

Note 3: Rate of deaths caused by occupational injuries = (The number of deaths caused by occupational injuries x 1,000,000 working hours) / Total working hours.

Note 4: Disabling injury frequency rate (FR) (Also known as "Recordable Occupational Injury Rate") = (Recordable number of occupational injuries x 1,000,000 working hours) / Total working hours.

Note 5: Calculated from the date of injury, the total number of days lost after all injuries occurring in a single case. The number of days the injured person is temporarily (or permanently) unable to return to work. The day of injury and the day of return to work shall not be included, but the number of days elapsed in between (including Sundays, holidays or business unit off-work days) and any days of inability to work due to the incident after resumption of work shall be included.

Note 6: Severity of disability injury (SR) = (Number of lost working days x 1,000,000 working hours) / Total working hours.

Non-employee occupational injury statistics

Year	2022	2023	2024
Total working hours	1,152,547	1,806,777	1,963,781
Number of general occupational injuries	0	0	1
Number of severe occupational injuries	0	0	0
Number of deaths	0	0	1
Total number of recordable occupational injuries	0	0	2
Total Recordable Injury Rate (TRIR) ^{Note 1}	0	0	0.20
Severe occupational injury rate ^{Note 2}	0	0	0
Resulting from occupational injuries Death rate ^{Note 3}	0	0	0.51
Disabling injury frequency rate (FR) ^{Note 4}	0	0	1.02
Lost days ^{Note 5}	0	0	6,074
Severity of disability injury (SR) ^{Note 6}	0	0	3,093

Note: Non-employee statistical scope includes temporary workers, security personnel, and contractors.

Group over the past three years for process safety incidents

	2022	2023	2024
Total Number of Process Safety Incidents (PSIC)	3	2	1
Total Incident Rate (PSTIR)	1.2553	0.7948	0.4284
Incident Severity Rate (PSSIR)	1.2553	0.7948	0.4284

- The calculation coefficients for the process safety incident rate and incident severity rate in 2022 and 2023 were incorrectly entered, and have now been uniformly updated.

Prevention of transportation safety incidents

CSRC attaches great importance to transportation safety. During the supplier evaluation process, we include supplier transportation mode as one of the evaluation items. Suppliers that provide transportation services must meet a certain evaluation score in order to maintain a contracting relationship with CSRC. If there will be exposure to chemicals during transportation, relevant personnel must wear personal safety protective equipment throughout the operation in accordance with the regulations. Furthermore, they must understand the operation safety operation standard procedures. In 2024, there were no major transportation accidents where raw materials or chemicals were leaked.

7.2 Occupational Safety Risk Management ^{GRI 403-2}

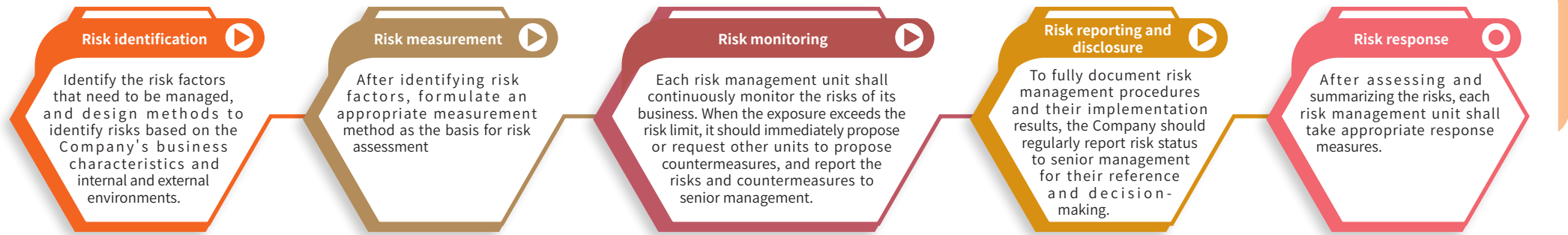
7.2.1 Risk management process

In order to avoid damage to the safety and health of plant personnel or company finances due to hazards such as operations, activities or services and facilities, CSRC uses continuous safety and health hazard identification, risk and opportunity assessments to take appropriate preventive measures, implement necessary control methods, and eliminate hazards. By doing so, we control risks to an acceptable level and improve occupational safety and health performance. This risk management process includes risk identification, risk assessment, risk monitoring, risk reporting and disclosure, and risk response. The process follows ISO/CNS 45001:2018 management system specifications and guidelines for handling; and through regular internal and external inspections, we ensure the execution quality of the process (including the abilities of implementation personnel).

CSRC has implemented a comprehensive "Hazard Identification and Risk and Opportunity Assessment Operation." This initiative encompasses various aspects such as risk management policies, risk management organization, risk management processes, and risk management categories and mechanisms. The objective is to effectively control the risks arising from business activities. To prevent any potential harm to personnel safety and health caused by operations, activities, services, or facilities, and to avoid financial losses for the company, CSRC is taking proactive measures. These measures aim to ensure the safety and health of on-site personnel and to address opportunities for improving occupational safety and health performance at an early stage.



Risk management process diagram



7.2.2 Risk assessment and hazard identification GRI 403-7

CSRC has established the "Safety and Health Hazard Identification and Risk Assessment Procedure" in accordance with ISO 45001 standards. This procedure actively identifies and assesses the hazard factors involved in various operations or services. All assessment personnel have participated in risk assessment training courses to ensure their competence and awareness. The assessment methods can be proposed by internal colleagues (including contractors) or external stakeholders to their unit supervisors. These proposals are then consolidated, reviewed, and tracked by the execution team for relevant improvement plans.

Furthermore, by establishing internal and external communication procedures, employees are involved in incident investigations and the determination of hazard risk assessments and control methods. This ensures that all employees, contractors, suppliers, and stakeholders are timely informed about the company's occupational safety and health and environmental policies, as well as the operational status of the management system requirements.

We have established processes for routine and non-routine occupational hazard identification and risk assessment based on the safety and health management system. This helps identify potential hazards and safety and health risks in each operational plant. Through hierarchical control, we clarify management strategies.

At the Linyuan Advanced Plant in the Greater China region, risks are categorized from 1 to 5, with level 1 being the most significant and unacceptable, requiring stringent control. The control methods determined after risk assessment include (a) elimination, (b) substitution, (c) engineering controls and work reorganization, (d) administrative controls including training/signage/warnings/management controls, and (e) personal protective equipment. The control methods are considered in the priority order from (a) to (e) to determine the best control method, reducing the risk to an acceptable level.

In the China area, risks are categorized into three levels using a color-coding system. Every year, the main person in charge of the Company organizes a leadership team to conduct a comprehensive

and systematic safety risk identification and assessment of production systems, equipment, facilities, and workplaces according to their respective duties. For significant potential hazards, assessments and evaluations are conducted with external experts. For daily risk assessments, the Safety Risk Control Leadership Team identifies new risk points arising from environmental changes or production process changes based on findings from comprehensive and routine inspections. The safety and environmental unit then update the risk point list accordingly. Employees who identify potentially dangerous tasks can refuse to perform such tasks under Article 32 of the Labor Contract Law and the internal "Three Violations Management System" without it being considered a breach of the labor contract. Employees are also encouraged to report violations and are rewarded for doing so.

In the India region, risk assessments and hazard identifications are conducted for all routine and non-routine operations, with control measures implemented to reduce or eliminate risks. At the CCET plant, incidents are classified into four levels: minor, moderate, major, and natural disasters, each with corresponding handling mechanisms. The plant also conducts regular internal and external audits to ensure personnel follow processes or SOPs for risk assessment and hazard identification, ensuring no deficiencies in these processes. Workers have the right to refuse or stop work if it is deemed dangerous, ensuring their safety.

In the US region, workplace hazard assessments are conducted and Job Safety Analysis (JSA) is developed as a preventive guideline. The occupational safety unit is responsible for comprehensive development and maintenance, with reviews at least every three years and updates as needed. Employees or contractors are authorized to exercise Stop Work Authority (SWA) and immediately report unsafe conditions.

Regarding risk management with contractors, CSRC aims to collaborate with them, emphasizing quality and scheduling. We require external contractors to sign agreements ensuring their understanding and cooperation with the company's risk notifications. The implementation focuses primarily on labor health, hygiene and safety, environmental and ethical standards, labor rights, and other aspects. This is to prevent and mitigate significant occupational health and safety impacts related to the Company's operations. This ensures that excellent suppliers can provide high-quality and stable raw materials, while engineering contractors can offer professional construction or supplement factory construction manpower shortages.

Contractor Hazard Communication Course



Process Safety Management (PSM)

To mitigate the impact on safety and the environment, and to effectively reduce process-related hazards, CSRC has implemented Process Safety Management (PSM) at the Linyuan Advanced Plant in the Greater China region. By 2024, the establishment of relevant systems, operational procedures, and training programs has been completed, including: Safety Critical Equipment (SCE) determination, standard operations, corrosion loop confirmation, MI procedure document discussion, process safety information training, key equipment maintenance planning MI - (Non-Destructive Testing (NDT) operation methods, ultrasonic testing operation procedures, radiographic testing operation procedures, liquid penetrant inspection operation procedures, distributed control system maintenance, electrical room equipment maintenance work, control valve maintenance work instructions, transformer maintenance work instructions, and will execute business and tracking mechanisms under the PSM (Process Safety Management) framework.

Key risk items and response measures at each operational site are as follows:

Risk item	Description	Countermeasures
Oil spill	A pipeline instrument falls off and causes oil leakage, resulting in a risk of fire and explosion.	The instrument is inspected regularly to ensure its stability and normal functioning.
Hypoxia poisoning	Personnel inhaling harmful gas in the workplace and causing injury or death. Entering a confined space to perform hypoxic work, causing injury or death.	The working environment is equipped with a carbon monoxide detection system for environmental monitoring, and personal protective equipment is provided and required.
Falling	There is a risk of workers falling if there is no proper protective enclosure for high-altitude operations.	We set up appropriate guardrails in accordance with relevant facility regulations, and require personnel to wear appropriate protective equipment.
Material collapse	The warehouse shelves for storing materials do not have relevant strength structure calculations.	We ask the structural technician to calculate and set up the relevant shelves according to the structural plan.
Mechanical operation accidents such as Caught-in / Entanglement	Power equipment is not equipped with proper protection, and there is a risk of being caught in and entangled.	Power equipment shall be equipped with relevant protective measures such as appropriate guards, gratings, two-handed operation, and interlocking devices.
Boiler explosions	Boiler operation abnormalities, pipeline ruptures, and failure to meet operating qualifications.	Establish boiler station safety operating procedures, install flammable gas leak detection alarms and image monitoring systems, and require certified personnel for operations.
Electric shock	Risks of electric shock, flash fire, ignition, or explosion when operating electronic equipment.	The power distribution room is to have a dedicated person responsible for management and regular inspections
High-temperature operations.	There is a risk of fire if flammable materials are scattered in the area while high-temperature operations are being carried out.	Before conducting high-temperature operations, remove all combustible materials from the area and place fire extinguishing equipment.

7.2.3 Hazardous Chemical Management SASB RT-CH-410b.2

To protect employee health and prevent industrial safety accidents, all operational plants of CSRC comply with regulations to establish chemical management guidelines to reduce occupational safety risks posed by hazardous chemicals.

The Linyuan Advanced Plant in the Greater China region adheres to Article 10 of the Occupational Safety and Health Act and Article 17 of the Hazardous Chemical Labeling and General Knowledge Rules. The Safety and Environmental Protection Office is responsible for drafting and periodically updating the "Hazard Communication Plan.". All China-based facilities comply with the regulations set forth in the Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Waste. This includes controlling and managing pollution from the use of oils and chemicals. Each plant has established "Chemical Management Measures" in accordance with the law to ensure that the workplace meets occupational safety requirements. This initiative aims to enhance employees' awareness of the potential hazards of hazardous chemicals and prevent accidents. All plants are equipped with fixed and portable alarm systems to monitor the presence of toxic gases and provide immediate alerts to ensure personal safety. Additionally, we conduct regular third-party monitoring of the working environment, focusing on both chemical and physical factors to ensure a safe working environment for all employees.

In India, chemical names are labeled in accordance with local regulations, and Material Safety Data Sheets (MSDS) are provided in both English and the local language to ensure the safe handling of chemicals and the safety of employees. The management of hazardous substances is conducted in compliance with the Factories Act of 1948, and internal guidelines are established. Additionally, relevant training is provided to employees and contractors.

In the United States, the Chemical Hygiene Plan and the Spill Prevention, Control, and Countermeasure (SPCC) Plan are developed based on OSHA procedures to ensure chemical safety.

Each production site manages chemicals according to the following key points:

Items to be managed	Implementation content
Hazardous chemical inventory management	◆ Make a list of hazardous chemicals and master the use and storage information of each hazardous chemical.
Safety Data Sheet management	◆ Compile a safety data sheet to help employees understand the characteristics and potential dangers of hazardous chemicals. ◆ Relevant units should place safety data sheets in the workplace where they are easily accessible.
Hazardous chemical labeling	◆ Relevant units should confirm that all hazardous chemicals within their jurisdiction have appropriate labels. The label should display the hazard symbol, name, hazardous ingredients, warning language, hazard warning messages, and hazard prevention measures, as well as the manufacturer (supplier) name, address, and phone.
Priority management of chemicals	◆ Identify relatively hazardous chemicals for priority management, and handle regular updates and declarations from April to September each year.
Management of precursor chemicals	◆ Industrial raw materials of precursor chemicals refer to raw materials that can be used to manufacture drugs. Therefore, an online declaration is required in January, April, July, and October each year, and all declaration records should be kept for three years.
Management of dangerous factory materials	◆ Due to the characteristics of the industry, the use of dangerous substances exceeds regulated amounts. Therefore, they are regularly reported to the competent authorities in January and July of each year.
Hazardous chemicals assessment and hierarchical management	◆ We use the website approved by the competent authority for evaluation and hierarchical management of hazardous chemicals. Its records are regularly reassessed every three years and retained.
Hazard general education training	◆ Employees in the plant (site) who manufacture, dispose of or use hazardous chemicals, such as working with hazardous chemicals entering the factory and engaging in unloading procedures, will be given relevant safety and health education and training according to the nature of their work. (In addition, three hours of on-the-job training is required every three years.) The above-mentioned education and training are sponsored by the Safety and Environmental Office with the cooperation of all units, and records should be kept for three years.
Information management of types of chemicals in factories and warehouses and quantity configuration	◆ Manage information on the types and quantity of stored chemicals in order to make disaster relief decisions and ensure the safety of disaster relief personnel.

Each operational site formulates key management items for chemical management as follows:

Items to be managed	Implementation content
Purchase management	<ul style="list-style-type: none"> For chemicals purchased and brought into the factory, a safety data sheet (SDS) should be obtained from the supplier and safety labels placed on their storage containers. The procurement of oils and chemicals should be initiated by the relevant requesting units in accordance with the material requisition management procedures. The materials department will then proceed with the procurement from qualified suppliers, ensuring that the suppliers provide information on the quality and performance of the chemicals as well as the Safety Data Sheets. This guarantees the quality and safe use of the oils and chemicals. When purchasing oil products and chemicals, selection should be made of those enterprises with production qualifications, and they can provide production licenses or business licenses issued by national statutory departments.
Use management	<ul style="list-style-type: none"> Gas leak detectors should be installed in places where combustible gas (LNG) is used. The detector should be tested regularly as required to ensure normal function, and records should be available for checking. The unit using chemicals shall determine the individuals who will come into contact with the chemicals (e.g., through transportation, handling) and provide notification of chemical hazards, personal safety protection wearing requirements, and work safety SOP education and training specifications. Personal safety protection equipment, showers, eye wash facilities, hydrants, and fire extinguishers are installed in chemical sites. The appearance and functionality of the hydrants and fire extinguishers are normal, and inspections are conducted according to specified items and frequency, with inspection records available for review. Units using chemicals (such as laboratories, production units, etc.) should establish a chemical management list to record the storage location, storage capacity, and storage methods of each chemical. The unit that is using chemicals must formulate an emergency response plan for abnormal handling, schedule planned drills, and have drill records available for review. The storage of oil products and chemicals should be classified and stored in different areas and assigned to special personnel for management. The labels should be accurate and mixed storage should not be allowed, and a management system should be established. Special storage oil tanks shall comply with relevant safety regulations and fire prevention regulations. Furthermore, corresponding ventilation, explosion proofing, fireproofing, lightning-proofing, alarms, fire-extinguishing to eliminate static electricity, protective fences, and other safety facilities shall be installed according to the type and nature of the items. Before entering the warehouse, dangerous chemicals must be inspected and registered and the receipt form must be filled out. After entering the warehouse, they should be checked regularly by the custodian. Containers containing oil and chemicals must be inspected before use to eliminate hidden dangers and prevent fire, explosion, and poisoning accidents. It is strictly forbidden to wash equipment containing oil and chemicals without sewage treatment facilities, and it is strictly forbidden to directly discharge waste water containing oil and chemicals. In the production process, it is strictly forbidden to discard or place oil products and chemicals randomly, and they must be dealt with in a timely manner if there is any leakage.
Storage safety	<ul style="list-style-type: none"> Chemicals are not allowed to be stored in the open air, and should be stored in an indoor environment and in a designated location with an exhaust ventilation system. Placement is required for chemical hazard signs in chemical storage containers, fire extinguishers set within 2 meters, and material safety data sheets (SDS). Access control is implemented in the chemical storage place, and non-related personnel are not allowed to enter and leave the place at will. Chemical storage area management personnel should enhance fire prevention awareness. There must be fire warning signs at the storage places of oil products and chemicals, and good firefighting supplies should be prepared at the same time and firefighting exits installed. The firefighting facilities used in the warehouse should be in good condition and effective, and should be maintained regularly. The distribution of oil products and chemicals shall be operated in strict accordance with the relevant operating procedures to prevent leakage from polluting the environment during the distribution, and associated distribution records shall be well kept. Used waste oil and chemical barrels and containers shall be collected and stored in the hazardous waste temporary storage room, and the relevant units shall be entrusted for disposal.
Safety controls of inflammable and explosive chemical hazardous materials	<ul style="list-style-type: none"> There must be product instructions when using flammable and explosive chemicals. The instructions must include information on the flash point, ignition point, self-ignition point, and explosion limit of the article as determined by the statutory inspection agency, as well as precautions for fire prevention, fire extinguishing, and safe storage and transportation. The storage of flammable and explosive chemicals shall meet the following conditions: <ol style="list-style-type: none"> Special areas, freight yards, or other special storage facilities must be managed by trained and qualified personnel. It should be classified and stored item by item according to the "List of Dangerous Goods." Inflammable and explosive chemicals with conflicting chemical properties or different fire extinguishing methods shall not be stored in the same area; and they should not be stored in excess. Warehouses for flammable and explosive chemicals must establish a system for warehousing acceptance, delivery inspection, and warehousing registration. Any packaging and signs that do not meet the national standards, or are damaged, incomplete, leaking, deformed, or deteriorated or decomposed are strictly prohibited from storage. When delivering flammable and explosive chemicals, management personnel must check the user's receipt to prevent misuse and mixed use.

