
CSRC
2023
SUSTAINABILITY
REPORT
Ouroboros

About This Report

Governance

Product

Environment

Social

Value Chain

Appendix

About This Report GRI 2-1、2-2、2-3、2-5

Editorial Principles

CSRC Investment Holdings Co., Ltd. (hereinafter referred to as "CSRC") prepared the Sustainability Report 2023 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	Standard framework/law and regulations
Global Reporting Initiative, GRI	Version of the GRI Standards 2021
Sustainability Accounting Standards Board, SASB	Sustainability Accounting Standards - Chemicals
Financial Stability Board, FSB	Task Force on Climate-related Financial Disclosures, TCFD
Taiwan Stock Exchange Corporation	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 Accounting Standards and International Financial Reporting Standards (IFRSs) and are mainly presented in NTD and partially in USD.

Reporting Boundary

CSRC mainly engages in the carbon black business. The scope disclosed in this report covers a total of nine carbon black and related product production and operation sites in three major regions of the world, covering 100% of the group-wide companies with production sites. In comparison with the last version, five carbon black production and operation sites in the U.S. and India are included at this time. The data in 2021 and 2022 are also retrospectively adopted. If the scope of disclosure is different from the above, it will be noted in a given paragraph, and the details of the regions and production sites are as follows.

Region		Disclosure of production sites
Greater China	Taiwan	Linyuan Advanced Materials Technology Co., Ltd. (hereinafter referred to as "Linyuan Advanced"), Consolidated Resource Company (hereinafter referred to as "Consolidated Resource "), and China Synthetic Rubber Corporation (CSRC).
	China	CSRC China (Maanshan) Chemical Industry Co., Ltd. (hereinafter referred to as "CSRC (Maanshan)"), CSRC China (Anshan) Corporation (hereinafter referred to as "CSRC (Anshan)"), and CSRC China (Chongqing) (hereinafter referred to as "CSRC (Chongqing)")
United States		Continental Carbon Company (Ponca) ((hereinafter referred to as "CCC Ponca") and Continental Carbon Company (Sunray) ((hereinafter referred to as "CCC Sunray")
India		Continental Carbon India Pvt Ltd., Delhi ((hereinafter referred to as "CCIPL") and Continental Carbon Eco Tech Pvt Ltd. (hereinafter referred to as "CCET" Note)

Note: The India CCET plant was commissioned at the end of 2022 and will therefore only be included in statistics for 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, 2023 through December 31, 2023. 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.

Certification 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 certified (please refer to Appendices - External Certifications). 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 engaged PricewaterhouseCoopers Taiwan to perform independent assurance engagements and audit the sustainability performance selected in the report prepared as per the GRI Standards in accordance with the Standards on Assurance Engagements 3000 "Assurance Engagements Other than Audits or Reviews of Historical Financial Information" released by the Accounting Research and Development Foundation. The information on December 31, 2022 and earlier periods is excluded from the assurance scope. The assurance covered the information throughout 2023; thus, the information on December 31, 2022 or earlier was not in the scope of assurance. CPAs have provided an assurance opinion. Please refer to the assurance report in the appendices for the assurance scope and conclusion.

Time of Issuance

Prior issuance date: issued in August 2023
Current issuance date: issued in August 2024
Next issuance date: To be issued in August 2025

Contact Us

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Message from the Chairman GRI 2-22

The year of 2023 marks the 50th anniversary of the establishment of CSRC. Although we face multiple challenges arising from global inflation and geopolitics, we have always adhered to our commitment to sustainable development and continued to transform our business.

We attach great importance to stakeholders' opinions. This year, we adopted an e-sustainable information collection platform for the first time and expanded the scope of disclosure to cover all production sites around the world. We also updated the TCFD framework, identified risks and opportunities, and assessed financial impacts accordingly. Meanwhile, we reset the Group's sustainability targets and actively take actions to reach the UN Sustainable Development Goals (SDGs).

In the face of global climate change, we continue to enhance the Group's climate adaptation and resilience and make efforts to reduce carbon emissions. For a target of reducing emissions by 21% by 2030, we have achieved a 22.7% reduction in 2023 compared with the baseline year. In terms of raw materials, we have adopted natural gas and recycled oil to reduce our dependence on fossil fuels. As for processes, we have improved energy efficiency through technology adjustments and equipment optimization.

We are committed to recycling resources and implementing the 5R policy, aiming to achieve zero wastewater discharge and zero waste to landfill. In 2023, our wastewater recycling rate reached 89% and our waste reuse rate was as high as 80.4%.

CSRC continues to innovate on the road of circular economy, work with waste tire recycling and pyrolysis companies, launch sustainable, regeneration, and recycling solutions as one of the sustainability leaders in the global carbon black industry. In 2023, our R&D funding increased by 10% and revenue of green products accounted for 38% of the total.

We put great emphasis on the impact of our operating sites on local communities. Starting from 2023, we completed the installation of desulfurization and denitrification systems for EBF production lines in all plants in Greater China, thereby effectively reducing SOx and NOx emissions and reducing negative impacts on the environment.

In order to facilitate communication with local residents and employees, we opened Linyuan Advanced to the public for the first time during our 50th anniversary celebration, in which we invited local residents, employees, and their families to participate, to enhance their understanding of the carbon black industry. In 2023, CSRC won multiple awards, including the Taiwan Sustainability Action Awards and the Asia-Pacific Sustainability Action Awards.

We have adhered to the business philosophy of integrity and responsibility. In the 2023 Corporate Governance Evaluation, CSRC still ranked in the top 6-20% of TWSE-listed companies. Independent directors account for 50% of the Board of Directors, a percentage higher than the legal requirement, and we have elected a new female director, demonstrating our emphasis on gender diversity.

Looking ahead to the future, we will continue to implement carbon reduction projects, innovate technologies, upgrade processes, expand international markets, and work with industry partners to create more sustainable value for customers and investors and create a better future for all.

Jason Koo,
Chairman of CSRC and
Convener of the Corporate
Sustainability Committee

Sustainable Performance

Economic/ Governance

Diverse value creation

- In 2023, the independent directors accounted for more than **50%** of the directorships on the board of CSRC, higher than the percentage required by law.
- In 2023, there were **no** major incidents of corruption, violations of ethical corporate management, or ethical standards.
- In 2023, directors and employees participated in **133** hours of courses on corporate governance and ethical management.
- In 2023, the percentage of employees and board members engaged in anti-corruption communication and training sessions in each operating plant was **100%**.
- In 2023, suppliers in Greater China accounted for about 40% of the total procurement amount; **100%** of them agreed with the Company's anti-corruption policies and procedures in the communication and have signed the anti-corruption commitment.
- The Company ranked in the top **6%-20%** of the publicly listed companies in the 10th Corporate Governance Evaluation in 2023.
- In 2023, **100%** of raw materials were purchased from local suppliers.
- The green procurement totaled **US$124,288** in 2023.
- In 2023, the Group invested a total of **NT$209 million** in research, applied for a total of **64** patents, and successfully obtained **56** patents.
- In 2023, the Chief Information Security Officer was hired to strengthen information security management.
- In 2023, the Group established a **sustainability information management platform** to improve the efficiency of information aggregation.
- The 2023 general shareholders' meeting was convened by **video conferencing** in response to the Financial Supervisory Commission's (FSC's) digitization policy.

Environmental/ Products

Protection of green Earth

- In 2023, the Task Force on Climate-Related Financial Disclosures (TCFD) included **all plants of the Group** for evaluation and disclosure.
- In 2023, CSRC (Maanshan) and CSRC (Anshan) in Greater China maintained the honor of **level B enterprises** in the heavy-pollution weather evaluation.
- In 2023, Linyuan Advanced in Greater China adopted recycled oil as fuel oil, thereby reducing carbon emissions by **3,525 tCO_2e**.
- Based on the systematic assessment of the replacement of heavy fuel oil with replacing natural gas by Linyuan Advanced and CSRC (Chongqing) in Greater China in 2023, approximately **9,944 tCO_2e** of carbon emissions would be reduced.
- In 2023, CSRC (Maanshan) and CSRC (Anshan) in Greater China was rated as a **water-efficiency enterprise**.
- **62.5%** of the group's factories are zero wastewater discharge facilities.
- In 2023, all plants replaced paper bags with PE packaging materials, thus reducing more than **143** tons of paper waste.
- In 2023, Linyuan Advanced in Greater China used a total of **8,149 m^3** of externally recycled condensate for reuse.
- In 2023, **233** hazardous substances of Linyuan Advanced in Greater China passed the tests, and the pass rate of the products tested reached **100%**.
- In 2023, the Greater China and India region's customer satisfaction averaged **9.22** points.
- In 2023, the Group's green products accounted for **38%** of the total revenue.
- In 2023, the Group's waste recycling rate reached **80.4%**.
- In 2023, the Group's wastewater recycling rate reached **89%**.
- In 2023, the Group recycled **998.19** tons of waste and re-made it into downstream building materials.

Employee/ Social

Promotion of friendliness in society

- In 2023, there was **no** incident related to human rights violations in the Group.
- In 2023, a total of **3,800** employees, contractors' personnel, and carriers' personnel received **32,213** hours of occupational safety and health training.
- In 2023, the Group's CSRC (Maanshan) in Greater China was named a **role model** in labor protection and integrity in Anhui Province and rated as a **level A enterprise** in labor protection and integrity in Maanshan.
- In 2023, the Group obtained ISO 45001 certification, covering a total of **six** plants, with the coverage reaching **75%**.
- In 2023, the Group's employees received an average of **22** hours of talent development training.
- In 2023, the number of persons with disabilities employed was higher than that required by law.
- In 2023, **NT$3.87 million** was invested in promoting social welfare
- A total of **49** programs were launched in an online opera channel in 2023, including live Peking opera and classic productions.
- The Dr. Cecilia Koo Botanic Conservation Center has preserved more than **34,579** species of plants, contributing to the maintenance of global biodiversity.

Awards and honors in 2023

Taiwan Corporate Sustainability Awards

The 16th TCSA

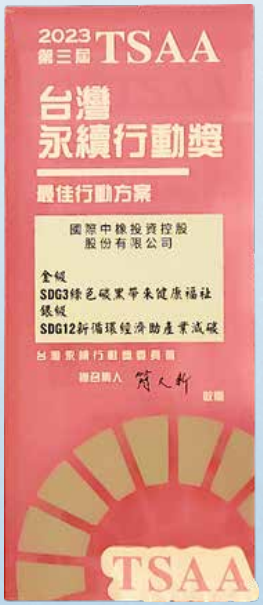
Taiwan's Top 100 Sustainability Exemplary Awards

The 16th TCSA

Corporate Sustainability Report Awards - Platinum Award

The 3rd TSAA

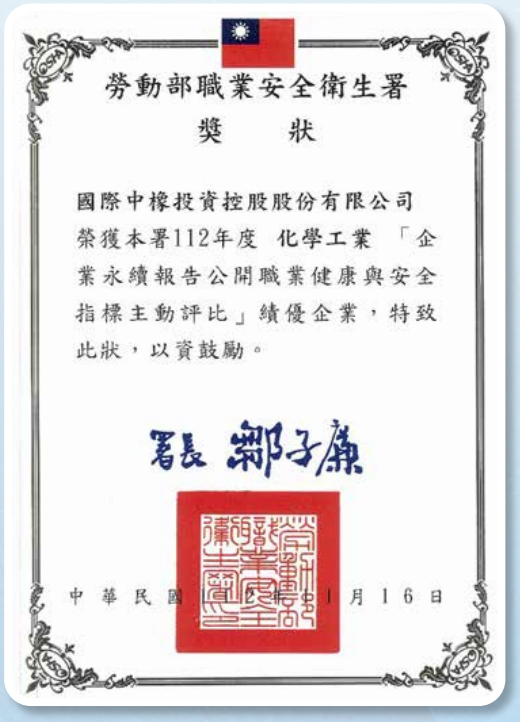
Taiwan Sustainability Action Awards (TSAA) - Best Action Plan



The 2nd APSAA

Asia-Pacific Sustainable Action Award

"Sustainable Leading Enterprise" granted by Ministry of Labor.



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	■ In 2023, 100% of our suppliers in Greater China signed the Supplier Corporate Social Responsibility Commitment, covering the commitment to no child labor.	P153
Goal 12.4 Goal 12.7	■ Continued to sustainable operation results and prepare and publish sustainability reports as per the GRI Standards and the SASB Standards. ■ Invested in a circular economy model, such as carbon black, water cycle, waste heat recovery, and waste reuse to achieve sustainable development. ■ In 2023, the Company's green procurement totaled US$124,288.	P2 P55 P158
Goal 13.3	■ Identified the climate risks and opportunities that CSRC will face in the future and put forth countermeasures to reduce the risks.	P35
Goal 16.5	■ In 2023, directors and colleagues participated in 133 hours of corporate governance and ethical management courses. ■ In 2023, the percentage of employees and board members engaged in anti-corruption communication and training sessions in each operating plant was 100%. ■ In 2023, suppliers in Greater China accounted for about 40% of the total procurement amount; 100% of them agreed with the Company's anti-corruption policies and procedures in the communication and have signed the anti-corruption commitment. ■ Established a supplier evaluation system to ensure proper supply chain management and improve supply capacity and quality.	P17 P30 P30 P155

Environmental/Products

Response to SDGs	CSRC's response	page number
Goal 6.3	■ Each operating plant is equipped with sewage treatment facilities, and the wastewater from the process is treated in accordance with the local standards.	P98
Goal 7.2 Goal 7.3	■ Linyuan Advanced has bought back the solar panels used by Chailease, and plans to gradually increase the use of renewable energy in the future.	P86
Goal 8.3	■ 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 2023, one patent was granted, and three employees were awarded bonuses.	P44
Goal 9.5	■ We invest large amount of research funds per year to develop new products and train professional talents. In 2023, we invested more than NT$209 million.	P44
Goal 11.6	■ We have installed desulfurization and denitrification systems in our plants in Greater China. ■ Continued to replace paper bags with PE bags to reduce about 143 metric tons of paper waste. ■ 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 80.4% in 2023.	P87 P62 P101
Goal 12.2 Goal 12.4 Goal 12.5	■ Increased the efficiency of using raw materials, reduced fuel consumption per unit of product, and reduced the waste of resources. ■ Used waste tires to recycle pyrolysis gasoline as a substitute for fossil fuels. ■ Recycled the waste flexible freight bags used by customers to reuse them to avoid incineration. ■ Recycled and reused the waste solvents generated in the labs. ■ Replaced wooden pallets with reusable plastic pallets to reduce the output of waste wooden pallets. ■ 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. ■ Adopted a carbon black cycle model and a new circular economy model as the core of business operations and recycled 998.19 tons of waste and re-made it into downstream building materials. ■ In 2023, 100% of suppliers in Greater China signed the Supplier Social Responsibility Commitment, 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.	P62 P58 P62 P62 P62 P62 P96 P60 P153
Goal 13.1 Goal 13.3	■ 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.	P69

Social

Response to SDGs	CSRC's response	page number
Goal 3.9 Goal 12.4	■ 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. ■ Formulated comprehensive on-site chemical management procedures in accordance with local government regulations and enhanced users' relevant knowledge. ■ Labeled the chemicals used in products in accordance with local government regulations in each region.	P128 P129 P129
Goal 4.1 Goal 4.7	■ In 2023, the Group invested a total of NT$3.87 million in social charity events. ■ CCIPL in India donated 650 notebooks and stationery to underprivileged schoolchildren ■ CCIPL in India disseminated the knowledge of feminine hygiene products to local public girls' schools and donated hygiene products. ■ In 2023, CSRC (Maanshan) in Greater China provided after-school English and computer tutoring to 88 schoolchildren at Feng Qiao Elementary School. ■ In 2023, CSRC awarded scholarships, nutritious lunches and tutoring funds. A total of NT$420,000 was allocated to 331 individuals. ■ Held experimental workshops at elementary schools in remote areas in Kaohsiung and invited local elementary schoolchildren to participate, and provided them with transportation support and experimental opportunities.	P142 P144 P144 P146 P146 P146
Goal 4.5	■ 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 2023, employees' average annual training hours totaled about 22 hours.	P111
Goal 8.8	■ A total of 3,800 employees, contractors' personnel, and carriers' personnel received 32,213 hours of occupational safety and health training.	P104
Goal 10.4	■ 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.	P113
Goal 11.4	■ In 2023, the C. F. Koo Foundation promoted cultural conservation and culture in three aspects of "program production," "theater management," and "education promotion".	P149
Goal 15.4 Goal 15.6	■ 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 2023, the center has successfully cultivated 34,579 species of plants from all over the world.	P147

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

ESG policy

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

Vision
Coexistence between civilization and nature

Mission
Energy regeneration and symbiosis with nature

Our implementation guideline

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.

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.

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 COMMITMENT

- Integrity: Upholding our commitment to customers and stakeholders
- Respect: Maintaining positive relationships with customers and stakeholders
- Quality: Ensuring excellent product quality
- Responsibility: Endeavoring to improve a defect no matter how small it is
- Flexibility: Actively serving customers and stakeholders and listening to their needs

S SYNERGY

- Satisfying customer needs and pursuing development with customers
- Providing value-added technologies and services other than products
- Coordinating functions to enhance professionalism and efficiency
- Integrating global resources and optimizing local services

R REBIRTH

- Resolving pollutants generated by humans
- Enhancing circular economy efficiency
- Continuous Improvement of Waste Solutions
- Caring for the Community and the Environment

C CREATIVITY

- Technological innovation
- Process efficiency improvement
- Diversified development of product applications
- Strictly abiding by disciplines and improving work flows

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

	Resources	Potential risks	Value Creation
Raw materials	End-of-life residues from steelmaking and oil refining industries	If the residues at the end of the steelmaking and oil refining processes are not properly disposed of, they will cause pollution to the environment.	Reusing the residues at the end of the steelmaking and oil refining processes as raw materials to produce diverse carbon black applications. ▶ Creating a new industry chain
Manufacturing	Reactors and boilers	Air pollution (Sox, NOx, PM, TSP, VOC), greenhouse gases, dust, and fuel consumption	■ Adopting air pollution control equipment to reduce air pollutants ▶ Improving environment and health quality ■ Processing the dust collected with red brick raw materials and converting them into building raw materials. ▶ Creating a new industry chain ■ Optimizing process technology to reduce fuel consumption per unit of product ▶ Improving resource use efficiency ■ Removing dioxins in feedstock oils through high-temperature combustion of reactors ▶ Improving environment and health quality
Sales	Carbon Black, Steam	Insufficient diversity of carbon black products and waste of resources caused by residual vapor	■ Developing green carbon black products ▶ Improving environment and health quality ■ R&D of high-end, multi-application carbon black ▶ Enhancing market competitiveness ■ Reusing surplus steam for power generation ▶ Improving resource use efficiency
End-of-life	Carbon Black Packaging, Condensate	The disposal cost of paper bag packaging and the failure to recover condensate result in a waste of water resources	■ Replacing materials with PE ones ■ Improving customers' production efficiency and reducing waste ■ Recycling condensate by partners ■ Creating a new industry chain

Corporate Sustainability Committee

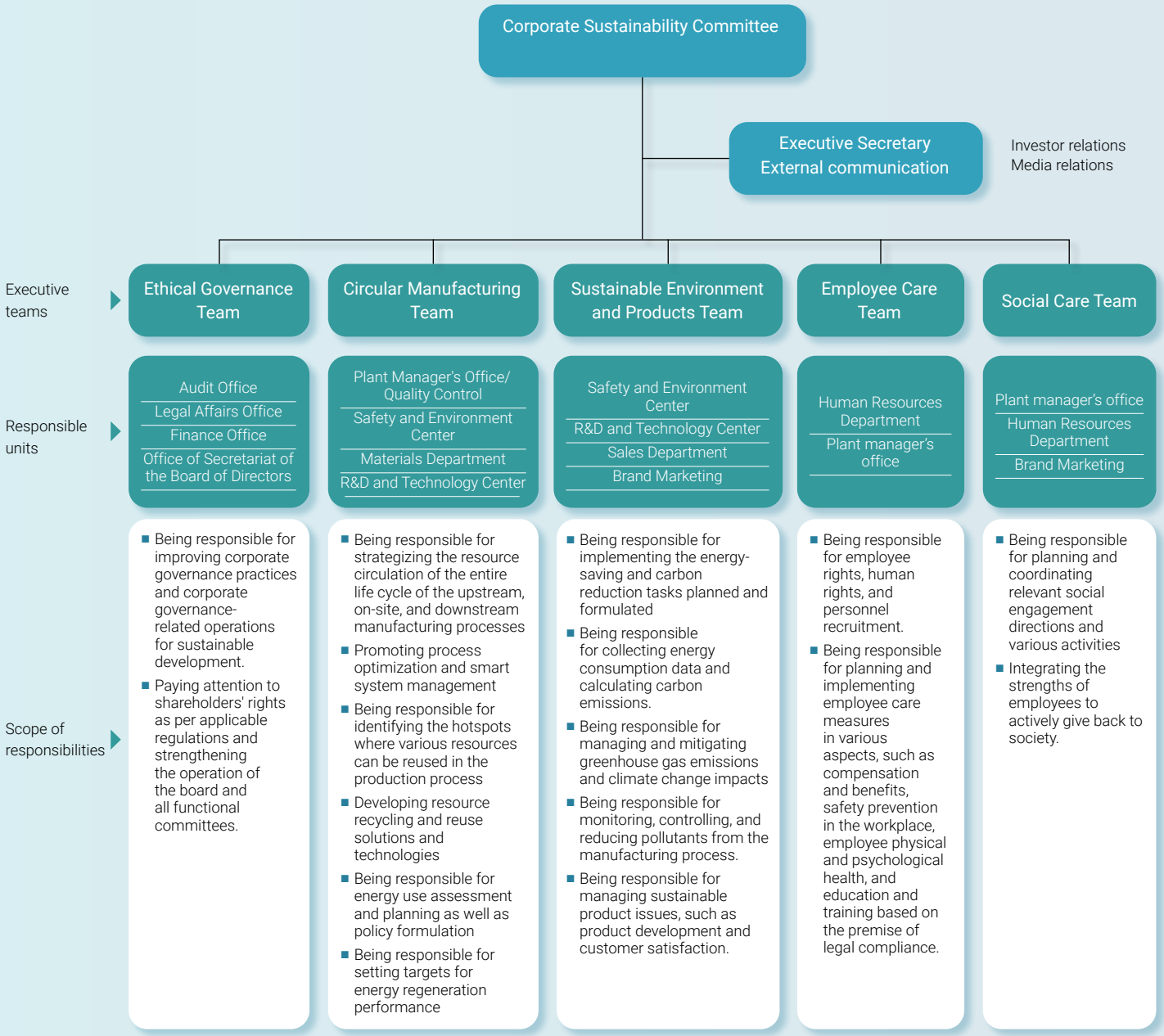
To ensure actions taken to realize corporate sustainable development, CSRC established the Corporate Sustainability Committee in 2018 in accordance with the "Corporate Social Responsibility Policy" and upgraded the committee to a functional committee as approved by the Board of Directors (hereinafter 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 Committee members. In addition to the routine meetings between team members and team leaders, the chair may invite team members to participate in each meeting according to the content of the agenda. Each team leader should designate a secretary for their team, who should be responsible for contacting, communicating, and coordinating the duties of the team, while compiling information based on 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:

2014

Published the first CSR Report in Chinese

2018

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

2019

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

2020

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

2021

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

2022

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

2023

Expanded the scope of the sustainability report to include the entire Group and expanded the scope of TCFD to include our plants in India and the United States to identify climate risks and opportunities

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

In 2023, 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.

Material topic identification process

Step 1 Identify stakeholders and collect related issues

- We confirmed the degree of connection between stakeholders and the Company, and identified six major categories of important stakeholders: customers, employees, shareholders/investors, suppliers/contractors, government agencies, and neighboring communities.
- Based on the characteristics of the industry, social conditions, sustainable development trends, and domestic and international competitors, we selected 20 sustainability issues of concern to CSRC.

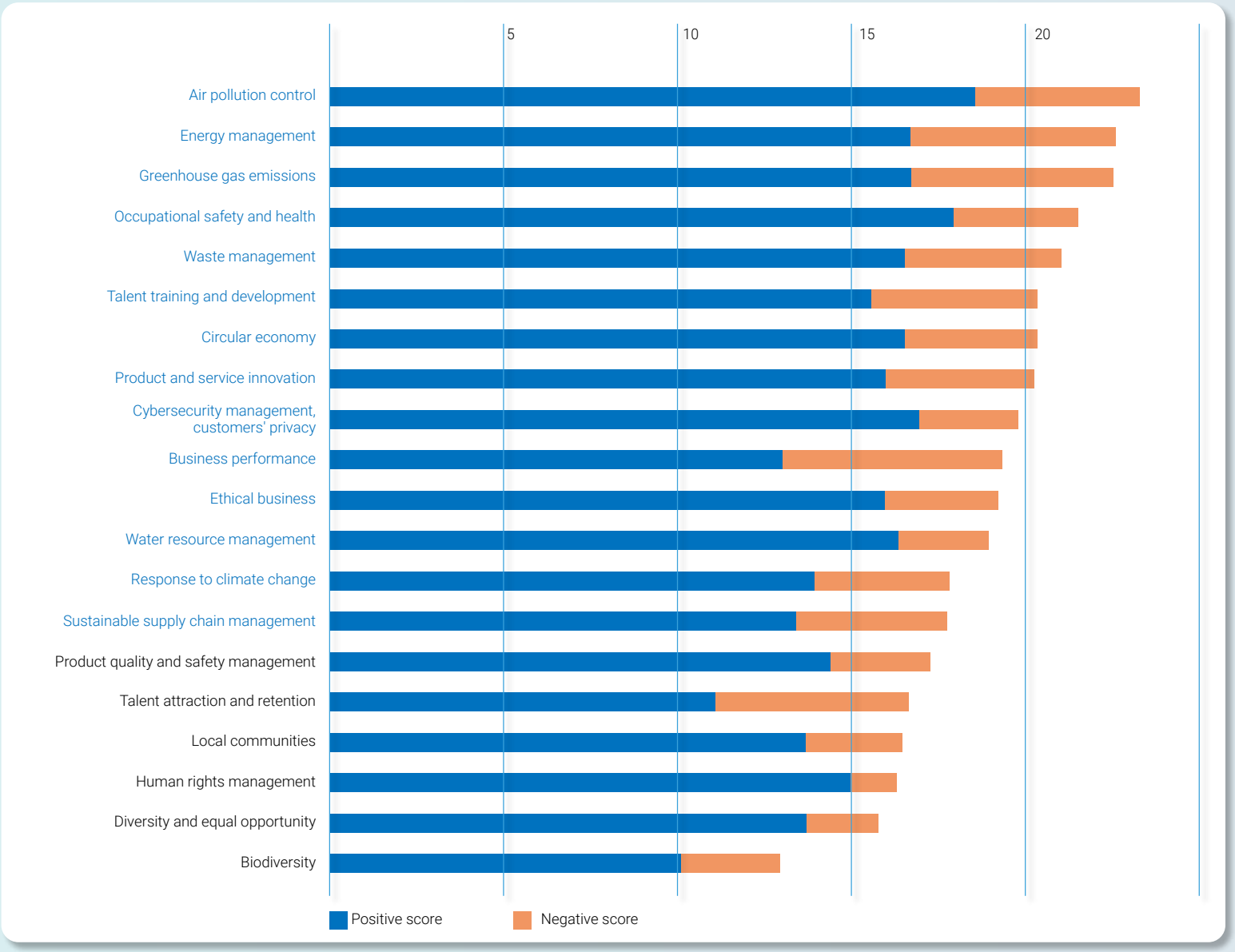
Step 2 Analyze and determine material topics

- We conducted a questionnaire survey on important stakeholders' degree of concern, and a total of 598 copies were returned.
- We sent the "Impacts of Sustainability Issues Assessment Questionnaire" to the senior management of CSRC and members of the ESG teams. A total of 21 copies of the questionnaire were collected for internal assessment of the impacts.
- We analyzed and sorted the overall impact of each sustainability topic on external economy, environment, and people (including human rights) based on the questionnaire results in the previous step, and drew a bar chart of CSRC's 2023 material topics. After discussion and confirmation by external experts and members of the Corporate Sustainability Committee, we added new topics of "information security management" and "customer privacy" to the material topics in 2023 compared to 2022 mainly because CSRC believes that the recent rise of AI technology will greatly increase the importance of information security and privacy management, while "local community" and "talent attraction and retention" (formerly known as "employment relations") are classified as general topics in 2023 as the disclosure of the topics has become more developed.
- We identified and prioritized 14 material topics in this report, to meet stakeholders' expectations.

Step 3 Confirm and disclose

- We drew a metric of the 14 material topics identified based on the sorting results, collected sustainability information, and disclosed the management approaches and related reports according to the GRI Standards. The report also disclosed actions of CSRC in respect to other topics not identified as major but that the Corporate Sustainability Committee deemed worthy of attention. In addition, the Company's progress in sustainable development is reported to the board through the sustainability reports, to review defects and include them in the Company's future management goals, thereby formulating relevant management strategies.