CSRC posts color markings for equipment paint pipelines in plants of each region and reminds employees to wear protective equipment.



(Image of Linyuan Advanced Plant markings)

7.3 Management of Emergencies GRI 403-2

7.3.1 Emergency Management Measures

CSRC places great importance on the handling of workplace safety incidents and the implementation of immediate reporting procedures. Through the "Hazard Identification and Environmental Safety and Health Inspection Mechanism," the company actively eliminates potential hazards in the workplace. Routine automatic inspections are reinforced within the plant, and in the event of any accidents or abnormal incidents, the abnormal reporting and emergency response procedures are activated. Employees are required to leave their workstations immediately to report the incident, ensuring that the severity of the incident is minimized as quickly as possible. Subsequently, incidents are managed according to their severity, thoroughly investigated, and review reports are issued. The findings are incorporated into the annual review and improvement of occupational safety systems to achieve the goal of creating a healthy and safe working environment for employees.

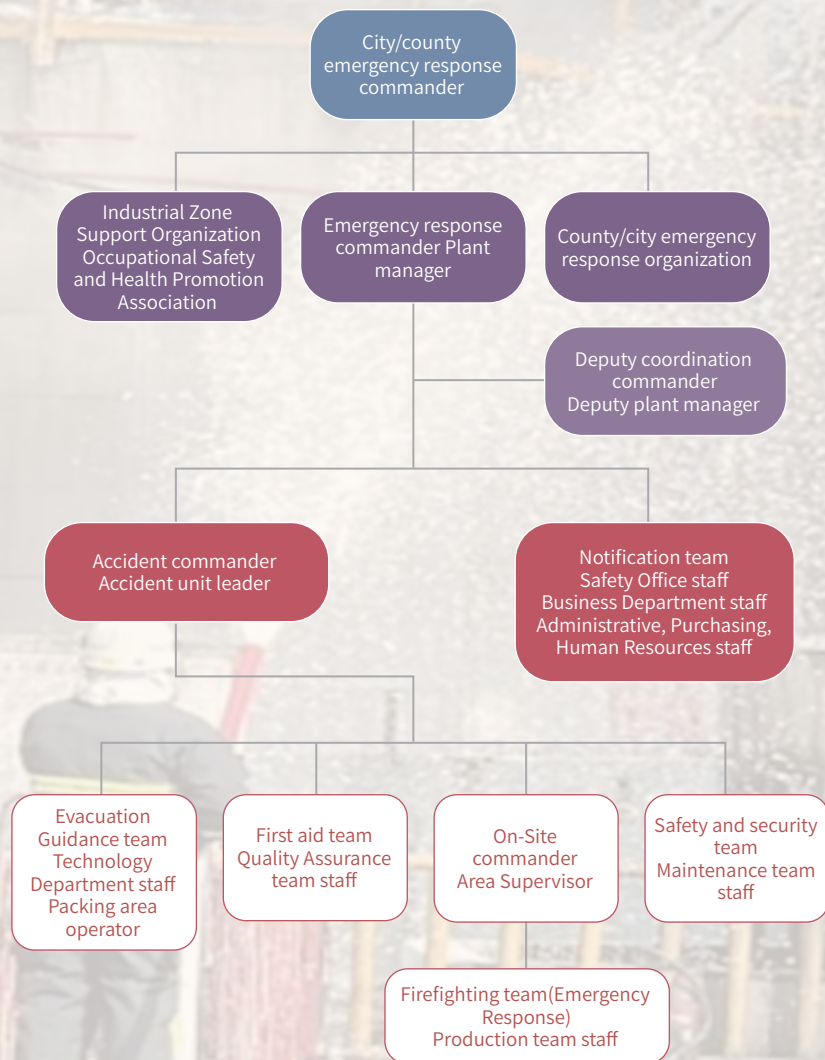
In our training courses for new employees, we also explain how to respond to emergencies encountered at work. If there is an immediate danger in the workplace, the employer or the person in charge of the workplace must stop operations and ensure that workers evacuate to a safe location. If workers discover an immediate danger while performing their duties, they are allowed to stop work and evacuate to a safe location without endangering the safety of other workers, and must immediately report to their direct supervisor. We also guarantee that no worker will be dismissed, reassigned, denied wages for the period of work stoppage, or subjected to any other adverse treatment for taking such actions.

7.3.2 Emergency response plan operations

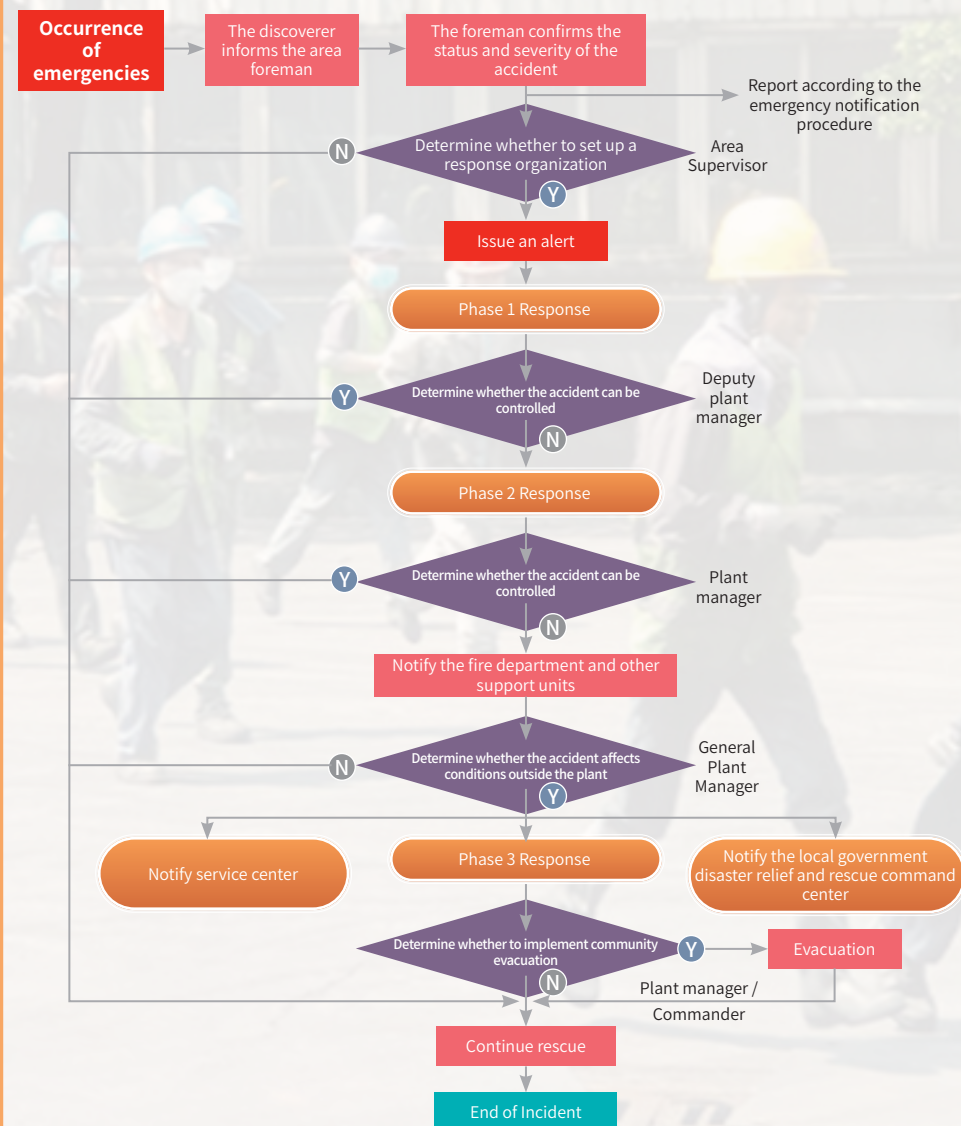
All operational plants have established emergency response plans. For instance, the Linyuan Advanced Plant in the Greater China, when an emergency incident occurs, the area supervisor is first notified. The supervisor then decides whether to form a response team and initiate a Level 1 incident response. If the situation cannot be controlled, it escalates to Level 2, at which point management takes command and notifies the fire brigade and other support units. If the incident escalates to Level 3, indicating an impact beyond the plant, a full emergency response plan is activated for real-time management. This involves collaboration between internal and external units to handle the crisis.

Emergency Response Organization Chart and Emergency Response Process Flowchart

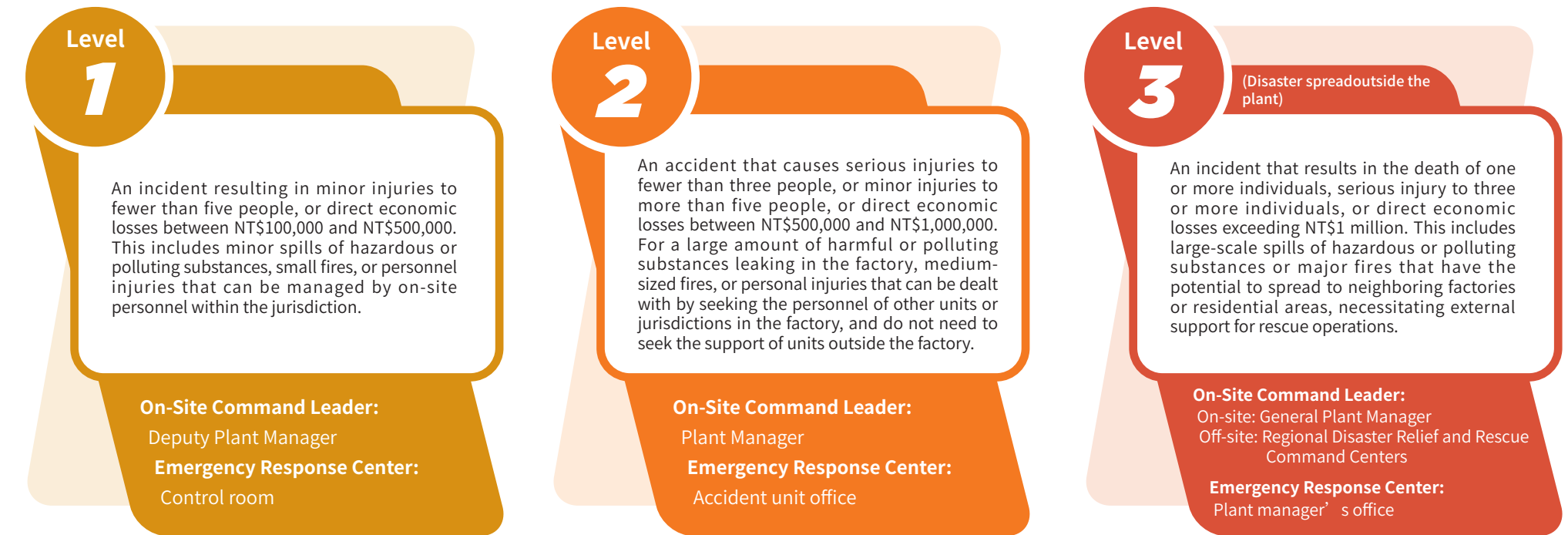
System diagram of plant emergency response



Emergency Response Process Flowchart



Hierarchical control



7.3.3 Emergency Incidents and Fire Safety Training

CSRC conducts annual emergency response drill plans in addition to regular fire drills at each of its plants. This is aimed at making personnel familiar with the process flow through continuous training.

Number of emergency response drills conducted by the group and regional sites in the past three years

Region	Greater China			India			USA			Group		
	2022	2023	2024	2022	2023	2024	2022	2023	2024	2022	2023	2024
Number of emergency drills	53	43	35	2	5	2	2	3	6	57	51	43
Frequency of fire drills	22	25	12	4	6	7	2	3	6	28	34	25

Note: The number of emergency response drills in the Greater China region in 2024 was lower than in 2023. This was due to major overhaul activities at the Linyuan Advanced Plant from May to August, and the shutdown at the Chongqing Plant in the second half of the year due to acquisition strategies. Nevertheless, the number of drills remained compliant with legal requirements.

Linyuan Advanced Plant in Greater China

Linyuan Advanced Plant in Greater China conducted an emergency response drill simulating the overheating of a small boiler shell in the cogeneration plant during a holiday period. The drill aimed to enhance the vigilance and response capabilities of the staff on duty during holidays. By refining the emergency plans for holiday periods, the plant ensures the safety of its personnel.



Maanshan Plant in the Greater China

Maanshan Plant in the Greater China conducted emergency response drill for production safety incidents.



Anshan Plant in Greater China

Anshan Plant in Greater China conducted an "unscripted" emergency drill, simulating a real fire scenario.



CCIPL Plant in India



CCIPL Plant in India conducted a safety simulation drill and safety training.



CCET Plant in India

CCET Plant in India conducted a fire drill and safety training.



7.4 Health Service and Promotion

SASB RT-CH-320a.2

7.4.1 Occupational health service GRI 403-3

Health is invaluable in life. In addition to striving to prevent colleagues from being harmed in the workplace, CSRC also focuses on the overall health of employees. In order to take good care of the health of all colleagues, CSRC continuously implements relevant safety and health mechanisms using the PDCA (Plan-Do-Check-Act) cycle; and we implement, track, and improve related procedures to provide high-quality employee health and safety services. We also prioritize employee personal privacy and security. We do not track what is discussed with medical staff, safeguarding employee rights.

Beyond occupational health services, CSRC offers annual personal health check-ups for all employees at cooperative hospitals. In the Greater China region, the Maanshan and Anshan plants provide personal health check-ups not only before and during employment but also upon resignation, ensuring workers receive the best possible health care. At the Linyuan Advanced Plant, after the health check-up reports are issued, the hospital offers on-site health consultation services for employees with abnormal results, providing them with the necessary health guidance.

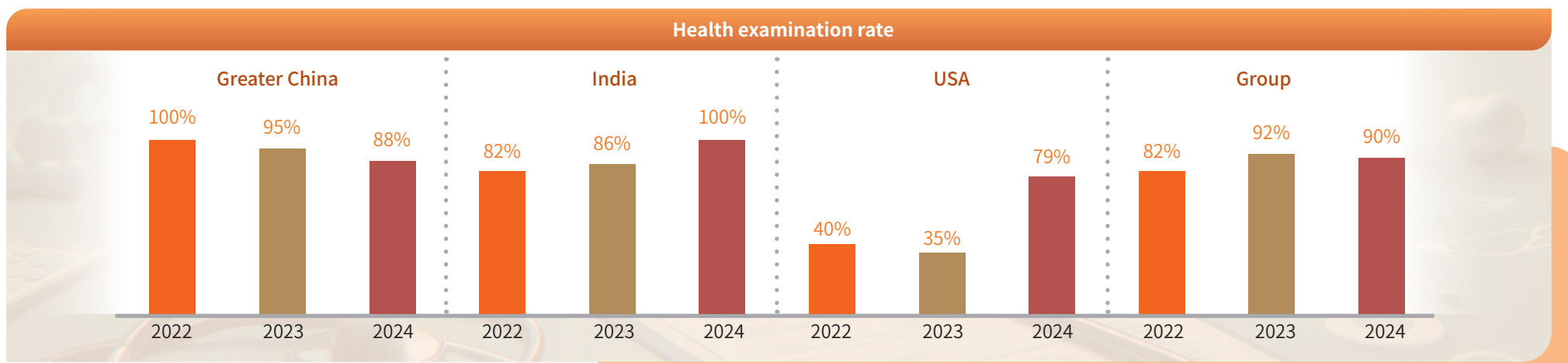
To enhance employee health protection in the workplace, particularly regarding occupational disease screenings, the Linyuan Advanced Plant has upgraded its onsite health services by appointing a full-time nurse to provide continuous health care for workers. In addition, we plan special physical examinations for new employees and conduct the Nordic Musculoskeletal Questionnaire (NMQ) Note as well as occupation-related special health inspections. The target is colleagues who work in environments that are particularly hazardous to health. (such as high temperatures, noise, ionizing radiation, abnormal air pressure, lead, tetraethyl lead, dust, organic solvents, specific chemical substances, yellow phosphorus, and other operating environments

that are particularly hazardous to health.) In addition to plant employees, the Linyuan Advanced Plant conducts disease assessments for contractors to determine their suitability for 30 types of operations before they can undergo on-site training. Cardiovascular disease or abnormal hearing would make one unsuitable for noisy work; high blood pressure or heart disease would mean an individual is assessed as not suitable for high-temperature work, and so on. These and other regulations are in place to ensure the safety of each project and personnel of CSRC.

In the China area, special health checks are conducted annually based on occupational characteristics. For instance, the Maanshan Plant achieved a 100% examination rate for dust, noise, and xylene in 2024, thereby strengthening occupational health management and services for employees.

Moreover, the Anshan Plant conducts general health checks once a year in accordance with the "Liaoning Provincial Labor Protection Measures for Female Employees," and has added two new items to the female employees' health checks: gynecological examination and cervical cancer screening. Regarding occupational diseases, the Anshan Plant formulates the annual physical examination plan and the frequency of occupational illness inspection items in accordance with the "Occupational Health Surveillance Technical Specifications." Classification of productive dust operations encompass Level I, once every 4 years; Level II and above, once every 2 to 3 years; 8-hour equivalent sound level of workplace noise ≥ 85 dB, once a year; between 80~85 dB, once every two years. For contractors, the Anshan Plant requires annually contracted contractors to submit worker's medical examination reports every year.