Results of CSRC's material topics in 2023



CSRC's material topics

Governance

- Ethical management
- Business performance
- Sustainable Supply Chain Management

Environmental

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

Social

- Occupational Safety and Health
- Talent training and development

Products

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

Stakeholders	Importance of stakeholders to CSRC	Issue of concern	Communication method and frequency	Communication performance in 2023	Reflection and response
 Customers	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.	■ Product and service innovation ■ Business performance ■ Governance ■ Sustainable Supply Chain Management	■ Customer service email (ongoing) ■ Phone contact (weekly) ■ Visits by business staff (monthly) ■ Customer satisfaction surveys (annually)	■ Customer satisfaction of Greater China and India averaged 9.22 points.	We continue to provide high-quality services and products through a smooth communication process in compliance with the applicable laws and environmental regulations at the operating sites to create favorable conditions for long-term collaboration with customers.
 Employees	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.	■ Occupational Safety and Health ■ Talent training and development ■ Product and service innovation ■ Business performance	■ Convene Pension Supervision Committee (quarterly) ■ Convene Employee Welfare Committee (quarterly) ■ Convene Labor-Management Conference (quarterly) ■ Conduct education and training (monthly) ■ Employee feedback mailbox (ongoing) ■ Sexual harassment complaint hotline and mailbox (ongoing)	■ Employees' average annual training hours totaled about 22 hours. ■ The number of sexual harassment complaints by phone or email was 0. ■ 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.	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 substantive incentives to stay competitive.
 Investors/ Shareholders	Opinions and suggestions of investors/shareholders also constitute an important reference index for the management team to make operational decisions.	■ Ethical management ■ Business performance ■ Product and service innovation ■ Governance	■ 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)	■ We held 1 shareholders' meeting, 10 board meetings, and 1 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 2023.	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 2023	Reflection and response
 Suppliers/ contractors	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.	■ Ethical management ■ Occupational Safety and Health ■ Waste management ■ Product and service innovation	■ 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)	■ We completed evaluations of **526** suppliers. ■ We regularly hold safety seminars and related education and training courses for suppliers and contractors.	In-depth cooperation with capable suppliers/contractors that are experts in their fields, jointly developing materials and establishing strategic partnerships.
 Neighboring communities	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.	■ Waste management ■ Greenhouse gas emissions ■ Occupational Safety and Health ■ Energy management	■ Sponsor community charity activities (monthly) ■ Resident complaint channel (not regularly scheduled) ■ Undertake visits or phone contact (not regularly scheduled)	■ We donated a total of **NT$3.87 million** to social charity. ■ A total of **88** students benefited from Shi-Min Academy. ■ We awarded **331** students scholarships, totaling **NT$420,000**.	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.
 Government agencies	Promotion of various policies or formulation/modification of regulations may affect the operations of CSRC.	■ Waste management ■ Water resource management ■ Greenhouse gas emissions ■ Occupational Safety and Health	■ 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 February)	■ We held one shareholders' meeting and one investor conference ■ We participated in labor-related seminars or awareness-raising sessions hosted by the government **13** times. ■ We participated in finance and accounting-related seminars or awareness-raising sessions hosted by the government **4** times. ■ We participated in environment and safety-related seminars or awareness-raising sessions hosted by the government **20** times.	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.

2023 Performance Highlights

Independent directors account for 50% of the seats on **CSRC's Board of Directors, exceeding one-third and surpassing the legal norm**.

There have been **no** major cases of corruption, violations of ethical management, or ethical incidents at CSRC.

In respect to directors' training courses, directors and colleagues participated in **133** hours of corporate governance and ethical management courses.

The percentage of employees and board members in each operating location who have received anti-corruption communication and training is **100%**.

Suppliers for plants in the Greater China region account for approximately 40% of the Company's total procurement value, **100%** of whom have received communication on the Company's anti-corruption policies and procedures and have signed integrity commitment statements.

Maintaining the top **6%** to **20%** in the 10th Corporate Governance Evaluation of listed companies.

Establish a Chief Information Security Officer and three dedicated information security members

Built a sustainable information management platform to improve information aggregation efficiency

Regular meetings of shareholders were held using **video-assisted methods** in response to Financial Supervisory Commission's digitalization policy

United Nations Sustainable Development Goals (SDGs)

1.3 Ethical Management SDGs 16.5

1.5 Risk Management 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 (2024-2025)	2023 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 2023

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.

(For more details, please refer to 1.3.3 Anti-Corruption Risk Assessment and Results)

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.

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 2023, 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, CSRC Investment Holdings Co., Ltd., 8F., No. 113, Section 2, Zhongshan North Road, Zhongshan District, Taipei City
- 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 - Business performance

	Medium and Long-Term Targets (2026-2030)	Short-Term Targets (2024-2025)	2023 performance
Increase market share	1. Invest in R&D resources to develop superconductive carbon black and increase the market share of special carbon black. 2. Innovating low-carbon environmentally friendly processes, steady international operational deployment, expanding carbon material application development, and launching the Turkey plant to serve customers in the European and Asian markets.	1. Invest in research and development resources to expand solutions for environmentally friendly recycled carbon black, electronic ink grade carbon black, and conductive carbon black development. 2. Build a new factory in Turkey to increase the market share of the international carbon black market.	1. In 2023, NT$209 million was invested in research and development expenditures, marking a 10% annual increase. 2.International market carbon black production capacity ranked sixth globally. 3. Production lines at the India CCET plant were gradually coming online, and the Turkey plant was under construction

Impact description

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.

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.

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: Facilitate coexistence between civilization and nature; mission: Energy regeneration and natural symbiosis;

Core values: Upholding commitments, integrating strengths, recycling and rebirth, diverse creation.

Please refer to 1.6.1 Operation Results, 1.6.2 Tax Policy.

Action plan

Please refer to the descriptions given in the CSRC 2023 Annual Report under "Five. Operations Overview > II. Overview of Market and Production and Sales > (I) Market Analysis > 4. Competitive Niche" and under "Five. Operations Overview > I. Business Content > (4) Long and short-term business development plans."

Evaluation of effectiveness

- 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).

Responsible units

Departments of the Company

Complaint mechanisms

The CSRC company website has a stakeholder communication mailbox for filing complaints. The mailbox is: csrcir@csrcgroup.com

Management policies - Information security management and customer privacy

	Medium and Long-Term Targets (2026-2030)	Short-Term Targets (2024-2025)	2023 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 50%
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

Impact description

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.

Policies and commitments

Dedicate efforts to protect the confidentiality, integrity, and availability of the Company's important information systems and data.

Action plan

Positive impact management:

- 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.

Negative impact management:

- 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.

Evaluation of effectiveness

- 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 2023, annual internal and external information security audits were conducted, and all non-conformities have been corrected; ISO 27001:2022 transition certification has been obtained.

Responsible units

Information colleagues in each region and the headquarters Information Security Committee

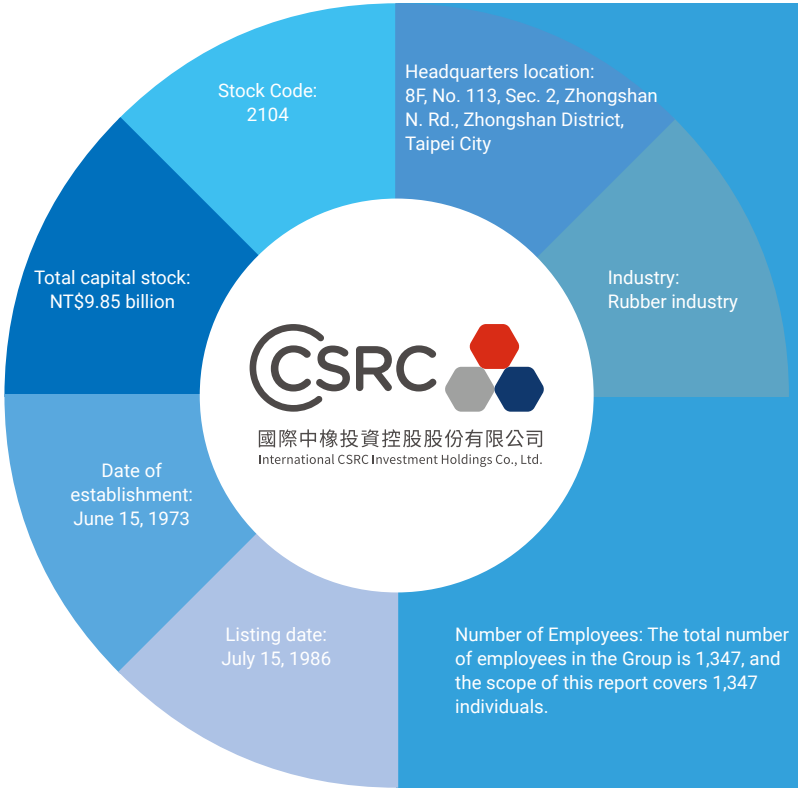
Complaint mechanisms

Mailbox: service@tcci.com.tw

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 eight 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.



Number of Employees: The total number of employees in the Group is 1,347, and the scope of this report covers 1,347 individuals.

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.
- CSRC's mainland carbon black factories in Maanshan, Anshan, and Chongqing

India
- CSRC India CCET Plant and CCIPL Plant

USA
- CSRC USA CCC Ponca City 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.

CSRC actively participates in public association conferences and abides by conference norms in the hope that might contribute its own strengths to jointly address social responsibilities alongside its peers. The following table shows CSRC's participation in public associations in 2023:

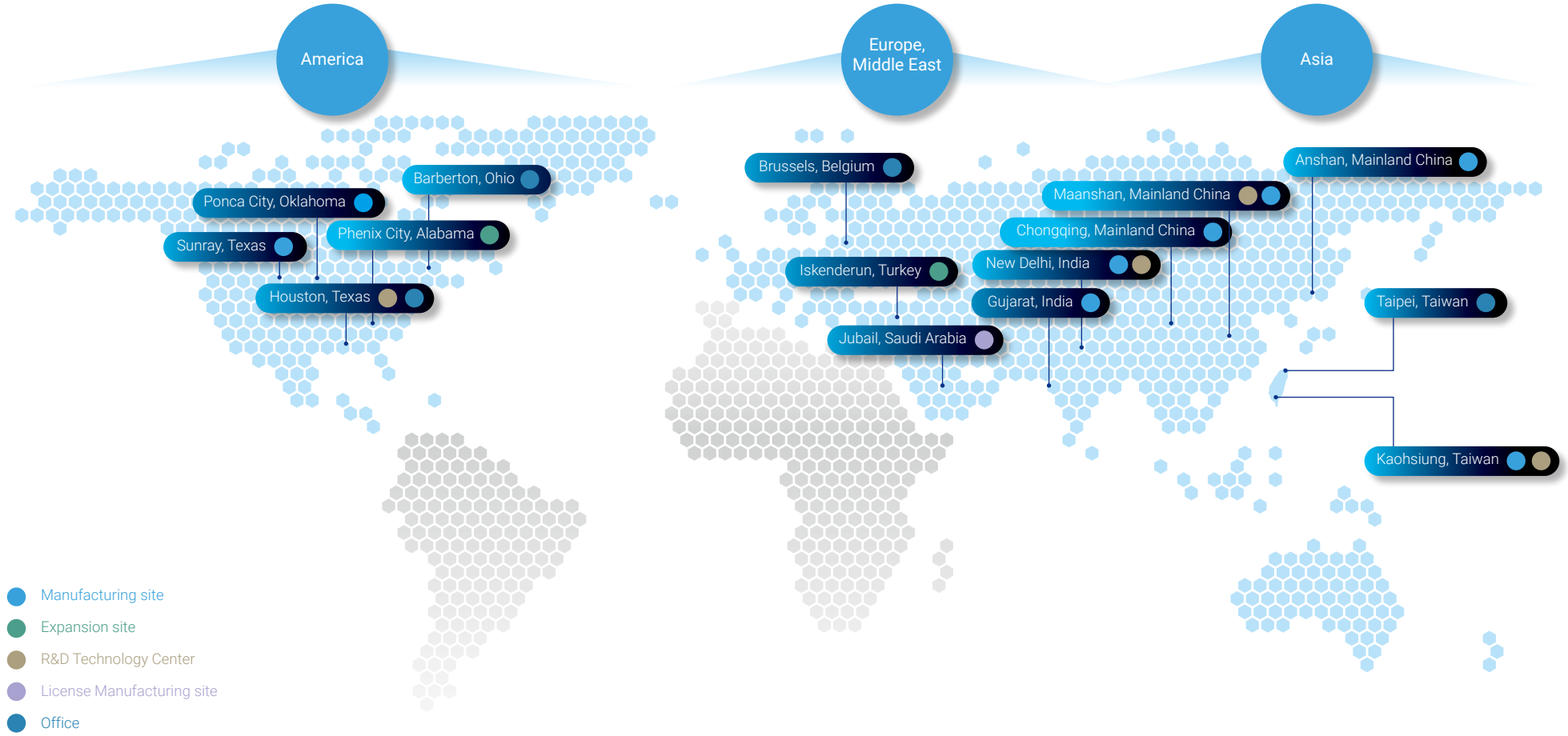
Public association name	Organization membership
Petrochemical Industry Association of Taiwan	V
Taiwan Rubber & Elastomer Industries Association	V
Chinese National Association of Industry and Commerce, Taiwan Note 1	V
Taiwan Carbon Capture Storage and Utilization Association	V
Kaohsiung Personnel Representative Association	V
Taiwan Responsible Care Association	V
The Third Wednesday Club (San San Fe)	V
Kaohsiung County Industrial	V
Chinese Society for Quality	V
Ghaziabad Management Association Note 2	V
International Carbon Black Association (ICBA) Note 3	V

Note 1: The Chairman serves as a director of the Chinese National Association of Industry and Commerce, Taiwan
Note 2: Participation by the CCIPL.
Note 3: Participation by CCC.

The CCIPL plant in India is an active member of the Ghaziabad Management Association and participated in the 34th National Convention held by the organization on June 8, 2024. The CCIPL plant was one of the sponsors of this event.

Brand Value

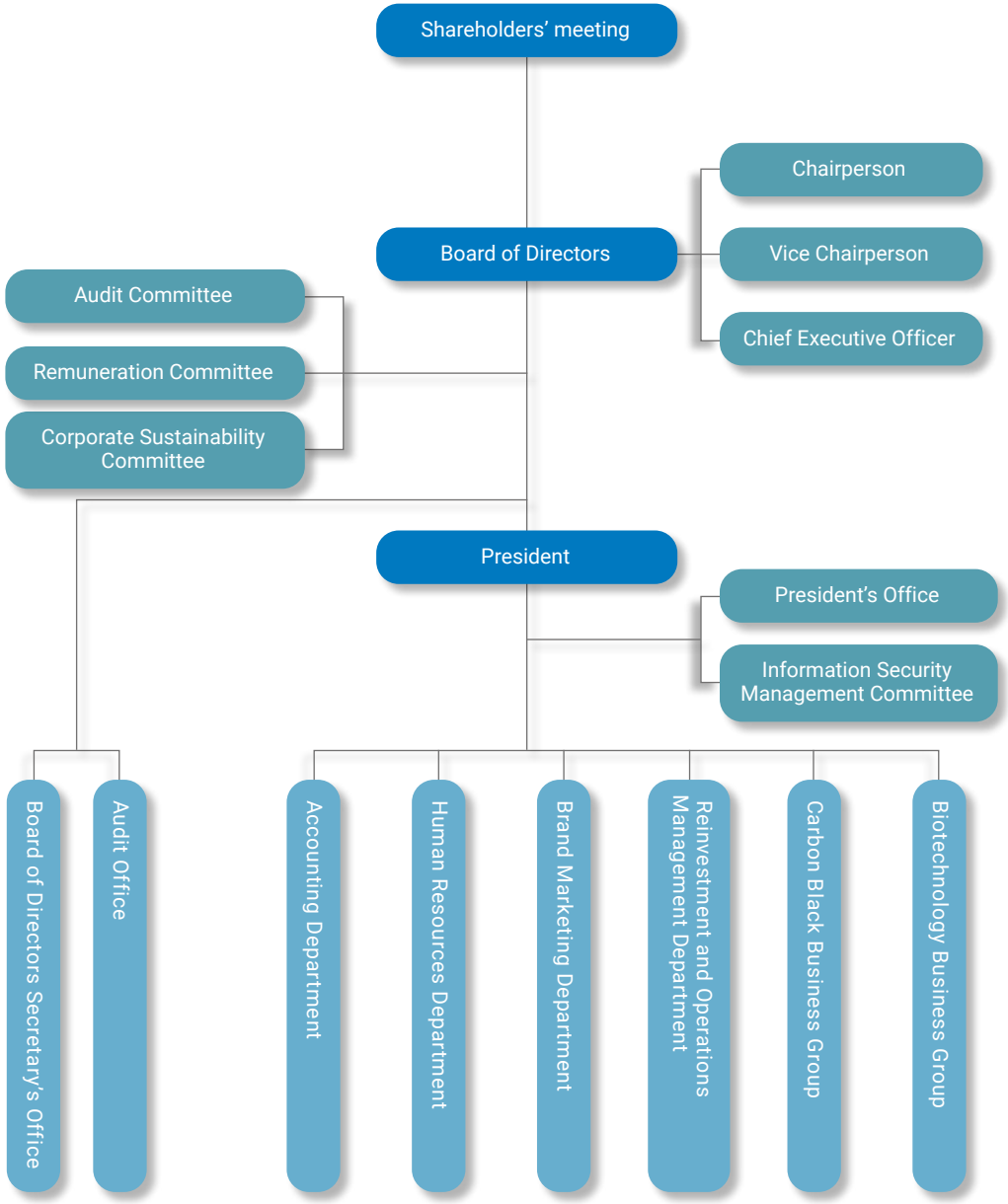
As of the end of 2023, CSRC's Carbon Black Business Unit had overseas operations primarily in North America, mainland China, and India. As a global brand, CSRC is poised to face the challenges of the new century and create outstanding new milestones. This is through the foundation of its many advantages, including the international deployment of its production capacity operation system, specialized technology, diverse human talent, and customer trust. Additionally, CSRC continues its overseas expansion efforts, continuing to deploy new production capacities in rapidly growing markets. This includes the ongoing construction of the Turkey plant, which, upon completion, will be Turkey's first carbon black plant.



Note: The Phenix plant suspended production by December 31, 2022. Following the board's approval on May 10, 2024, it will joint venture with Sheico Company in the environmental carbon black business at this site.

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.

CSRC has seven directors in accordance with the provisions of Article 192-1 of the Company Act. The director election method adopts the candidate nomination system, and directors are appointed by the shareholders' meeting from the list of director candidates, allowing for consecutive re-election of directors. In 2023, CSRC had eight directors, all of whom were male. Four of them were independent directors,Note accounting for 50%, exceeding one-third and complying with statutory requirements. Among them, five were over 51 years old (62.5%), and three were aged 41-50 years old (37.5%). Directors with employee status accounted for 12.5%.

The 18th Board of Directors of the Company emphasizes diversity, comprising elites from industry and academia. Their industrial experience covers finance, business, finance, 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; 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. On March 19, 2024, the Board of Directors underwent a comprehensive re-election, increasing the number of directors from 8 to 9, including the nomination of one female director, who was elected at the 2024 General Meeting of Shareholders on May 28, 2024.

Board member introductions and diversity of directors

Board operation

In 2023, CSRC convened a total of eight board meetings,Note with an average director attendance rate of 97%, 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 2023, 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, 2023, to December 31, 2023.

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 33 of the 2023 Annual Report of the shareholders' meeting.

18th Board of Directors

Position	Name	Gender	Age	Independent director seniority
Chairperson	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	Chang Chi-Wen	Male	61–70 years old	-
Director	Pei Yang Co., Ltd.: Lin Nan-Chou	Male	51–60 years old	-
Independent Directors	Chia Tze-Nan	Male	71 years old and over	Under 3 years
Independent Directors	Ting Yuan-Wei	Male	51–60 years old	3-9 years
Independent Directors	Chang Liang	Male	71 years old and over	Under 3 years
Independent Directors	Hsiao Yu-Chieh	Male	41–50 years old	Under 3 years

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, periodically providing information on external courses. In 2023, the Company offered two courses, "Compliance - Joint Conduct and Related Party Transactions" and "Risk Trends Under Climate Change - Nature, Water, and Human Rights," inviting instructors to the Company to train directors and 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
Compliance with laws - joint actions and transactions with related parties

Number of participating directors 4

Total hours of director training 3 hours

Course Name
Risk Trends Under Climate Change - Nature, Water, and Human Rights

Number of participating directors 4

Total hours of director training 3 hours

Diversified training for directors to strengthen sustainable development courses

CSRC places great importance on ESG sustainable development. To deepen the directors' understanding of various issues, the 2023 training courses included topics such as "Risk Trends Under Climate Change - Nature, Water, and Human Rights," "Promoting Green Transformation: Towards Net Zero Carbon Emissions," "Establishing ESG Sustainable Strategies to Enhance Competitiveness," "Trends and Risk Management of Generative AI with Case Studies," and "Discussion on Sustainable Risk Trends and Response Strategies," totaling 48 hours. These courses ensure that directors are equipped with relevant knowledge to lead the Company's future development amidst ever-changing environmental conditions.

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 laws and the Company's Board of Directors Performance Evaluation Measures, the external evaluation, which was previously conducted every three years, will be conducted annually starting in 2023, with external experts being hired to conduct the performance evaluation. 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 2023 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 independent professional institution evaluated the operations and performance of the Board for the year 2023 (from January 1, 2023 to December 31, 2023) and issued a report on January 31, 2024, submitted to the Board of Directors on February 26, 2024.

Measurement items for Board of Directors Performance Evaluation cover the following five aspects:	Measurement items for Board member (self) performance evaluations include the following six aspects:	Measurement items for Audit Committee performance evaluation include the following five aspects:	Measurement items for Remuneration Committee performance evaluation include the following four aspects:	Measurement items for Corporate Sustainability Committee performance evaluation include the following four aspects:
Degree of participation in Company operations.	Mastery of the Company's goals and tasks.	Degree of participation in Company operations.	Degree of participation in Company operations.	Degree of participation in Company operations.
Improvement of the quality of Board decisions.	Understanding of directors' responsibilities.	Understanding of Audit Committee responsibilities.	Understanding of Remuneration Committee responsibilities.	Understanding of Corporate Sustainability Committee responsibilities.
Board composition and structure.	Degree of participation in Company operations.	Improvement of the quality of decisions made by the functional committee.	Improvement of the quality of decisions made by the functional committee.	Improvement of the quality of decisions made by the functional committee.
Election and continuing education of directors.	Internal relationship management and communication.	Audit Committee composition and member selection.	Remuneration Committee composition and member selection.	Corporate Sustainability Committee composition and member selection.
Internal control system.	Directors' professionalism and continuing education.	Internal control system.		
	Internal control system.			

1.2.2 Functional Committees

Remuneration Committee

Established in 2011

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 2023, the Committee held a total of four meetings with an attendance rate of 100%.

Audit Committee

Established in 2012

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 material 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 material 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 2023, the Committee held a total of seven meetings with an attendance rate of 92%.

Corporate Sustainability Committee

Established in 2023

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. One Committee meeting was held in 2023

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 Chairperson 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 the Securities and Futures Bureau of the Financial Supervisory Commission, it shall be submitted for inspection by the Securities and Futures Bureau 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 the Securities and Futures Bureau for future reference. For a summary of the relevant audit and tracking reports of 2023, 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.

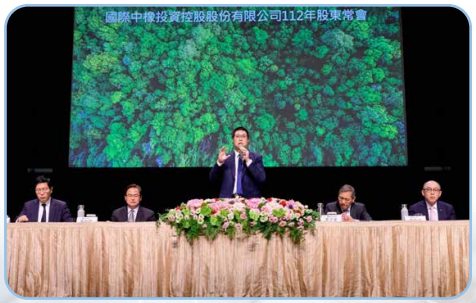
The audit supervisor attends the entire Board of Directors and audit committee every quarter. They carry out the business report of the audit office, explaining the audit findings of each inspected unit and the follow-up improvement status. During meetings of the Audit Committee and the Board of Directors, 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, corporate investor meetings, 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, corporate investor meeting data and 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:

In order to improve the supervision of ethical management, CSRC is responsible for the formulation and supervision of the implementation of the ethical management policy and prevention plan by the corporate governance unit. Furthermore, this is regularly (at least once a year) reported to the Board of Directors. 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

Directors, managers, employees, or persons with substantial control capabilities are subject to prohibitions of engaging in the following acts:

- Prohibition of dishonest behavior
- Prohibition of bribery and acceptance of bribes
- Prohibition of providing illegal political contributions
- Prohibition of improper charitable donations or sponsorships
- Prohibition of unreasonable gifts, entertainment or other improper benefits
- Prohibition of infringement of intellectual property rights
- Prohibition of unfair competition
- Prohibition of discrimination
- Prohibition of insider trading

Code of Ethical Conduct

- Prevention of conflicts of interest
- Actions in one's own self-interest are not allowed
- Duty of confidentiality
- 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.

Strengthen internal controls

Prevent fraud, corruption, and unethical behavior.

Improve transparency

Disclose the Company's actions and performance on ESG issues in detail, and communicate them clearly and accurately to stakeholders.

Incorporate opinions from all parties

Incorporate the opinions of stakeholders (such as employees, customers, investors, and local communities) into the decision-making process related to ethical corporate management.

Regular evaluations

Through a regular assessment mechanism, we ensure that the Company's performance in ESG and ethical corporate management is appropriate, and timely remedial measures are taken when necessary.

Sustainable investment

By investing resources and manpower in ESG-related initiatives, we demonstrate the Company's determination to value corporate social responsibility.

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. Directors and colleagues of CSRC participated in corporate governance and ethical management related courses in 2023. Courses included "Insider Trading Education and Training Course," "Practical Key Moments in Opening Bids, Chairing, Reviewing, Supervising, and Undertaking 40 Key Moments of Opening a Bidding," "The Fair Trade Act," and "Audit Techniques and Practical Skills." Through external and internal training courses, colleagues have strengthened their understanding and awareness of laws and regulations related to corporate governance, ethical management, and ethical behavior. The percentage of employees and board members in each operating location who have received anti-corruption communication and training is 100%, ensuring that colleagues at all operating locations are aware of and follow the core values of CSRC in respect to ethical corporate management. In terms of business partners, CSRC also attaches great importance to reliable supply and demand relationships with suppliers. The Greater China region includes suppliers from Linyuan Advanced Plant, Maanshan Plant, Anshan Plant, and Chongqing Plant. The purchase amount accounts for approximately 40.2% of the overall proportion, and all have signed the Statement of Integrity Commitment Note in accordance with regulations, and required suppliers to protect employees' human rights, provide legal working conditions, and uphold business ethics. In 2023, the percentage of suppliers signing was 100%.

Note: With respect to contracts signed by CSRC with agents, suppliers, customers or other business partners, which include compliance with ethical management policies, if the counterparty of the transaction is involved in dishonest conduct then the terms of the contract may be terminated or rescinded at any time and reported.

Year	2023		2022		2021	
Mainland area	Total number of individuals who know and understand company policies and procedures related to business ethics/ who have received business ethics training	Proportion	Total number of individuals who know and understand company policies and procedures related to business ethics/ who have received business ethics training	Proportion	Total number of individuals who know and understand company policies and procedures related to business ethics/ who have received business ethics training	Proportion
Board of Directors	7	100%	7	100%	7	100%
Greater China (Note 2)						
Senior Supervisor	7	100%	6	100%	5	100%
Mid-level supervisor	37	100%	37	100%	37	100%
Basic level supervisor	68	100%	58	100%	56	100%
Professionals	202	100%	216	100%	208	100%
Direct staff	447	100%	462	100%	459	100%
India						
Senior Supervisor	1	100%	1	100%	1	100%
Mid-level supervisor	14	64%	11	61%	7	39%
Basic level supervisor	51	56%	22	42%	21	40%
Professionals	90	40%	35	39%	33	39%
Direct staff	15	68%	7	28%	11	46%
USA						
Mid-level supervisor	2	100%	2	100%	2	100%
Basic level supervisor	6	100%	8	100%	8	100%
Professionals	43	91%	42	81%	41	67%
Direct staff	25	66%	32	73%	30	61%
Total						
Greater China	761	100%	779	100%	765	100%
India	171	48%	77	41%	73	40%
USA	147	65%	155	60%	160	55%
Whole Group	1,079	80%	1,011	82%	998	81%

Note 1: Business ethics covers anti-corruption, anti-bribery, money laundering, fraud prevention, etc.
Note 2: The data for Greater China in 2022 does not include Chongqing; 2021 does not include Chongqing and Anshan.

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 foreign 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 shall draw up relevant audit plans based on the assessment results of the risk of dishonest conduct. The content is to include audit targets, scope, items, frequency, and so on, and it shall check the compliance of the prevention plan accordingly. For example, on the basis of the scale of each factory, emergency cases, and project progress (e.g., plant construction, expansion, overhaul, or other special projects, etc.), the Audit Office shall every year evaluate the type and frequency of corruption incidents and formulate an annual audit plan. When necessary, accountants may be hired to assist. The results of the inspection in the preceding paragraph shall be reported to the senior management and the unit responsible for ethical management. Furthermore, it shall prepare an audit report and submit it to the Board of Directors. The frequency of the report is at least once a year. In addition to routine annual audit operations, the Audit Office specifically analyzes whether there are red flags for corruption incidents (e.g., if there are warning signs of risk in procurement outsourcing cases such as incomplete sign-off procedures, unauthorized review and authorization by the responsible supervisor, or unreasonable designated manufacturers). CSRC conducts annual risk assessments related to corruption. Risk assessment self-evaluation forms (voluntary audit operations) are distributed to each plant, which include risks related to integrity. Based on the evaluation scores, the audit office conducts annual audit operations. After the assessments, it was found that in 2023, there were no significant corruption risks identified within the group, no major incidents of fraud, corruption, or violations of integrity or ethical business conduct, and no involvement in anti-competitive behavior or litigation related to violations of antitrust and monopoly regulations.

Total number and percentage of operations assessed for risks related to corruption

In 2023, **100%** of CSRC's global operating locations underwent corruption-related risk assessments and included them in annual audits based on the scoring results. No major abnormalities were found.

Number of complaints and confirmations regarding violations of business ethics procedures in each region of CSRC in the past three years

Greater China	India	USA	Whole Group
2021	2021	2021	2021
0	0	0	0
2022	2022	2022	2022
0	0	0	0
2023	2023	2023	2023
0	0	0	0

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, 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, 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 Department 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.