Employees at the CCIPL plant in India receive annual health check-up services. CCET has established an Integrated Management System (IMS) to ensure environmental hygiene in the workplace. At the CCET plant in India, all employees and temporary workers are provided with pre-employment and annual health check-ups. Additionally, noise and air quality are monitored quarterly to protect employee health. In the United States, employees are offered annual preventive health check-ups and medical examinations. The facilities also include occupational injury and illness services, which provide immediate preliminary medical care for workers injured on-site.



Note: Regarding the Nordic Musculoskeletal Questionnaire, it is often used to investigate categories of musculoskeletal injuries and provide a questionnaire for improvement. Based on this questionnaire, a survey and analysis of all employees can be carried out to identify workstations or operations that may have potential musculoskeletal injury risks, and such areas will include degrees of soreness as targets that may need to be assessed.

7.4.2 Identification and management of occupational diseases GRI 403-10

Each CSRC plant identifies potential occupational diseases based on existing hazard identification processes. We implement control measures and training programs for specific hazardous operations. For example, we conduct hearing protection education and respiratory protection training, or implement measures to reduce exposure time. These efforts are aimed at controlling and mitigating the risks.

For employees, control measures are not limited to the operational site. CSRC also provides general and specialized health check-ups annually, which exceed regulatory requirements. This ensures that employees can perform their duties within the plant with peace of mind.

The 2024 statistical results of special health examinations for operations involving dust, noise, high temperatures, organic solvents, and specific chemicals (such as n-hexane) will be categorized into four levels based on the grading recommendations provided by the Occupational Safety and Health Administration of the Ministry of Labor. Workers classified as Level 3 or above will undergo re-examination by an occupational medicine specialist. This process includes on-site evaluations of the relevant workplaces. Based on the evaluation results, workers may be reclassified, or their job positions may be adjusted according to the health protection plan. Additionally, their health status will be regularly monitored by the occupational medicine specialist.

Special Hazard Operation Health Management

The health inspection and health grade management of special hazard operations at the Linyuan Advanced Plant in the Greater China region are as follows:

Health check item	Number of people evaluated		Level 1		Level 2		Level 3		Level 4	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Noise	90	4	61	4	24	0	0	0	5	0
Dust	95	4	70	2	25	2	0	0	0	0
High temperature	0	0	0	0	0	0	0	0	0	0
Operations with organic solvents and specific chemicals (n-hexane)	2	0	2	0	0	0	0	0	0	0

Odor Control

During the production process of carbon black, the powder form of carbon black needs to be pelletized to reduce dispersion during transportation. The binder material used for pelletizing is generally edible-grade molasses. However, the use of molasses often results in a caramel-like sweet odor during drying, which can affect the surrounding environment. To reduce the dispersion of this odor, the Linyuan Advanced Plant has installed two sets of odor control facilities.



Odor treatment and control facilities (scrubbing tower)

Backup odor treatment and control facilities

Noise Control

Due to the potential need to vent some steam externally during the startup and shutdown of steam turbines within the plant, noise may affect the surrounding area. To mitigate this, the plant has installed various noise reduction devices. Additionally, relevant preventive measures have been established. For instance, if the average sound pressure level in the workplace exceeds 85 decibels while workers are on duty, measurements should be taken at least once every six months, and the following preventive measures should be implemented.

- 1 The area must be clearly marked and announced as a noise operation zone, with proper signage and awareness promotion.
- 2 Noise hazard prevention guidelines must be publicly displayed in the designated area.
- 3 Engineering improvements should be implemented, and workers' exposure time to noise must be reduced.
- 4 Hearing protection equipment and training on its use must be provided, and all personnel entering the noise operation area must wear such equipment.
- 5 Environmental monitoring must be conducted every six months to track any newly emerging noise sources.
- 6 Workers exposed to noise must undergo a specialized hearing health examination once a year.

(The first image on the left shows the silencer installed at the Linyuan Advanced Plant, while the center and right images show the main ventilation fan silencer and sound-absorbing panels at the Maanshan Plant.)



Inlet Silencer for U3 Main Control Fan

Sound-Absorbing Panels for U3 Main Control Fan

The Linyuan Advanced Plant has established a series of prevention plans in recent years, focusing on the prevention of emerging occupational injuries and illnesses. These include prevention of musculoskeletal injuries, prevention of diseases caused by abnormal workloads, prevention of illegal infringements in performing duties, and maternal health protection. The aim is to reduce injuries caused by physical and mental stress among employees. To alleviate employee work stress, a massage therapist is hired every Thursday at the plant to relieve muscle tension. Additionally, lactation rooms have been set up to facilitate female employees in balancing work and family responsibilities.

All plants in the China portion of the Greater China region comply with local occupational disease prevention and control laws, identifying categories of occupational diseases with potential risks, including pneumoconiosis, occupational diseases of the ear, nose, and throat, occupational diseases due to physical factors, occupational skin diseases, and occupational eye diseases. In 2024, no cases of occupational diseases were reported in the China plants. The Anshan Plant has formulated "Occupational Disease Hazard Risk Grading and Control Measures," and is committed to continuous improvement measures aligning with international standards. In the India , occupational diseases are identified according to local regulations, no occupational disease risks were identified in the two plants. In the United States, occupational diseases are identified by third-party organizations. There were no cases of occupational diseases reported in 2024.

Region	Greater China			India			USA			Group		
	2022	2023	2024	2022	2023	2024	2022	2023	2024	2022	2023	2024
Number of deaths due to occupational diseases	0	0	0	0	0	0	0	0	0	0	0	0

Note: Occupational diseases in the Taiwan sector of the Greater China region include dust and noise; in the mainland China sector of the Greater China region, occupational diseases identified include silicosis, occupational ENT diseases, physical factor occupational diseases, occupational dermatoses, and occupational eye diseases. In the United States region, occupational disease identification is outsourced to third-party organizations, including hearing loss, skin lesions, respiratory function, etc.

7.4.3 Employee health promotion GRI 403-6

The Linyuan Advanced Plant in the Greater China region has established a labor health service plan to promote voluntary health promotion services for workers: providing health check-ups better than legal requirements, offering appropriate examination packages based on factors such as employee age and health high-risk factors, with family members also participating in health check-up activities. Free influenza vaccinations are available to those eligible for public funding, with appointments made through the health management system. In enhancing the health of female employees at the Maanshan Plant, breast and gynecological ultrasound have been added to health check-up items, and a maternity break room has been set up to practice maternal protection. Health promotion activities were held 9 times across all plant locations in 2024.

CSRC Labor Health Promotion Service and Active Care Program

- New employee health check-up abnormality interviews
- Personal health consultation
- Import health management system data into EHS
- Revision of the women's health protection plan
- Revision of prevention plan for diseases caused by excessive workloads
- Discussion of health management of middle-aged and elderly workers
- Health promotion seminars on workplace stress management and emotional adjustment, starting a new life after the pandemic, self-relief for shoulder and neck pain, etc.
- Promotion of Balanced Diet and "Three Reductions, Three Health" Lifestyle Methods
- Exercise Points Collection Activity at the U.S. Plant

Linyuan Advanced Plant in the Greater China — Health Talk



Maanshan Plant in the Greater China — Health Talk



Anshan Plant in the Greater China — Health Talk



Measures for the Protection of Maternal Health in the Workplace



Women's worker health protection program

To strengthen the protection of maternal health in the workplace, care shall be provided to female workers who are pregnant or breastfeeding after childbirth, to prevent occupational hazards to pregnant women and fetuses. This includes ensuring they are not engaged in hazardous work and planning appropriate maternal health protection measures based on their health assessment results, and implementing necessary safety and health measures to ensure the physical and mental health of female employees of childbearing age, pregnant, postpartum, and breastfeeding, thereby achieving the protection of maternal employee health.

The Linyuan Advanced Plant in the Greater China Region has designated parking spaces specifically for pregnant employees. Workplace activity areas are assessed on-site to ensure that female employees receive appropriate support and protection in the workplace.



Designated Parking for Pregnant Employees



On-site Assessment for Repetitive Strain Injury Prevention

The Maanshan Plant in the Greater China Region has set up a dedicated rest room for pregnant employees, arranged daytime shifts for female employees during their breastfeeding period, and provided a one-hour breastfeeding break each day.



7.5 Occupational safety and health education and training GRI 403-5

7.5.1 Employees' occupational safety and health education and training

CSRC requires new employees to participate in a 6-hour 'New Employee Safety and Health Education Training' course and must pass a test. Existing employees also participate in occupational safety and health-related education and training regularly every year, which focuses on the management of the working environment, equipment, and hazardous substances, enhancing employees' safety awareness and their ability to handle emergencies and self-rescue skills. Various evaluation methods such as written examinations, oral examinations, practice, study reports, and other methods are used to ensure the effectiveness of the education and training. In 2024, a total of 792 people participated in CSRC Group's occupational safety and health-related training, accumulating a total of 8,170 training hours.

CSRC's statistics on safety and health personnel training over the past three years

Region	Greater China			India			USA			Group		
	2022	2023	2024	2022	2023	2024	2022	2023	2024	2022	2023	2024
Number of participants in environmental, safety and health education and training	737	692	357	228	351	256	201	201	179	1,166	1,244	792
Total education and training hours	2,843	11,608	6,214	228	1,001	1,419	3,894	3,842	537	16,325	16,451	8,170

Note 1: The course content is related to occupational safety and includes general operation training, hazardous operation training, AED operation training, hazard identification training, emergency response drill weekend classes, respiratory protection training, hazard identification and risk assessment, hazard general education training, chemical protection, and personal protective equipment-related training.

Note 2: In 2024, the number of participants and training hours for EHS (Environmental, Health, and Safety) education and emergency response drills in the Greater China Region decreased compared to 2023, due to the major overhaul at the Linyuan Advanced Plant from May to August and the shutdown at the Chongqing Plant in the second half of the year due to acquisition strategies.

The occupational safety and health education and training categories and course highlights implemented by CSRC are as follows:

Occupational health and safety related education and training (including hazard communication education and training and on-the-job health and safety education and training)

- ◆ General operational training (Category A and C safety and health business supervisors, first aid personnel)
- ◆ Hazardous operation training (hypoxia operation supervisors, forklift operators, aerial work vehicle operators on duty, roof operation supervisor, etc.)
- ◆ Safety guidelines for major overhaul period construction
- ◆ AED operation training
- ◆ Hazard identification training
- ◆ Traffic safety briefing
- ◆ Emergency response drills for Weekend Shifts
- ◆ Respiratory protection training
- ◆ General hazard awareness education
- ◆ Hearing protection
- ◆ Chemical protection
- ◆ Hazard identification risk assessment for flammable materials and liquids storage training
- ◆ Accident case analysis
- ◆ False Alarm Incident Training
- ◆ Boiler Safety Training

Personal protective equipment related education and training (including on-the-job health and safety education and training)

- ◆ Personal Protective Equipment (PPE) safety awareness

Linyuan Advanced Plant in Greater China Region — Occupational Health and Safety Promotion Measures

Starting from February 2024, the Linyuan Advanced Plant has been issuing a monthly “EHS Bulletin” along with a reading card and a link to a quiz activity form. Each month, one workplace safety-related topic is selected for promotion and a quiz activity. The bulletin and quiz invitations are distributed via email, workgroup chats, and bulletin boards, encouraging employees to participate. This approach aims to communicate key workplace safety points and, through quiz responses, assess employees’ awareness levels to adjust the direction of occupational health and safety promotion accordingly.



Linyuan Advanced Plant in Greater China Region — Occupational Health and Safety Training



Maanshan Plant in Greater China Region — Occupational Health and Safety Training



CCIP Plant in India — Occupational Health and Safety Training



Anshan Plant in Greater China Region — Occupational Health and Safety Training



7.5.2 Non-employees' occupational safety and health education and training GRI 403-7

Apart from its own employees, CSRC also emphasizes safety management for contractors, transporters, and other partners. We aim to enhance overall occupational health and safety conditions in the industry. In 2024, a total of 9,170 non-employee participants from CSRC Group attended occupational health and safety education and training, totaling 26,638 hours. Courses included training on hazard-related protective measures, pre-operation protective planning for high-risk operations (hot work/high elevation/confined space/oxygen deficiency/maintenance excavation), and emergency situation reporting and advocacy.

Linyuan Advanced Plant in Greater China Region conducted safety hazard awareness training for contractors:

During the 2024 major overhaul period at the Linyuan Advanced Plant, which falls in the summer season with high temperatures



and elevated hazard risks, when the outdoor heat hazard reaches the highest level (Level 4), in addition to providing related safety training, shaded rest areas with sun protection and cooling facilities are set up at the work sites to enhance heat mitigation.

Statistics on safety and health personnel training for contractors by CSRC in the past three years:

Region	Greater China			India			USA			Group		
	2022	2023	2024	2022	2023	2024	2022	2023	2024	2022	2023	2024
Number of participants in environmental, safety and health education and training	2,527	1,635	7,207	900	809	1,861	-	-	102	3,427	2,444	9,170
Total education and training hours	6,608	14,520	24,786	900	897	1,244	-	-	608	7,508	15,417	26,638

Note 1: No relevant data on contractors was collected in the United States from 2022 to 2023.

Note 2: In 2024, the number of participants and training hours for contractor EHS (Environmental, Health, and Safety) education in the Greater China Region increased compared to previous years due to the major overhaul at the Linyuan Advanced Plant from May to August.

CSRC transporter safety and health personnel training statistics in the past three years:

Region	Greater China			India			USA			Group		
	2022	2023	2024	2022	2023	2024	2022	2023	2024	2022	2023	2024
Number of participants in environmental, safety and health education and training	50	48	208	50	64	85	-	-	4	100	112	297
Total education and training hours	50	48	91	50	297	46.6	-	-	32	100	345	170

Note: Statistics for transporters in the United States were not included for 2022–2023.

Key training course items for contractors at plants in each region are as follows:

- ◆ Contractors receiving this training should adhere to the safety (access control) regulations informed by the course instructors of the plant(s).
- ◆ Contractors must strictly adhere to hazard-related protective measures that may arise from machinery, equipment, and raw materials upon entering the plant.
- ◆ Contractors must obtain an identification card issued by the factory to be qualified to enter the factory.
- ◆ Before entering the workplace at the plant(s), contractors must notify or obtain approval from the supervisor in charge of the respective jurisdiction of the workplace.
- ◆ Pre-operation protection plan for high risk (fire/elevated (location)/hypoxia/annual repair/excavation).
- ◆ Notification and evacuation procedures in the event of various incidents within the plant (site), such as occupational accidents, fires, explosions, and other emergencies.
- ◆ Before leaving the factory (site) every day, the construction site should be cleaned up and the safety checkpoints (water / electricity) and other work alert zones should be separated, and it should be confirmed that the personnel have left the factory safely.
- ◆ If there are safety and health risks on site, contractors must stop work and make improvements immediately.
- ◆ Workers who are diagnosed by a doctor or feel unwell should make inquiries.
- ◆ Contractor entry management procedures, health and environmental protection requirements, construction site safety awareness, construction site emergency response, and fire handling training.

The key items of training courses for transportation suppliers in plants of each region are as follows:

- ◆ Defensive driving road safety
- ◆ Emergency response team (ERT) training
- ◆ Fire handling training
- ◆ Chemical system typical accident cases

Contractor training provided by the Linyuan Advanced Plant



Contractor training provided by the Maanshan Plant



Contractor training provided by the Anshan Plant



Ch8

Local Communities

CSRC values recycling and rebirth, guided by the vision of “Eco-friendly civilization” and the mission of “Renewable energy and resources” . In addition to actively enhancing the benefits of a circular economy, we also focus on social feedback, ecological preservation, and issues related to cultural promotion. Through investments in these three areas, we aim to promote social welfare. The amount invested in 2024 totaled NT\$3.62 million.

CSRC Promotion of Social Well-Being Initiative



8.1 Social Feedback

GRI 413-1

CSRC adheres to corporate social responsibility, implements policies and commitments for social welfare through actions categorized as "Community Care" and "Education Care," actively promoting social well-being.

8.1.1 Community Care

SASB RT-CH-210a.1

CSRC adopts an attitude of social responsibility in respect to neighboring communities, and regards the neighboring communities around production plants as family members who are closely related in life. Both environmental protection control and production process safety are top priority basic operating policies. As the Company operates, we maintain ongoing interactions with nearby neighbors through various means to understand the needs of the local community. Each year, we engage in communication and negotiations with local communities regarding development plans at our operational sites. We also comply with regulatory requirements by actively developing management strategies for handling wastewater, emissions such as gases, and waste disposal. Regular training sessions are conducted on emergency response plans and fire safety, ensuring that employees are familiar with rescue and evacuation procedures and enhancing their safety awareness. In addition, CSRC and the government simultaneously carry out carbon emission index monitoring and make energy conservation and emission reduction plans to achieve short, medium and long-term carbon reduction goals.

CSRC's operations may affect air quality in neighboring communities. To mitigate the risk of air pollution, each manufacturing site strictly manages environmental protection in accordance with government requirements and develops various internal management plans. For the Linyuan Advanced Plant in Greater China, all process stages are equipped with relevant pollution monitoring equipment. Furthermore, equipment maintenance is carried out on a regular basis every year, and relevant air pollution factor data are also reported annually in accordance with regulations. The other plant areas also have relevant measures and actions for air pollution management. Please refer to 4.3 Air Pollution Control for details. In 2024, it was evaluated that CSRC's operating activities had no significant negative impact on local communities and the environment.

Moreover, the company actively engages with communities to improve local employment conditions. Creating local job opportunities is a key action to strengthen ties with communities. At the Linyuan Advanced Plant and Chongqing Plant in Greater China, local employees constitute 69% and 74% of the workforce, respectively. Meanwhile, the Maanshan and Anshan Plants in the Greater China boast a 100% local employee recruitment rate. This clearly illustrates CSRC's dedication to retaining local talent and promoting regional economic development.

Furthermore, CSRC supports community development activities and various charitable and emergency relief efforts, deepening neighborly relations and reinforcing community awareness of issues such as education, health, and public hygiene.

Greater China

Enhancing Local Firefighting Capacity

The Linyuan Advanced Plant has donated a batch of firefighting equipment, including firefighting boots, protective helmets, portable tool lights, and other rescue equipment to the Kaohsiung City Fire Department to bolster firefighting and disaster response capabilities.

【Linyuan Advanced Plant】Enhancing Local Firefighting and Disaster Response Capacity



United States

Strengthening Community Cohesion

- ◆ The Sunray Plant sponsored community events and youth baseball league activities in the Sunray community.
- ◆ The Ponca Plant supported community organizations in Ponca to host resident activities.

India

Promoting Green Sustainability

- ◆ The CCIPL Plant installed rooftop solar panels in a police residential area to increase the use of renewable energy.
- ◆ The CCIPL Plant restored three public ponds in Asalapur village, Ghaziabad, to facilitate rainwater collection and reuse by local residents.



Keeping local neighborhoods safe

- ◆ Communicate and discuss with neighbors and continue to interact to understand the safety needs of neighboring communities.
- ◆ Establishing an emergency response plan to ensure immediate reporting and handling procedures during emergencies.
- ◆ Conducting fire safety drills to ensure that employees are familiar with rescue and evacuation procedures.
- ◆ Strictly manage environmental protection work in accordance with government requirements, formulate various internal management plans, and improve employee safety awareness.

Maintaining local neighborhood relationships

- ◆ Employing local staff to create local job opportunities and enhance employee understanding of Company culture and philosophy.
- ◆ Strengthening community education, health, and public hygiene awareness through material donations or employee participation.
- ◆ Providing timely manpower and material assistance in the event of natural disasters to expedite neighborhood recovery efforts.

8.1.2 Education Care

【Cement Academy】

Through the "Cement Academy," a joint initiative with the Taiwan Cement Group, CSRC has long supported schools near its manufacturing plants. The initiative is dedicated to fostering the development of schoolchildren, promoting diverse perspectives, and enhancing their willingness to learn. We support educational activities in community schools and provide academic tutoring for children in remote areas. In 2024, the Linyuan Advanced Plant in Greater China funded after-school tutoring programs at Jhongyun Junior High School, as well as conversational English classes and resin clay art classes at Shanwei Elementary School, offering diverse learning resources to local students. Additionally, CSRC established the Cement Academy Scholarship to encourage academic excellence and alleviate financial burdens for disadvantaged families, inspiring students to contribute to society in the future.

In 2024, the total funding for tutoring programs and scholarships amounts to **192,000 NTD**, benefiting **144 students**.

Greater China

Linyuan Advanced Plant



Scholarship ceremony at Jhongyun Junior High School.



Conversational English and resin clay art classes at Shanwei Elementary School.

【Environmental education activities to promote circular economy】

CSRC is dedicated to promoting a circular economy and upholding social care and education. By embedding the principles of environmental sustainability and circular economy into education, CSRC has partnered with the Tamkang University Center for Science Education since 2021 to launch a collaborative project. This initiative combines circular economy knowledge with educational activities, designing hands-on carbon black science experiments for parents and children. The project includes the "Fun Chemistry with Carbon Black Science Camp," which utilizes a mobile chemistry lab to visit elementary and junior high schools, as well as other large-scale science education events. The goal is to enhance students' interest in chemistry through interactive learning and to promote the principles of environmental sustainability and circular economy.

The main objectives of the "Fun Chemistry with Carbon Black Science Camp"

- Promote circular economy education** through engaging hands-on carbon black experiments, guiding children to understand the importance of sustainability and circularity.
- Spark students' interest in chemistry** through fun science experiments led by volunteers with professional chemistry backgrounds, shaping their perception of scientists.
- Enhance students' understanding of chemical applications** by integrating carbon black materials into experiment designs through industry-academia collaboration.
- Foster a win-win model for chemistry education** by connecting chemical education with industrial applications through campus tours and teacher workshops.
- Provide diverse learning opportunities for rural students** by focusing on schools with limited educational resources through outreach activities.

Achievements Over the Years

2021

Launched the "Black Gold Egg" (carbon black egg) experiment at the Yuanshan Expo Dome, inviting children from the Mustard Seed Mission orphanage to participate.

Toured 36 schools across Taiwan.



2022

Due to the COVID-19 pandemic, toured 9 schools across Taiwan.

Developed the "Carbon Black Buzzer" experiment using carbon black's conductive properties, held during the 2022 Taiwan Science Festival. Conducted 26 sessions at the science fair, with 373 students participating.

2023

Toured 23 schools across Taiwan, engaging over 700 students.

Organized a workshop for rural elementary schools in Neimen, Kaohsiung, providing transportation and experiment opportunities.

Hosted a "Carbon Black Materials Awareness" workshop for junior high school teachers in Kaohsiung to enrich chemistry curricula and spark student interest.



2024

In 2024, a new "Dark Art" experiment utilizing carbon black's dyeing properties was introduced. The mobile chemistry camp visited 33 schools, engaging 1,500 students in hands-on experiments. A workshop was held for rural elementary schools in Fangliao, Pingtung, providing transportation and experiment opportunities for students.

To further science education, two articles on carbon black materials and experiment designs—"Black Pearls in the Circular Economy: Carbon Black" and "Chemistry Fun: Carbon Black Buzzer"—were published in the National Taiwan Science Education Center's journal (Issue 63-06), contributing to the promotion of carbon black applications and chemistry education.



【Girl's Hygiene Awareness Campaign】

To foster hygiene awareness, proper body care concepts, and knowledge of feminine hygiene products among female students, the CCIPL has long supported the NGO "She Wings." In collaboration with She Wings, CCIPL has organized awareness programs at local public girls' schools. In addition to formal educational sessions, female employees from the CCIPL engage in interactive discussions with students. After each session, hygiene products are provided to all participants, with a goal of educating 1,000 girls on proper feminine hygiene practices.



8.2 Maintaining biodiversity

CSRC, in order to maintain biodiversity, joined Taiwan Cement Co., Ltd., Ho-Ping Power Company, and Jiantan Temple in 2007 to make a joint donation establishing the "Dr. Cecilia Koo Botanic Conservation Center" (hereinafter referred to as the KBCC). Located in Gaoshu Township, Pingtung County, the KBCC is dedicated to the ex-situ conservation, research, and exchange of tropical and subtropical plants worldwide. It actively participates in and promotes the harmonious coexistence and sustainable longevity of natural ecology through practical actions.

8.2.1 Conservation Center

100 Species for Conservation Action

The "100 Species for Conservation Action" plan conducted by the KBCC aims to breed species assessed by the conservation community as extinct in the wild, critically endangered, endangered, or vulnerable to threats. Due to the difficulty in obtaining live individuals of these species and the very limited number preserved at the conservation center, sustainable breeding projects are essential for their long-term survival. By the end of 2024, the center had collected 34,712 plant species from around the world, making it the most extensive living plant conservation institution globally and aspiring to be the foremost sanctuary for tropical and subtropical plants.



Contribution to Global Seed Vault: Preserving Taiwanese Millet

The Dr. Cecilia Koo Botanic Conservation Center, in collaboration with Taiwan's National Seed Origin Center, National Central University's College of Earth Sciences, Taiwan Polar Institute, and representatives from the Paiwan Indigenous community, successfully deposited Taiwanese millet seeds in the Svalbard Global Seed Vault. These millet seeds are drought-tolerant and disease-resistant, making them crucial for addressing climate change and protecting global agricultural heritage and biodiversity. Located within the Arctic Circle, the Svalbard Global Seed Vault uses permafrost and advanced refrigeration technology to ensure the seeds are safely preserved under extreme conditions. The secure storage of these valuable seeds not only safeguards global agricultural heritage and biodiversity but also symbolizes Taiwan's commitment to international cooperation and sustainable development.



Collaboration with National Tsing Hua University: Development of a New Patented Drug for Neural Regeneration

A research team from National Tsing Hua University (NTHU) developed NTHU-3, whose small molecule compounds can successfully cross the blood-brain barrier. Animal experiments demonstrated its ability to promote neural regeneration and improve motor coordination. The drug has now obtained a domestic patent. NTHU-3 was synthesized using extracts from the Dr. Cecilia Koo Botanic Conservation Center, which houses over 30,000 plant species, and the Graduate Institute of Natural Products at Kaohsiung Medical University. Facilitated by Professor Chia-Wei Li, Executive Director of the KBCC and a professor at NTHU's College of Life Sciences and Medicine, the team extracted compounds from thousands of plants for pharmaceutical use. This collaboration has resulted in the creation of the only natural product library in the country that provides a large number of plant extract samples.



Additional Information
on the Conservation Center

8.2.2 Raising Awareness of Biodiversity Conservation

To enhance awareness and knowledge of biodiversity conservation and environmental protection among employees and the community, CSRC has organized related activities at various plant locations. These initiatives involve employees, their families, and the community, working together through active participation to raise ecological conservation awareness.

Greater China

【Linyuan Advanced Plant】 Family Day – Ocean Environment Documentary Screening: "Eco Bravehearts"

To promote biodiversity and environmental awareness, as well as to enhance interaction and cohesion among employees, the Linyuan Advanced Plant organized a movie screening event on Family Day. On June 1, 2024 at the Ambassador Theatres in Kaohsiung's Caoya district, inviting employees and their families to watch the Taipei Film Festival's Best Documentary, "Eco Bravehearts." The film provides insights into the ocean closest to us and features extraordinary individuals with a commitment to ecological preservation. Attendees also had the opportunity to engage with the documentary's protagonists and director, discussing their perspectives and experiences in filming environmental documentaries. A total of 125 employees and their family members participated in the Family Day event.



Greater China

【Linyuan Advanced Plant】 Linyuan Mangrove Conservation Alliance

The Linyuan Advanced Plant has signed a "Linyuan Mangrove Protection Alliance" agreement with the Fooyin University USR Project Team, the Linyuan Mangrove Conservation Society, and local junior and elementary schools. Through local environmental education promotion, conservation efforts, and knowledge lectures and workshops, the initiative aims to help employees, community members, and students understand more about their work and living environments, raise awareness of environmental issues, and encourage students to participate in environmental protection activities. The goal is to foster a sense of "local recognition" from "local understanding" among students, thereby contributing to environmental protection. In 2024, a visit to the mangrove ecological area is planned, with participation from 36 students from Jhongyun Junior High School and 25 students from Shanwei Elementary School.



India

【CC IPL and CCET Plants】 Tree Planting Campaign

To celebrate World Environment Day, the CC IPL and CCET Plants in India launched a tree-planting campaign, mobilizing employees and surrounding communities to plant **5,000 trees** in 2024.



8.3 Cultural Promotion

The C.F. Koo Foundation, Taiwan, was initiated in 1988 by C.F. Koo, Chairman of the Ho-Hsin Group, and was jointly funded by CSRC Group and the Taiwan Cement Corporation. The foundation aims to promote Taiwan's arts and cultural activities through international (including cross-strait) exchange programs.

In 2024, the C.F. Koo Foundation continues its efforts in cultural preservation by launching two annual program productions and maintaining the operation of Taiwan's only online opera channel, "Koo Cloud Theater." The foundation remains committed to managing the Children's Theater and will organize campus outreach lectures in conjunction with its annual programs. A key highlight was the reopening of the "A tourist theatre, TaipeiEye" on Lantern Festival, resuming operations after a four-year pause due to the COVID-19 pandemic..

8.3.1 Program Production

In 2024, the C.F. Koo Foundation's annual productions included the "Peking Opera Neo-Classics" series in the first half of the year and a New Neo-Classic Peking Opera, The Confidant, blending Peking and Kunqu opera styles, in the second half.

In the first half of 2024, featured Li Baochun's refined performances in the "Peking Opera Neo-Classics" series, leading the Taipei Li-yuan Peking Opera Theatre troupe alongside veteran actor Yang Yanyi. The lineup included the grand historical Peking opera Sun Bin and Pang Juan, The Battle of Weinan, and Tianba Visits the Mountain Stronghold, as well as the vocally demanding Lin Chong's Night Flight and the classic The Trial of Mei. These performances showcased diverse styles and captivated audiences.

In the second half of 2024, the New Neo-Classic Peking Opera The Confidant, adapted from playwright Guo Qihong's drama, marked Li Baochun's first attempt at a Peking-Kunqu fusion. Starring Kunqu master Wen Yuhang and Li Baochun, the production earned enthusiastic responses across five sold-out performances in Taipei and Taichung.

YouTube Opera Channel: Koo Cloud Theater

Taiwan's only online opera channel, Koo Cloud Theater, continued to thrive in 2024, broadcasting live and ticketed performances by the Taipei Li-yuan Peking Opera Theatre troupe, as well as curated Peking opera productions from the C.F. Koo Foundation's 30-year history and the "The Flourishing Blossoms of the Pear Garden" series. The channel aired 49 performances, including 6 live broadcasts, attracting **990,436 views** in 2024. Since its inception, the channel has amassed over **4.1 million** total views.



《Peking Opera Neo-Classics》



《The Confidant》

8.3.2 Tourist Theater: TaipeiEye

The tourist theatre, TaipeiEye, a cultural showcase of traditional Chinese performing arts, was established in 2002 by the C.F. Koo Foundation at the Taiwan Cement Building's Cement Hall. Despite interruptions due to SARS and COVID-19, it has operated for over two decades. Reopened on Lantern Festival 2024, the theater welcomed a steady stream of international tourists.

The Tourist Theater: TaipeiEye offers three performances weekly, led by the Taipei Li-yuan Peking Opera Theatre troupe and featuring Peking opera, puppetry, folk arts, and Indigenous song and dance. Performances, drawn from famous myths, legends, and historical stories, are both familiar and innovative. Pre-show "behind-the-scenes" activities include costume try-ons, face-painting demonstrations, headgear showcases, traditional music performances, prop interactions, paper cutting, origami, and block printing, immersing audiences in traditional culture. Performances feature subtitles in Chinese, English, Japanese, and Korean, with multilingual staff providing personalized service. Over the years, the theater has become a must-visit cultural landmark in Taipei.

In 2024, it hosted **133 performances**, attracting **13,126 visitors**, with Japanese (36%) and Korean (28%) audiences comprising the largest groups.



8.3.3 Education Advocacy



In 2024, campus lectures aligned with the annual productions, focusing on the "Peking Opera Neo-Classics" series in the first half and the Peking-Kunqu fusion of The Confidant in the second half. Lecturers introduced the characteristics of opera performances, guiding students on appreciating the art form. For The Confidant, actors demonstrated the distinct vocal and movement styles of Peking and Kunqu opera, sparking interest among young audiences. Highlights included Li Baochun's lecture at the National Taiwan University of Arts' Cross-Disciplinary Institute and Wen Yuhang's two lectures in Taichung for community audiences, which were unexpectedly well-received. Engaging with masters proved highly effective in promoting opera.



In 2024, **17 lectures** and workshops engaged **930 participants**.

2024 Performance Highlights



CSRC formed **a strategic upstream-downstream supply chain alliance** with Eco Infinic, a pyrolysis tire recycling company under SHEICO Group, to establish a 30,000-ton-per-year recycled carbon black plant in the U.S., scheduled for production in 2027—expanding into the North American circular economy market.



In Greater China, **100%** of suppliers signing contracts with CSRC in 2024 signed both the “Integrity Clause” and the “Code of Conduct for Corporate Social Responsibility.”



Senior management at CSRC held **multiple engagement meetings with key suppliers** in 2024 to exchange in-depth views on sustainable collaboration strategies.



87.74% of the Group’s raw material procurement came from local suppliers.



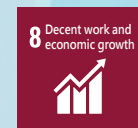
The Group’s total green procurement amount reached **NT\$1,852,468**.

United Nations Sustainable Development Goals (SDGs)

9.1 Supplier Management **SDGs 8.7**、**SDGs 12.4**

9.2 Raw Materials Management **SDGs 12.5**

9.3 Sustainable Procurement **SDGs 12.7**





Management policies - Sustainable Supply Chain Management

Medium and Long-Term Targets (2026-2030)	Short-Term Targets (2025)	2024 performance
<p>Suppliers signing the Code of Conduct for Corporate Social Responsibility and Integrity Clause</p> <p>The signing and evaluation rate of suppliers across the entire Group has reached 100%.</p> <p>Strengthen supplier evaluations</p>	<p>The signing and evaluation rate of suppliers in the Asia region has reached 100%.</p>	<p>Greater China supplier signing ratio was 100%</p> <p>Greater China supplier evaluation ratio has attained 100%</p>
<p>Cumulative amount of recycled materials used with low environmental impact</p> <p>A total of 35,000 tons of recycled materials will be used from 2021 to 2030</p>	<p>A total of 20,000 tons of recycled materials will be used from 2021 to 2025</p>	<p>A total of 18,311 tons of recycled materials has been used from 2021 to 2024</p>

Impact description

Description of positive impact:

CSRC implements sustainable management of the supply chain, enhancing resilience in raw material supply, reducing the risk of negative ESG impacts from suppliers, improving overall sustainability performance of the supply chain, enhancing corporate reputation, and reducing the risk of illegal activities in the corporate supply chain.

Description of negative impact:

Improper ESG management in the supply chain may lead to crises in raw material supply and corporate reputation, and by extension impact business sustainability, reduce profitability from operations, and affect reputation.

Policies and commitments

Ensure that suppliers achieve consistency in terms of quality, cost, delivery, service quality, environmental safety, health, and production, and work with suppliers to implement ESG-oriented development in environmental protection, labor human rights, health and safety, ethics, and management systems.

Action plan

Positive impact management

- Increasing the proportion of green procurement
- Providing sustainable procurement training for purchasers

Negative impact management

- Formulate supplier management policies, strengthen the ESG management of the supply chain's environment, labor human rights, health and safety, ethics, and management systems, and incorporate "Integrity Clauses" and "Code of Conduct for Corporate Social Responsibility" into supplier contracts
- Audits and evaluations are conducted once a year for major suppliers of materials and raw materials
- Greater China suppliers are classified into one of four levels according to the evaluation score. If a manufacturer is rated as C-level for two consecutive years, the purchasing or outsourcing unit must cooperate with the relevant units to visit or invite the manufacturer to the factory for interviews

Evaluation of effectiveness

- Established supplier grading evaluation system
- Supplier evaluations are conducted every year for major suppliers of materials and raw materials
- Regularly review the achievement of relevant goals at internal management meetings every year

Responsible units

Purchasing Department

Complaint mechanisms

Public inbox: ebidding.kc@csrcgroup.com

ch9 Sustainable Supply Chain Management

9.1 Supplier management GRI 2-6、2-24

CSRC's suppliers are mainly divided into three types: upstream suppliers, downstream suppliers, and other suppliers. Upstream suppliers include raw materials, equipment spare parts, and packaging materials. Downstream suppliers include raw material transportation, finished product transportation, and waste transportation. Other suppliers include contractors for construction and turnkey projects.