Procedures for reported cases	Document or description
Reporting method	E-mail, written reports, and on-site acceptance
Dedicated unit	Audit Office
Accept / Reject	Specific information and documents
Investigate	Special unit investigation and relevant unit assistance
Closing and reporting	1. Ordinary positions: Report to department heads and the president 2. Directors or senior executives: Reports to independent directors shall include the matters reported, their handling methods, and subsequent review and improvement measures, which shall be reported to the Board of Directors.
Document retention	Save for at least five years

Statistics show that in 2023, 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.

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 3.0 - Blueprint for Sustainable Development
- Green Finance 2.0

Environmental

- 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
- Hazardous Chemical Management
- Emergency management
- Fire safety training
- Occupational safety and health training for employees and contractors

Products

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

Labor Human 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

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 2023, 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 38 individuals, totaling 180.5 hours. Details of relevant training records are as follows:

Course topic	Participants
Practical Key Moments in Opening Bids, Chairing, Reviewing, Supervising, and Undertaking 40 Key Moments of Opening a Bidding	Audit Office colleagues
Sustainable ecology lecture	Taiwan region colleagues
The Fair Trade Act	Business Department colleagues
Audit Techniques and Practical Skills	Audit Office colleagues
Practical class on internal audit fraud detection application skills	Audit Office colleagues
Discussion of approaches to strengthening legal compliance audits based on penalty cases	Audit Office colleagues
"Functions and Tasks of Corporate Governance Personnel under the Corporate Governance Blueprint" and " Latest Practical Developments of Insider Trading in Taiwan "	Audit Office colleagues
Professional certification class on sustainable development and carbon management	Safety and Environment Office colleagues
ISO 14064-1:2018 organizational-level greenhouse gas establishment and verification auditor training	Safety and Environment Office colleagues
Insider Trading Education and Training Course	President, first-level supervisor, colleagues at headquarters
Risk trends under climate change - Nature, water and human rights	Management team
Compliance with laws - joint actions and transactions with related parties	Management team

Note: For directors' continuing education, please refer to the official website's Director Area – Ethical Corporate Management and Ethical Norms; Managers' participation in further education and training related to corporate governance may refer to annual report P82.

1.4.3 Statutory Compliance and Improvements

GRI 2-27；SASB RT-CH-140a.2

In 2023, CSRC Group had no major violations of environmental, labor human rights and occupational health and safety (with fines exceeding NT$500,000). In 2023, there were a total of four non-major violations of laws and regulations, with a total fine of NT$899,256, with no major regulatory violations sanctioned beyond monetary penalties.

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.

Business operational continuity plan

To ensure the prompt activation of the backup data center in the event of a major disaster causing the information system to malfunction, CSRC has established a Business Continuity Plan (BCP). Each year, four processes and steps are regularly executed to ensure smooth transition of the Company's backend information systems to the backup data center.

Recovery drill

Conduct one disaster recovery drill annually and regularly back up data.

Information security health inspection

Complete an information security health inspection every year to identify potential information security threats and formulate improvement plans to continuously enhance the Company's information security capabilities.

Vulnerability scan

Vulnerability scans are completed twice a year, and no abnormalities were found in the scan results in 2023.

Information security education and training

Information security policies are regularly promoted and information security courses are held every year. After the in-person courses are completed, course materials are uploaded to the TCC Lyceum system for colleagues to continue to study online courses (E-learning).

1.5.2 Risk Identification and Early Warning Process

Risk management is an important key to business operations. Through the identification, management, measurement, and analysis of the Company's internal and external risk factors in the short, medium and long term, CSRC improves the effectiveness of decision-making and enhances corporate value. In order to continuously improve the risk management mechanism, we control finance, business, materials, 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.

Financial risk	Material cost management and acceptance bill management
Business risk	Customer attribute management and establishment of repeat customers
Materials risk	Incoming materials weighing management, supplier master file management, purchase order split management, procurement transaction management, bid-binding and accompanying bid manufacturer analysis, performance bond and quality assurance deposit management, oil price contract alert
Operational risk	PDA inspection, PM contract management, PM acceptance management, inspection quality management

Internal Audit Scope

In 2023, 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 15 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

The Company's dedicated information security unit is primarily entrusted to TCC Information Systems Corp. (hereinafter referred to TCCI) under the Taiwan Cement Group for overall information security architecture design, information security operations and monitoring, internal and external information security incident response and investigation. 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 28 people, mainly composed of the corporate group-Taiwan Cement Information Co., Ltd. (hereinafter referred to as TCC Information) 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 compliance with the ISO/IEC 27001 information security system in 2020: In 2013, CSRC adopted the PDCA cycle operating model as the international standard, establishing and implementing an Information Security Management System. The information security policy is approved by the highest information security unit of the enterprise group, and by the end of 2020, CSRC obtained ISO 27001 certification, valid until January 5, 2024. In December 2023, CSRC 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 for information 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 providers certified by ISO/IEC 27001


bsi.

Certificate of Registration

INFORMATION SECURITY MANAGEMENT SYSTEM - ISO/IEC 27001:2013

This is to certify that: TCC Information Systems Corp.
9F,
No. 113, Chung Shan N. Road, Sec. 2
Zhongshan Dist.
Taipei City
104414
Taiwan

Holds Certificate No: IS 739963

and operates an Information Security Management System which complies with the requirements of ISO/IEC 27001:2013 for the following scope:

The provision of operation and maintenance of information systems, management of network infrastructure, server room and related supporting activities, and customer service within IT Division.
This is in accordance with the Statement of Applicability, SR-015-ISMS, version 2.0 dated 21 December 2020.

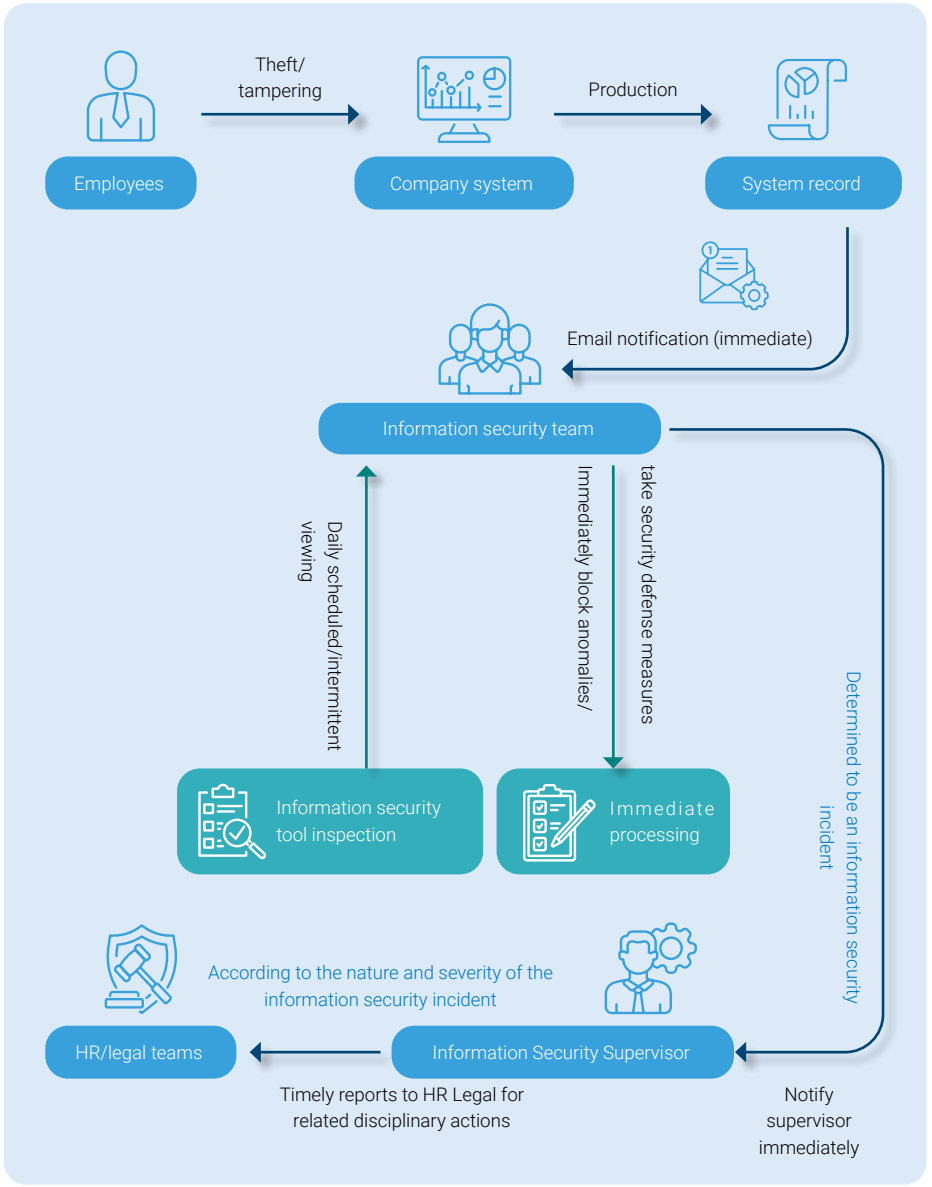
For and on behalf of BSI:
Chris Cheung, Head of Compliance & Risk - Asia Pacific

Original Registration Date: 2021-01-05
Latest Revision Date: 2021-01-05
Effective Date: 2021-01-05
Expiry Date: 2024-01-04
Page: 1 of 2

...making excellence a habit.

ISO/IEC 27001:2022 transition certificate

IRP Information Security Incident Response Plan Flowchart



Information security control and protection mechanisms

Item	Explanation
Information security organization	■ The Information Security Department was established in 2022 with a total of five dedicated information security personnel and 12 support personnel by the end of 2023. ■ As of December 2023, a total of 40 information security weekly meetings, six monthly meetings, three quarterly meetings, and one board meeting have been held, actively discussing the application of information security tools, the current status of information security project implementation, and the distribution of information security manpower.
Information security awareness	2023 processing: ■ Four sessions of information security awareness training were conducted, accumulating approximately 1,600 attendees and about 1,800 hours of training. ■ Six social engineering drills were conducted, with an overall non-compliance rate of 3.15%.
Network security	■ 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. ■ VPN connections require two-factor authentication (MOTP) and permissions are reviewed every three months for suitability.
Asset management	■ 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	■ 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	■ Smart areas (such as information rooms) 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	■ 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	■ System patches are regularly updated and anti-virus codes are updated daily. ■ Perform system backup jobs regularly.
Incident detection	■ 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	■ 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 2023, 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

	2021	2022	2023
Greater China	0	0	0
India	0	0	0
USA	0	0	0
Group	0	0	0

● Protection of personal data, prevention of personal data leaks, and maintenance of Company information security through education and training:

Education and training designation	Content description	Total number of course participants	Participants	Course hours
AI hacker attack techniques and countermeasures	How hackers use AI to attack; AI information security response strategies; Raising Information Security Awareness	1,600	All employees	1,600
Information Security Management System (ISMS) Certification Education and Training	Information security certification standard content; Compliance matters for information security management systems	60	Relevant information personnel	180
Social Engineering Drill Education and Training	Social engineering exercise principles; Common social engineering details; Preventive measures	400	Colleagues in violation of social engineering exercises	33

Other risk items

In 2023, the various risks of CSRC were implemented under the existing management measures; no major abnormalities occurred.

Risk	Challenges	Management method
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

The two major business groups[Note] of CSRC are carbon black and biotechnology. In 2023, the consolidated revenue of CSRC was NT$17.875 billion and earnings per share were NT$0.51. Out of this, the carbon black business group had revenue of NT$17.416 billion (accounting for 97% of 2023's full-year revenue) . The sales areas were mainly in the Americas and Asia, accounting for 40% and 55% respectively. In 2023, global new car sales saw a slight recovery compared to the previous year. However, influenced by factors such as inflationary pressures, US interest rate hikes, and a sluggish recovery in China, downstream industries continued destocking efforts. Coupled with a high-interest environment, this led to increased operational costs for enterprises. As a result, the growth in new car sales was lower than expected, putting pressure on the operational performance of CSRC's carbon black business. The biotechnology business's profits for this period decreased due to a reduction in recognized settlement royalty income, as the patent in the United States expired in February 2023.

Looking ahead, CSRC's carbon black business will streamline its mainland production operations, focusing on producing standardized niche products across its factories. We will continue integrating Group technologies to secure competitive sources of oil. On the product front, the Company will expand into export markets and non-tire industry products. Operationally, we will concentrate on expanding our customer base and seizing opportunities in the market.

CSRC is committed to staying ahead of environmental regulations, strengthening environmental protection and prevention equipment, and ensuring compliance with local regulations and standards. In the case of stricter environmental protection regulations in various countries, CSRC can continue to operate, maintain production, and create growth. The business philosophies of "results oriented" and "precise, concise, accurate" are the foundation of our operations. In the future, we will continue to promote various research and development projects and develop fuel-saving equipment and methods while taking energy saving, carbon reduction, and increasing resource utilization as guidelines to create positive growth momentum, and make every effort to create the highest interests for shareholders as the goal.

Sales by business group over the years

Unit: NTD million

	Carbon black	Biotechnology	Batteries (Note)	Others
2023	17,416	225	-	234
2022	21,725	1,333	-	311
2021	17,243	4,563	2,252	559

Note: Please refer to Chapter 9, Note 39, Segment Information on page 75 of the 2022 Consolidated Financial Statements for details on the cessation of recognizing sales revenue by the Battery Business Unit.

Sales by region over the years

Unit: NTD million

	Americas	Asia	Others
2023	7,126	9,842	907
2022	11,044	11,294	1,030
2021	11,694	11,922	1,001

Direct economic value generated and distributed by CSRC

Unit: NTD million

		2021	2022	2023
Production of direct economic value	Revenue	24,617	23,368	17,875
Distribution of direct economic value	Operating costs (Note)	17,421	20,042	16,221
	Employee remuneration and benefits	2,019	1,586	1,503
	Funds paid to investors	294	692	788
	Funds paid to the government	106	176	135
	Community investment	-	1	-
Retained economic value		4,777	871	(772)

Note: Due to differences in the calculation basis of operating costs in 2021 and 2022, the data disclosed for this year has been adjusted.

Government financial subsidies

Unit: NTD

Region	Greater China		Total
	Taiwan	China	
Tax deduction	8,800	897,615	8,800
Subsidy	135,000	930,423	872,993
R&D subsidies	14,000,000	188,019	14,188,019
Financial rewards	-	1,299,589	1,299,589
Total subsidy amount	14,143,800	3,315,646	16,369,401

Note: No government financial subsidies were received from India and the United States in 2023.

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.

- 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.
- Based on mutual trust and information transparency, we establish a mutually respectful relationship with tax authorities.
- The Company's important decisions all consider the impact of taxation and carefully evaluate the operating environment while conducting tax risk management and control.
- 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.
- 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	4,396,578	2,838,901	2,741,845	7,897,959	17,875,283
Proportion (%)	25%	16%	15%	44%	100%
Profit and loss before tax	437,738	(808,110)	(261,513)	517,247	(114,638)
Proportion (%)	-382%	705%	228%	(451%)	100%
Income tax payable for the current year	355,056	0	5,600	111,608	472,264
Proportion (%)	75%	0%	1%	24%	100%
Income tax number of payments	355,056	0	5,600	111,608	472,264
Proportion (%)	75%	0%	1%	24%	100%

Income taxes

Unit: NTD thousand

Financial Disclosures	2021	2022	2023
Net profit before tax	5,355,288	1,472,526	(114,638)
Income tax expense	1,923,448	809,544	428,067
Income tax paid	1,248,975	87,458	472,264

Effective tax rate

Year	2021	2022	2023
Effective tax rate on book basis (%) Note 1	36%	55%	(373%)
Effective tax rate on cash basis (%) Note 2	23%	6%	(412%)

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 information can be linked to CSRC's 2023 Annual Shareholders' Meeting Annual Report, p. 201

PRODUCT

2023 Performance Highlights

The Group's total investment in research funding attained NT$209 million

The Greater China and India region's customer satisfaction averaged 9.22 points.

The Group has accumulated 64 patent applications by 2023, successfully obtaining 56 patents

CSRC Continues to Operate New Circular Economy Model

The Linyuan Advanced Plant in Greater China passed hazardous substance testing for 233 items, achieving a 100% inspection product qualification rate

The Group's revenues from green products accounted for 38%

The Group used 998.19 tons of recycled waste as raw materials for downstream building materials

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 Circular Economy 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 (2024-2025)	2023 performance
Revenue contributions from green products	45 %	40 %	38 %
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 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, Environmental Safety Department, Environmental Safety Office at each plant

Complaint mechanisms

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

Email: csrcir@csrcgroup.com

Management policies - Circular Economy

	Medium and Long-Term Targets (2026-2030)	Short-Term Targets (2024-2025)	2023 performance
Waste recycling rate	86%	81%	80.4%
Wastewater recovery rate	6% increase from 2023	1% increase from 2023	89%

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

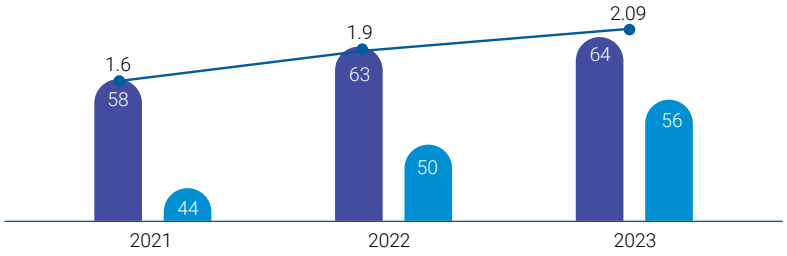
2.1.1 Innovation and R&D

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 three R&D centers and one technical service center. 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 2023 by CSRC's Carbon Black Business Unit reached NT$209 million, a 10% increase over the 2022 investment; CSRC has accumulated a total of 56 patents.

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

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 2023, one patent certificate was obtained and one employee received a bonus; two patents were applied for and 3 employees received bonuses.

Number of patents and R&D expenditures over the years



Carbon black product R&D status in 2023

Related to energy saving and carbon reduction

Greater China
- Optimized soft carbon black production reactors with reduced fuel consumption
- Successfully developed and modified recycled carbon black R series, and passed small-scale customer testing after sampling
- Tire pyrolysis oil (TPO) successfully incorporated into raw materials for carbon black production

USA
- A series of rCB materials were tested from various sources for their viability to replace vCB. One source was identified for replacement of vCB of levels greater than 15%.
- Evaluating the performance of a range of renewable/ recycled oils, two sources of TPO have been identified that are suitable for the manufacture of carbon black.

Low PAHs series

Developed the first category of Low PAHs products that meet Afps 2019 standards

Carbon black for rubber products with high clean demand

- Optimized soft carbon black to enhance purity
- Completed the development and trial production of two new rubber products using carbon black

Post-modification product EREBOS series

The first phase of paint baking application, modified carbon black, was been handed over for mass production.

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

Greater China
- Applied Ouroboros Solution to develop SC series Environmentally Friendly Recycled Carbon Black with rCB blended ratio of 30%

USA
- Continex-LH can improve the fuel efficiency of truck tires and has obtained relevant patents to scale up the planned production laboratory level to the pilot production line level.
- Continex-LH is applied to truck tires to improve their tread wear and durability, thereby extending tire service life and reducing tread wear particle emissions. Laboratory-scale trials have been launched.

Conductive carbon black series

- Entered trial mass production and testing phase for negative electrode formulations with lithium battery companies; developed new specifications for conductive carbon black undergoing positive electrode formulation tests with lithium battery companies
- Optimized production processes for medium conductivity grades to enhance purity and dispersion and to reduce oil consumption.
- Developed medium and high conductive grades and successfully engaged in trial production on the production line

Carbon black for fiber grade plastic products

Optimize the cleanliness of fiber-grade colored special carbon

Medium to high dyeing carbon black

Developed medium to high structure granular special carbon black meets customer standards, continually optimizing associated production processes

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 “Environmentally Friendly Recycled 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 manufacturers and facilitate excellent tire label performance. 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.

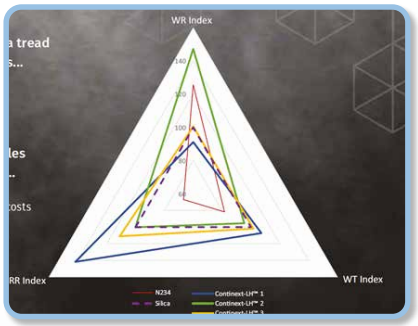
Features of LH series carbon black

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 waste tire production



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).

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 2023, the Linyuan Advanced Plant in Greater China passed hazardous substance testing for 233 items, achieving a 100% inspection product qualification rate.

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	0.08	<0.2	ppm	0.5
Total amount of phenanthrene, pyrene, anthracene, fluoranthene	0.79	0.3	ppm	10
Total amount of 15 polycyclic aromatic hydrocarbons (Listed in AfPS GS 2019:01 PAK)	3.8	1.4	ppm	20

Note: 1. CSRC uses the internally developed PAH quick screening method, which can obtain 15 or 18 PAH content, and apply it to screening during the manufacturing process, after packaging, and before shipment. It will also be sent to third-party inspection agencies to obtain reports from time to time.
2. The detection of harmful substances (specific chemical substances) in carbon black production is through photro (toluene transmittance) monitoring, and the detection frequency is once every four hours or eight hours.

Greater China Linyuan Advanced Plant
REACH SVHC test report

Greater China Linyuan Advanced Plant
PAHs test report

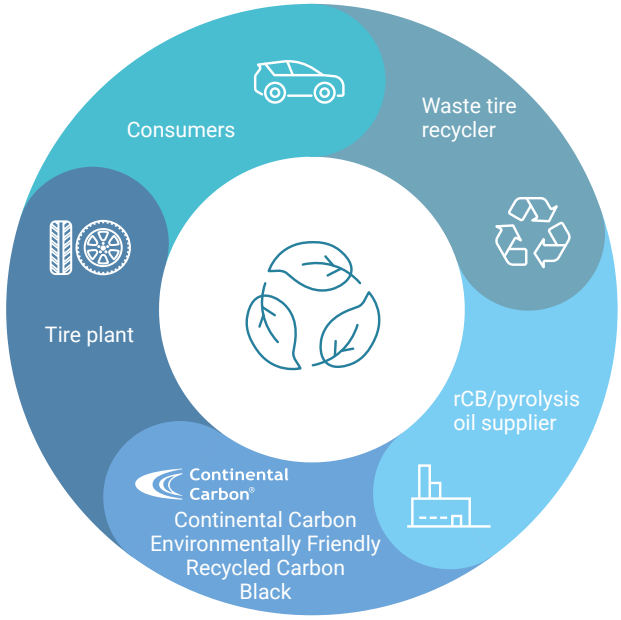
INDIA CCET plant
PAHs test report

2.2.3 Environmentally Friendly Recycled 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 "Environmentally Friendly Recycled 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.

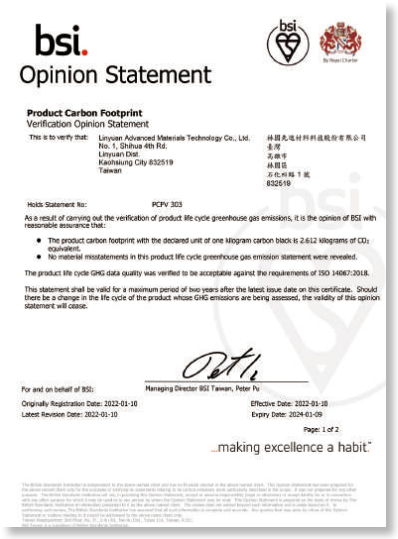
The Company continues to invest in R&D to explore various sustainable/renewable materials and energy sources, optimize production processes, improve energy utilization efficiency, and produce stable high-quality "Environmentally Friendly Recycled Carbon Black" suitable for different requirements. Through 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 Environmentally Friendly Recycled 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 type LH	LH series carbon black	■ Greater China ■ USA	■ 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	■ Greater China ■ USA	■ Use carbon black with low PAHs content to replace traditional carbon black, reducing the risk of PAHs hazards in products
	Post-modified EREBOS	Greater China	■ Produced by a green process, the primary 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
Environmental recycling carbon black	SC series and T series	Greater China	■ Collaborating with waste tire recycling and pyrolysis operators to incorporate recycled carbon black and reclaimed oil into the carbon black production process, establishing a closed-loop for tire carbon black and promoting an industrial circular economy.


bsi.
Opinion Statement
Product Carbon Footprint
Verification Opinion Statement
...making excellence a habit.

Greater China Linyuan Advanced Plant ISO 14067:2018

Cases of Industry-Academic Cooperation in 2023

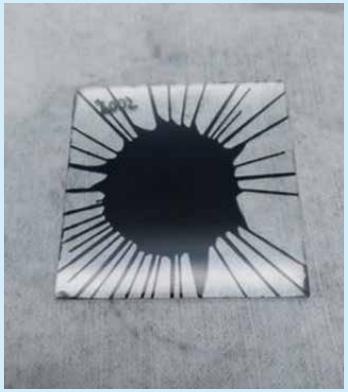
In 2023, we cooperated with National Sun Yat-sen University on an industry-university cooperation plan related to the application of lithium battery materials.

Electrode sheet production process: Battery slurry is placed on copper sheets and pressed into electrodes using a rolling press.

Post-modified carbon black completed the industrial innovation plan of the Industrial Development Bureau and received national subsidies

Closed-loop design innovation process reshapes the environmental image of 3C industry

Global public perceptions are changing in regard to electronic products, which traditionally have been seen as low in recycling rates and high in pollution. Dell's collaboration with green supply chains adopts closed-loop recycling to produce new products. By 2030, over 50% of products and 100% of packaging will be made from sustainable materials. HP introduced its first laptop using ocean-recycled plastics in 2019, aiming for a 75% circular utilization rate for products and packaging by 2030. Currently, over 80% of HP ink cartridges and 100% of toner cartridges are made from sustainable materials. Discarded ink cartridges and toner cartridges can be collected at home by dedicated shipping companies. As part of the green supply chain for the consumer electronics industry, CSRC uses patented carbon black technology and green manufacturing processes to undertake post-modification treatment of virgin carbon black or even recycled carbon black into environmentally friendly, low-PAH (polycyclic aromatic hydrocarbon) carbon black, offering the industry more eco-friendly ink and coating options.



Carbon black undergoes post-modification with ozone, and the modified carbon black is used to create ink curing films.

Product R&D Highlights in 2023

"Ouroboros Solution" co-creates green sustainability with the industry

CSRC officially launched an environmentally friendly innovation project called "Ouroboros Sustainable and Regenerative Circular Solution," embodying the core concept of circular economy that CSRC has always adhered to: Through cooperation with upstream and downstream industry chains, we aim to jointly promote green and sustainable development. This initiative not only deepens and upgrades existing circular economy models but also covers the sustainability and renewable raw materials of industrial and biological cycles, as well as technology research and development and process optimization that promote carbon reduction in the regeneration cycle. Its goal is to comprehensively improve the practical efficiency of the circular economy while working with industry partners to achieve the goals of reducing carbon emissions and promoting sustainable development in the future.

CSRC collaborates with Maxxis Tires to utilize the "Ouroboros Solution" to recycle carbon black and reclaimed oil from waste tires, manufacturing environmentally friendly recycled products – CONTINEX SC series carbon black, supplying Maxxis Tires for low-carbon, eco-friendly bicycle tire production. The CONTINEX SC series not only reduces carbon emissions but also stabilizes quality, reducing variability in tire production formulations and minimizing resource consumption for development and production due to formula changes. It meets the dual requirements of sustainability materials and stable quality in the tire and rubber industries.

In the application field of ink coatings, CSRC applies its proprietary ozone modification patent and integrates the "Ouroboros Solution" using recycled carbon black to develop EREBOS R series ink coating products. This enhances purity, modifies surface properties, and is suitable for various coatings, exhibiting high gloss characteristics. Its excellent dispersibility makes it suitable for high-blackness pulp and paste.

Through these sustainable innovations and concrete actions, CSRC actively promotes the "Ouroboros Sustainable and Regenerative Circular Solution." Starting from multiple dimensions, it not only collaborates with customers and supply chains to establish an environmentally friendly sharing model but also works with industry partners to create a better, greener future, further consolidating its influence in the field of sustainable enterprises.

The US sites announced Continex-LH at the Autumn International Elastomer Conference

The US sites presented at the annual Clemson University Global Tire Industry Conference in Greenville, South Carolina

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 tools with lower carbon emissions. In 2023, it introduced electric vehicle fleets from affiliated company Taiwan Transport, delivering carbon black products with minimal carbon emissions to customers. This secures benefits compliant with Scope 3 greenhouse gas inventory or carbon credits for customers and helps reduce Scope 3 carbon emissions upstream and downstream in the industry chain.

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 Business 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 suppliers 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

Feed control
- Supplier management
- Sampling inspection
- Process oil analysis

Process control
- DCS monitoring
- SPC control
- Process capability analysis
- Finished inspection

Finished product control
- Specification control
- Product testing
- Calibration management of measuring instruments
- Substandard product control
- Product traceability

Shipment control
- Appearance quality certificate
- Product protection
- Delivery and after-sales service process confirmation

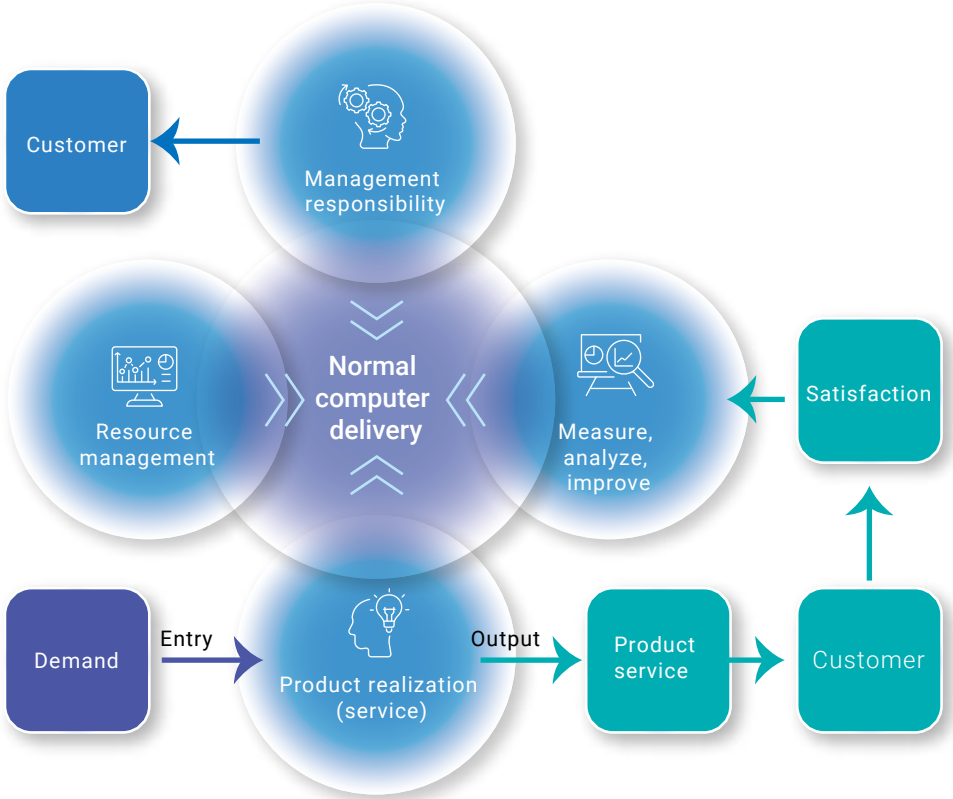
Market feedback
- Handling customer complaints
- Technology exchanges

Quality management related verification certificate

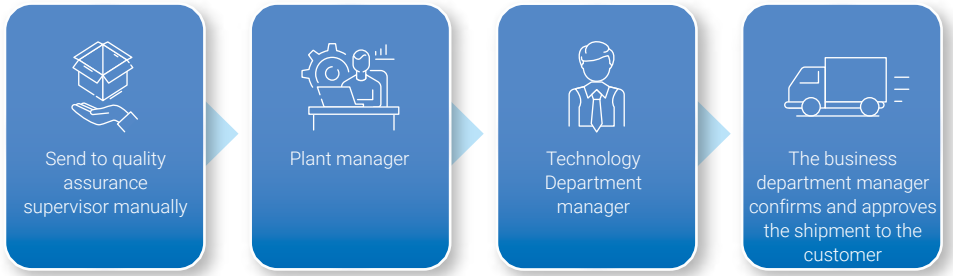
	Greater China Linyuan Advanced Plant and Xieyuan Plant	Greater China Maanshan Plant	Greater China Anshan Plant	INDIA CCET plant	INDIA CCIPL plant	USA CCC
IATF 16949: 2016	 Valid until: 2026/11/15	 Valid until: 2026/12/27	 Valid until: 2024/09/07	 Valid until: 2024/03/30	 Valid until: 2024/03/21	–
ISO 9001: 2015	 Valid until: 2024/12/09	 Valid until: 2026/12/27	 Valid until: 2024/09/07	 Valid until: 2026/03/28	–	 Valid until: 2026/05/21
ISO/IEC 17025: 2017	 Valid until: 2024/10/13	–	–	–	 Valid until: 2024/12/14	–

Quality management system process

Normal computer delivery



Special shipping circumstances



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:

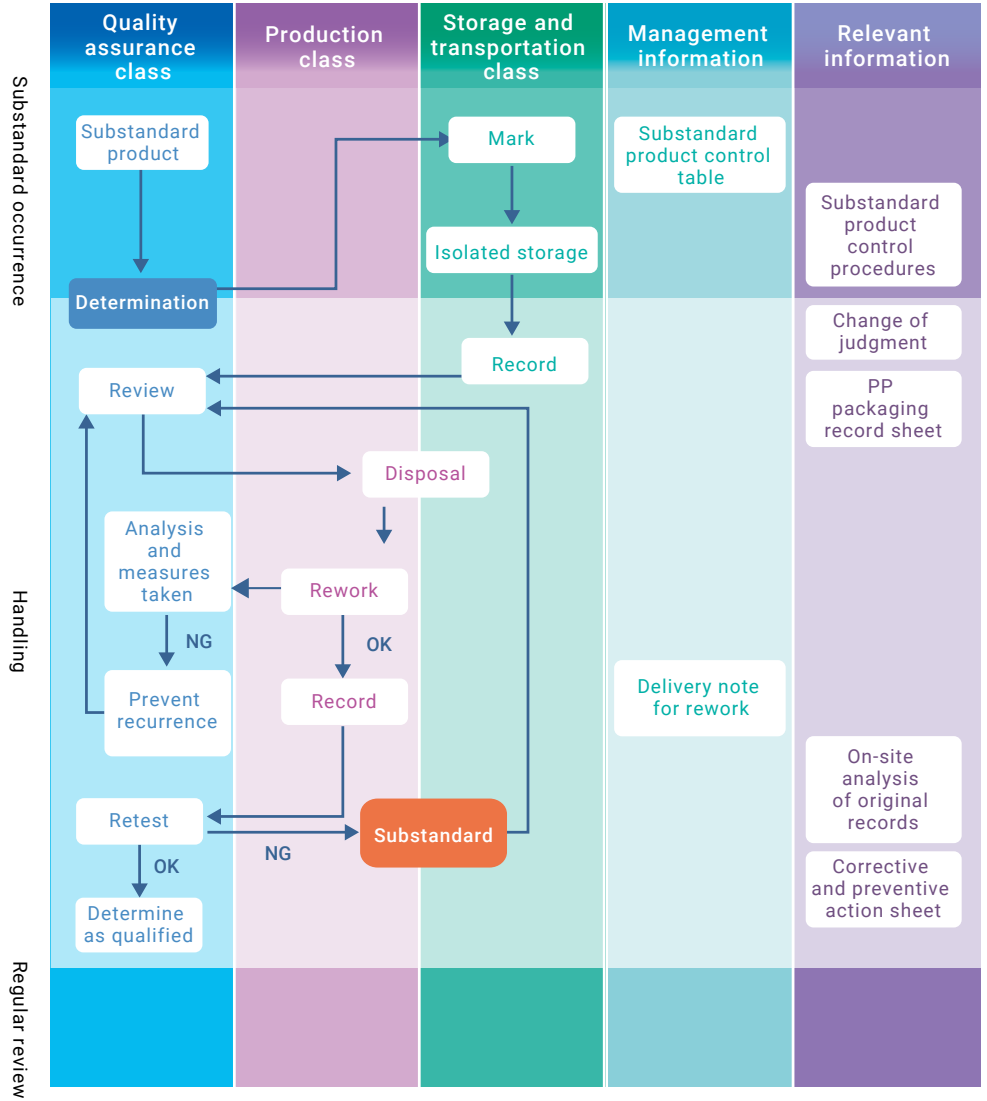
Test Item

- Raw oil moisture
- Feed oil distillation range and BMCI
- Feedstock pitch content
- Sulfur and chlorine content of raw oil
- Feedstock oil proportion and PAI
- Raw 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 washing sieve residue
- Carbon black PH value
- Carbon black volatile matter
- Carbon black particle hardness
- Carbon black fine powder content/carbon black size distribution
- Carbon black toluene decolorization
- 300% fixed elongation stress

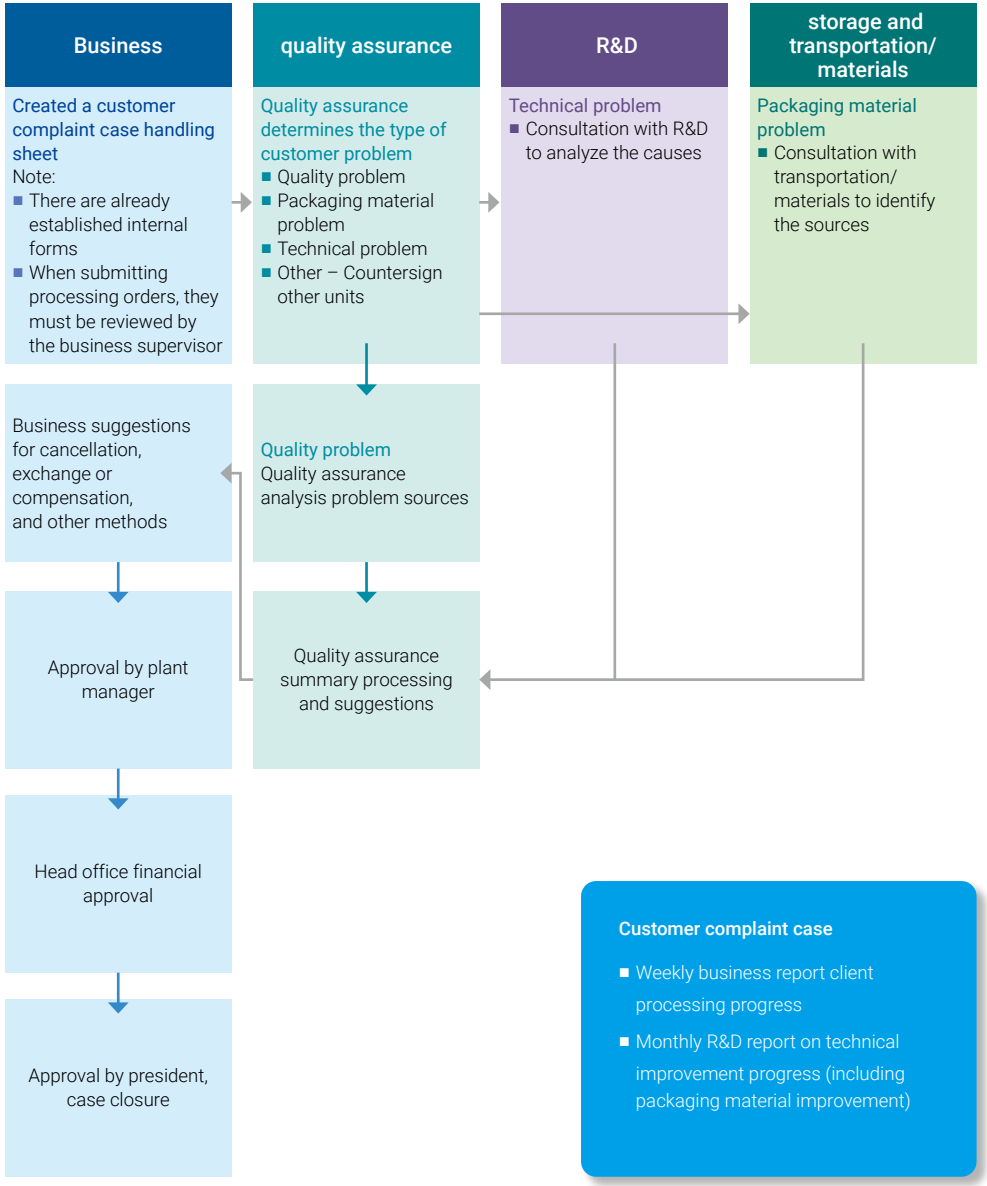

認證證書
林園先進材料科技股份有限公司
碳黑測試實驗室
高雄市林園區石化四路2號
為本會認證之實驗室
連錦漳

Certificate of TAF certification

Substandard product control flow chart



Product complaint incident handling process



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.

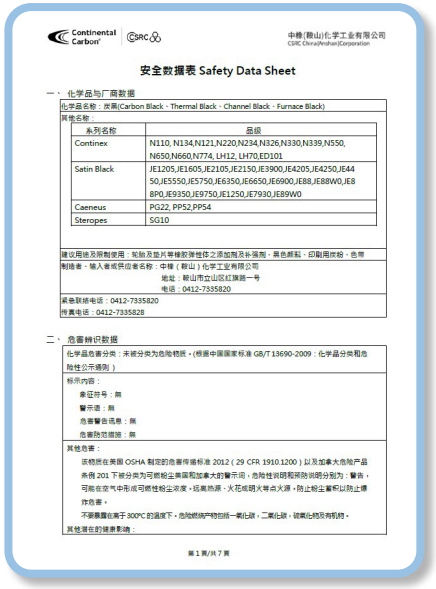
2.3.2 Product safety labels GRI 417-1、417-2

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.

Items included in the material safety data sheet

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

Product safety label examples


安全数据表 Safety Data Sheet

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 2023, CSRC had no violations related to product safety labeling.

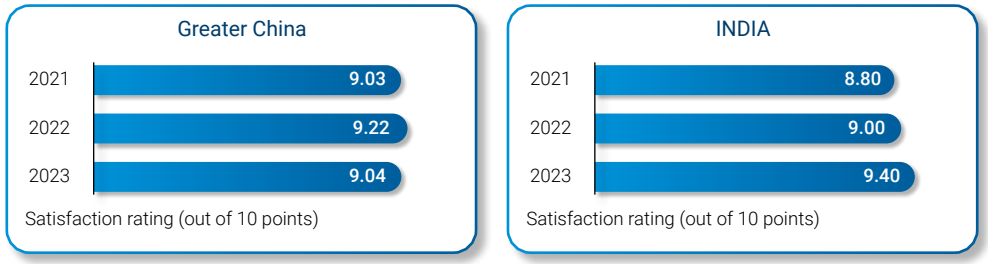
2.4 Customer Relationship Management
GRI 418-1

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. In 2023, CSRC Group received no complaints regarding the disclosure of customer privacy.

CSRC regularly organizes customer satisfaction surveys every year, covering regions including Greater China, and India. 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 2023 are as follows: Average satisfaction in Greater China is 9.04 points; in India, 9.4 points. The overall of two regions average customer satisfaction reached 9.22 points, approaching CSRC's set target, demonstrating customer recognition of CSRC's products and services.

Customer satisfaction of CSRC Group and operating location areas



Note: CCC has yet to conduct customer satisfaction survey.

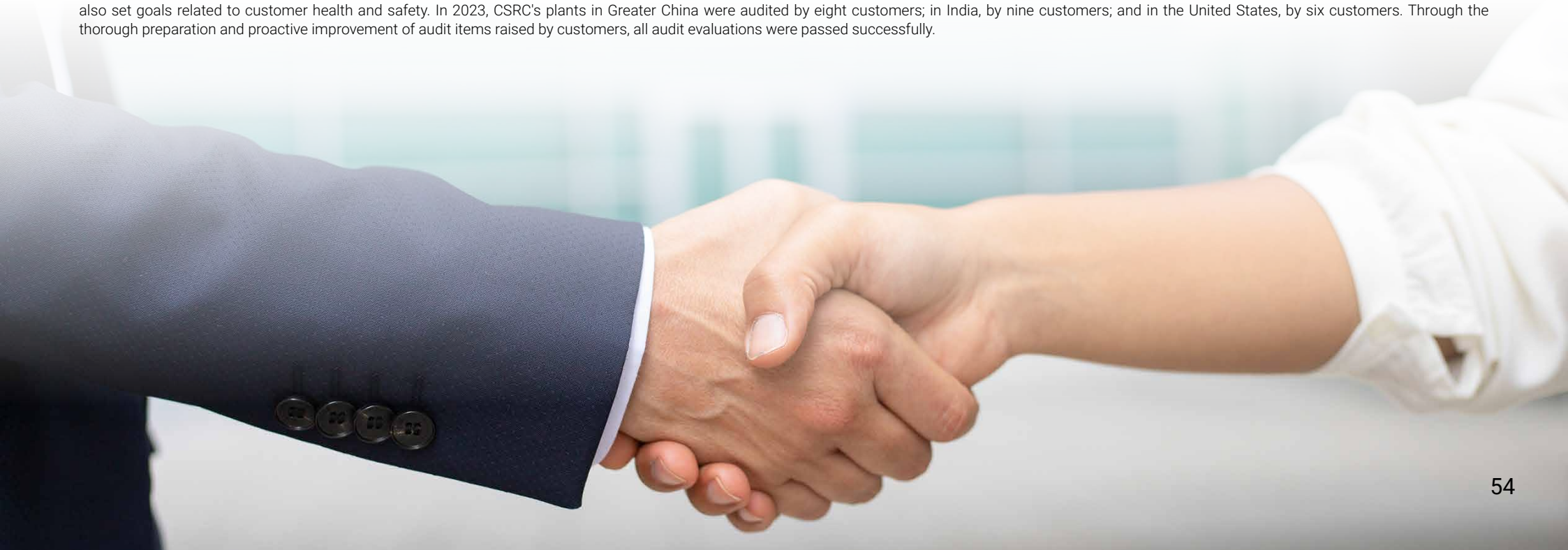
Satisfaction survey Item score	Greater China			INDIA		
	2021	2022	2023	2021	2022	2023
Technical services	**8.97**	**9.10**	**8.99**	**9**	**8.8**	**9.5**
Product quality	**9.03**	**9.20**	**9.20**	**8.9**	**9.6**	**9.6**
Delivery arrangements	**9.19**	**9.27**	**9.24**	**8**	**8.8**	**9.1**
Sales staff service	**9.09**	**9.31**	**9.14**	**9**	**8.8**	**9.5**
Overall satisfaction	**9.03**	**9.22**	**9.04**	**8.8**	**9**	**9.4**

Note: CCC has yet to conduct customer satisfaction survey.

Customers arriving at plants for audit in 2023

Greater China Linyuan Advanced Plant

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 2023, CSRC's plants in Greater China were audited by eight customers; in India, by nine customers; and in the United States, by six customers. Through the thorough preparation and proactive improvement of audit items raised by customers, all audit evaluations were passed successfully.



ch3 Circular Economy

3.1 Innovation and Circularity GRI 2-6

The core philosophy of CSRC emphasizes the symbiosis of energy regeneration and nature. 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 towards sustainable development.

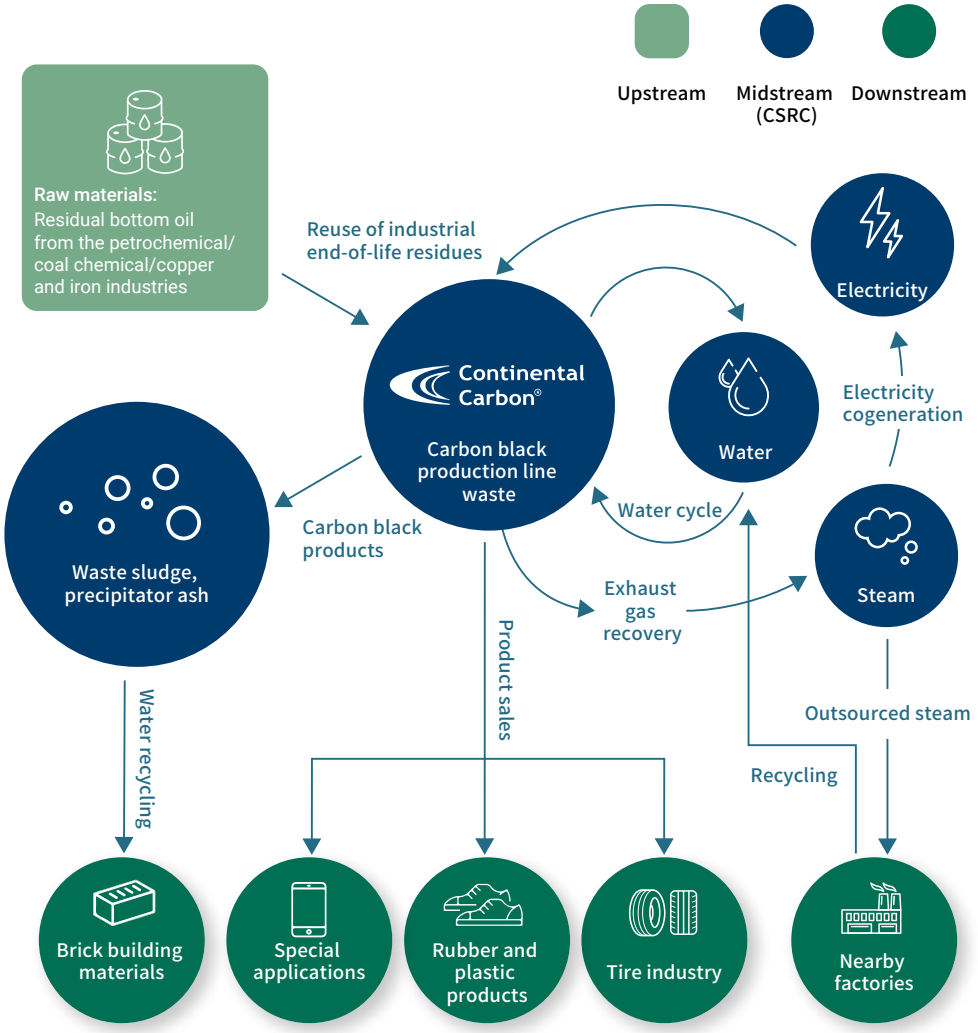
3.1.1CSRC 5R concepts

CSRC's Carbon Black Business Group actively embraces the operation mode of circular economy to overcome resource depletion issues in traditional linear economies. This includes the continuous reuse of energy resources, extending resource lifespan, and reintegrating end-of-life materials back into production, maximizing resource reuse. CSRC has established a sustainable and continuous value chain 5R model: Reuse, Redefine, Redesign, Reduce, and Recycle. This strategy covers 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 towards a more environmentally friendly and efficient future.

Circular Economy Management Principles

5R concepts	Explanation	Implementation phase	Relevant sustainability actions
Recycle	Return to the original end of use for reuse	Manufacturing	■ Water reclamation and reuse ■ rCB and recycled oil are incorporated into process regeneration ■ Reuse of packaging materials and pallets ■ Exhaust gas combustion and reuse
Reuse	Non-return to the original end of use for reuse	Product end-of-life	■ Reuse sludge and dust ash into building materials
Reduce	Reduce hazards and energy resource consumption generated during the production process	■ Raw materials ■ Manufacturing ■ Product end-of-life	■ 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
Redefine	Adjust operating parameters to achieve energy savings and emission reduction in the manufacturing process.	Manufacturing	■ Reduce greenhouse gas emissions ■ Improve energy efficiency ■ Reduce raw material usage ■ Product quality improvement ■ Reduce solid waste generation
Redesign	New product development - Environmentally friendly green products	Usage stage	■ Green product development ■ Reduce product carbon footprint

In addition to considering its own operations, CSRC expands the circular economy to downstream value chains and external partners. By examining potential risks and opportunities that energy resources may face during various uses, we develop corresponding actions and strategies.



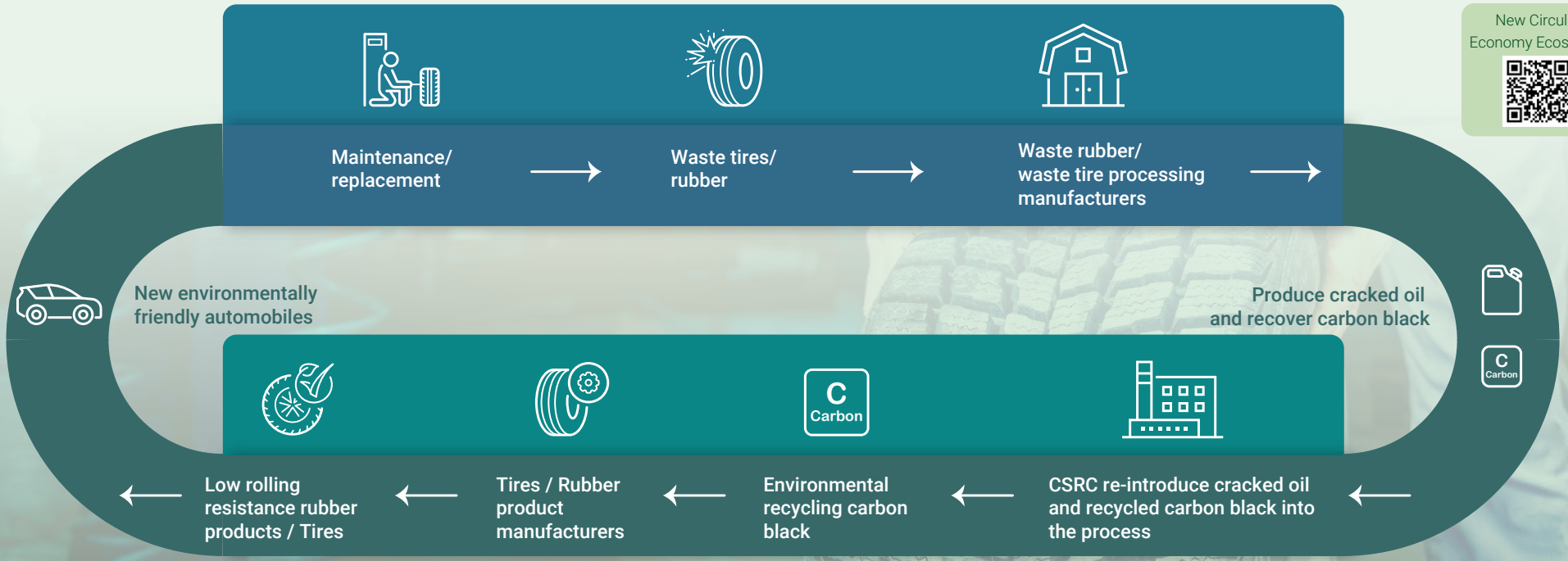
Circular economy management framework

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.	■ 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	■ Implementation of air pollution control equipment to reduce emissions of air pollutants ▶ Improvement of environmental and health quality ■ Reactors utilize high temperature ▶ 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 of carbon black products and waste of resources caused by residual vapor	■ 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, Condensate	The disposal cost of paper bag packaging and the failure to recover condensate result in a waste of water resources	■ 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

3.2 Practicing the new circular economy model GRI 2-6

Multinational automotive and related parts manufacturers have made the use of sustainability and recycled materials a core strategy for their development. Carbon black, as an indispensable raw material in tire production, is inevitably part of the entire circular value chain and a key strategy to achieve net-zero emissions in the supply chain. CSRC aspires to be a pioneer in circular economy and net-zero emissions. The company integrates circular economy principles into its operations and has introduced a "New Circular Economy Model." This model begins with raw materials and involves collaboration with waste tire recycling and pyrolysis companies. These partners produce recovered carbon black and reclaimed oil, which are then reintroduced into the production process. Utilizing CSRC's unique technology, the carbon black formula is adjusted to create new environmentally friendly, carbon-reducing carbon black. This approach achieves a closed-loop system for raw materials and meets the sustainability requirements of tire manufacturers.

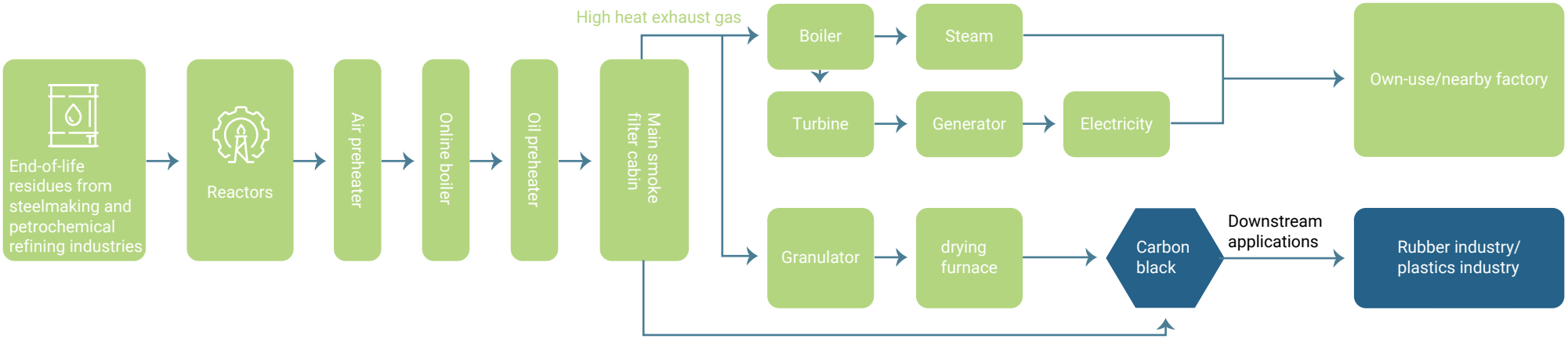
New circular economy ecosystem



Carbon Black Circular Economy

Carbon Black circular economy

Carbon black production effectively treats end-of-life emissions from the steel and petrochemical refining industries, additionally producing steam and electricity, making it an excellent model for the circular economy.