CSRC adheres to the philosophy that "ESG is a corporate responsibility, not a cost to the enterprise." To ensure that all risks faced by workers and employees (including contract workers) in the supply chain are adequately understood and managed, CSRC has achieved a 100% signing rate of the "Supplier Corporate Social Responsibility Code of Conduct" and the "Integrity Clause" among suppliers in the Greater China region as of 2024. Moving forward, we aim to extend this requirement to all group suppliers globally, targeting 100% compliance by 2030. EcoVadis is a globally recognized provider of corporate sustainability ratings, offering authoritative assessments through a comprehensive review of key areas such as environmental protection, labor and human rights, business ethics, and sustainable procurement. In 2024, CSRC participated in the EcoVadis assessment for the first time and was awarded a Silver Medal, ranking in the top 15% of all evaluated companies. This outstanding achievement demonstrates our strong performance in sustainability and corporate social responsibility (CSR). Building on this foundation, we will continue to enhance our group-wide performance in the EcoVadis international sustainability supply chain assessment. Our goal is to create lasting value and trust for our upstream and downstream suppliers, the environment, and our own operations.

Number of suppliers in CSRC Group and operational plant areas

	Greater China			India ^{Note}			USA ^{Note}			Group		
	2022	2023	2024	2022	2023	2024	2022	2023	2024	2022	2023	2024
The total number of contracted suppliers with actual transactions	766	672	645	3,030	559	112	-	33	34	3,796	1,264	791
Percentage of Suppliers Signing Contracts (Including Corporate Social Responsibility Clauses)	100%	100%	100%	-	75%	31%	-	-	-	-	86%	86%
Percentage of Suppliers Signing Integrity Clause	100%	100%	100%	-	75%	31%	-	-	-	-	86%	86%

Note: Data for the India region was not compiled by the end of 2022; for the United States region, only the total number of suppliers with actual transaction contracts in the past two years is available, with no other statistical data.

CSRC' s Supplier Corporate Social Responsibility Code of Conduct

Supply chain ESG management orientation



Labor

- Respecting labor freedom
- Prohibition of child labor
- Reasonable working hours, wages, and benefits
- Compliance with international human rights regulations
- Prohibition of any discrimination
- Free association



Health and safety

- Providing a safe and hygienic working environment and appropriate protective measures
- Emergency response
- Paying attention to manual work
- Providing safety machinery and equipment
- Public health and accommodation



Environment

- Environmental permit assessment
- Pollution prevention and resource conservation
- Management measures such as those concerning hazardous substances, exhaust emissions, wastewater, solid waste, energy consumption, and greenhouse gas emissions
- Products comply with EU REACH requirements



Ethical standards

- Ethical management
- Anti-corruption and prohibition of bribery
- No illegitimate gains
- Compliance with the law
- Information disclosure
- Fair trade
- Identity protection and retaliation
- Responsible purchasing and non-use of conflict minerals
- Privacy and information security
- Whistleblower and reporting system



Management system

- Proper management system
- Development of a responsible procurement policy
- Supervision and management
- Development of an internal training plan
- Regular target review, improvement, and optimization

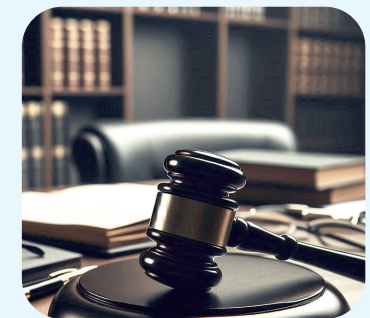
CSRC's Supplier Corporate Social Responsibility Code of Conduct

For the sustainable operation of the enterprise, the supplier shall undertake to comply with the following terms:

- 1] Continuously pay attention to environmental protection, energy saving and carbon reduction, prioritize local procurement, improve energy resource use efficiency, comply with environmental protection laws and regulations, and create a sustainable environment together.
- 2] Comply with relevant waste, waste gas and wastewater management standards. Regarding disposal and treatment of any waste, pollutants and other environmental hazards, all should comply with statutory or international convention requirements.
- 3] Do not employ child labor and protect basic human rights when hiring employees (including but not limited to labor rights, freedom of association, International Labour Organization conventions, etc.). Give reasonable remuneration and provide legal working conditions.
- 4] Uphold business ethics and comply with anti-money laundering and anti-monopoly as well as non-disruptive business competition when running a business.
- 5] Should develop a sustainable procurement policy for its suppliers, and the content of the policy should at least cover the supplier policy issued by the Group.

REACH Compliance

Regarding the management of supplier compliance with REACH regulations, each plant manages through the Taipei headquarters of CSRC in its supplier management mechanism. We have also established the Supplier Corporate Social Responsibility Code of Conduct, which includes provisions for REACH compliance. Suppliers are required to sign this code of conduct before they can trade with CSRC. In addition, supplier evaluation will also be conducted for suppliers with transactions every year, with the signed code of conduct included as one of the scoring standards as an evaluation item to confirm that the supplier meets the requirements of REACH regulations.



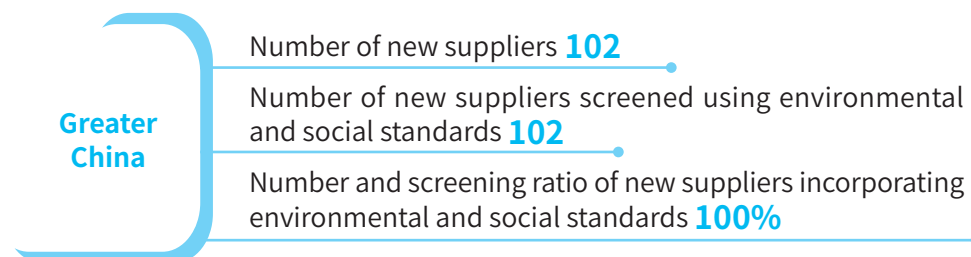
9.1.1 Supplier selection GRI 308-1 、414-1

CSRC selects high-quality suppliers through a supplier selection mechanism. Before selection, a supplier will first be required to complete a self-assessment report that includes items such as a company profile, Ministry of Economic Affairs company business registration information, environmental photos of the company's factory, equipment list, R&D technology quality assurance environment, proof of performance (purchase orders, input invoices), and entity finances (balance sheet, income statement). Afterwards, we conduct on-site investigations and visits to the vendors selected based on the self-assessment reports. We assess financial soundness and incorporate social and environmental performance into the criteria for selecting new suppliers. If there are any bad records or major violations related to social or environmental issues (e.g., violations of environmental and social regulations, corporate governance issues such as corruption), we will not cooperate with the supplier. This ensures the effectiveness of our sustainable supplier management. Only suppliers who pass the audit can be listed as qualified suppliers. In 2024, a total of 102 new suppliers were onboarded in the Greater China region, all of whom met our social and environmental screening criteria. In the India region, 108 new suppliers were added, and the implementation of social and environmental screening standards is currently underway, with 10% of new suppliers having already participated in and passed the evaluation. In the United States region, the implementation of social and environmental screening standards is planned for the near future.

Diversity Policy

CSRC is committed to creating an environment that actively embraces Diversity, Equity, and Inclusion (DEI). In the U.S. region, the Group has already advocated for supplier diversity through the establishment of diversity policies, aiming to promote economic growth in all communities, cultivate a more innovative supplier base, and reflect the diverse markets we serve. DEI is prioritized and integrated into our procurement practices, with a focus on enterprises owned by women, minorities, and disadvantaged groups. In 2024, 5.88% of suppliers in the United States region were led by female representatives. In the Greater China region, specifically at the Maanshan plant, 9.1% of suppliers had female representatives in leadership positions.

Number of new suppliers and screening ratio for 2024

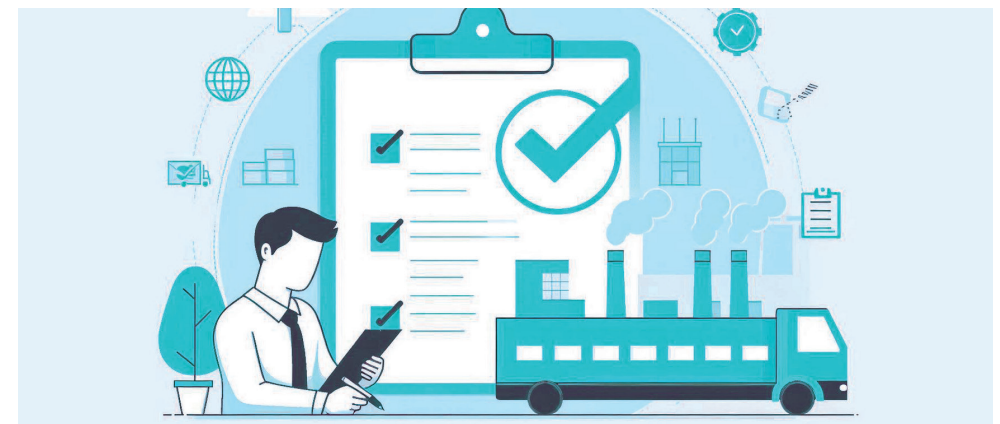


9.1.2 Supplier evaluation GRI 308-2 、414-2

CSRC implements a graded audit once a year for suppliers with transactions to establish sustainable supply chain management. Suppliers are classified into four levels (A, B, C, and D) based on the evaluation score. If a supplier is rated as C-level for two consecutive years, we will conduct a field visit or ask the supplier to visit our facilities for interviews to create written records and assist in improving non-conforming items. Suppliers rated as D-level will be identified for elimination and lose bidding rights.

Starting from 2021, CSRC has conducted on-site audits of the top ten suppliers with the largest purchase amounts on a quarterly basis. The audit includes whether they have signed our supplier code of conduct, obtained relevant certification systems, and practiced environmental or social corporate responsibility. Additionally, from the second half of 2021, the performance appraisal of purchasers has included whether new suppliers have signed ESG clauses. If they do not complete this requirement, the related research report cannot be finalized, and the corresponding performance score cannot be obtained. In 2024, the re-signing rate for ESG clauses among new suppliers in Greater China reached 100%.

To ensure that our supply chain aligns with CSRC's standards for business ethics and corporate social responsibility (CSR), all material suppliers are required to undergo a CSR risk assessment. In addition, key suppliers must also undergo a business ethics due diligence process. The CSR risk assessment evaluates suppliers' compliance with our Supplier Code of Conduct, including obligations such as environmental protection declarations, CSR declarations, REACH registration responsibilities, as well as labor practices, occupational health and safety, and ethical management systems. The assessment covers the following aspects: acquisition of relevant certifications, active engagement in environmental or social responsibility initiatives, the presence of systematic and traceable management data, and verification of any violations of legal or regulatory requirements. Furthermore, the business ethics due diligence process for key suppliers incorporates additional ESG (Environmental, Social, and Governance) criteria to ensure comprehensive alignment with CSRC's standards.



CSRC places great importance on suppliers having their own ESG strategies. The following highlights two key suppliers as examples: CPC Corporation, Taiwan has responded to global economic shifts and the national goal of achieving net-zero carbon emissions by 2050. In alignment with government energy policies and the “5+2 Industrial Innovation Plan,” CPC continues to focus on core technology development with a transformation strategy driven by R&D. The company is advancing transformation along three main pillars: fuel quality enhancement, carbon reduction, and clean energy. Guided by these pillars, CPC actively tracks low-carbon trends and strengthens its product and technology development capabilities through technological integration and strategic alliances. In 2023, CPC allocated NT\$3.595 billion to forward-looking R&D initiatives, generating an estimated financial benefit of NT\$5.165 billion. These initiatives cover areas such as smart green energy, high-value materials, circular economy, and biofuels, positioning CPC as a key player in the transition to high-value petrochemicals and the green energy industry. China Steel Chemical Corporation aimed to reduce by 2% (1,724 tons) compared to the baseline year in 2023.. Through the implementation of 38 energy-saving projects, the company achieved a carbon reduction of 1,870 metric tons—surpassing its target with a 108.5% achievement rate. The company also recorded an average energy savings rate of 1.52%, reflecting strong energy efficiency results. Additionally, China Steel Chemical Corporation completed carbon footprint assessments and verifications for six coal chemical products and four carbon material products, enhancing transparency in carbon management and demonstrating its sustainability performance.

Audit evaluation items and score level

Product demand	Evaluation score level
<ul style="list-style-type: none"> Product compliance Quality performance Delivery performance Continuous supply capability Quality management system evaluation Process capability 	A-level As a good manufacturer, can give priority to bargaining opportunities.
Transportation and service <ul style="list-style-type: none"> Transportation method Customer Service Construction contact Machines and equipment Environmental sanitation Customer satisfaction management 	B-level Reliable manufacturers maintain general price comparison or bargaining opportunities.
Management system <ul style="list-style-type: none"> Compliance with the company's Supplier Code of Conduct (including environmental protection declarations, CSR declarations, REACH registration responsibilities, labor health and safety, and ethical management system obligations) Acquisition of relevant certification systems Implementation of environmental or social corporate responsibility practices Availability of systematic and traceable management data Adherence to regulatory requirements 	C-level Strengthen manufacturers' improvement and guidance; reduce bidding rights. If there is improvement in the next evaluation, the right to bid will be renewed.
	D-level Listed as a vendor to be eliminated; stop bidding

In 2024, the proportion of A- and B-grade suppliers in the Greater China region reached as high as 97.6%, reflecting the effectiveness of our supplier management system, which will continue to be rigorously enforced to encourage ongoing improvement among suppliers. The proportion of C- and D-grade suppliers stood at 2.4%. In the India region, A- and B-grade suppliers accounted for 78%, while C- and D-grade suppliers made up 22%. CSRC requires C-grade suppliers to submit improvement plans and undergo on-site audits with the relevant departments. Cooperation with D-grade suppliers has already been discontinued. CSRC plans to gradually implement supplier evaluations at sites that have not yet adopted the system and will develop improvement plans based on the evaluation results.

Level		Greater China supplier evaluation		
		2022	2023	2024
A-level	Number	505	442	155
	Proportion	68%	84%	62.8%
B-level	Number	226	68	86
	Proportion	30%	13%	34.8%
C-level	Number	10	13	5
	Proportion	1.3%	2.5%	2%
D-level	Number	4	3	1
	Proportion	0.5%	0.6%	0.4%
Total number of evaluations		745	526	247

Note: The Greater China region includes only the Ma' anshan plant in China and the Linyuan plant in Kaohsiung. In 2024, the Chongqing and Anshan plants in China were temporarily shut down due to merger and acquisition strategies during the first half of the year; therefore, no supplier evaluation and grading information is available for these two plants.

On-site audits of major suppliers

CSRC is committed to sustainable supply chain management. We ensure compliance with ESG standards through rigorous on-site audits of major suppliers. The audit covers environmental management, social responsibility and corporate governance, with the goal of improving the sustainability performance of suppliers, reducing the risk of ESG violations in the supply chain, and promoting transparency in cooperation. The audit process includes planning and preparation, on-site inspections, data analysis, audit reports, and follow-up on improvements. This process enhances supply chain transparency and stability, strengthens market competitiveness, and meets customer and investor expectations for CSRC’s sustainable development.

		Greater China			India			USA ^{Note}			Group		
		2022	2023	2024	2022	2023	2024	2022	2023	2024	2022	2023	2024
Status of on-site audits of major suppliers	Number	12	12	12	3	6	4	-	-	-	15	18	16
	Proportion	100%	100%	100%	100%	100%	100%	-	-	-	100%	100%	100%

Note: The U.S. region is currently establishing an on-site supplier audit system and plans to implement on-site audits in the future.

Sustainable supply chain communication

CSRC has long been committed to circular economy and sustainable development. Initially, its relationship with SHEICO Group’ s Thai subsidiary, Eco Infinic, was purely a traditional upstream-downstream partnership, with CSRC procuring recycled carbon black (rCB) and tire pyrolysis oil from Eco Infinic for the production of Eco-circular carbon black. As both parties found alignment in their sustainability goals, the partnership deepened over time. In 2024, the Board of Directors approved the establishment of a joint venture at the site of the CCC Phoenix plant in the U.S. to launch a new sustainable carbon black business. The new facility, scheduled to begin operations in 2027, will have an annual production capacity of 30,000 tons of recycled carbon black, 35,000 tons of tire pyrolysis oil, and 2,300 tons of steel wire, making it the largest sustainable carbon black plant in North America. The joint venture will be 65% owned by Eco Infinic and 35% jointly held by CSRC and CCC, marking an upgrade from a simple transactional relationship to a fully integrated upstream-downstream partnership. This initiative aligns with the net-zero transition and supports the tire industry’ s target of achieving 40% sustainable materials by 2030. In addition, CSRC and Eco Infinic have jointly organized a Circular Economy Forum to advocate for a closed-loop tire recycling model. The two companies are actively engaging with upstream and downstream stakeholders to promote tangible actions in resource circularity, demonstrating their shared commitment and influence in advancing sustainable development.

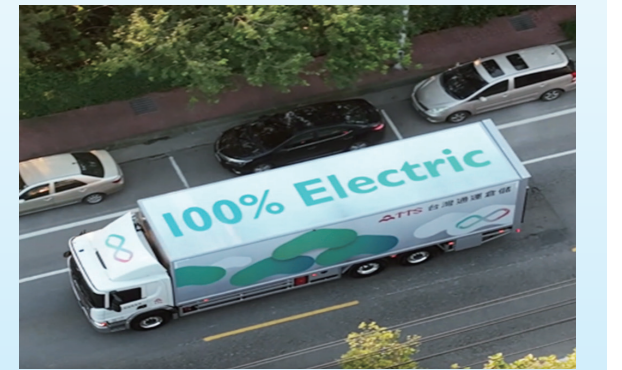
In 2024, the Chairman and General Manager of CSRC actively engaged with key suppliers in the Greater China region, conducting at least 10 communication meetings to exchange in-depth views on sustainable collaboration strategies. At the same time, the company continues to closely monitor the ESG performance of its suppliers by regularly requesting original carbon emission factor data to ensure transparency in environmental responsibility across the supply chain. Starting in 2025, CSRC will launch a quarterly ESG e-newsletter to share relevant ESG information with its suppliers. The newsletter will focus on topics such as diversity, equity, and inclusion (DEI), as well as climate-related issues, further advancing the overall sustainability of the supply chain.