3.2.1 Raw material recycling

GRI 301-2；SASB RT-CH-410b.2

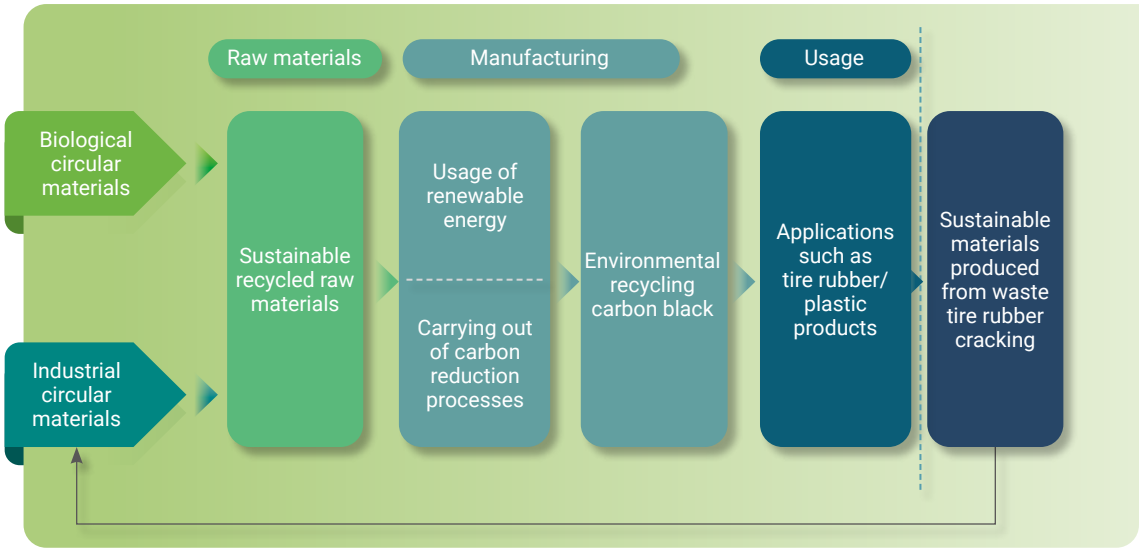
Waste tire pyrolysis oil returned to manufacturing process

CSRC continuously refines its approach to the circular economy, optimizing and upgrading the existing circular economy path. This involves enhancing the sustainability and renewable raw materials of industrial and biological cycles, as well as advancing technology research and development and process optimization to promote carbon reduction in the regeneration cycle. By employing a multi-faceted approach to upgrade the practical pathways of the circular economy, CSRC aims to achieve the goal of reducing carbon emissions.

By reintroducing pyrolysis oil and recycled carbon black from waste tire rubber pyrolysis into the carbon black process, bio-based and industrial recycled materials are introduced at the raw material end, and renewable energy is used in manufacturing. Through our carbon reduction process, environmentally friendly recycled carbon black is produced for the use of downstream tire manufacturers.

CSRC focuses on reducing carbon emissions at the source integrating pyrolysis oil from waste tires and recycled carbon black into experimental product manufacturing processes, thereby reducing the carbon footprint of products. Through internal testing and evaluation, introducing recycled materials into carbon black reduces carbon emissions by at least 5%-25% compared to standard grade carbon black (e.g., ASTM N550), while maintaining physical properties very close to traditional carbon black. This ensures safety while promoting supply chain resource cycling and collaborative carbon reduction in the tire industry.

CSRC Upgrads Continental Carbon's path of the circular economy: Ouroboros-sustainable and regenerative circular solutions



CSRC's low-carbon emission carbon black products provide significant benefits to tire manufacturers:

Achieving carbon reduction goals 1

Products are made from renewable raw materials. If combined with carbon reduction measures in other processes, overall carbon emissions can be further reduced.

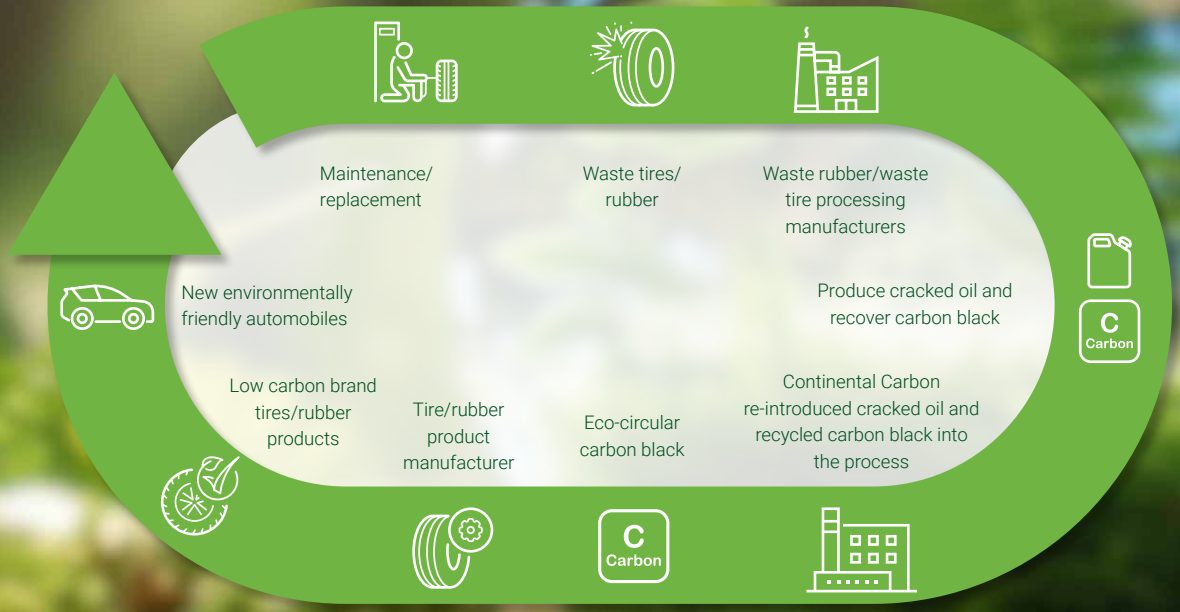
Maintaining stable product quality 2

Low-carbon emission carbon black maintains product quality and safety despite material changes.

Minimal formula adjustments 3

Advanced processing technology ensures that the physical properties of the improved carbon black can be very close to that of the original carbon black, so there is almost no need to adjust the formula during the manufacturing process. If needed, CSRC's technical service team can provide professional consultation and technical support.

Reprocessing of raw materials: Environmental recycling carbon black



At the raw material level, CSRC collaborates with waste tire recycling and pyrolysis plant operators to utilize their recycled carbon black and pyrolysis oil. Through R&D technology adjustments in carbon black formulation and processes, we produce environmentally friendly recycled products – SC series carbon black, to achieve the goal of carbon reduction. By utilizing recycled carbon black products and performing professional modification, we have developed carbon black for ink and coating applications. This carbon black features low volatility and high resin compatibility, making it suitable for high-gloss coatings. It is widely used in various architectural coatings, including polyester, alkyd resins, acrylic resins, epoxy, and PU resin fillers. With excellent dispersibility and high blackness, it can also be applied to high-blackness color pastes and colorants.

The value chain of carbon black is a model of a circular economy. Its raw material sources include by-products such as bottom oil from upstream petrochemical and steelmaking industries during the oil refining process. These low-value by-products, after undergoing chemical treatment for reuse, can instead produce high-value products like carbon black, as well as additional products such as steam and electricity. The temperature of an incinerator can generally only reach 600-800° C. After incineration of industrial waste, air pollution will still be discharged. In comparison, the reactor furnace temperature of the carbon black process reaches up to 1,800°C. When CSRC incinerates by-products from the petrochemical and steel industries (bottom oil) at high temperatures, it can completely remove many toxic substances such as dioxins that harm the environment. The above carbon black recycling process not only fully utilizes by-products from traditional processes, reducing environmental pollution risks, but also drives new industries and technologies, creating a paradigm of resource recycling. In 2023, the Linyuan Advanced Plant in Greater China used 3,879 tons of tire pyrolysis oil as alternative fuel. For annual procurement details, please refer to the Supply Chain chapter on page 158.

Recycling of building materials and raw materials: Waste is recycled and made into downstream building materials and raw materials

The specific solid waste produced by CSRC can be made into recycled materials after disposal. For example, after physical removal of precipitator ash, heat treatment of waste sludge, and physical disposal of waste refractory materials, all can be recycled into building materials. Waste insulation cotton can be recycled and made into insulation materials after physical treatment, while desulfurized gypsum can be used as a raw material for cement manufacturing. The recycling of recycled materials can reduce the landfill or disposal volume of CSRC's waste, effectively reducing environmental impact and conserving energy resources.

The Linyuan Advanced Plant in Greater China collects waste generated during the carbon black production process, including sludge, refractory materials, and bulk bags. Among them, bulk bags totaled 64.42 tons, which are processed and used as fuel, while waste refractory materials amounted to 65.06 tons and sludge to 173.51 tons, for a total of 238.57 tons, processed through physical treatment to produce recycled granular material CLSM (control low-strength material) to be used as engineering mixture ingredients. In 2023, CCC plants in the US used 706.6 tons of desulfurized gypsum for road stabilization, subgrade lime, and agricultural lime use.

Recycled aggregates (controlled low-strength backfill material CLSM)

Recycled granules 30-100 mm

The Maanshan and Anshan plants in Greater China utilize desulfurization and denitrification systems in their production lines, generating desulfurization waste - desulfurization gypsum, which has been confirmed by third-party testing to meet the standards for use as raw materials in cement production. We have established a recycling partnership with local cement plants, transporting a total of 53.02 tons of desulfurization gypsum to these cooperative cement plants in 2023 for use as raw materials in cement production.

Illustration of Waste Management at Anshan Plant in Greater China

Waste designation	Waste refractory materials	Waste thermal insulation cotton	Waste fiber
Waste code	D-0501	D-0403	D-0801
Photo			
Source	Reaction gas, drying furnace	Reaction gas, drying furnace	Baghouse dust collector

Inorganic sludge (process/ditch)	Non-hazardous precipitator ash	General waste	Waste activated carbon
D-0902	D-1099	D-1801	D-2403
			
Wastewater treatment plant	Baghouse dust collector / Production scrap	Domestic output	Sand filter tower

3.2.2 Waste heat recovery and steam power generation

In recovering waste heat, steam is generated for use in the process. The remaining steam can also be used for power generation in the area around the plant or it can be sold to neighboring partners

In terms of energy recovery and reuse, each plant area is equipped with cogeneration boilers using carbon black exhaust gases as fuel. This not only significantly improves energy utilization efficiency but also maximizes the use of process-generated exhaust gases as fuel, recovering heat simultaneously to achieve a circular economy. Since the carbon black tail gas has low combustible content and contains a large amount of water, the combustion temperature requirements are relatively high, and the carbon black production process often causes fluctuating changes in the tail gas due to cooling factors. Under severe conditions of temperature and pressure changes, the combustion of the tail gas is relatively unstable. Therefore, the system has certain risks.

To ensure safety and efficiency in the combustion of carbon black exhaust gases, CSRC has specially installed "online heat recovery boilers" to exchange heat with the flue gas, thereby lowering the temperature of the flue gas before it enters the filter bags. This reduces the amount of water required for spraying during cooling, resulting in decreased water usage and internal energy consumption through heat recovery. Additionally, these boilers can produce steam for heating oil tanks or for use in the carbon black production line. Excess steam can be reused for power generation, in addition to being used for internal operations and sold to neighboring plants. This reduces air pollutants caused by the use of fuel in neighboring factories, achieving the positive benefits of 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)

3.2.3 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	■ The proportions of environmentally friendly pallets used in Greater China: 80% at Maanshan Plant and 52% at Anshan Plant ■ India: CCET plant 100%, CCIPL plant 61%
	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 2,480 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 handling the packaging bags.	■ A total of 589,656 bags were used ■ Estimated reduction of 142.82 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 10,581.2 tons/year
	Recycling and reuse of waste carbon black	-	182.4 tonnes of waste PP bags sold
	Reuse of waste bulk bags	Recycle used bulk bags from clients and reuse them instead of incinerating	0.6 tons/year hazardous waste recycling project
Recycle	Reuse of waste solvents in the plant	Waste solvent recovery process produced in the laboratory for reuse	0.6 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 dryer roller	Recycling usage volume of 17 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

- Reduce the use of paper cups in meetings
- 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.

ENVIRONMENT

2023 Highlighted performance

TCFD included all plants of the Group for evaluation and disclosure.

Maanshan and Anshan in Greater China maintained the honor of level B enterprises in the heavy-pollution weather evaluation.

Linyuan Advanced in Greater China adopted recycled oil as fuel oil, thereby reducing carbon emissions by 3,525 tCO_2e.

Based on the systematic assessment of the replacement of heavy fuel oil with replacing natural gas by Linyuan Advanced and Chongqing in Greater China, approximately 9,944 tCO_2e of carbon emissions would be reduced.

The Group's waste recycling rate reached 80.4%

The Group's wastewater recycling rate reached 89%

Linyuan Advanced in Greater China used a total of 8,149 m^3 of externally recycled condensate for reuse

Maanshan and Anshan in Greater China were rated as a water-efficiency enterprise.

62.5% of the group's factories are zero wastewater discharge facilities.

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 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 (2024-2025)	2023 performance
Greenhouse gas emissions (Scopes 1 and 2)	2018	1. GHG intensity in 2030 to decrease16% compare with base year 2018. 2. GHG emission in 2030 to decrease 21% compare with base year 2018.(Due to incorporate of CCET plant, carbon black production increase 5% compare with base year 2018.)	GHG intensity to decrease 3% in 2025 compare with 2018.	Emissions in 2023 reduced by 22.7% compared to 2018 emissions

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
- Each plant conducts an inventory according to the local government's regulations and regularly make public the carbon reduction performance.
- We adopt natural gas to replace fuel oil and introduce waste tire pyrolysis oil containing biomass to reduce greenhouse gas emissions.

Negative impact management

- We conduct annual greenhouse gas inventories to confirm energy conservation and carbon reduction performance and formulate improvement strategies
- 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.
- We timely adjust carbon reduction targets and plans and include carbon reduction performance in the performance bonus evaluation.

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

Safety and Environment Center, safety and environment 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.

Email: csrcir@csrcgroup.com

Management policies - Energy management

	Medium and Long-Term Targets (2026-2030)	Short-Term Targets (2024-2025)	2023 performance
Cumulative percentage of energy saved	27%	22%	Cumulatively 20.6% from 2021 - 2023
Percentage of self-produced energy	24%	19%	ArouWnd 18% in 2023; 17% on average from 2021 - 2023
Percentage of renewable energy used	4%	1.5%	Around 0.68% in 2023; 0.76% on average from 2022 - 2023

Impact description

Description of positive impact

CSRC is committed to process improvement and production parameter and equipment optimization and take direct and effective measures to reduce energy consumption, while indirectly recovering thermal energy and exhaust 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 exhaust 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.

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

Safety and Environment Center, safety and environment 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 - Air pollution prevention and control

	Medium and Long-Term Targets (2026-2030)	Short-Term Targets (2024-2025)	2023 performance
Cumulative reduction in emission intensity	Reduce the cumulative reduction by another 2-3% compared to 2025.	Reduce the cumulative reduction by another 1% compared to the cumulative reduction in 2023.	The cumulative reduction of SOx by 48%, NOx by 46%, and TSP by 50% from 2021 through 2023.

Note: As all VOCs generated by the Linyuan Advanced were recycled and reused, no baseline year for emission targets has been set. Plants in the United States have been able to eliminate about 99% of VOCs through the combustion of the steam boilers.

Impact description

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.

Policies and commitments

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.

Action plan

Positive impact management

- 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.

Negative impact management

- 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.

Evaluation of effectiveness

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 KPIs evaluation

Each operating plant assesses the KPIs of air pollution emissions per year.

Responsible units

Monitoring by the Safety and Environment Center and implementation by the safety and environment 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
- Invest in EBF desulfurization and denitrification system, in which SCR for NOx reduction, dry scrubbers for SOx reduction, and plse-jet fabric filters(PJFF) are in place.

Complaint mechanisms

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

Email: csrcir@csrcgroup.com

Management policies - Water resource management

	Medium and Long-Term Targets (2026-2030)	Short-Term Targets (2024-2025)	2023 performance
Wastewater recovery rate	Increase of 6% compared to 2023	Increase of 1% compared to 2023	Around 89% in 2023; 77% on average from 2021 - 2023
Water use intensity for carbon black	Down by 10% compared to 2023	Down by 5% compared to 2023	7.06 m^3 /ton in 2023; 6.22 m^3 /ton on average from 2021 - 2023

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

- 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

Safety and Environment Center, safety and environment office of each plant

Complaint mechanisms

The stakeholder communication email is available on the Company's website for grievances.

Email: csrcir@csrcgroup.com

Management policies - Waste management

	Medium and Long-Term Targets (2026-2030)	Short-Term Targets (2024-2025)	2023 performance
Waste recycling rate	86%	81%	80.4% in 2023 ; the average of 2021 through 2023 were 71.5%

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. Due to Taiwan's current treatment capacity, 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

Safety and Environment Center and all plants' safety and environment offices, storage and transportation teams, and production teams

Complaint mechanisms

The stakeholder communication email is available on the Company's website for grievances.

Email: csrcir@csrcgroup.com

ch4 Climate Change Response

4.1 Response to climate change

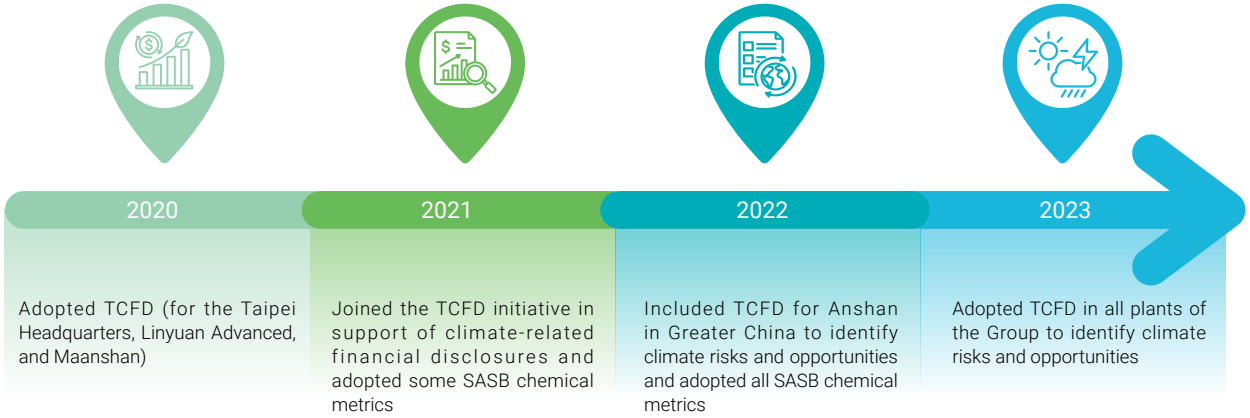
4.1.1 Climate change risks and opportunities and financial impacts

GRI 201-2

Since the Paris Agreement, responding to climate change has become an issue that governments and enterprises must actively address. Representatives of various countries have proposed "Net-Zero by 2050". after the Climate Change Conference (COP26) in 2021. The COP27 in 2022 reaffirmed the importance of controlling the temperature rise to less than 1.5°C; at COP28 in 2023, the first global stocktake of the Paris Agreement was launched, and the results showed that the global warming control actions were far from effective, and the conference, once again, called on governments and enterprises to accelerate the transition to zero emission or low emissions and engage in low-emission technology research and development (R&D) to reduce carbon emissions.

The government of Taiwan also officially announced Taiwan's Pathway to Net-Zero Emissions in 2050 and Strategy in 2022. Considering the tightening of domestic and foreign greenhouse gas emission regulations, and the possible direct impact of natural disasters caused by extreme weather on the business premises, the above transition or physical climate-related risks will have an impact on enterprises' finances. In accordance with the TCFD since 2020, CSRC has identified risks and opportunities through discussions at ad-hoc meetings and set climate change response targets to gradually mitigate the impacts of related risks. CSRC has expanded the scope year by year. In 2023, we included the following group-wide production sites (including Greater China (Taipei Headquarters, Linyuan Advanced, Consolidated Resource, Maanshan, Anshan, Chongqing; CCET and CCIPL in India; and Ponca and Sunray in the United States), identified 100% of climate risks and opportunities, aligned the reporting boundaries with the TCFD framework, adopted all SASB chemical metrics, and signed the TCFD statements of support.

History of response to climate change



Governance

In climate governance, the Board of Directors serves as the Group's top climate change governance body, which oversees the Group's climate change strategies and approaches. The Corporate Sustainability Committee has established the Sustainable Environment and Products Team that is operating across plants and units. It is responsible for planning and formulating carbon reduction, greenhouse gas emission, and climate change impact management and mitigation tasks. 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 committee working group 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: Please refer to Chapter 0. Sustainability Blueprint

Organizational structure of climate risk governance

Climate Risk Governance Organization Chart

Responsibilities at all levels

TCFD team

- Board of Directors — Monitor risks and implement policies
- Chairperson
- Corporate Sustainability Committee — Formulate control measures and action plans
- Sustainable Environment and Products Team
- Identify climate-related risks and opportunities:
  - Implementing the energy-saving and carbon reduction tasks planned and formulated
  - Collecting energy consumption data and calculating carbon emissions.
  - Managing and mitigating greenhouse gas emissions and climate change impacts
  - Monitoring, controlling, and reducing pollutants from the manufacturing process.
- Purchasing department
- Accounting department
- Production department
- Human Resources department
- Marketing department
- Business department
- Research & Development department
- Safety and Environmental Protection

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 2023, we adopted the same framework to update the examination and evaluate climate-related risks and opportunities.

Identification

Introduction of a climate-related risk and opportunity identification mechanism

Evaluation

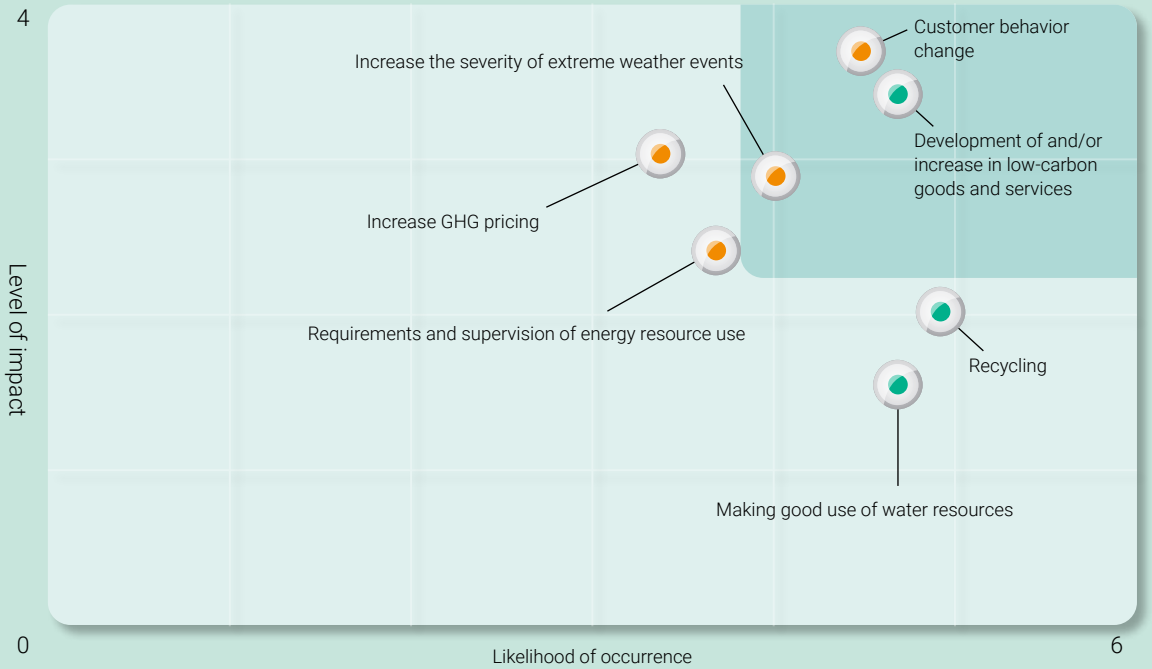
Inventory and assess the impact of various risk and opportunity issues on International CSRC's operations

Action

Proposing corresponding countermeasures and action plans based on the evaluation results.

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 2023



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	Increasing severity of extreme weather events	Short-, medium-, and long-term
3	R03	Transition risk - policies and regulations	Increase in prices of greenhouse gas emissions	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 International 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 commitment to carbon reduction in line with the targets set based on the Science Based Targets initiative (SBTi).
  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.
- Preparing documents required for the ISCC Plus certification (CCC will obtain ISCC Plus certification by 2024, and Linyuan plant will verify it at the end of 2024, and is expected to obtain it early 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.
- Examining and reviewing emissions from the plants, studying the methodology of SBTi targets, and hiring professionals for coaching to set carbon reduction 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.

Greater China:

Linyuan Advanced

- 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.

Maanshan

- 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, work stoppage was required with heavy pollution weather at level A. In 2022, Maanshan successfully moved from level C to level B.
- Blizzard: In 2023, a heavy snowfall only hindered commuting but did not affect the normal production of the production lines and the supply and delivery of raw materials.

Anshan

- Smog: Production was suspended between 2021 and 2022 due to heavy pollution weather.

India:

CCIPL

- Smog: Production was suspended at the end of 2018 due to severe air pollution.

USA:

CCC Ponca and CCC Sunray

- 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.

Greater China:

Linyuan Advanced

- 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.

Maanshan

- 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.

Anshan

- 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

India:

CCIPL

- 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.

USA:

CCC Ponca and CCC Sunray

- 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.

Risk	R03	Risk description
Policy and regulation risk	Increase in carbon pricing	Governments in various countries have capped carbon emissions in operating sites, to reduce carbon emissions and achieve the net-zero goal, 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

Greater China:

Linyuan Advanced

- 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.

Maanshan

- At present, the government of China has not yet implemented control over the total amount and intensity of emissions.

Anshan

- 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.

Chongqing

- Chongqing 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 314 thousands.

India:

CCET and CCIPL

- 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. (CCIPL is an enterprise included in the consideration by the Indian government.)

USA:

CCC Ponca and CCC Sunray

- 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.

Countermeasures

Greater China:

Linyuan Advanced

- It regularly reviews greenhouse gas emissions and appoints a third party to verify its greenhouse gas inventory.
- It is actively seeking low-carbon alternative materials, increasing equipment processing efficiency, or developing new processes to reduce carbon emissions.

Maanshan and Anshan

- 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.

Chongqing

- 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 waste gas was used to replace natural gas to reduce the natural gas used in the waste gas furnace.

India:

CCIPL

- 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.

CCET

- It invests in on-site green energy that eliminates the need for purchased, helping reduce carbon emissions.
- It has replaced reactors and heat exchangers and purchased backup heat exchangers to reduce carbon emissions.

USA:

CCC Ponca and CCC Sunray

- They improve process efficiency, reuse waste 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** ■ Water conservation charge in Taiwan: 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** ■ 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** ■ 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 m^3 /t.	**Greater China:** **Linyuan Advanced** ■ Linyuan Advanced aims to increase the use of reclaimed water to reduce the impact of the water conservation charge. ■ It aims to maintain the stable operation of the wastewater plant to produce reclaimed water and increase the wastewater recycling rate. **Maanshan** ■ It applied for a fixed amount of water consumption. The permitted water consumption in 2023 was 657,152 m^3, and the water consumed in 2023 is in line with the requirement. ■ It works to increase the wastewater recycling rate and reduce wastewater discharge. **Anshan** ■ It applied for an urban water use program with the annual permitted water consumption of 2,016,000 m^3, and the consumption in 2023 is in line with the requirement, and the plant was named "water-saving enterprise". ■ It works to increase the wastewater recycling rate and reduce wastewater discharge. **Chongqing** ■ 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	1. 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. 2. 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. 3. 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.

Description of impact on the Company	Countermeasures
The potential financial impact increases by approximately 5% in 2025 and 17% in 2030 under the BAU scenario.	

Impacts on the Group's plants:

- Based on the technical test of the alternative oils (tire pyrolysis oil or 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 products, SC series, and T series, to increase market share.

Greater China:

Linyuan Advanced

- How much TPO is adopted is adjusted according to the production process parameters to ensure stable quality of carbon black.
- During the annual preventive maintenance period, APHs are cleaned to reduce the scaling, and old pipelines are replaced as necessary (the hard wires of a total of three APHs were replaced.
- New waste heat boiler heat exchangers were installed to increase steam generation efficiency.
- Solar power is generated for self-consumption and bulk sale; waste gas at the end of the process is recycled and converted into steam for neighboring factories or its own operations.

Maanshan

- In addition to the two degaussing machines: a demagnetizing device for packaging and a magnetic separator, which were already installed, in June 2021, two more automatic iron removers were installed in each production line (eight in total). This will improve the product yield in the future.

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.
- The finished goods storage tank was changed from cast iron to stainless steel to reduce iron filings and improve product yield.
- 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 boiler recovers the waste heat in the production process and produces steam through heat exchange, and the steam will be used for steam power generation.
- 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, and the steam will be used for steam power generation; the electricity generated will be sold to other factories.

USA:

CCC Ponca and CCC Sunray

- Contracted to conduct carbon capture CCUS import assessment, which is expected to reduce carbon emissions and bring 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
Impacts on the Group's plants: ■ Waste gas is recovered and excess waste gas is sent for steam power generation or steam production to increase revenue. **Greater China:** **Linyuan Advanced** ■ Waste is recycled and reused, such as waste flexible freight bags, waste bricks, and remade into SRF. ■ Waste heat is recycled and reused. **Maanshan, Anshan, and Chongqing** ■ Pallets (made of plastic and reused by two or three customers) are shared. ■ Carbon credits are sold. ■ Waste heat is recycled and reused. **India:** **CCET** ■ Plastic pallets are used. ■ Flue-gas desulfurisation (FGD) waste is disposed of and sold to local cement and gypsum manufacturers. ■ High-efficiency waste heat recovery equipment was installed.	**Greater China:** **Linyuan Advanced** ■ The efficiency of waste heat recovery and reuse is monitored. ■ Waste disposal documents are sorted according to the storage location, regularly audited by the Safety and Environment Department, and passed ISO 14001 certification every year. ■ It actively seeks waste recycling companies. **Maanshan, Anshan, and Chongqing** ■ 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. **India:** **CCET** ■ The customer finally determined is a local cement manufacturer, which sells the gypsum used for the treatment of FGD waste.

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.

Description of impact on the Company	Countermeasures
Impacts on the Group's plants: ■ Recycling of process and wastewater in each operating plant helps to reduce raw water intake, thereby reducing water costs. **Greater China:** **Linyuan Advanced** ■ 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 conservation charge and reduce water costs.	**Greater China:** **Linyuan Advanced** ■ At present, LCY Chemical Corp. has continued to repurchase steam condensate. ■ The operation of the wastewater treatment plant has remained stable. ■ The steam generated during the operation is sold to the neighboring factories to increase revenue, while the neighboring factories will return the remaining purified water to the Linyuan Advanced. ■ 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.

Description of impact on the Company	Countermeasures
India: CCET ■ A wastewater recycling system was installed. ■ Recycling steam condensate from the sale of steam to nearby customers will help reduce the use of freshwater.	Maanshan ■ 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. India: CCET ■ It has formulated a plan and work closely with the steam room to recover the steam from the steam condensate 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. USA: CCC Ponca and CCC Sunray ■ 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 2023, please see 4.2.2 Reduce greenhouse gas emissions.

Item	2018	2021	2022	2023
Total greenhouse gas emissions (tCO_2e)	1,317,579	1,200,938	1,068,501	1,017,377
Greenhouse gas emission intensity (tCO_2e/t)	2.66	2.70	2.85	2.92

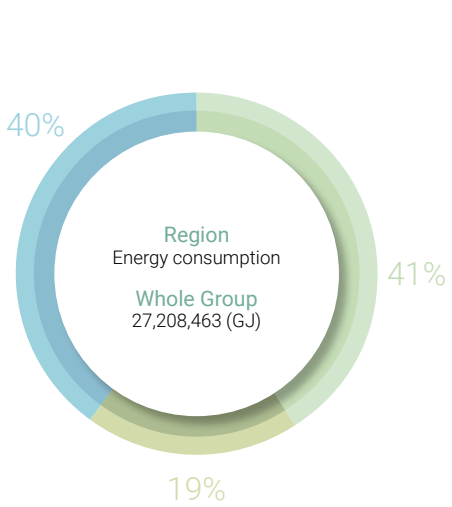
Indicator	Item	Sustainability report chapter
Greenhouse gas emissions	■ Conducting ISO 14064-1 greenhouse gas inventory and verification ■ Renewable energy generation	Chapter 4.2 Energy Management and Greenhouse Gas Management
Energy use	■ Enhancing energy efficiency ■ Recycling process waste gas for self-generation of electricity ■ Adopting high-efficiency equipment	Chapter 4.2 Energy Management and Greenhouse Gas Management
Customer behavior change (Circular economy)	■ Increasing the number of green product series and revenue ■ Establishing a green supply chain	Chapter 3.2 Implementation of a New Circular Economy Model Chapter 2.2 Green Products
Development of and/or increase in low-carbon goods and services	■ Researching and developing low-carbon technology to launch new low-carbon solutions on the market, launching low-carbon products, such as low-rolling resistance carbon black products, and developing SC series and T series	Chapter 2.2 Green Products

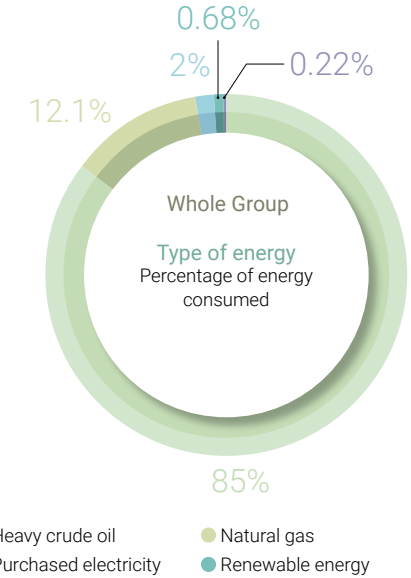
4.2 Energy Management and Greenhouse Gas Management

4.2.1 Enhancing energy efficiency

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

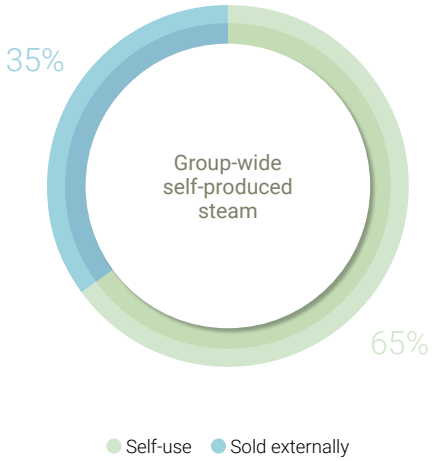
Energy usage

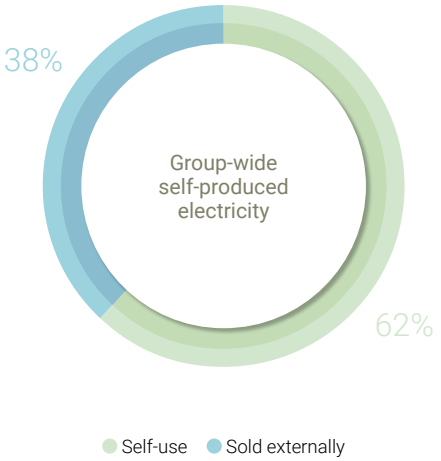




In the process of manufacturing carbon black, CSRC mainly uses heavy crude oil, purchased electricity, natural gas, diesel, self-produced electricity, and process waste gas. Some plants also use renewable energy. In 2023, the total internal energy consumption of the Group was 27,208,463 GJ, of which the plants in Greater China accounted for 41%, India 19%, and United States 40%. As the total carbon black output in 2023 is lower than that in 2022, and the improved process technology has directly led to significant reduction in the overall oil consumption of raw materials, energy consumption, and energy intensity. In 2023, the energy intensity of the Group was 78 GJ/metric ton, and the energy intensity of the plants in each region was 72 GJ/metric ton in Greater China, 74 GJ/metric ton in India, and 88 GJ/metric ton in the United States, respectively.

In 2023, the percentages of self-produced for self-use and the self-produced electricity for self-use by the plants in Greater China reached 53% and 84%, respectively; the percentages in India reached 90% and 29%, respectively; the percentages in the United States reached 100% and 65%, respectively; the group-wide percentages reached 65% and 62%, respectively.





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 consumption by plants in various regions over the past three years

Unit: GJ

Category		Greater China			India			USA			Group		
		2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
Heavy crude oil		17,366,390	12,869,061	10,307,568	4,236,802	4,200,306	5,153,092	9,902,849	9,186,073	7,751,492	31,506,042	26,255,440	23,212,153
Purchased electricity		280,125	364,588	263,116	39	798	57,397	183,924	127,573	150,864	464,088	492,959	471,376
Purchased renewable power		0	0	0	0	0	0	60,937	52,967	22,172	60,937	52,967	22,172
Biomass fuel		0	238,682	163,855	0	0	0	0	0	0	0	238,682	163,855
Natural gas		278,279	281,619	311,568	126	151	26,745	2,541,800	2,291,546	2,955,965	2,820,205	2,573,315	3,294,277
Diesel		14,494	11,241	11,938	12,103	12,068	7,640	1,068	1,278	25,051	27,665	24,587	44,630
Total internal energy consumption		17,939,288	13,765,190	11,058,045	4,249,070	4,213,323	5,244,874	12,690,579	11,659,436	10,905,544	34,878,937	29,637,949	27,208,463
Energy intensity (GJ/ ton)		73	74	72	78	77	74	88	87	88	78	79	78
Process waste gas		4,106,849	3,203,701	2,614,760	972,138	955,290	1,297,980	827,712	2,039,393	2,048,016	5,906,699	6,198,384	5,960,756
Self-produced steam	Self-use	2,755,526	1,723,522	1,443,166	31,996	55,995	1,105,775	50,454	52,486	44,637	2,837,976	1,832,003	2,593,578
	Sold externally	1,395,967	1,596,774	1,269,678	126,971	120,137	118,098	1,190,006	1,205,581	0	2,712,943	2,922,492	1,387,775
Self-produced electricity	Self-use	401,762	190,180	185,416	117,992	128,527	59,901	272,790	336,996	307,366	792,544	655,703	552,683
	Sold externally	84,958	35,735	35,663	120,759	121,177	144,180	0	227,729	165,639	205,717	384,641	345,482

Note: 1. There are two sources of process waste gas. One is the waste gas from the pyrolysis of the oil used to produce carbon black. The waste gas consists of H_2, C_2H_2, CH_2, 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 waste gas from the pyrolysis of the oil can be collected using a waste gas recirculation method, can be used for drying carbon black in pelletizing and burning fuel for steam power boilers.

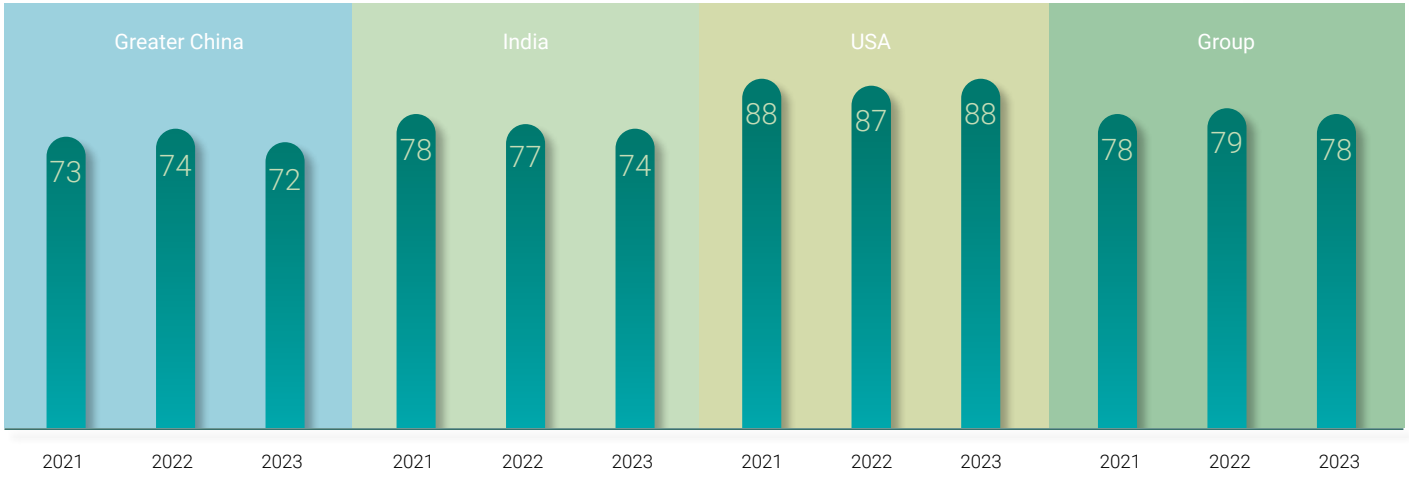
2. The total internal energy consumption is calculated based on the types of fuels and energy used, including heavy crude oil, purchased electricity, purchased renewable power, biomass fuel, natural gas, and diesel, of which, the process waste gas, self-produced steam, and self-produced electricity are all products of burning feedstock oils and are not included in the calculation to avoid double calculation of energy consumption.

3. The calorific value coefficient of energy conversion is calculated with reference to the coefficient of the table of calorific value per unit of energy products announced by the Bureau of Energy, Ministry of Economic Affairs, in 2023. Because the process conditions of each plant were similar, so Linyuan Advanced's waste gas composition analysis results in 2019 were adopted for all plants. The calorific value of the process waste gas was 680 kcal/m^3. The calorific values of the three plants in China were calculated according to the "Energy Consumption Limits Per Unit of Carbon Black Product", the national emission standard of China.

4. Energy intensity is the energy consumption (GJ) per unit of carbon black output (ton); the calculation method is energy intensity = total internal energy consumption ÷ carbon black output in 2023. In 2023, the Group's carbon black output was 348,325 tons, of which 152,734 tons in Greater China, 71,064 tons in India, and 124,527 tons in the United States. In addition to the four production sites in Greater China, Consolidated Resource and the Taipei Headquarters were included in the 2021 data, of which there was no 2021 date for the Taipei Headquarters and its energy consumption was small and insignificant.

Energy intensity of plants in various regions over the past three years

Unit: GJ/tons



Energy management

CSRC's energy management is divided into two major directions: energy structure management and energy efficiency improvement. Energy structure management is mainly adjusted toward a circular economy model; for example, the process waste gas recycled is converted into steam to generate electricity for self-use or sale; the construction of a solar power system to increase the generation of renewable energy; and biomass fuel is used to reduce greenhouse gas emissions. Enhancement of energy efficiency aims to improve the electricity efficiency of equipment or reuse thermal energy to maximize the value; for example, the demand for purchased electricity is reduced through the recovery of thermal energy with waste heat boilers, or large equipment is regularly maintained and replaced.

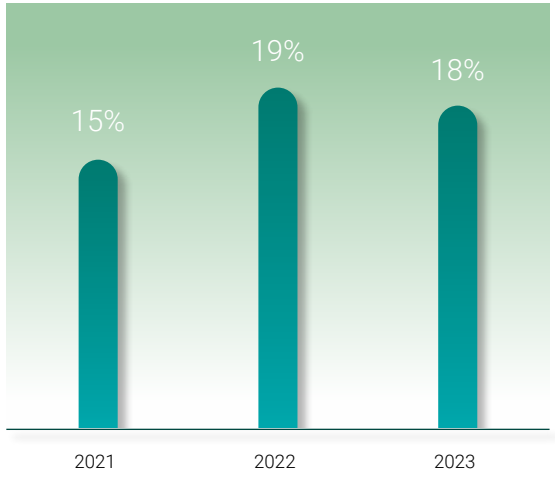
In order to improve energy management performance, CSRC regularly conducts statistics on the energy use status of each operating plant as the basis for modifying the energy policy direction, and the relevant data is checked by the Finance Department to ensure the accuracy of the data. The President and the Assistant Vice President of Finance will participate in such meetings from time to guide the Company's direction for energy conservation and emission reduction.

In 2023, the total power generated in the relevant energy-saving programs in the energy structure management by all operating plants of CSRC exceeded 131,212 kWh, including 911,000 kWh of renewable energy. Among the energy-saving solutions for improving energy efficiency, the use of waste heat boilers to recover thermal energy reduced electricity consumption by a total of 1,305 kWh, equivalent to a reduction of greenhouse gas emissions by 901.94 metric tons of CO_2e, and the reduced greenhouse gas emissions are approximately equivalent to the carbon adsorption capacity of 2.3 Daan Parks for a whole year[Note].

Each operating plant will continue to improve its energy management capabilities. In 2023, we began to systematically assess the replacement of fuel oil with natural gas and recycled oil and planned to increase steam and electricity production to effectively reduce greenhouse gas emissions by gradually replacing fuel oil with high-emissions. It is estimated that about 13,469 metric tons of CO_2e can be reduced.

Note: Based on the fact that 15 metric tons of carbon can be absorbed per hectare of forests per year announced by Council of Agriculture, one Daan Park (25.8 hectares) can absorb 386.4 metric tons of CO_2e.

Percentage of group-wide self-generated energy



Note: Calculation of percentage of self-generated energy: The total energy (GJ), less the steam for power generation, electricity from steam power generation, and solar power generated, is divided by the total energy consumed.

Group-wide energy conservation and carbon reduction projects in 2023

Energy conservation projects		Explanation	Performance in 2023
Energy structure management	Process waste 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 130,300,783 kWh, accounting for 42.52% 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: ■ Linyuan Advanced had an installed capacity of 1,382.4 kW, generated 911,746 kWh of power, and reduced carbon emissions by 450.4 tons of CO_2e.
	Natural gas was used to replace heavy crude oil as fuel.	Greenhouse gas emissions were reduced.	Greater China: ■ Linyuan Advanced and Chongqing reduced carbon emissions by about 9,944 tons of CO_2e.
	Recycled oil (TPO) was used as fuel.	Greenhouse gas emissions were reduced.	Greater China: ■ Linyuan Advanced reduced carbon emissions by 3,525.211 tons of CO_2e (calculated based on 55% biomass content).
	Usage of renewable energy	Greenhouse gas emissions were reduced through the use of renewable energy.	A total of 85,910 MWh of renewable energy was used in the United States.
	The high-pressure steam is directly used in the gas turbine to generate power.	The steam utilization rate improved, power generated increased, and purchased electricity was reduced.	Greater China: ■ Anshan reduced high-pressure steam by 4,572.43 tons, electricity consumption by 742,197 kWh, and carbon emissions by 436 tons of CO2e.
Enhancing energy efficiency	Process has been improved.	The waste heat can be recovered from the boilers in the production lines and used in the process to reduce energy consumption.	Greater China ■ Linyuan Advanced reduced electricity consumption by 80,848 kWh and carbon emissions by 39.94 metric tons of CO_2e. ■ Maanshan reduced electricity consumption by 1,224,640 kWh and carbon emissions by 862 tCO_2e for the engineering, procurement, and construction (EPC) project of the waste heat boilers in the U6 line.
		Low-NOx burner technical improvement project was implemented.	Greater China ■ Maanshan reduced oil consumption by 376 tons, which translated to carbon reduction of 914 tCO_2e. ■ Chongqing's EPC project for replacement of low-nitrogen burners, flue gas recirculation, and waste gas boilers reduced natural gas consumption by 1,934,370 m³, or 4,173 tCO_2e.
		The technical improvement of the main fan was carried out.	Greater China ■ Maanshan reduced electricity consumption by 631,277 kWh, equivalent to carbon reduction of 444 tCO_2e.
		The energy consumption per unit of output was tracked and fuel oil consumption continued to be reduced.	Greater China ■ Anshan reduced 530 tons of oil consumption, or about 390 metric tons of CO_2e.
	Equipment optimization	The C2 air preheaters were replaced to increase the air temperature.	Greater China ■ Linyuan Advanced reduced oil consumption by 240 metric tons and carbon reduction by 792 metric tons of CO_2e. ■ Chongqing increased the furnace temperature and reduced oil consumption by 240 tons, equivalent to carbon reduction of 1,784 tCO_2e.
		Dryers and round firebox cases were made and installed, waste gas combustion furnaces were manufactured, and project of dryer, and EPC project was carried out.	Greater China ■ Maanshan reduced electricity consumption by 1,271,188 kWh, equivalent to carbon reduction of 894 tCO_2e.

Energy conservation projects	Explanation	Performance in 2023
	It continued to replace motors with high-energy-efficiency ones to meet the goal of energy-saving work, e.g., replacing the IE2 series motors with IE3 series ultra-high-efficiency ones.	Greater China ■ Anshan's power generated increased by 270 kWh/hour and energy efficiency was improved, and annual carbon reduction was estimated to be reduced by 1,232 tons of CO_2e. India ■ CCIPL used energy-efficient equipment for charging pumps and drying ovens, and upgraded energy-efficient lamps, saving a total of 27,282 kWh of electricity, with an estimated annual carbon reduction of 5,457 tons of tCO_2e.
An energy management system was established	ISO 50001 energy management system is implemented.	Greater China ■ Linyuan Advanced has completed the establishment of the ISO 50001 energy management system.

High-efficiency electromechanical equipment was replaced

ISO 50001 environmental management system certification statement


bsi.
Certificate of Registration
ENERGY MANAGEMENT SYSTEM - ISO 50001:2018
...making excellence a habit.

Linyuan Advanced

ISO 14001 environmental management system certification statement


SGS
Linyuan Advanced Materials Technology Co., Ltd.
ISO 14001:2015

Linyuan Advanced


CQC
环境管理体系认证证书
GB/T 24001-2016 / ISO 14001:2015

Maanshan Plant


CERTIFICATE
环境管理体系认证证书

Anshan Plant


IRCLASS
CERTIFICATE OF APPROVAL

CCET in India


DNV
MANAGEMENT SYSTEM CERTIFICATE
Continental Carbon India Ltd
ISO 14001:2015

CCIPL in India


SGS
中橡(重庆)炭黑有限公司

Chongqing Plant

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

Verification standards	Plants	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%	SGS, CQC, CQM, DNV, and IRCLASS
ISO 50001:2018	Greater China: Linyuan Advanced	12.5%	BSI

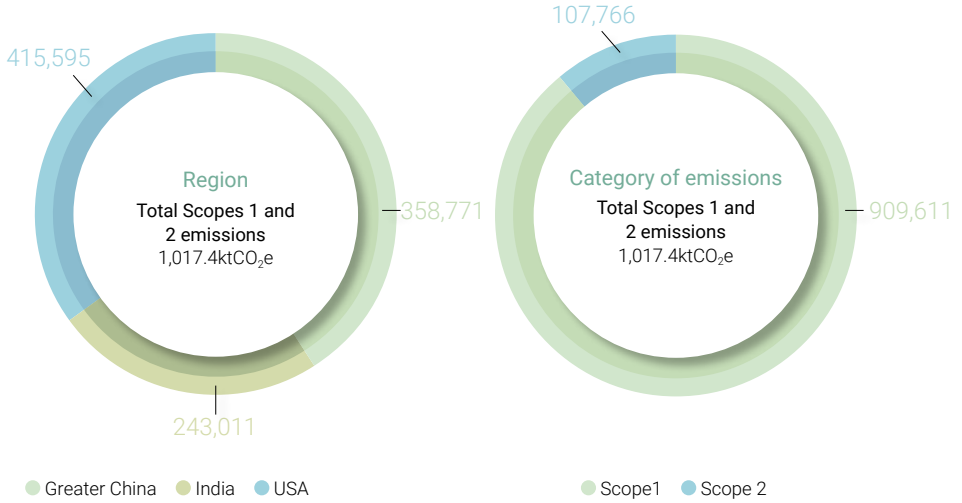
4.2.2 Reduce greenhouse gas emissions

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 operating site and building has been tracking, reviewing, and adjusting the inventory results to clarify the performance of production equipment and operating procedures.

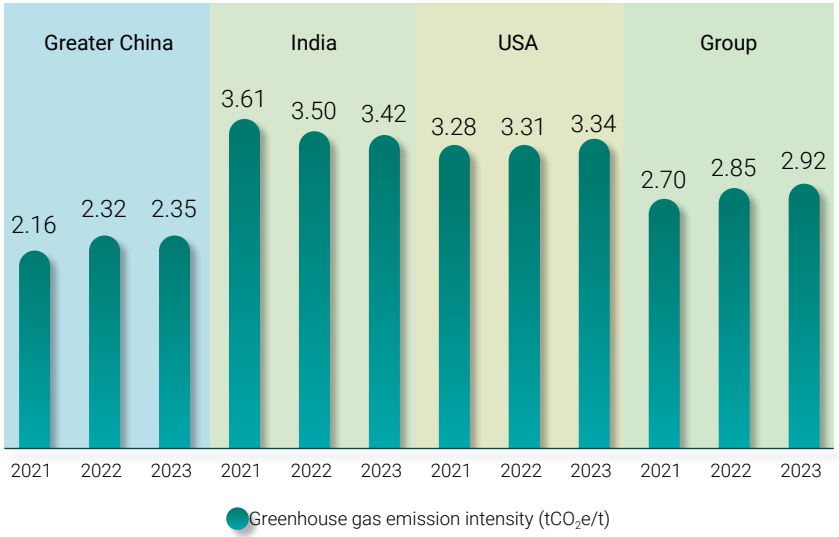
In 2023, CSRC's greenhouse gas emissions totaled 1,017,377 tons of CO_2e, of which Scope 1 emissions were 909,611 tons of CO_2e and Scope 2 emissions were 107,766 tons of CO_2e. In the future, we will continue to pay attention to carbon emission trends, supervise and track the consumption of various energy sources, implement sustainable management concept sand 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		
	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
Category 1 (tons of CO_2e)	506,348	395,017	322,020	156,400	151,361	190,479	443,841	424,458	397,113	1,106,589	970,835	909,611
Category 2 (tons of CO_2e)	24,083	37,416	36,751	40,544	40,007	52,533	29,723	20,242	18,482	94,350	97,666	107,766
Total emissions (tCO_2e)	530,431	432,433	358,771	196,944	191,368	243,011	473,564	444,700	415,595	1,200,938	1,068,501	1,017,377
Emission intensity (tCO_2e/t)	2.16	2.32	2.35	3.61	3.50	3.42	3.28	3.31	3.34	2.70	2.85	2.92

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 2021 through 2023 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 was included.
3. The Greater China region covers Taiwan and China. We conducted inventoried 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 factor is based on the greenhouse gas emission factor management table 6.0.4 announced by the Environmental Protection Administration in 2019; 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 2023 was included.
4. For plants in Taiwan, the 2023 carbon emission factor of electricity announced by the Bureau of Energy of 0.494 kg CO_2e/kWh was used for calculation. For Maanshan, the carbon emission factor of electricity of 0.7035 kg CO_2e/kWh announced in the "2011-2012 Average Emission Factor for Provincial Power Grids" was used. For Anshan, the carbon emission factor of electricity of 0.7769 kg CO_2e/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 CO_2e/kWh in the "Chongqing Power Grid Average Emission Factor" was used for calculation.
5. 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 2021 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 2021 through 2023 has been included, with Scope 2 as the main emissions (purchased electricity were 17.79, 20.81, and 16.78 tons of CO_2e, respectively.
6. 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: 0.385 tCO_2 /MWh in 2021, 0.401 tCO_2 /MWh in 2022, and 0.390 tCO_2 /MWh in 2023.
7. 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.



In 2023, the greenhouse gas emissions from plants in the Greater China region were 358,771 tons CO_2e, and the greenhouse gas emission intensity was 2.35 tons CO_2e/ton. The total emissions were significantly reduced mainly due to the decrease in carbon black production compared to 2022 and the replacement of heavy crude oil with natural gas as a fuel oil. Scope 1 emissions totaled 322,020 tons of CO_2e as the main source of greenhouse gas emissions. The items examined in the inventory included waste gas, heavy crude oil, acetylene, diesel, automotive gasoline, slurry, and liquefied petroleum gas (LPG). Scope 2 emissions totaled 36,751 tons of CO_2e, with the emission source only from indirect emissions from purchased electricity. The main reason for the increase in Scope 2 was that the total amount of purchased electricity increased due to the decrease in self-produced steam for self-use and sale.

In 2023, the greenhouse gas emissions from plants in India were 243,011 tons CO_2e, and the greenhouse gas emission intensity was 3.42 CO_2e/ton. This is a significant increase from the total emissions of the previous two years, mainly due to the launch of CCET in India in 2023.

Due to the differences in the carbon content as a result of the differences in carbon emission calculation methods and oil products in different regions, the emissions from the plants in the United States are slightly higher than those in Greater China and India. In 2023, the greenhouse gas emissions were 415,595 tCO_2e and the emission intensity was 3.34 tCO_2e/ton. The figures significantly decreased from the total emissions in the previous two years, mainly due to the installation of an air quality control system (AQCS) at Ponca and waste gas boilers at Sunray in the United States.

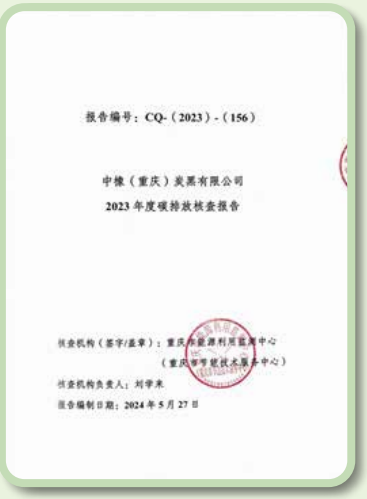
Greenhouse gas inventory verification statement held by each plant in 2023

Greenhouse Gas Verification Statement of CSRC

Linyuan Advanced 2023 Greenhouse Gas Verification Statement

Third-party Audit Report on Greenhouse Gas Emissions of Maanshan

Third-party Audit Report of Anshan



Third-party Audit Report of Chongqing

Greenhouse gas management

In the face of global climate change, CSRC is constantly strengthening the Group's climate adaptation and resilience and mitigating greenhouse gas emissions. CSRC conducts a greenhouse gas inventory every year and formulates a greenhouse gas management policy based on the inventory results and then sets reduction targets and draws up measures, while replacing traditional energy with low-emission one to reduce carbon emissions from the process and planning to gradually adopt carbon capture technology. In this regard, we have set the group-wide long-term carbon reduction target for 2030 based on the greenhouse gas emissions and management status of each operating plant, to reduce emissions by 21% compared to the baseline year of 2018. In 2023, the achievement rate was 100%.

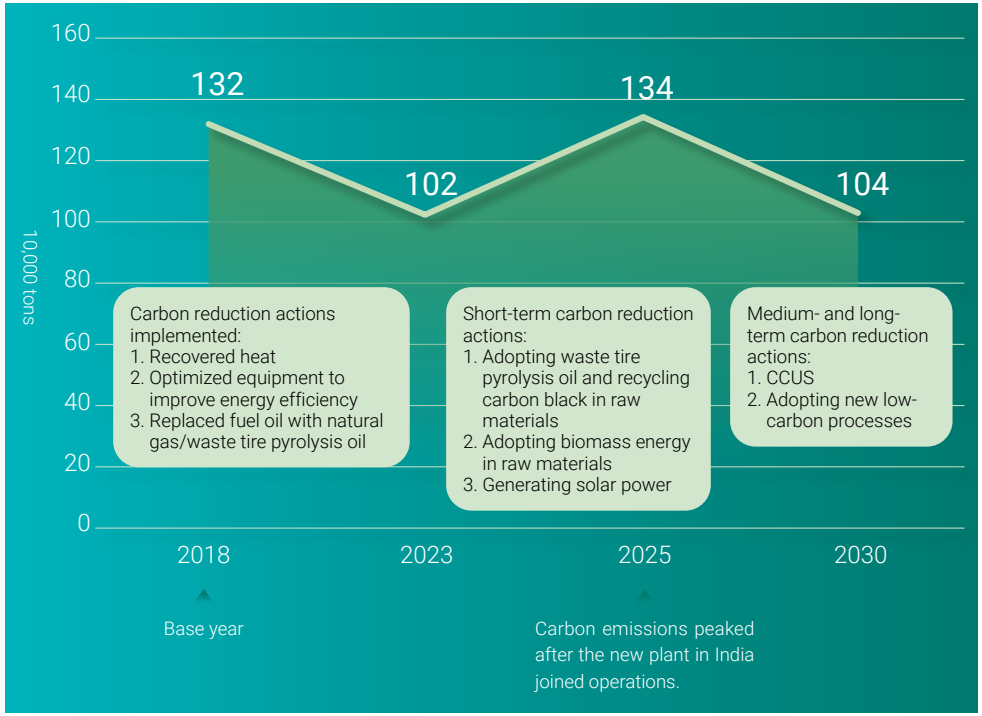
To continue to achieve the greenhouse gas emission reduction targets, we have formulated reduction strategies for Scopes 1 and 2 greenhouse gas emissions, respectively. To reduce Scope 1 emissions, the Group regularly improves energy efficiency, evaluates the performance of the improvement to our process equipment, and sets the target of replacing old equipment with new one. We also manage to reduce the use of crude oil by improving production efficiency. Among them, Linyuan Advanced and Chongqing in Greater China adopted natural gas as a fuel to replace heavy crude oil in 2023, and Maanshan is also planning to do so step-by-step. In addition, the plants in the United States use waste gas to produce steam and electricity for on-site use, striving for energy independence and off-site use in the local community. In addition, the plants in India continue to plan the process improvement and parameter optimization of waste gas drying ovens, hoping to reduce the dependence on high-carbon emitting fuels in the future.