The 2024 Circular Economy Forum with partners including SHEICO Group.



Green product transportation: Carbon black transportation service providers introduce electric vehicle fleets, reducing transportation carbon emissions

When selecting transportation tools for product transportation, CSRC prioritizes options with lower carbon emissions. In 2024, it continued to introduce electric vehicle fleets from affiliated company Taiwan Transport, delivering carbon black products to customers with minimal carbon emissions. This approach secures benefits compliant with Scope 3 greenhouse gas inventories or carbon credits for customers and helps reduce Scope 3 carbon emissions both upstream and downstream in the industry chain.



9.1.3 Contractor management

Occupational Safety and Health Management Measures for Contractors

To ensure the safety of contractors or suppliers' work, all project contracts have clearly defined occupational safety regulations. They adhere to the labor safety and health regulations of the country where the plant is located, while also minimizing personnel injuries and fatalities during construction or operations. During the construction process, factory auditors will randomly check the contents of the operation from time to time. If a violation of industrial safety regulations is found, the contractor can be directly requested to stop work. The construction task can be continued after the relevant situation improves.

Environmental Management Measures for Contractors

CSRC and contractors have reached agreement on issues related to environmental pollution. We require contractors to comply with our environmental policy, enhancing environmental cleaning and mobile washing of vehicle tires during engineering or work construction, adhering to environmental protection regulations to avoid any environmental pollution behavior. CSRC will also dispatch supervisors to inspect whether contractors are indeed complying with the regulations. In addition, when the contractor generates general industrial waste, hazardous industrial waste, and resource waste during construction, the supervisor of the project or work organizing department must be contacted to fill out the relevant storage and removal forms. Afterward, the contractor must go to the storage management department that manages various types of waste to handle storage or removal operations; it cannot be thrown away at will.

Contractor education and training

We regularly hold contractor education and training to ensure that the contractor can understand the construction specifications and safety protections. Training content includes the contractor' s entry process description, limited space operation specifications, hot work specification, hanging work specification, information on waste disposal, on-site code violations, information on workplace accidents, etc. For subcontractor education and training, please refer to Chapter 7 on Occupational Safety and Health.

9.2 Raw Materials Management

The main raw materials for carbon black production are by-products from the refining processes of upstream petrochemical and steel industries. Through a specialized production process, these by-products are transformed into high-value carbon black products, truly realizing the principles of a circular economy. In Greater China, India, and the United States, local refining and steel plant by-products are used as fuels and raw materials. To reduce carbon emissions, we have been actively building green supply chains by introducing natural gas as a fuel. This initiative was implemented at our Chongqing plant in March 2023, the Linyuan Advanced Plant in April 2023, and gradually rolled out at the Maanshan plant in China starting June 2024. The CCET plant in India has also adopted this practice, with other plants planning to follow. In 2024, the Linyuan Advanced Plant and Maanshan plant in Greater China began using recycled pyrolysis oil as a raw material, totaling 3,424 tons, which helped reduce carbon emissions by 1,967.36 tCO₂e. Other plants plan to adopt this approach gradually.

Unit: tons

		Greater China			India			USA			Group		
		2022	2023	2024	2022	2023	2024	2022	2023	2024	2022	2023	2024
Non-renewable materials ^{Note 1}	Raw oil + fuel oil + natural gas	300,210	286,731	284,922	97,819	106,702	438,586	302,131	273,248	275,164	700,160	666,681	998,672
	Packaging materials ^{Note 2}	2,296	1,172	1893	560	880	633	227	261	1,930	3,083	2,313	4,456
Renewable materials ^{Note 3}	Recycled oil ^{Note 4}	5,790	3,879	3,424	-	-	-	-	-	-	5,790	3,879	3,424
	Recycled packaging materials	1,262	660	1259	-	221	331	2	-	-	1,264	881	1,590

Note: 1.Non-renewable materials are defined as resources that cannot be replenished in the short term. E.g.: minerals, metals, oil, natural gas, coal, etc.

2.Non-renewable packaging materials include plastic pallets and bulk bags.

3.Renewable materials are defined as those that can be quickly restored through ecological recycling or agricultural procedures and can be used continuously for future generations. E.g.: wood, water.

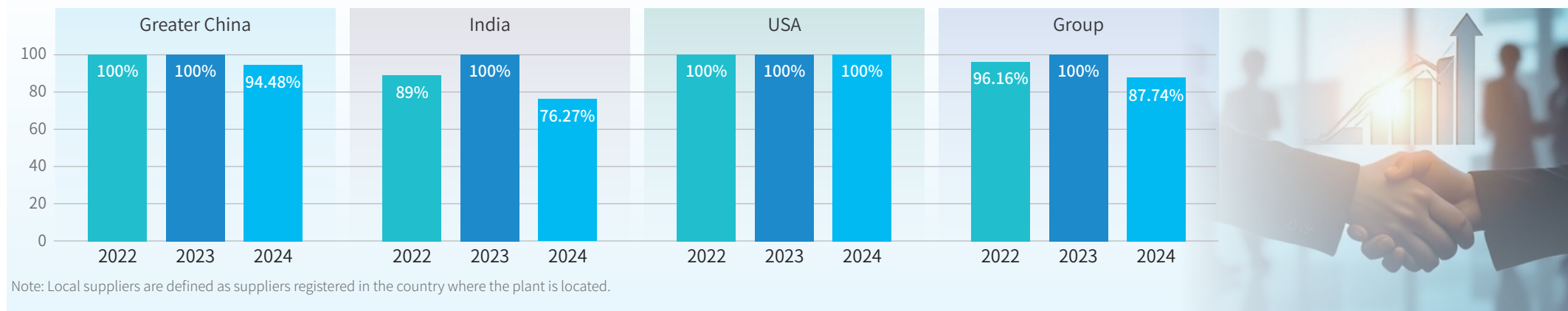
4.Recycled oil refers to tire pyrolysis oil (oil derived from recycled tires after pyrolysis, converted into reusable oil), which minimizes waste disposal issues and reduces the burden on fossil fuels.

9.3 Sustainable Procurement

9.3.1 Local procurement GRI 204-1

Adhering to the principle of local development and local sourcing, CSRC actively cultivates local suppliers and implements local procurement to ensure timely and appropriate purchasing. This approach reduces management and operational costs while lowering indirect greenhouse gas emissions from international transportation. Additionally, it helps create local jobs and promotes economic prosperity. It also enables better monitoring of raw material supply and reduces operational risks, contributing to more stable production. In 2024, due to the company’ s implementation of a unified procurement policy aimed at optimizing the supply chain and reducing costs, the procurement strategy was adjusted, resulting in a significant increase in purchases from non-local suppliers. Compared to the past, when reliance was mainly on local suppliers, the unified procurement policy expanded the supplier base and increased the proportion of non-local suppliers to meet the company’ s demands for efficiency, quality, and cost. All of CSRC’ s plants purchased 87.74% from local manufacturers in 2024.

Proportion of local procurement by region in the past three years



9.3.2 Green procurement

CSRC actively promotes a green procurement program, prioritizing the purchase of three categories of environmentally friendly products specified by the EPA's "Regulations Governing Procurement of Environmental Protection Products by Government Agencies," aiming to reduce environmental impact, resource consumption, and promote green product manufacturing. Key procurement items include LED lights and energy-saving equipment. The total green procurement amount for 2024 was approximately NT\$1,852,468.

Units: NTD

	Greater China	India	USA	Group
LED lights	1,152,784	2,964	-	1,155,748
Energy-saving equipment	696,720	-	-	696,720
Total	1,849,504	2,964	-	1,852,468

Note: Environmental protection products are identified in accordance with the laws and regulations of the country where the plant is located.

Appendix

Report Boundary

Material topics	Impact description	Inside the organization	Outside the organization				
		CSRC	Government agencies	Customers	Suppliers Contractors	Investors Shareholders	Neighboring communities
Ethical management	Description of positive impact	●	●	●	●	●	●
	Description of negative impact						
Operating performance	Description of positive impact	●	○	●	●	●	○
	Description of negative impact						
Sustainable supply chain management	Description of positive impact	●	○	●	●	●	○
	Description of negative impact						
Greenhouse gas emissions / Climate change response	Description of positive impact	●	●	●	●	●	●
	Description of negative impact						
Waste management	Description of positive impact	●	●	○	○	○	●
	Description of negative impact						

About This Report	Governance	Product		Environment		Social			Value Chain	Appendix
ch1	ch2	ch3		ch4	ch5	ch6	ch7	ch8	ch9	
About This Report	Corporate Governance	Product R&D and Innovation	Circular Economy	Climate Change Response	Water Resources and Waste Management	Employees	Occupational Health and Safety	Local Communities	Sustainable Supply Chain Management	Appendix

Material topics	Impact description		Inside the organization	Outside the organization				
			CSRC	Government agencies	Customers	Suppliers Contractors	Investors Shareholders	Neighboring communities
Water resource management	Description of positive impact	We effectively manage water resources risks, improve water resource use efficiency, and strengthen the Company's resilience to climate change risks.	●	●	○	○	●	●
	Description of negative impact	Wastewater discharge causes damage to the environment around the operating sites. When the risks of water resources, such as water shortage and decreasing water source quality, increases, the Company's normal operations are affected by water shortages due to improper management of water resources.						
Air pollution prevention and control	Description of positive impact	Clean production and eco-friendliness are CSRC's business philosophy and are issues that we will continue to pay attention to and improve. In particular, we care about the environmental quality of the neighborhood and the health of our employees. Therefore, CSRC has adopted high-efficiency pollution prevention and control equipment in advance and regularly examines the prevention and control efficiency to ensure that our operations meet the legal requirements in advance and the standards for ultra-clean emissions.	●	●	○	●	○	●
	Description of negative impact	Inefficient polluting facilities and uncontrolled air pollution emissions will affect the environment around the operating sites and undermine the quality of life and may result in fines due to failure to comply with regulatory requirements.						
Energy management	Description of positive impact	CSRC is committed to process improvement, production parameter and equipment optimization, green energy introduction and take direct and effective measures to reduce energy consumption, while indirectly recovering thermal energy and tail gas to actively achieve the goal of energy conservation.	●	○	○	●	○	●
	Description of negative impact	Energy-intensive enterprises cannot meet the expectations of investors and the public for energy conservation and carbon reduction, which may lead to a negative corporate image in the long term and the difficulty of obtaining funds; failure to implement energy conservation plans will result in increased electricity consumption, increased costs of electricity bills, and negative impact on the environment.						
Occupational safety and health	Description of positive impact	The safety of employees in the workplace is the foundation of CSRC's development. We aim to provide a safe working environment, enhance employees' safety competence, awareness, and operational skills, and conscientiously prevent health and safety risks during business operations. This ensures the health and safety of employees in the workplace.	●	●	○	●	○	○
	Description of negative impact	During the Company's operations, improper occupational safety and health management would result in occupational injuries, occupational illnesses, and work safety accidents among employees. If the casualties are serious, work may be forced to stop which will affect the Company's normal operations.						
Talent training and development	Description of positive impact	Establish employee training and related performance assessment systems to enhance staff capabilities and work efficiency, thereby increasing Company revenue; improve educational training and career development planning, which helps enhance employees' identification with the Company and fosters the creation of corporate momentum.	●	○	●	●	○	○
	Description of negative impact	Failure to provide employees with a complete career development plan may reduce their sense of belonging, leading to increased turnover rates and reduced competitiveness of the Company						
Product and service innovation	Description of positive impact	The sustainable development of an enterprise requires constant innovation and surpassing oneself. In order to maintain market competitiveness, we must continue to invest in research and development. Through the concept of product innovation and research and development, this forms the core competitiveness of growing together with customers for CSRC.	●	○	●	●	●	○
	Description of negative impact	A lack of innovation and R&D capabilities may result in development bottlenecks for the Company.						
Circular economy	Description of positive impact	To achieve the goal of carbon neutrality, circular economy can help enterprises effectively reduce the consumption of energy and resources. It is one of the important development strategies at present. The current circular economy trend in the market will inevitably result in the scarcity of renewable resources. CSRC's key customers are seeking circular economy solutions. The CSRC Carbon Black Business Group is a model of circular economy practice, meeting market and customer demands.	●	○	●	●	●	●
	Description of negative impact	Failure to effectively implement a circular economy causes resource wastage and may also increase production costs for enterprises, failing to meet customer and regulatory trend requirements, resulting in lost orders and reputation.						

Material topics	Impact description		Inside the organization	Outside the organization				
			CSRC	Government agencies	Customers	Suppliers Contractors	Investors Shareholders	Neighboring communities
Information security management and customer privacy	Description of positive impact	We will enhance the information security protection network, raise employees' information security awareness, prevent hackers' intrusion and customer data leakage, and protect stakeholders' rights.	●	●	●	●	○	○
	Description of negative impact	Information leakage, theft, or loss of customer data may compromise stakeholders' privacy or expose stakeholders to ransomware risks. This may violate laws and regulations and expose the Company to litigation risks and other negative impacts.						

Note: ● Direct ○ Indirect

External Authentication

Authentication orientation	Compliance standards	Covering factory areas	Authentication agency
Assurance of Specific Indicators in the Sustainability Report	Republic of China Statement of Assurance Engagements Standards No. 3000 "Assurance Engagements other than Audits or Reviews of Historical Financial Information" (formulated with reference to international assurance standard ISAE3000)	CSRC group	PwC Taiwan
Environment	ISO 14001 Environmental Management System	6 sites including Linyuan Advanced Plant, Maanshan Plant, Anshan Plant, Chongqing Plant, CCIPL, CCET	GCL International Ltd.
			China Quality Certification Center (CQC Center)
			China Quality Mark Certification Group (CQM)
			SGS United Kingdom Ltd.
			India Register Quality Systems
	ISO 14064-3:2019 Greenhouse Gas Inventory	3 sites including CSRC parent company, Linyuan Advanced Plant, CCET	DNV - Business Assurance
			British Standards Institution (BSI)
			China Classification Society Certification
			British Standards Institution (BSI)
Occupational Health and Safety	ISO 45001 Occupational Safety and Health Management System	6 sites including Linyuan Advanced Plant, Maanshan Plant, Anshan Plant, Chongqing Plant, CCIPL, CCET	SGS Taiwan Ltd. (SGS Taiwan)
			China Quality Certification Center (CQC Center)
			China Quality Mark Certification Group (CQM)
			SGS United Kingdom Ltd.
			India Register Quality Systems
	CNS 15506: 2011 Occupational Safety and Health Management System	1 site (Linyuan Advanced Plant)	DNV - Business Assurance
			SGS Taiwan Ltd. (SGS Taiwan)

Authentication orientation	Compliance standards	Covering factory areas	Authentication agency
Product quality	ISO 9001 Quality Management System	7 sites(Linyuan Advanced Plant, Maanshan Plant, Anshan Plant, Chongqing Plant, CCET, CCC Ponca & Sunray)	Universal Certification Service CO., Ltd.
			SGS United Kingdom Ltd.
	ISO/IEC 17025:2017 ; CNS 17025:2018	1 site (Linyuan Advanced Plant)	India Register Quality Systems
			Quality Systems Registrars
	ISO/IEC 17025:2017	1 site (CC IPL)	Taiwan Accreditation Foundation(TAF)
Data Security	IATF 16949 : 2016	6 sites including Linyuan Advanced Plant, Maanshan Plant, Anshan Plant, Chongqing Plant, CC IPL, CCET	National Accreditation Board for Testing and Calibration Laboratories
			ABS Quality Evaluations, Inc.
			SGS United Kingdom Ltd.
			India Register Quality Systems
	ISO/IEC 27001:2022	6 sites including Linyuan Advanced Plant, Maanshan Plant, Anshan Plant, Chongqing Plant, CC IPL, CCET	DNV - Business Assurance
			British Standards Institution (BSI)

GRI Content Index

Statement of use:	International CSRC Investment Holding Co., Ltd. has reported in accordance with the GRI Standards for the period from January 1, 2024 to December 31, 2024
GRI 1 used:	GRI 1: Foundation 2021
Applicable GRI Sector Standard(s)	NA

GRI Standard	Disclosure	Chapter	Page	Note
GRI 2: General Disclosures 2021	2-1 Organizational details	"About This Report 1.1 About CSRC"	2 21	
	2-2 Entities included in the organization’ s sustainability reporting	About This Report	2	
	2-3 Reporting period, frequency and contact point	About This Report	3	
	2-4 Restatements of information	1 Corporate Governance 2 Product R&D and Innovation 3 Circular Economy 4 Climate Change Response 5 Water Resources and Waste Management 6 Employees 7 Occupational Safety and Health 8 Local Communities 9 Sustainable Supply Chain Management	-	Due to the scope of this ESG Report has included India and USA sites, therefore the disclosure of the data has integrated to by region.

About This Report	Governance	Product	Environment	Social	Value Chain	Appendix				
ch1 About This Report	ch2 Corporate Governance	ch3 Product R&D and Innovation	ch4 Circular Economy	ch5 Climate Change Response	ch6 Water Resources and Waste Management	ch7 Employees	ch8 Occupational Health and Safety	ch9 Local Communities	ch10 Sustainable Supply Chain Management	Appendix

GRI Standard	Disclosure	Chapter	Page	Note
GRI 2: General Disclosures 2021	2-5 External assurance	About This Report Appendix	3 182	
	2-6 Activities, value chain and other business relationships	1.1 About CSRC 1.6 Operating performance 2.2 Green products 3.1 Innovation and circularity 3.2 Practicing new circular economy model 9.1 Supplier management	21-25 41-42 47-50 57-61 62-64 156-161	
	2-7 Employees	6.1.2 Workforce structure	110-112	
	2-8 Workers who are not employees	6.1.2 Workforce structure	110	
	2-9 Governance structure and composition	1.2 Governance structure	25-30	
	2-10 Nomination and selection of the highest governance body	1.2.1 Board of Directors	26	
	2-11 Chair of the highest governance body	1.2.1 Board of Directors	26	
	2-12 Role of the highest governance body in overseeing the management of impacts	Sustainability blueprint	10-12	
		1.2.1 Board of Directors	26	
	2-13 Delegation of responsibility for managing impacts	Sustainability blueprint	10-12	
	2-14 Role of the highest governance body in sustainability reporting	Sustainability blueprint	10-12	
	2-15 Conflicts of interest	1.2.1 Board of Directors	27	
	2-16 Communication of critical concerns	-	-	There are no key significant events to be communicated to the board of directors in 2024.
	2-17 Collective knowledge of the highest governance body	1.2.1 Board of Directors	28	
	2-18 Evaluation of the performance of the highest governance body	1.2.1 Board of Directors	28	
	2-19 Remuneration policies	1.2.1 Board of Directors	27	
	2-20 Process to determine remuneration	1.2.1 Board of Directors	29	
	2-21 Annual total compensation ratio	-	-	<ol style="list-style-type: none"> 1. The ratio of the annual total compensation of the highest-paid individual in the group to the median annual total compensation of all other employees (excluding the highest-paid individual): 4.8 2. Percentage increase in the annual total compensation of the highest-paid individual compared to the median annual total compensation of all other employees (excluding the highest-paid individual): Compared to 2023, both the "highest-paid individual" and the "employees" experienced a decline in annual total compensation in 2024, with no increase observed.