In response to the Scope 2 emissions reduction, Linyuan Advanced in Greater China has repurchased the solar panels used by Chailease Finance Co., Ltd. (Chailease) and plans to gradually increase the use of renewable energy in the future. Maanshan's process improvements and adoption of energy-saving equipment (such as the improvement to waste heat boilers in the productions lines and the adoption of energy-saving fans) have led to reduction of purchased electricity consumption by about 487,807 kWh per year in total, equivalent to reduction of 1,734 tons of CO_2e. This can effectively save energy and reduce consumption, with economic and emission reduction benefits. Anshan has also replaced equipment with high-energy-efficiency one, and it reduced electricity consumption by about 332,361 kWh, equivalent to reduction of 189 tons of CO_2e. The plants in the United States work with local utility providers to purchase renewable electricity. By turning to renewable energy as the cornerstone of the greenhouse gas reduction strategy, we will actively explore opportunities to incorporate renewable energy into the operations in the future.

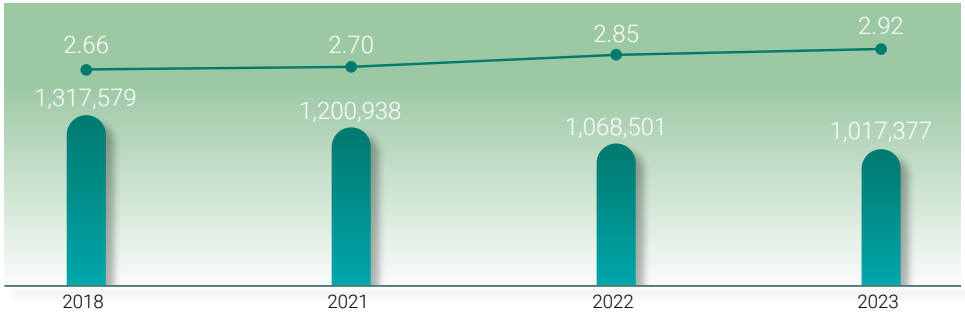
In order to effectively achieve the goal of greenhouse gas reduction, the Group has established an Emissions Management Team consisting of personnel from the Technical Department, the Safety and Environment Center, and various operating plants. A cross-plant online e-carbon emission monitoring system has been established for plants in Greater China, which can be checked at any time. Regarding carbon emissions, plants in all regions around the world hold regular meetings to review and track carbon emissions and invite each plant to share its carbon reduction solutions and performance with other plants so that they can learn from each other. The monthly and quarterly greenhouse gas emission intensity of the plants in Greater China has been listed as a KPI of the plants. The KPI is linked to the performance bonus to motivate all employees to work together for energy conservation and emission reduction.

To realize the concept of environmental sustainability, CSRC has invested in various environmental protection projects in recent years, including desulfurization and denitrification systems and low-nitrogen burners and has successively built natural gas pipelines in Greater China to replace heavy crude oil as fuel, to reduce carbon emissions. To further promote low-carbon transition, the Group has budgeted greenhouse gas management and regularly reports 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.
2. The Scopes 1 and 2 emissions of all production sites are included in this report.
3. The reason for the higher target by 2025 compared with the baseline year is that the CCET plant in India was built in 2023, and the future production capacity is expected to increase by 5% compared to the baseline year.



Item	2018	2021	2022	2023
Total greenhouse gas emissions (tCO_2e)	1,317,579	1,200,938	1,068,501	1,017,377
Greenhouse gas emission intensity (tCO_2e/t)	2.66	2.70	2.85	2.92

Highlights

In 2023, Linyuan Advanced's production lines and Chongqing adopted natural gas to reduce CO2emissions.

All plants of CSRC continue to improve their energy management capabilities. In 2022, we began the systematic evaluation of replacing fuel oil with natural gas. In March 2023, Chongqing adopted natural gas as the first plant; its U1 Line adopted in 2023 has cut carbon emissions by 705 tons over a period of 9.5 months, from 8,613 tons to 7,908 tons. Linyuan Advanced also adopted U1-U3 lines from May to July gradually, and its carbon emissions of the three lines in 2023 decreased by a total of about 9,239 tons.

The above two projects reduced carbon emissions by about 9,944 tons in 2023. CSRC will continue to evaluate the feasibility of adopting natural gas in the rest of the plants, hoping to jointly contribute to carbon reduction.

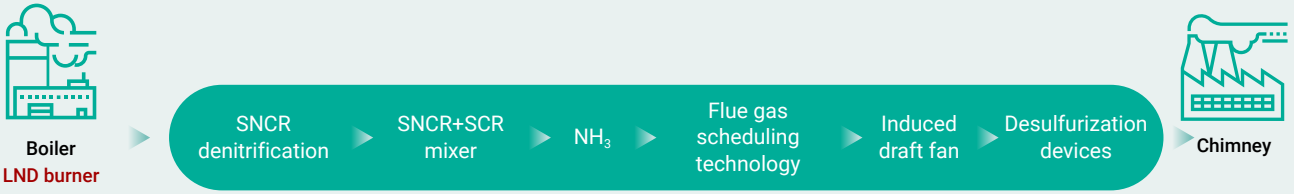
Note: This estimate is based on the carbon emissions to be reduced with the replacement of heavy crude oil with natural gas as fuel oil.

4.3 Air pollution prevention and 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 (SOx), nitrogen oxides (NOx), 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 prevention and 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 (SOx) prevention

The raw materials used in the carbon black production process can only meet the standards for emission of air pollutant SOx after desulfurization. To this end, CSRC has installed De-SOx 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 SOx 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 (SO_2), nitrogen oxides (NOx), and suspended particulates. For example, CCC Ponca has completed the installation of SCR denitrification devices and Cogen to reduce SOx and NOx. In order to reduce SOx emissions, some plants have installed circulating dry scrubbers (CDS).

Advantages of De-SOx 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:

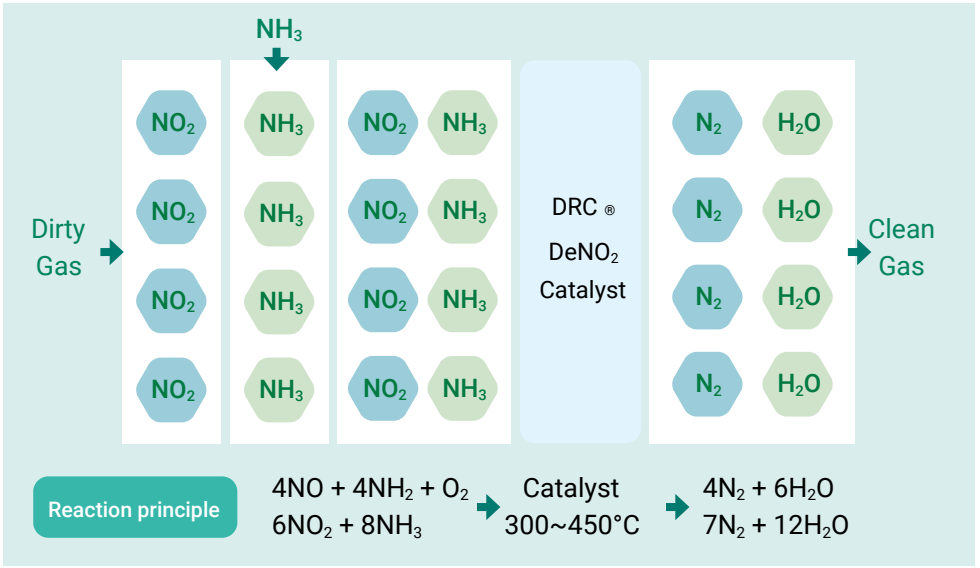
1 Flue gas recirculation and combustion over stages

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 ℃ downstream of the boiler economizer. Under the action of the catalyst, NOx in the flue gas is reduced to harmless N_2 and H_2O; 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 waste gas from flues in various plants.

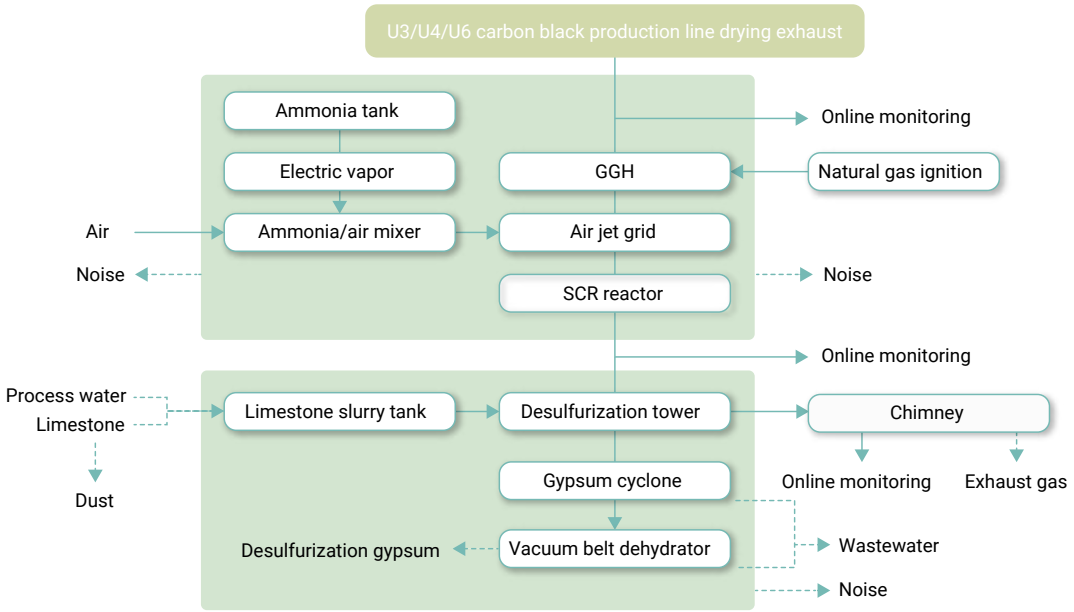
Schematic diagram of SCR denitration system



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 by 3.5%, 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. The desulfurization and denitrification of the EBF production line also began to be put into use 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) 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).

Prevention of HAPs

CSRC's plants in Greater China do not emit HAPs. The new CCET plant in India does not emit HAPs either due to the investment of the latest environmental equipment. As for CCIPL, filter bags and dust collectors have been in place, with an on-site online monitoring system to monitor the emissions of HAPs at any time. Meanwhile, the emissions from the chimneys are also directly connected to the Uttar Pradesh Pollution Control Board, the environmental unit of the Indian government, for monitoring.

The plants in the United States have implemented the AQCS program and have SCR to reduce NOx emissions, dry scrubbers to reduce SOx, and PJFF in place. In addition, the high-temperature combustion of boilers can effectively reduce the emissions of HAPs and VOCs.

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 1% by 2025 compared with 2023 and another 2-3% by 2030 compared with 2025.

By reviewing the emissions of air pollutants and substances in 2023, the results showed that the emissions of NOx, SOx, and TSP were lower than those in 2022. The main reason is that in 2023, 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. Our plants continue to improve its production equipment to reduce pollutants, replace the filter bags of baghouse dust collectors in advance, and develop round pulse jet baghouse dust collectors to effectively reduce TSP emissions.

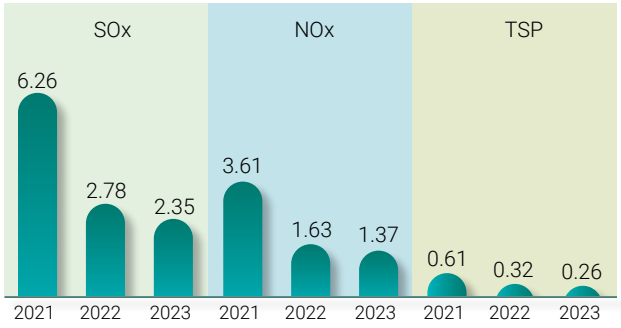
Absolute emissions of air pollutants by CSRC over the past three years

Unit: kg

Air pollutant emissions (kg) \ Region	Greater China			India			USA			Group		
	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
VOCs	8,947	8,721	4,700	0	0	0	32,659	46,448	60,781	41,606	55,169	65,481
SOx	239,243	103,644	85,672	49,576	73,730	281,454	2,490,948	846,385	575,155	2,779,767	1,023,760	942,281
NOx	388,669	292,344	141,329	34,055	28,808	109,400	1,181,944	278,143	299,371	1,604,668	599,295	550,099
TSP	64,537	27,063	19,085	10,869	13,441	18,374	195,045	76,521	66,224	270,450	117,025	103,683
HAPs	0	0	0	12,111	9,809	97,732	3,307	18,144	21,772	15,417	27,953	119,504

Note: 1. The India CCET plant was commissioned at the end of 2022. Therefore, the data for 2021 and 2022 in India only covered CCIPL, while CCIPL 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. Chongqing is covered in the Greater China region, but Chongqing did not calculate its emissions of VOCs and HAPs.

Air pollution intensity of the Group over the past three years



Year	2018	2021	2022
SOx	6.26	2.78	2.35
NOx	3.61	1.63	1.37
TSP	0.61	0.32	0.26

Note 1: Due to the tail gas combustion in the CSRC process produces steam for recycling and reuse, and at the same time removes VOCs, its emissions are extremely low, resulting in extremely low VOCs pollution intensity. It is also not an air pollution target set by the group, therefore no statistics for the item.
Note 2: Air pollution intensity= emission/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 2023, 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 from the cooling water 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 2023, 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

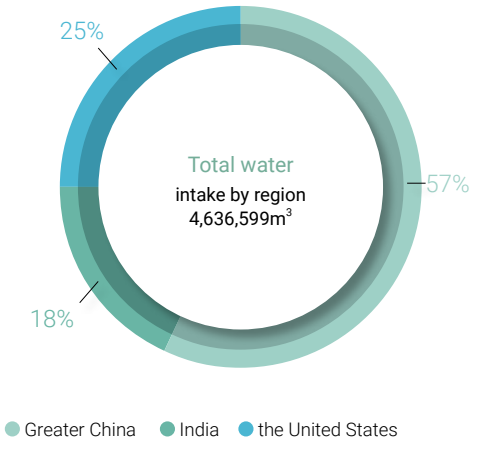
Establishment of management mechanisms and systems

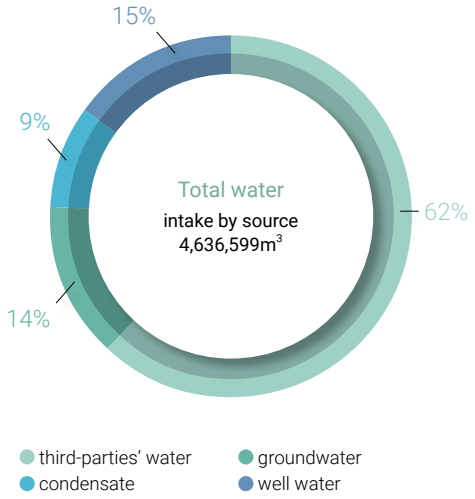
- Managing water source risk and setting KPIs for water resource management to regularly follow up and review
- Monitoring water quality
- Regular tracking water consumption and water-saving projects

Collaboration with neighboring factories to promote water-saving measures

- Implementing a water balance project and working with external partners to balance the condensate generated in the process with external partners.
- 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 2023, CSRC's total water intake was 4,636,599m^3, 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 2,624,673m^3 in Greater China, 849,484m^3 in India, and 1,162,442 m^3 in the United States.





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 2023, the wastewater recycling rates of the group is 89%, and plants in Greater China were 56% for Linyuan Advanced, 90% for Maanshan, and 22% for Anshan; the said rates of the plants in India were 100% for CCET and 100% 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

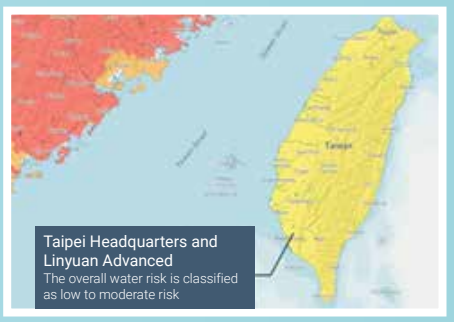
CSRC conducts regular assessments of the overall water risk ratings of the Aqueduct Water Risk Atlas of the World Resources Institute (WRI). In Greater China, Taipei Headquarters and Linyuan Advanced are at low-to-medium risk, Maanshan at medium-to-high risk, Anshan at extremely high risk, Chongqing 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 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.

The operating sites of CSRC are located in regions with high or extremely high water stress, accounting for 33.1% of the Group's total water intake and 1.8% of the total water consumption. This indicates that each operating site in regions with high or extremely high water stress values and makes the most of water resources and commits to reducing water withdrawal to alleviate local water supply pressure.

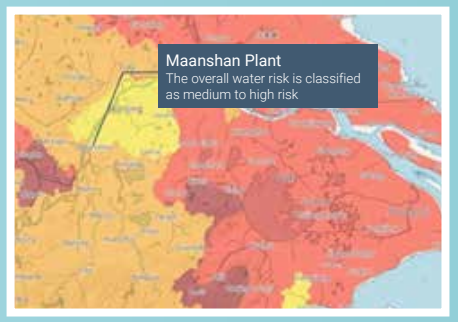
Overall Water Risk Classification

low | low to moderate | medium to high | high | extremely high

(Record date: April 16, 2024)

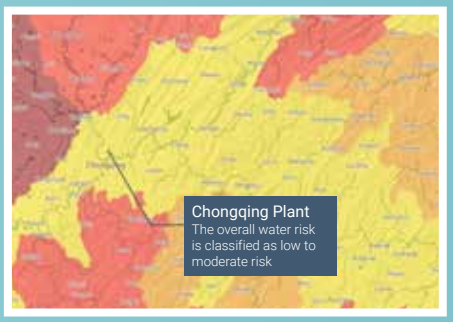


Linyuan Advanced and Consolidated Resource



Maanshan Plant

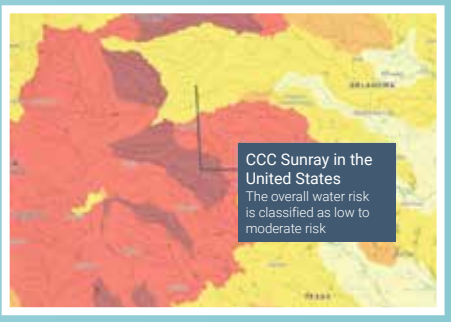
Anshan Plant



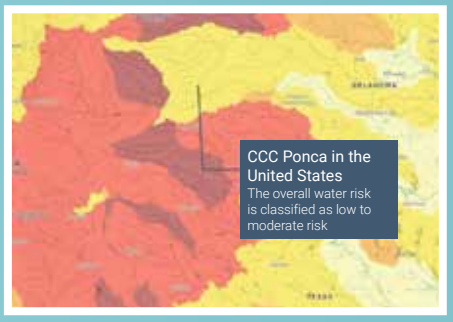
Chongqing Plant

CCIPL in India

CCET in India



CCC Sunray in the United States



CCC Ponca in the United States

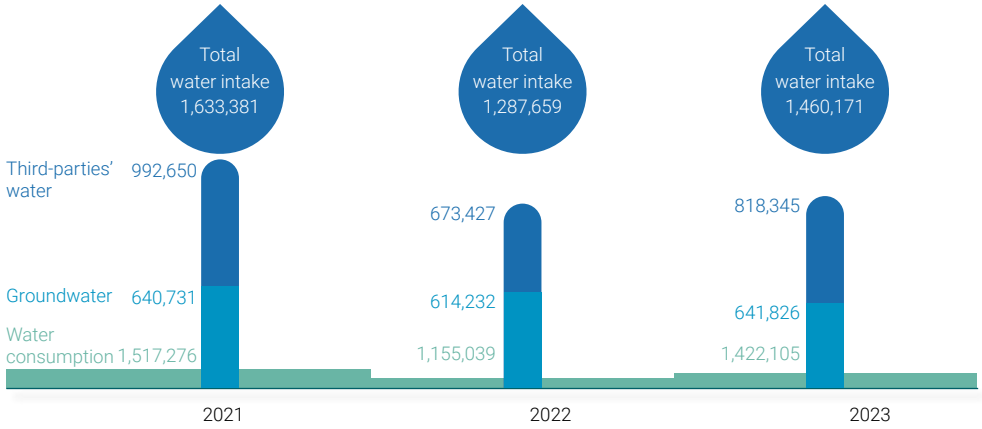
Note: This is the result of an overall water risk assessment for each plant using the Aqueduct Water Risk Atlas of the WRI.

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

Unit: m^3

Item		2021	2022	2023
Total water intake		1,633,381	1,287,659	1,460,171
Water source	Third-parties' water	992,650	673,427	818,345
	Groundwater	640,731	614,232	641,826
Water consumption		1,517,276	1,155,039	1,422,105

Note: The scope of statistics covers three production sites located in water-stressed regions, including Anshan in Greater China and CCET and CCIPL in India.

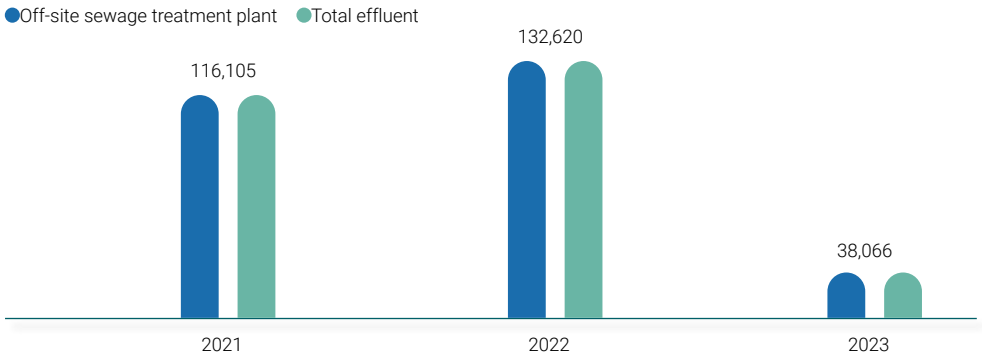


Effluent by production sites in water-stressed regions

Unit: m^3

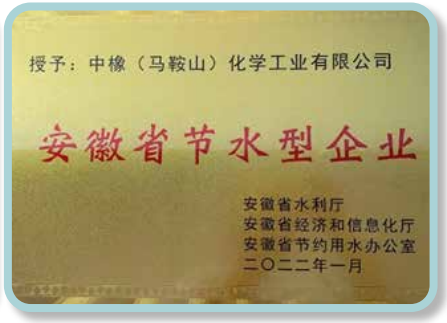
Item		2021	2022	2023
By discharge location	Surface water	0	0	0
	Off-site sewage treatment plant	116,105	132,620	38,066
	Other purposes	0	0	0
Total effluent		116,105	132,620	38,066

Note: The scope of the data covers three production sites located in water-stressed areas. The water treatment method is that one site's wastewater that meets the discharge standard after on-site treatment can be discharged into the municipal sewage pipeline and then treated by the sewage treatment plant before being discharged; for the other two sites, there are zero-discharge facilities on-site, and no sewage is discharged.



In 2023, the water intake in Greater China was 2,624,673 m^3. Due to the decrease in the production of carbon black, the overall water consumption was significantly lower than that in 2022. All water intake in the Greater China region comes from tap water, not natural bodies of water. This helps to prevent the impact of water intake on the local water environment. In order to prevent Anshan from being affected by sudden droughts or water shortages, it has a reserve of 3,000 m^3 of water, to prevent significant impacts on operations due to water shortages. Each plant actively conserves water and increases the wastewater recycling rate by implementing different solutions. In 2023, both Maanshan and Anshan were named the Water-Efficiency Enterprise by the local government for two consecutive years.

CCIPL's water intake in India comes from tube wells of groundwater; CCET's water intake comes from tap water. In 2023, the water intake of the plants in India was 849,484 m^3. In the United States, CCC Sunray's water sources are rainwater, groundwater, 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 2023, the water intake of the two plants was 1,162,442 m^3.



Note: A certificate of merit was not issued to Maanshan for the honor of water-efficiency enterprise in 2023, so the certificate of merit for 2022 is presented. For the list of 2023 winners, please visit the official website of the Housing and Urban-Rural Development Bureau of Maanshan.

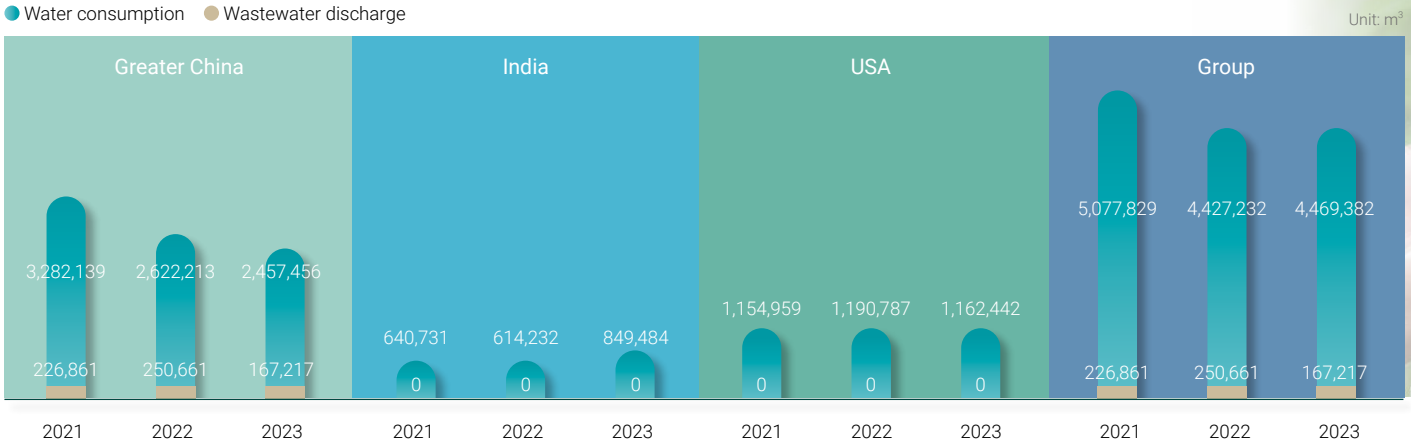
Group-wide data of water resources over the past three years

Unit: m^3

Item		Greater China			India			USA			Group		
		2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
Total water intake		3,515,763	2,878,029	2,624,673	640,731	614,232	849,484	1,154,959	1,190,787	1,162,442	5,311,453	4,683,048	4,636,599
Water source	Third-parties' water	3,515,763	2,307,099	2,617,183	0	0	207,658	39,763	41,048	64,224	3,555,526	2,348,147	2,889,065
	Groundwater	0	0	0	640,731	614,232	641,826	0	0	0	640,731	614,232	641,826
	Condensate	0	0	7,490	0	0	0	466,706	499,291	422,275	466,706	499,291	429,765
	Well water	0	0	0	0	0	0	648,490	650,448	675,943	648,490	650,448	675,943
Wastewater discharge		226,861	250,661	167,217	0	0	0	0	0	0	226,861	250,661	167,217
Water consumption		3,282,139	2,622,213	2,457,456	640,731	614,232	849,484	1,154,959	1,190,787	1,162,442	5,077,829	4,427,232	4,469,382
Wastewater discharge rate		6.5%	8.7%	6.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.3%	5.4%	3.6%

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 data for Greater China includes that of Taipei Headquarters and Consolidated Resource, but the data of Taipei Headquarters has only been included since 2022, so there is no relevant data for 2021.
6. The first production line of CCET in India commenced operations at the end of 2022, so there is no relevant data for 2021 and 2022.

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.
- Improving the air-cooling and water-cooling efficiency.
- 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.

Complete equipment

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 two-stage RO system to recycle water for 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.