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GRI Standard	Disclosure	Chapter	Page	Note
GRI 2: General Disclosures 2021	2-22 Statement on sustainable development strategy	Message from the Chairman	4	
	2-23 Policy commitments	1.3 Ethical management 6.4 Human rights management	30-31 123	
	2-24 Embedding policy commitments	1.3 Ethical management 9.1 Supplier management 6.4 Human rights management	30-34 156-157 123-125	
	2-25 Processes to remediate negative impacts	1 Corporate Governance 2 Product R&D and Innovation 3 Circular Economy 4 Climate Change Response 5 Water Resources and Waste Management 6 Employees 7 Occupational Safety and Health 8 Local Communities 9 Sustainable Supply Chain Management	18-20 44-45 66-70 108-109 155	
	2-26 Mechanisms for seeking advice and raising concerns	1.3.4 Reporting system and channels	33-34	
	2-27 Compliance with laws and regulations	1.4.3 Statutory compliance and improvements	36	
	2-28 Membership associations	1.1 About CSRC	22	
	2-29 Approach to stakeholder engagement	Stakeholder Engagement and Material Topic Analysis	13-16	
	2-30 Collective bargaining agreements	-	-	No collective bargaining agreements signed.
GRI 3 : Material Topics 2021	3-1 Process to determine material topics	Stakeholder Engagement and Material Topic Analysis	13	
	3-2 List of material topics	Stakeholder Engagement and Material Topic Analysis	14	
	3-3 Management of material topics	1 Corporate Governance 2 Product R&D and Innovation 3 Circular Economy 4 Climate Change Response 5 Water Resources and Waste Management 6 Employees 7 Occupational Safety and Health 8 Local Communities 9 Sustainable Supply Chain Management	18-20 44-45 66-70 108-109 155	

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Material Topics				
GRI Standard	Disclosure	Reference	Page	Note
Ethical Management				
GRI 3 : Material Topics 2021	3-3 Management of material topics	1 Corporate Governance	18	
GRI 205 : Anti-corruption 2016	205-1 Operations assessed for risks related to corruption	1.3.3 Anti-corruption risk assessment and results	33	
	205-2 Communication and training about anti-corruption policies and procedures	1.3.2 Policy communication and training	32	
	205-3 Confirmed incidents of corruption and actions taken	1.3.3 Anti-corruption risk assessment and results	33	
GRI 206 : Anti-competitive Behavior 2016	206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	1.3.3 Anti-corruption risk assessment and results	33	
Operating Performance				
GRI 3 : Material Topics 2021	3-3 Management of material topics	1 Corporate Governance	19	
GRI 201 : Economic Performance 2016	201-1 Direct economic value generated and distributed	1.6.1 Operational results	41	
	201-2 Financial implications and other risks and opportunities due to climate change	4.1.1 Climate change risks and opportunities and financial impacts	71-80	
	201-3 Defined benefit plan obligations and other retirement plans	6.3.2 Employees benefits	117-121	
	201-4 Financial assistance received from government	1.6.1 Operational results	41	
Sustainable Supply Chain Management				
GRI 3 : Material Topics 2021	3-3 Management of material topics	9 Sustainable Supply Chain Management	155	
GRI 204 : Procurement Practices 2016	204-1 Proportion of spending on local suppliers	9.3.1 Local procurement	162	
GRI 308 : Supplier Environmental Assessment 2016	308-1 New suppliers that were screened using environmental criteria	9.1.1 Supplier selection	158	
	308-2 Negative environmental impacts in the supply chain and actions taken	9.1.2 Supplier evaluation	158-160	
GRI 414 : Supplier Social Assessment 2016	414-1 New suppliers that were screened using social criteria	9.1.1 Supplier selection	158	
	414-2 Negative social impacts in the supply chain and actions taken	9.1.2 Supplier evaluation	158-160	
Climate Change Response 、 GHG Emissions				
GRI 3 : Material Topics 2021	3-3 Management of material topics	4 Climate Change Response	66	
GRI 201 : Economic Performance 2016	201-2 Financial implications and other risks and opportunities due to climate change	4.1.1 Climate change risks and opportunities and financial impacts	71-80	
GRI 305 : Emissions 2016	305-1 Direct (Scope 1) GHG emissions	4.2.2 Reduce greenhouse gas emissions	86	
	305-2 Energy indirect (Scope 2) GHG emissions	4.2.2 Reduce greenhouse gas emissions	86	
	305-3 Other indirect (Scope 3) GHG emissions	4.2.2 Reduce greenhouse gas emissions	89	
	305-4 GHG emissions intensity	4.2.2 Reduce greenhouse gas emissions	87	
	305-5 Reduction of GHG emissions	4.2.1 Enhancing energy efficiency 4.2.2 Reduce greenhouse gas emissions	81-85 86-89	

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GRI Standard	Disclosure	Reference	Page	Note
Circular Economy				
GRI 3 : Material Topics 2021	3-3 Management of material topics	3 Circular Economy	45	
GRI 301 : Materials 2016	301-2 Recycled input materials used	3.2 Practicing new circular economy model	62-64	
Energy Management				
GRI 3 : Material Topics 2021	3-3 Management of material topics	4 Climate Change Response	67	
GRI 302 Energy : 2016	302-1 Energy consumption within the organization	4.2.1 Enhancing energy efficiency	81-82	
	302-3 Energy intensity	4.2.1 Enhancing energy efficiency	83	
	302-4 Reduction of energy consumption	4.2.1 Enhancing energy efficiency	84-85	
Water Resource Management				
GRI 3 : Material Topics 2021	3-3 Management of material topics	5 Water Resources and Waste 3 Management	69	
GRI 303 : Water and Effluents 2018	303-1 Interactions with water as a shared resource	5.1.1 Water usage management	94-100	
	303-2 Management of water discharge-related impacts	5.1.2 Wastewater management	100-103	
	303-3 Water withdrawal	5.1.1 Water usage management	97	
	303-4 Water discharge	5.1.1 Water usage management	97	
	303-5 Water consumption	5.1.1 Water usage management	97	
Air Pollution Control				
GRI 3 : Material Topics 2021	3-3 Management of material topics	4 Climate Change Response	68	
GRI 305: Emissions 2016	305-6 Emissions of ozone-depleting substances (ODS)	-	-	All sites of CSRC (Linyuan Advanced Factory, Maanshan Factory, Anshan Factory, Chongqing Factory, CCET Factory, CCIPL Factory, CCC Ponca Factory, CCC Sunray Factory) have no relevant emissions.
	305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	4.3 Air pollution control	90-93	
Waste Management				
GRI 3 : Material Topics 2021	3-3 Management of material topics	5 Water Resources and Waste Management	70	
GRI 306 : Waste 2020	306-1 Waste generation and significant waste-related impacts	5.2.1 Waste disposal	104-105	
	306-2 Management of significant waste-related impacts	5.2.1 Waste disposal	104-105	
	306-3 Waste generated	5.2.1 Waste disposal	106	
	306-4 Waste diverted from disposal	5.2.1 Waste disposal	106	
	306-5 Waste directed to disposal	5.2.1 Waste disposal	106	
Occupational Safety and Health				
GRI 3 : Material Topics 2021	3-3 Management of material topics	7 Occupational Safety and Health	108	

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GRI Standard	Disclosure	Reference	Page	Note
GRI 403 : Occupational Health and Safety 2018	403-1 Occupational health and safety management system	7.1.2 Safety and health management system	127	
	403-2 Hazard identification, risk assessment, and incident investigation	7.2 Occupational safety risk management	129-134	
		7.3 Management of emergencies	134-137	
	403-3 Occupational health services	7.4.1 Occupational health services	138	
	403-4 Worker participation, consultation, and communication on occupational health and safety	7.1.1 Safety and health policies and concepts	126	
	403-5 Worker training on occupational health and safety	7.5 Occupational safety and health education and training	141-144	
	403-6 Promotion of worker health	7.4.3 Employee health promotion	140-141	
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	7.2.2 Risk assessment and hazard identification	130-131	
		7.5.2 Non-Employees' occupational safety and health education and training	143-144	
	403-8 Workers covered by an occupational health and safety management system	7.1.2 Safety and health management system	127	
Product and Service Innovation				
GRI 3 : Material Topics 2021	3-3 Management of material topics	2 Product R&D and Innovation	44	
Staff Training and Career Development				
GRI 3 : Material Topics 2021	3-3 Management of material topics	6 Employees	109	
GRI 404 : Training and Education 2016	404-1 Average hours of training per year per employee	6.2.1 General functional training	114-115	
	404-2 Programs for upgrading employee skills and transition assistance programs	6.2.1 General functional training	113	
	404-3 Percentage of employees receiving regular performance and career development reviews	6.3.1 Salary and performance	116-117	
Data Security Management, Customer Privacy				
GRI 3 : Material Topics 2021	3-3 Management of material topics	1 Corporate Governance	20	
GRI 418 : Customer Privacy 2016	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	1.5.3 CSRC risks and responses 2.4 Customer relationship management	37-40 55-56	

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Other Topics

GRI Standard	Disclosure	Reference	Page	Note
Regulatory Compliance				
GRI 2 : General Disclosures 2021	2-27 Compliance with laws and regulations	1.4.3 Statutory compliance and improvements	36	
Tax Governance				
GRI 207 : Tax 2019	207-1 Approach to tax	1.6.2 Tax policy	42	
	207-2 Tax governance, control, and risk management	1.6.2 Tax policy	42	
	207-3 Stakeholder engagement and management of concerns related to tax	1.6.2 Tax policy	42	
Employment Relations				
GRI 401 : Employment 2016	401-1 New employee hires and employee turnover	6.1.2 Workforce structure	111	
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	6.3.2 Employee benefits	117-121	
	401-3 Parental leave	6.3.2 Employee benefits	119	
Employee Diversity and Equal Opportunity				
GRI 405 : Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	1.2.1 Board of Directors 6.1.2 Workforce structure	26-28 110-112	
	405-2 Ratio of basic salary and remuneration of women to men	6.3.1 Salary and performance	116-117	
Human Rights				
GRI 406 : Non-discrimination 2016	406-1 Incidents of discrimination and corrective actions taken	6.4.3 Anti-discrimination and harassment	125	
GRI 408 : Child Labor 2016	408-1 Operations and suppliers at significant risk for incidents of child labor	6.4.2 Prohibition of forced labor	124	
GRI 409 : Forced or Compulsory Labor 2016	409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	6.4.2 Prohibition of forced labor	124	
Product Quality and Safety Management				
GRI 416 : Customer Health and Safety 2016	416-1 Assessment of the health and safety impacts of product and service categories	2.2.2 Non-toxic carbon black series	48	
	416-2 Incidents of non-compliance concerning the health and safety impacts of products and services	2.3 Product quality and safety	51-55	
GRI 417 : Marketing and labeling 2016	417-1 Requirements for product and service information and labeling	2.3.2 Product safety labels	55	
	417-2 Incidents of non-compliance concerning product and service information and labeling	2.3.2 Product safety labels	55	
Local Communities				
GRI 413 : Local Communities 2016	413-1 Operations with local community engagement, impact assessments, and development programs	8.1 Social feedback	145	

Sustainability Accounting Standards Board (SASB) Reference Table

SASB Topic	SASB Code	Accounting Metric	Chapter	Page	Note
Greenhouse gas emissions	RT-CH-110a.1	Gross global Scope 1 emissions, percentage covered under emissions limiting regulations	4.2.2 Reduce greenhouse gas emissions	86	
	RT-CH-110a.2	Discussion of long- and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	Management policy of climate change response and greenhouse gas emissions	66-67	
			4.2.2 Reduce greenhouse gas emissions	86-89	
Air quality	RT-CH-120a.1	Air emissions of the following pollutants: (1)NOx (excluding N ₂ O), (2)NOx, (3) volatile organic compounds (VOCs), and (4) hazardous air pollutants (HAPs)	4.3 Air pollution control	90-93	
Energy management	RT-CH-130a.1	(1) Total energy consumed, (2) percentage grid electricity, (3) percentage renewable and (4) total self-generated energy	4.2.1 Enhancing energy efficiency	81-85	
Water management	RT-CH-140a.1	(1) Total water withdrawn, (2) total water consumed; percentage of each in regions with High or Extremely High Baseline Water Stress	5.1.1 Water usage management	94-100	
	RT-CH-140a.2	Number of incidents of non-compliance associated with water quality permits, standards and regulations	1.4.3 Statutory compliance and improvements	36	
	RT-CH-140a.3	Description of water management risks and discussion of strategies and practices to mitigate those risks	5.1.2 Wastewater management	100-103	
Hazardous waste management	RT-CH-150a.1	(1) Amount of hazardous waste generated, (2) percentage recycled	5.2.1 Waste disposal	104-106	
Community relations	RT-CH-210a.1	Discussion of engagement processes to manage risks and opportunities associated with community interests	8.1.1 Community care	145-146	
Workforce health & safety	RT-CH-320a.1	(1) Total recordable incident rate (TRIR) and (2) fatality rate for (a) direct employees and (b) contract employees	7.1.3 Occupational injury statistics	128-129	
	RT-CH-320a.2	Description of efforts to assess, monitor, and reduce exposure of employees and contract workers to long-term (chronic) health risks	7.4 Health service and promotion	138-141	
Product design for use-phase efficiency	RT-CH-410a.1	Revenue from products designed for usephase resource efficiency	2.2.4 Green product sustainability benefits	49	

SASB Topic	SASB Code	Accounting Metric	Chapter	Page	Note
Safety & environmental stewardship of chemicals	RT-CH-410b.1	(1) Percentage of products that contain Globally Harmonised System of Classification and Labelling of Chemicals (GHS) Category 1 and 2 Health and Environmental Hazardous Substances, (2) percentage of such products that have undergone a hazard assessment	-	-	The products produced by the Group's operating plants do not contain GHS Category 1 or Category 2 hazardous substances to health and the environment.
	RT-CH-410b.2	Discussion of strategy to (1) manage chemicals of concern and (2) develop alternatives with reduced human or environmental impact	7.2.3 Hazardous chemical management 3.2 Practicing new circular economy model	132-134 62-64	
Genetically modified organisms	RT-CH-410c.1	Percentage of products by revenue that contain genetically modified organisms (GMOs)	-	-	Our company's business does not involve this item.
Management of the legal and regulatory environment	RT-CH-530a.1	Discussion of corporate positions related to government regulations or policy proposals that address environmental and social factors affecting the industry	1.4 Statutory compliance	34-36	
			1.5.3 CSRC risks and responses	37-40	
Operational safety, emergency preparedness & response	RT-CH-540a.1	Process Safety Incidents Count (PSIC), Process Safety Total Incident Rate (PSTIR), and Process Safety Incident Severity Rate (PSISR)	7.1.3 Occupational injury statistics	128-129	
	RT-CH-540a.2	Number of transport incidents	7.1.3 Occupational injury statistics	129	

Note: Using SASB standards for the Chemicals industry, 2023-12 version.

Taiwan Stock Exchange Corporation Rules Governing the Preparation and Filing of Sustainability Reports by TWSE Listed Companies: Sustainability Disclosure Indicators for the Chemical Industry

Code	Indicator	Category	Chapter	Page	Note
1	Total energy consumption, percentage of purchased electricity, rate of renewable energy use, and total self-generated and self-usage energy. ^{Note}	Quantitative	4.2.1 Enhancing energy efficiency	82	
2	Total water withdrawal, total water consumption, and waste (sewage) water discharge volume required by law and regulations or disclosed voluntarily.	Quantitative	5.1.1 Water usage management	97	
3	Amount of hazardous waste generated during production and percentage recycled according to legal requirements or voluntary disclosure.	Quantitative	5.2.1 Waste disposal	106	
4	Number and rate of individuals subject to occupational accidents.	Quantitative	7.1.3 Occupational injury statistics	128	
5	Operating activities which have significant actual or potential negative impacts on local communities.	Qualitative Description	8.1.1 Community care	145-146	
6	Specific and effective mechanisms and actions taken by the company and its suppliers to reduce negative impacts on the environment or society.	Qualitative Description	9.1 Supplier Management	156-161	
7	Production output by product line.	Quantitative	-	-	Please refer to Annual Report.

NOTE : The total amount of self-generated and self-usage energy is defined in the "Renewable Energy Development Act", "Implementation Regulations Governing Renewable Energy Certificates" or related sub-laws.

TCFD and Climate-Related Information of TWSE Listed Company

TCFD Suggested Disclosures		Climate-Related Information of TWSE Listed Company	Chapter	Page	Note
Governance					
TCFD 1(a)	Describe the board’ s oversight of climate-related risks and opportunities.	1.Describe the board of directors' and management's oversight and governance of climate-related risks and opportunities.	4.1.1 Climate change risks and opportunities and financial impacts	71-72	
TCFD 1(b)	Describe management’ s role in assessing and managing climate-related risks and opportunities.			71-72	
Strategy					
TCFD 2(a)	Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.	2. Describe how the identified climate risks and opportunities affect the business, strategy, and finances of the business (short, medium, and long term).	4.1.1 Climate change risks and opportunities and financial impacts	73	
TCFD 2(b)	Describe the impact of climate-related risks and opportunities on the organization’ s businesses, strategy, and financial planning.	3. Describe the financial impact of extreme weather events and transformative actions.		74-80	
TCFD 2(c)	Describe the resilience of the organization’ s strategy, taking into consideration different climate-related scenarios, including a 2° C or lower scenario.	5. If scenario analysis is used to assess resilience to climate change risks, the scenarios, parameters, assumptions, analysis factors and major financial impacts used should be described.		73-74	
Risk Management					
TCFD 3(a)	Describe the organization’ s processes for identifying and assessing climate-related risks.	4. Describe how climate risk identification, assessment, and management processes are integrated into the overall risk management system.	4.1.1 Climate change risks and opportunities and financial impacts	73	
TCFD 3(b)	Describe the organization’ s processes for managing climate-related risks.			73	
TCFD 3(c)	Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization’ s overall risk management.			73	
Metrics and Targets					
TCFD 4(a)	Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.	6. If there is a transition plan for managing climate-related risks, describe the content of the plan, and the indicators and targets used to identify and manage physical risks and transition risks.	4.1.1 Climate change risks and opportunities and financial impacts	74-80	
		7. If internal carbon pricing is used as a planning tool, the basis for setting the price should be stated.	4.2.2 Reduce greenhouse gas emissions	-	
TCFD 4(b)	Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 greenhouse gas (GHG) emissions and the related risks.	9. Greenhouse gas inventory and assurance status, reduction targets, strategies, and specific action plans.	4.2.2 Reduce greenhouse gas emissions	86-89	
TCFD 4(c)	Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.	8. If climate-related targets have been set, the activities covered, the scope of greenhouse gas emissions, the planning horizon, and the progress achieved each year should be specified. If carbon credits or renewable energy certificates (RECs) are used to achieve relevant targets, the source and quantity of carbon credits or RECs to be offset should be specified.	4.2.2 Reduce greenhouse gas emissions	86-89	

United Nations Sustainable Development Goals (SDGs) Index

Goals	Targets	Chapter	Page
SDG 3	3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination	7.2 Occupational safety risk management	129-134
SDG 4	4.1 By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes	8.1 Social feedback	145-149
	4.5 By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations	6.2 Talent cultivation	113-115
	4.7 By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development	8.1 Social feedback	145-149
SDG 6	6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally	5.1 Water resource management	94-103
SDG 7	7.2 By 2030, increase substantially the share of renewable energy in the global energy mix 7.3 By 2030, double the global rate of improvement in energy efficiency	4.2 Energy and greenhouse gas management	81-89
		2.1 Innovation and R&D	46
		3.1 Innovation and circularity	57-61
		3.2 Practicing new circular economy model	62-64
		4.2 Energy and greenhouse gas management	81-89
SDG 8	8.3 Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services	2.1 Innovation and R&D	46
		3.1 Innovation and circularity	57-61
	8.7 Take immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers, and by 2025 end child labour in all its forms 8.8 Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment	9.1 Supplier management	156-161
		7.1 Safety and health policy	126-129
		7.5 Occupational safety and health education and training	141-144
SDG 9	9.5 Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending	2.1 Innovation and R&D	46
		2.2 Green products	47-50
		3.1 Innovation and circularity	57-61
SDG 10	10.4 Adopt policies, especially fiscal, wage and social protection policies, and progressively achieve greater equality	6.3 Salary and benefits	116-122
SDG 11	11.4 Strengthen efforts to protect and safeguard the world's cultural and natural heritage	8.3 Cultural promotion	152-153
	11.6 By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management	4.3 Air pollution control	90-93
		5.2 Waste management	104-106

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Goals	Targets	Chapter	Page
SDG 12	12.2 By 2030, achieve the sustainable management and efficient use of natural resources	3.1 Innovation and circularity	57-61
		3.2 Practicing new circular economy model	62-64
		5.1 Water resource management	94-103
		5.2 Waste management	104-106
	12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment	2.3 Product quality and safety	51-55
		2.4 Customer relationship management	55-56
		3.1 Innovation and circularity	57-61
		7.2 Occupational safety risk management	129-134
	12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse	9.1 Supplier management	156-161
		3.1 Innovation and circularity	57-61
		3.2 Practicing new circular economy model	62-64
		5.2 Waste management	104-106
12.7 Promote public procurement practices that are sustainable, in accordance with national policies and priorities	9.2 Raw materials management	161	
	9.3 Sustainable procurement	162	
SDG 13	13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries	4.1 Response to climate change	71-80
	13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning	1.5 Risk management and information security	36-40
		4.1 Response to climate change	71-80
		4.2 Energy and greenhouse gas management	81-89
SDG 15	15.4 By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development	8.2 Maintaining biodiversity	149-151
	15.6 Promote fair and equitable sharing of the benefits arising from the utilization of genetic resources and promote appropriate access to such resources, as internationally agreed	8.2 Maintaining biodiversity	149-151
	15.a Mobilize and significantly increase financial resources from all sources to conserve and sustainably use biodiversity and ecosystems	8.2 Maintaining biodiversity	149-151
SDG 16	16.5 Substantially reduce corruption and bribery in all their forms	1.3 Ethical management	30-33

UN Global Compact Index

Category	10 principles	Reference	Page
Human Rights	Businesses should support and respect the protection of internationally proclaimed human rights.	6.4 Human rights management	123-125
	Make sure that they are not complicit in human rights abuses.	6.4 Human rights management	123-125
Labour	Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.	6.3 Salary and benefits	116-122
	The elimination of all forms of forced and compulsory labour.	6.4 Human rights management	123-125
	The effective abolition of child labour.	6.4 Human rights management	123-125
	The elimination of discrimination in respect of employment and occupation.	6.4 Human rights management	123-125
Environment	Businesses should support a precautionary approach to environmental challenges.	1.5 Risk management and information security	36-40
		4 Climate Change Response	71-93
		5.1 Water resource management	94-103
		3.1 Innovation and circularity	57-61
		3.2 Practicing new circular economy model	62-64
		2.2 Green products	47-50
		2.3 Product quality and safety	51-55
	Undertake initiatives to promote greater environmental responsibility.	4 Climate Change Response	71-93
		5 Water Resources and Waste Management	94-106
		3 Circular Economy	57-64
		2.2 Green products	47-50
		2.3 Product quality and safety	51-55
	Encourage the development and diffusion of environmentally friendly technologies.	3 Circular Economy	57-64
		2.2 Green products	47-50
		2.3 Product quality and safety	51-55
Anti-Corruption	Businesses should work against corruption in all its forms, including extortion and bribery.	1.3 Ethical management	30-33
		9.1 Supplier management	156-161

Summary of Information Assured

編號	項目	標的資訊	頁碼	適用基準																								
1	消耗能源總量、外購電力百分比、再生能源使用率及自發自用能源總量	1. 消耗能源總量：2024 年能源消耗總量為 30,123,170 GJ。 2. 外購電力百分比：2024 年外購電力比例為 1.46%。 3. 再生能源使用率：2024 年再生能源使用率為 0.73%。 4. 自發自用能源總量：2024 年自發自用能源總量為 3,513,262 GJ。	81 82	依據集團非再生能源及再生能源（重油、外購電力、天然氣及柴油）之組織內部消耗量。																								
2	總取水量、總耗水量、依法規要求或自願揭露之廢（污）水排放量	1. 總取水量為 4,782 千立方公尺。 2. 總耗水量為 4,662 千立方公尺。 3. 廢（污）水排放量 120 千立方公尺。	97	1. 依據集團之 2024 年自來水用水量。 2. 依據集團之 2024 年廢（污）水排放量。 3. 總耗水量為總取水量扣除廢（污）水排放量。																								
3	依法規要求或自願揭露之產品生產過程所製造之有害廢棄物總量及回收百分比	1. 有害廢棄物總量：2024 年有害廢棄物總量為 767.5 公噸。 2. 有害廢棄物回收百分比：2024 年有害廢棄物回收量占有害廢棄物總量為 2.48%。	106	1. 依據有害廢棄物轉移聯單統計 2024 年集團有害廢棄物總量。 2. 依據環保署委託或共同處理查詢資料以及有害廢棄物轉移聯單，統計 2024 年林園廠及馬鞍山廠之有害廢棄物回收再利用重量。																								
4	說明職業災害人數及比率	<table><tr><th>員工</th><th>2024 年</th></tr><tr><td>總經歷工時</td><td>2,497,786</td></tr><tr><td>一般職業傷害數量</td><td>2</td></tr><tr><td>嚴重職業傷害數量</td><td>1</td></tr><tr><td>死亡數量</td><td>0</td></tr><tr><td>可記錄之職業傷害件數合計</td><td>3</td></tr><tr><td>可記錄職業傷害率</td><td>0.24</td></tr><tr><td>嚴重的職業傷害比率</td><td>0.40</td></tr><tr><td>職業傷害所造成的死亡比率</td><td>0</td></tr><tr><td>失能傷害頻率</td><td>1.2</td></tr><tr><td>損工日數</td><td>640</td></tr><tr><td>失能傷害嚴重率</td><td>256</td></tr></table>	員工	2024 年	總經歷工時	2,497,786	一般職業傷害數量	2	嚴重職業傷害數量	1	死亡數量	0	可記錄之職業傷害件數合計	3	可記錄職業傷害率	0.24	嚴重的職業傷害比率	0.40	職業傷害所造成的死亡比率	0	失能傷害頻率	1.2	損工日數	640	失能傷害嚴重率	256	128 129	依據公司內部事故調查及處理程序，統計 2024 年集團職業災害人數及總工作時數。 註 1：可記錄之職業傷害比率 = (可記錄職業傷害數 x 1,000,000 工時) ÷ 總經歷工時。 1 可記錄職業傷害數： 依據公司內部事故調查及處理程序及法令規範之企業職工傷亡事故分類標準，統計屬於工安事件與工作直接相關之傷害數。 2. 總經歷工時： 依有記錄於考勤系統之員工上下班打卡時數作為計算，並由資訊部門彙總工時資訊。 註 2：失能傷害嚴重率 = 損工日數 x 1,000,000 工時 ÷ 總經歷工時。 註 3：損工日數為自傷亡日起算，單一個案所有傷害發生後之總損失日數。受傷害者暫時（或永久）不能恢復工作之日數，不包括受傷當日及恢復工作當日，但應含中間所經過之日數（包括星期天、休假日或事業單位停工日）及復工後因該災害導致之任何不能工作之日數。
員工	2024 年																											
總經歷工時	2,497,786																											
一般職業傷害數量	2																											
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可記錄之職業傷害件數合計	3																											
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失能傷害嚴重率	256																											

編號	項目	標的資訊		頁碼	適用基準
4	說明職業災害人數及比率	非員工	2024 年	128 129	依據公司內部事故調查及處理程序，統計 2024 年集團職業災害人數及總工作時數。 註 1：可記錄之職業傷害比率=(可記錄職業傷害數 x 1,000,000 工時)÷ 總經歷工時。 1. 可記錄職業傷害數： 依據公司內部事故調查及處理程序及法令規範之企業職工傷亡事故分類標準，統計屬於工安事件與工作直接相關之傷害數。 2. 總經歷工時： 依有記錄於考勤系統之員工上下班打卡時數作為計算，並由資訊部門彙總工時資訊。 註 2：失能傷害嚴重率= 損工日數 x 1,000,000 工時 ÷ 總經歷工時。 註 3：損工日數為自傷亡日起算，單一個案所有傷害發生後之總損失日數。受傷害者暫時（或永久）不能恢復工作之日數，不包括受傷當日及恢復工作當日，但應含中間所經過之日數（包括星期天、休假日或事業單位停工日）及復工後因該災害導致之任何不能工作之日數。
		總經歷工時	1,963,781		
		一般職業傷害數量	1		
		嚴重職業傷害數量	0		
		死亡數量	1		
		可記錄之職業傷害件數合計	2		
		可記錄職業傷害率	0.2		
		嚴重的職業傷害比率	0		
		職業傷害所造成的死亡比率	0.51		
		失能傷害頻率	1.02		
		損工日數	6,074		
		失能傷害嚴重率	3,093		
5	對當地社區具有顯著實際或潛在負面衝擊之營運活動	國際中橡的營運可能影響鄰里社區之空氣品質，為降低產生空氣污染的風險，各營運據點皆嚴格按照政府要求管理環保工作，制定內部各項管理計畫。以大中華地區林園先進廠而言，所有製程階段均設有相關污染監測設備，並且每年定期進行設備維護，相關空氣污染因子數據也依據法規每年申報。其餘各廠區亦有空污管理之相關措施與作為，2024 年評估國際中橡營運活動在廠區各項積極防制作為下，對於當地社區與環境無顯著之負面影響。		145	評估集團污染監測程序、空氣污染申報情事以及當地社區負面衝擊之評估及瞭解。
6	企業本身及其供應商為降低環境或社會之負面衝擊所採取之具體、有效機制及作為	1. 2024 年大中華地區實際有交易之供應商總數為 645 家。 2. 2024 年大中華地區實際有交易之供應商簽署供應商合約（含企業社會責任條款）百分比為 100%。 3. 2024 年大中華地區實際有交易之供應商簽署廉潔條款百分比為 100%。		156	1. 2024 年大中華地區實際有交易之供應商之總數。 2. 依據公司內部之供應及承攬廠商評鑑作業程序，於大中華地區 2024 年實際有交易之供應商簽署供應商合約、企業社會責任條款及廉潔條款之百分比。
7	依產品類別之產量	依產品類別之產量：國際中橡 2024 年生產碳黑 391,502 公噸。		82	國際中橡 2024 年生產碳黑之產量。

Independent Limited Assurance Report



會計師有限確信報告

資會綜字第 24012235 號

國際中樑投資控股股份有限公司 公鑒：

本會計師受國際中樑投資控股股份有限公司（以下簡稱「貴公司」）之委任，對 貴公司選定 2024 年度永續報告書所報導之關鍵績效指標（以下簡稱「所選定之關鍵績效指標」）執行確信程序。本會計師業已確信竣事，並依據結果出具有限確信報告。

標的資訊與適用基準

本確信案件之標的資訊係 貴公司上開所選定之關鍵績效指標，有關所選定之關鍵績效指標及其適用基準詳列於 貴公司 2024 年度永續報告書第 179 至 180 頁之「確信項目彙總表」。前述所選定之關鍵績效指標之報導範圍業於永續報告書第 2 頁之「報告書範疇與邊界」段落述明。

管理階層之責任

貴公司管理階層之責任係依照適用基準編製永續報告書所選定之關鍵績效指標，且設計、付諸實行及維持與所選定之關鍵績效指標編製有關之內部控制，以確保所選定之關鍵績效指標未存有導因於舞弊或錯誤之重大不實表達。

先天限制

本案諸多確信項目涉及非財務資訊，相較於財務資訊之確信受有更多先天性之限制，對於資料之相關性、重大性及正確性等之質性解釋，則更取決於個別之假設與判斷。

會計師之獨立性及品質管理

本會計師及本事務所已遵循會計師職業道德規範有關獨立性及其他道德規範之規定，該規範之基本原則為正直、公正客觀、專業能力及專業上應有之注意、保密及專業行為。

資誠聯合會計師事務所 PricewaterhouseCoopers, Taiwan
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會計師之責任

本會計師之責任係依照確信準則 3000 號「非屬歷史性財務資訊查核或核閱之確信案件」規劃及執行有限確信案件，基於所執行之程序及所獲取之證據，對第一段所述 貴公司所選定之關鍵績效指標是否未存有重大不實表達取得有限確信，並作成有限確信之結論。

依確信準則 3000 號之規定，本有限確信案件工作包括評估 貴公司採用適用基準編製永續報告書所選定之關鍵績效指標之妥適性、評估所選定之關鍵績效指標導因於舞弊或錯誤之重大不實表達風險、依情況對所評估風險作出必要之因應，以及評估所選定之關鍵績效指標之整體表達。有關風險評估程序（包括對內部控制之瞭解）及因應所評估風險之程序，有限確信案件之範圍明顯小於合理確信案件。

本會計師對第一段所述 貴公司所選定之關鍵績效指標所執行之程序係基於專業判斷，該等程序包括查詢、對流程之觀察、文件之檢查與分析性程序是否適當之評估，以及與相關紀錄之核對或調節。

基於本案件情況，本會計師於執行上述程序時：

- 已對參與編製所選定之關鍵績效指標之相關人員進行訪談，以瞭解編製前述資訊之流程，以及攸關之內部控制，以辨認重大不實表達之領域。
- 基於對上述事項之瞭解及所辨認之領域，已對所選定之關鍵績效指標進行分析性程序，並選取樣本進行包括查詢、觀察、檢查測試，以取得有限確信之證據。

相較於合理確信案件，有限確信案件所執行程序之性質及時間不同，其範圍亦較小，故於有限確信案件所取得之確信程度亦明顯低於合理確信案件中取得者。因此，本會計師不對 貴公司所選定之關鍵績效指標在所有重大方面，是否依照適用基準編製，表示合理確信之意見。

此報告不對 2024 年度永續報告書整體及其相關內部控制設計或執行之有效性提供任何確信，另外，2024 年度永續報告書中屬 2023 年 12 月 31 日及更早期間之資訊未經本會計師確信。



有限確信之結論

依據所執行之程序與所獲取之證據，本會計師並未發現第一段所述 貴公司所選定之關鍵績效指標在所有重大方面有未依照適用基準編製之情事。

其它事項

貴公司網站之維護係 貴公司管理階層之責任，對於確信報告於 貴公司網站公告後任何所選定之關鍵績效指標或適用基準之變更，本會計師將不負就該等資訊重新執行確信工作之責任。

資誠聯合會計師事務所

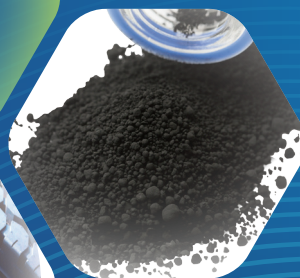
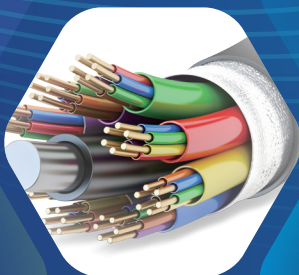
會計師 徐潔如



2025 年 7 月 7 日



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