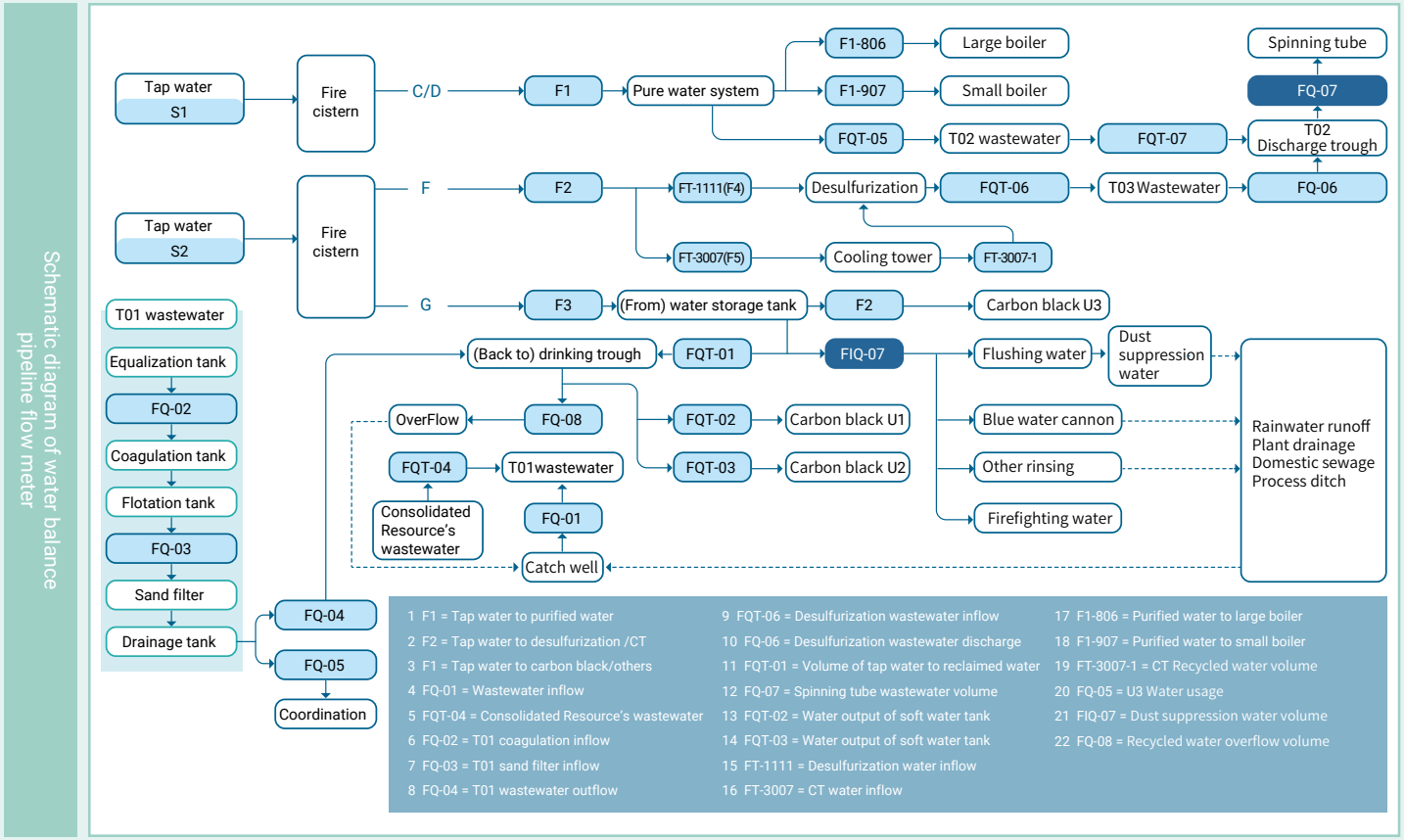
Water balance project

Linyuan Advanced in Greater China has implementing 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 2023, a total of 8,149 m^3 of condensate was used (accounting for 0.62% of the total water intake of Linyuan Advanced in Greater China). It is estimated that our partners can provide nearly two 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.

Recycling cooling water from cooling water towers to the environmental system for water resource reuse

Water balance pipeline flow meter

Schematic diagram of water balance pipeline flow meter



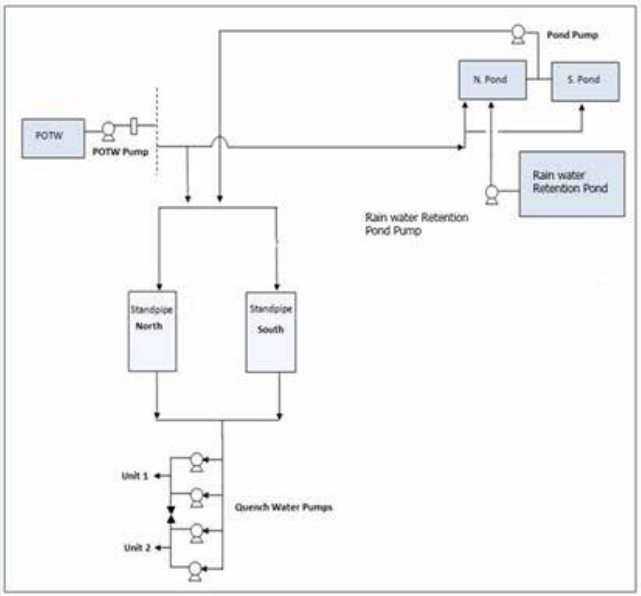
CC's reclaimed water balance project in the United States

CCC in the United States 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.



Actively participating in water conservation management training.

In 2023, Linyuan Advanced participated in the water conservation training organized by the Water Resources Agency, Ministry of Economic Affairs, and the Environment and Development Foundation. The training sessions were mainly about on-site water consumption inventory (as per TAF), instruction to the use of an on-site water consumption reporting system, and sharing of cases of various available water and sewage reuse, treatment, and applications. The Company also visited companies with excellent water-saving performance in southern Taiwan held by Oriental Union Chemical Corp., actively participates in various water-saving education and training, and learns from various water-saving experiences to put them into practice on-site.

5.1.2 Waste and sewage 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 2023, 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 undergoes physicochemical treatment in the plant before being discharged into Kaohsiung's Linyuan Industrial Park for final discharge 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	CCIPL	The plant is equipped with zero-discharge facilities, and no sewage is discharged to avoid impact on the local water environment.
	CCET	
USA	CCC Sunray	
	CCC Ponca	

CCC's zero emission commitment

CSRC's plants in the United States 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

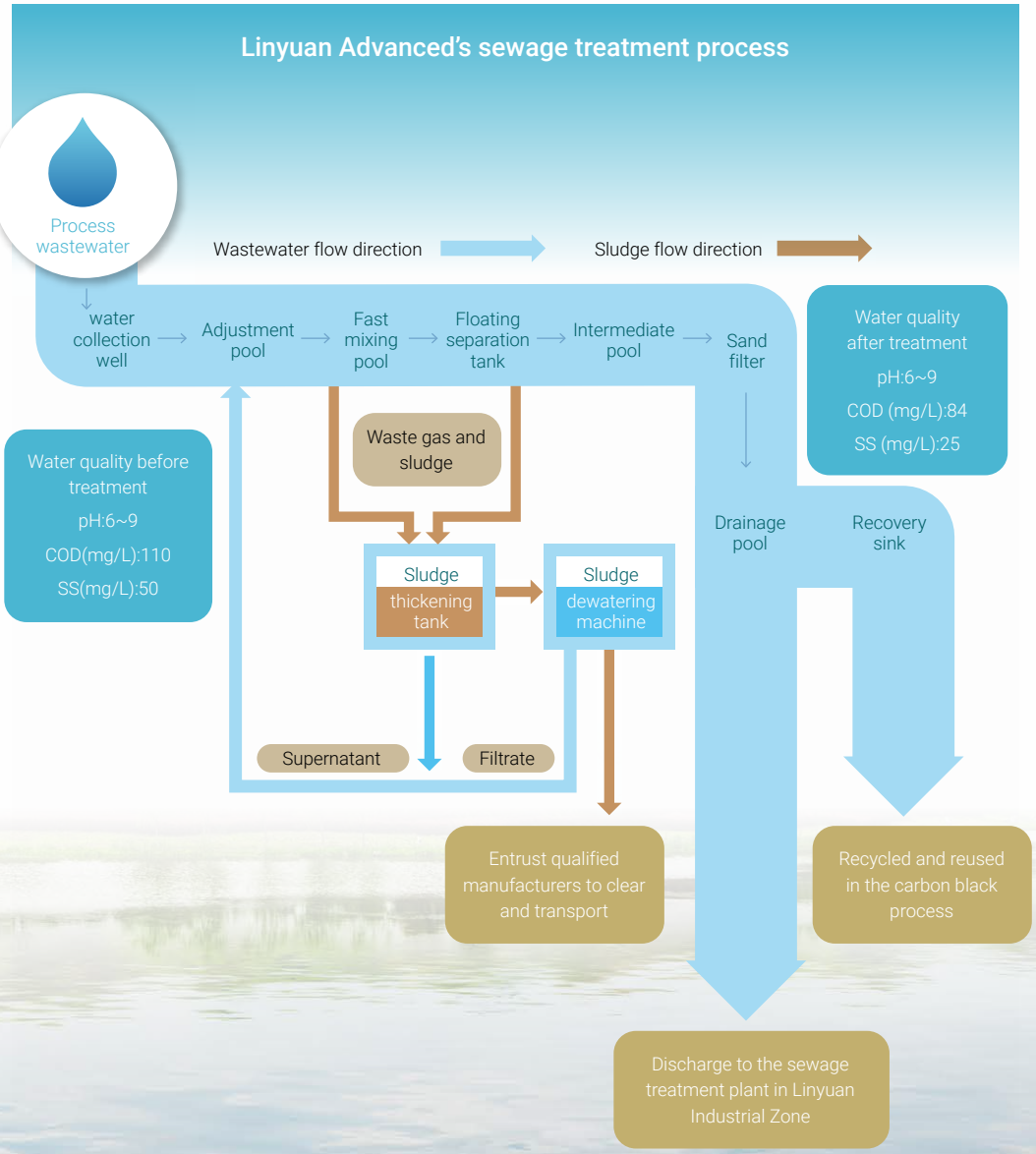
Region		2021	2022	2023
Greater China	Linyuan Advanced	50%	100%	56%
	Maanshan Plant	99%	80%	90%
	Anshan Plant	-	-	22%
	Chongqing Plant	100%	100%	100%
India	CCET	-	-	100%
	CCIPL	41%	41%	100%
USA	CCC Sunray	12%	97%	100%
		100%	100%	100%
Group		56%	82%	89%

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 2023, 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.

The plants in India have zero-discharge sewage treatment facilities in place. The treated water is not discharged outside the plants but recycled in zero liquid discharge (ZLD) plant and returned to the production process. 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. As for the ZLD equipment of CCET in India (as shown in the figure on the right), all wastewater is treated before use in the plant, and no liquid wastewater is discharged into surface water.



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

Water quality parameters	Greater China															
	Linyuan Advanced				Maanshan Plant				Anshan Plant				Chongqing Plant			
	2021	2022	2023	Minimum standards	2021	2022	2023	Minimum standards	2021	2022	2023	Minimum standards	2021	2022	2023	Minimum standards
pH	8.4	8	7.9	6~9	8.3	6.9	7.6	6~9	7.2	7.4	7.52	9	8.3	7.6	8.3	9
COD (mg/L)	26.7	14.3	16.9	90	39	14	24	300	12	37	23	300	109	56	109	500
SS (mg/L)	5.8	3.2	5.1	25	7	32	18	400	15	16	21	300	30	7	30	400
Grease (mg/L)	ND	1.6	3.7	10	0.12	0.39	2.61	10	0.06	0.06	0.06	20	-	-	-	-
Phenols (mg/L)	ND	0.0054	ND	1	<0.01	<0.01	<0.01	0.5	ND	ND	ND	0.5	-	-	-	-
Ammonia nitrogen (mg/L)	34.3	0.59	19.5	-	0.186	0.079	0.12	25	4.49	3.69	1.57	30	13	2.15	13	45

Note: 1. If the analysis result of the sample is lower than the detection limit of the method, it will be indicated as ND (not detected).
2. The grease for Maanshan and Anshan is petroleum.
3. As Maanshan's wastewater recycling rate reached 98%, it was removed from the list of key entities under supervision and management in 2023, so the limit was relaxed. In the past, the level 2 standard of the Comprehensive Sewage Discharge Standard (GB8978-1996) was adopted. Linyuan Advanced complies with the Standards for Quality of Sewage Discharged into Sewerage System by Linyuan Industrial Park User.
4. The plants in India and the United States do not directly discharge wastewater to any wastewater treatment plant, so there is no relevant testing data.

5.2 Waste management

5.2.1 Waste disposal

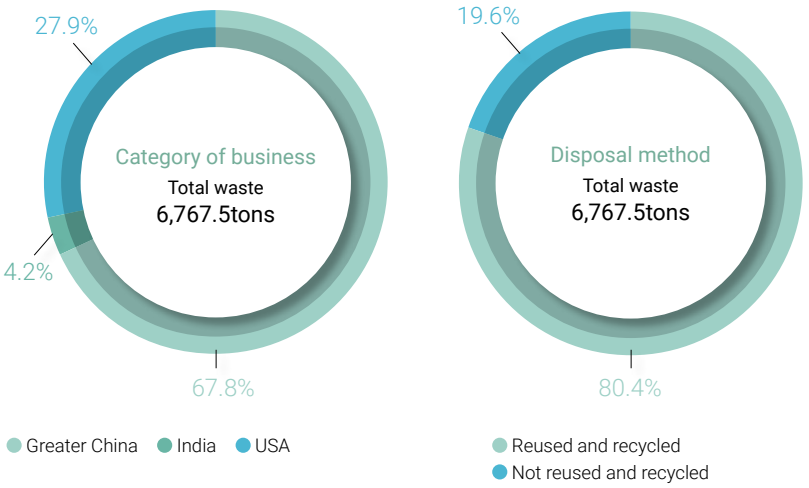
GRI 306-1、306-2、306-3、306-4、306-5；SASB RT-CH-150a.1

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 2023, the Group achieved a waste recycling rate of 80.4%, of which 87.9% in Greater China, 72.0% in India, and 51.4% in the United States. All are expected to achieve short-term targets ahead of schedule.

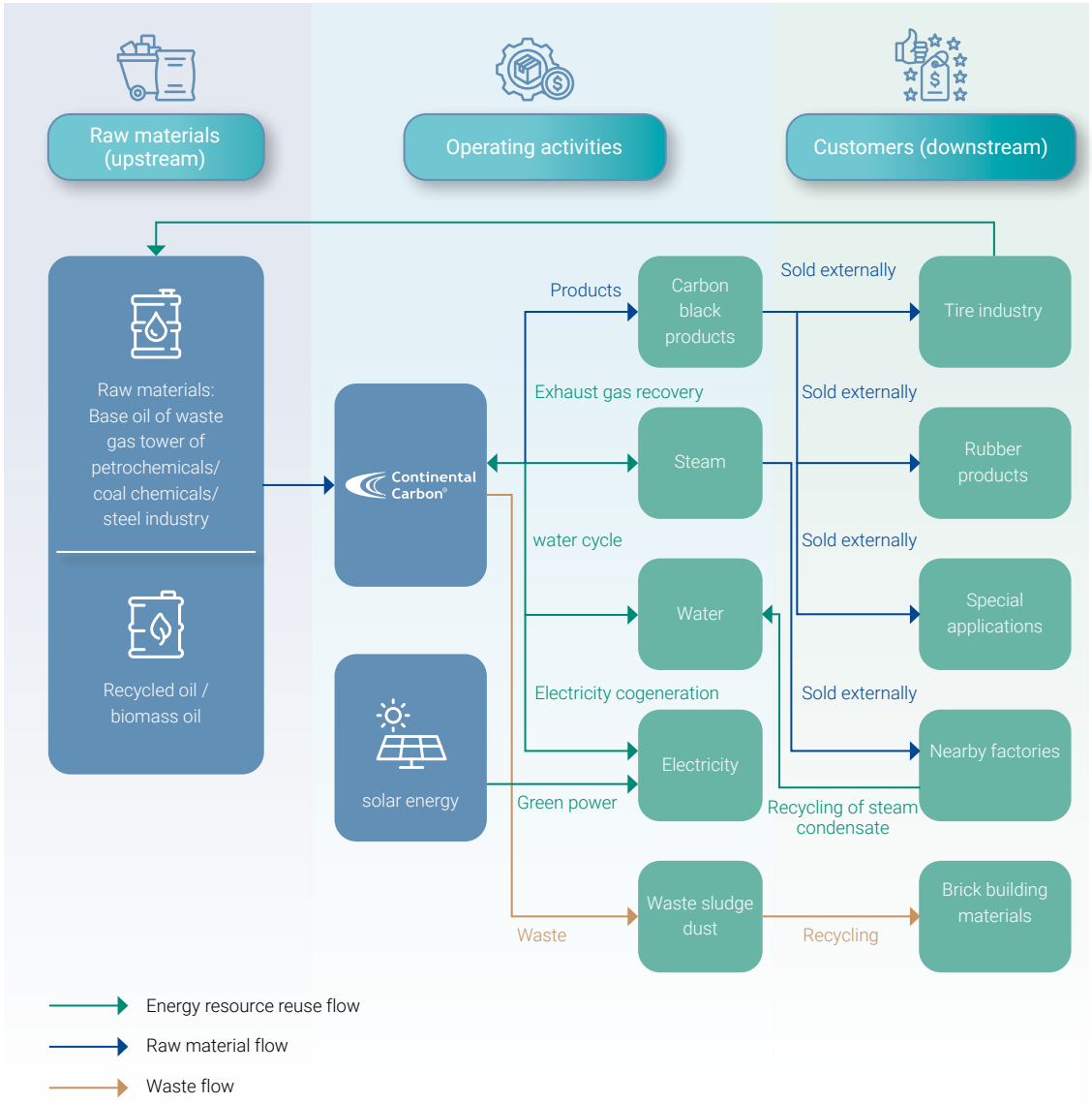
In 2023, the Group's total waste generated was 6,767.5 tons[Note], a significant decrease of 13% from 7,742.8 tons in 2022. In Greater China, Anshan uses incineration method to dispose of general solid waste, which has led to significant reduction of waste.

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

Waste volume in 2023



CSRC's material input & waste output flow chart



CSRC's waste management process

Waste sorting in the factory

Waste is classified and industrial waste, recyclable waste, and hazardous waste are sorted out.

Storage

The waste generated is stored and managed by each plant and will be handled by the disposal company after the waste reaches to a certain volume.

Waste removal

- Prior to tendering, the qualifications of waste disposal companies will be reviewed first, and only those qualified can bid for the project (such as review of clearance and disposal permits and confirmation of past violation records)
- The hazardous waste is disposed of by a qualified hazardous waste disposal company according to a hazardous waste transport plan.
- The plants' personnel supervise the entire removal and transport process until the weighing is completed.
- We follow the transport vehicles from time to time and use GPS-equipped vehicles for waste transport to ensure that waste is properly disposed of.

Handling

- We conduct on-site inspections (audits of treatment plants) from time to time to ensure that wastes are properly disposed of.
- We keep handling records properly.

All plants in Greater China comply with local waste management regulations. In 2023, the total waste generated by Linyuan Advanced was 1,423.4 tons, of which the total waste recycling rate reached 100%. In order to reduce the waste discharged and increase the waste reuse rate, Linyuan Advanced have implemented waste classification to effectively collect and plan for recyclable resources, while reducing the cost of general waste disposal and the amount of waste incinerated. In addition, there is also an area in the plant, in which pallets recycled from customers are divided into three categories for reuse: (1) pallets with good appearance and body are sold to suppliers in need; (2) remaining pallets are selected for reuse in the plant; (3) pallets that are damaged and cannot be reused will be sent to the waste treatment process.

The waste generated by Maanshan, Anshan, and Chongqing is disposed of in accordance with the laws and regulations of China. All waste is collected and disposed of off-site, and garbage classification is carried out to sort out business waste, recyclable waste, and hazardous waste. Hazardous waste is temporarily stored in the hazardous waste temporary storage area, and legal third-party disposal companies are appointed to clear and transport the waste to hazardous waste disposal sites for legal disposal. The waste recycling rate of Maanshan was 99.3% in 2023. The waste is mainly desulfurized gypsum and sludge from sewage treatment, which are recycled and remade into cement and brick kilns. The rest of the general business waste is recycled for incineration for power plants. The waste recycling rate of Anshan in 2023 was 100%, a significant increase from 70% in 2022, mainly due to the switch to incineration treatment and the implementation of multiple recycling and reuse policies, including the recycling of desulfurized gypsum to make cement, as well as the recycling, reprocessing, and reuse of some scrap iron, scrap steel, PP bags, and pallets. The hazardous waste of Chongqing is incinerated according to the regulations, while the non-hazardous waste is still buried in landfills. The waste generated by the plant is temporarily stored in the hazardous waste temporary storage area, and legal third-party disposal companies are appointed to clear and transport the waste to hazardous waste disposal sites for legal disposal.

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 2023 was 96.9 metric tons, 57 tons of which was non-hazardous waste gypsum. The waste recycling rate in 2023 was 58.8%. CCIPL is equipped with a confined space for the storage of hazardous waste, and its disposal is outsourced to qualified hazardous waste treatment companies.

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

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 2023, the total amount of waste was 190.2 tons.

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. The waste generated in 2023 was 96 tons. The waste generated by CCC Ponca in the United States is landfilled, incinerated, and recycled in accordance with the laws and regulations of the United States. The total waste in 2023 was 1,793.4 tons, and the waste recycling rate was 54.2%, mainly for hydrated lime for roadbed stabilization and agricultural use.

Waste amount of CSRC over the past three years

Unit: Ton

Type of waste	Disposal location	Disposal method	Greater China			India			USA			Group		
			2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
Non-hazardous waste	Off-site	Incineration (energy recovery)	592.1	577.6	506.5	0.0	0.0	0.0	0.0	0.0	0.0	592.1	577.6	506.5
		Incineration (excluding energy recovery)	50.3	44.4	0.0	61.0	0.0	21.1	0.0	0.0	0.0	111.3	44.4	21.1
		Burial	817.9	510.7	108.7	0.0	0.0	0.0	663.8	905.9	914.1	1,481.7	1,416.6	1,022.8
		Heat treatment	144.9	144.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	144.9	144.4	0.0
		Physical handling	502.0	310.0	237.3	0.0	0.0	0.0	0.0	0.0	0.0	502.0	310.0	237.3
		Recycling	2,829.3	3,181.9	2,785.3	305.5	123.0	206.8	0.0	0.0	0.0	3,134.8	3,304.9	2,992.1
		Others	0.0	145.5	226.3	0.0	0.0	0.0	430.2	546.8	706.6	430.2	692.3	932.9
	On-site	Burial	0.0	0.0	0.0	0.0	0.0	0.0	3.8	15.7	3.4	3.8	15.7	3.4
		Recycling	0.0	0.0	0.0	0.0	0.0	0.0	212.0	124.1	265.1	212.0	124.1	265.1
Subtotal			4,936.5	4,914.5	3,864.1	366.5	123.0	227.9	1,309.8	1,592.5	1,889.2	6,612.8	6,629.9	5,981.2
Hazardous waste	Off-site	Incineration (energy recovery)	0.0	178.1	506.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	178.1	506.1
		Incineration (excluding energy recovery)	744.4	1,012.2	216.2	36.2	41.7	27.6	0.0	0.0	0.0	780.6	1,053.9	243.8
		Burial	65.5	0.0	0.0	0.0	0.0	31.6	0.0	0.0	0.0	65.5	0.0	31.6
		Recycling	0.0	0.0	4.2	0.0	0.0	0.0	0.5	0.5	0.0	0.5	0.5	4.2
	On-site	Recycling	0.0	3.4	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.6
Subtotal			809.9	1,193.7	727.2	36.2	41.7	59.2	0.5	0.5	0.0	846.6	1,235.9	786.4
Total			5,746.4	6,108.1	4,591.3	402.7	164.7	287.1	1,310.3	1,593.0	1,889.2	7,459.4	7,865.8	6,767.5
Waste recycling rate			70.8%	74.3%	87.9%	75.9%	74.7%	72.0%	49.0%	42.1%	51.4%	67.2%	67.8%	80.4%

Note: 1. Linyuan Advanced in Greater China disposes of non-hazardous waste and stabilizes other types of waste; Anshan disposes of non-hazardous waste and recycles and sells other types of waste.
2. The first production line of CCET in India commenced operations at the end of 2022, so there is no data for 2021 and 2022.
3. 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

SOCIAL

2023 Performance Highlights

Employment of individuals with disabilities by CSRC **surpasses** the statutory standard appointment of positions.

Average annual training hours per employee exceeding **22 hours**

There were **no** incidents related to human rights violations in the Group

The Maanshan Plant in the Greater China was recognized by the local government of Anhui Province as an **Integrity Demonstration Unit** for Labor Security and an **A-grade** unit in the Labor Security Integrity Evaluation of Maanshan City.

Obtained ISO 45001 certification covering **six** plants with a coverage rate of **75%**

The Group provided occupational safety and health training to a total of **3,800 employees**, contractors, and transporters, with a total of **32,213 hours** of training

NT$3.87 million was invested in promoting social welfare

By the end of 2023, the Conservation Center collected **34,579 species** of plants from all over the world

To promote traditional opera culture, Koo Cloud Theater launched **49** programs, accumulating **997,615 viewers** and marking a **14%** increase from 2022. The channel's subscriber base reached **12,494** people for **23% annual** growth.

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 Maintain 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 (2024-2025)	2023 performance
Disabling injury frequency rate (FR)	Disabling injury frequency rate (FR) Decreasing 50% compared to 2023	Disabling injury frequency rate (FR) Decreasing 20% compared to 2023	Group total FR is 3.19
Severity of disability injury (SR)	Disabling injury severity rate (SR) Decreasing 50% compared to 2023	Disabling injury severity rate (SR) Decreasing 20% compared to 2023	Group total SR is 239
Hazard notification to contractors before entering the plant	Maintain Implementation rate of 100% for hazard notifications given to contractors before entering the plant	Maintain 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

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 in the Greater China region. 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

Safety and Environment Office and safety and environment office of each plant

Complaint mechanisms

Complaint mailbox: csrcir@csrcgroup.com

Management policies - Talent training and development

	Medium and Long-Term Targets (2026-2030)	Short-Term Targets (2024-2025)	2023 performance
Appointment rate of local residents	80%	78%	77%
Number of complaints regarding child labor/forced labor/ discrimination in hiring/harassment	0 cases	0 cases	0 cases
Coverage rate of employee symposiums held in plant areas	100%	87.5%	75%
Implementation rate of individual development training for employees in plant areas	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. We conducted the first-ever Group-wide employee opinion survey, 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.

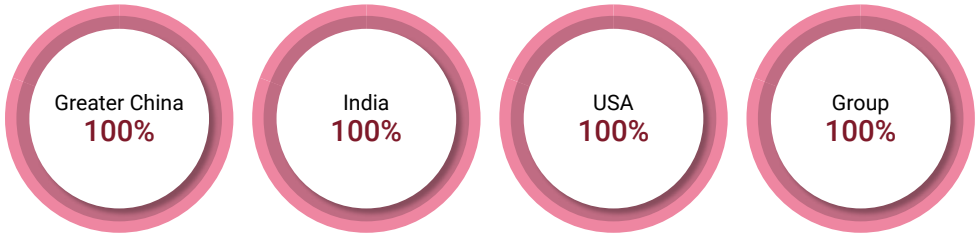
CSRC locations worldwide are recruiting personnel in accordance with the "Regulations on Recruitment and Appointment of Newcomers." The recruitment process includes talent demand application, talent selection, admission, and registration. We advertise recruitment openly through the CSRC official website, 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. 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	Mainland China	India	USA
Official website, 104 Job Bank, 1111 Job Bank, LinkedIn, campus recruitment, etc.	Xin'an Talent Network, 51job.com, Zhaopin Recruitment Network, Huibo Talent Network	LinkedIn X(twitter)	Official website, Indeed

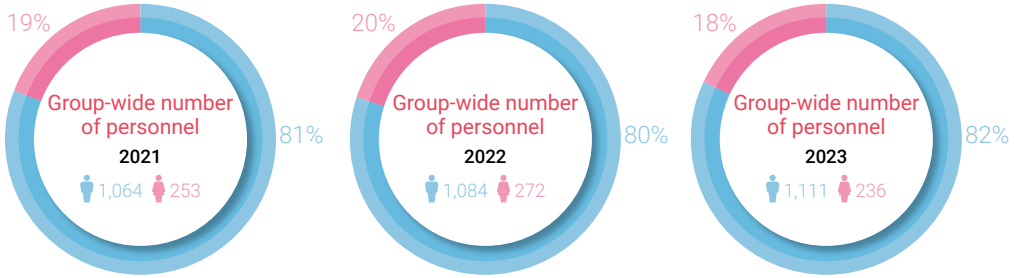
Employee labor contract signing coverage ratio in each CSRC region



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

As of the end of 2023, the total number of employees in the Group was 1,347. Due to the characteristics of the industry, the majority of employees are male, accounting for 82%. Common types of non-employee workers in CSRC Group in 2023 included cleaning staff, security guards, packers, etc., totaling 559 individuals. Additionally, CSRC values workforce diversity. In 2023, 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

Region			Greater China			India			USA			Group		
Age			<30	30-50	>50	<30	30-50	>50	<30	30-50	>50	<30	30-50	>50
Male	Principal job	Full time	51	405	114	90	213	28	49	106	37	190	724	179
	Appointment	Full time	2	1	3	0	1	0	0	0	0	2	2	3
		Part-time employees	0	0	0	0	0	0	0	0	0	0	0	0
	Employees without guaranteed hours		0	0	0	5	12	0	0	0	0	5	12	0
Total males			53	406	117	95	226	28	49	106	37	197	738	182
Female	Principal job	Full time	21	154	5	1	10	0	6	18	10	28	182	15
	Appointment	Full time	2	2	1	0	0	0	0	0	0	2	2	1
Total females			23	156	6	1	10	0	6	18	10	30	184	16

Note: In 2023, CSRC did not employ female employees on a part-time basis.

In 2023, the average turnover rate in all regions of CSRC Group was below 10%, with the Greater China region at 8.9%, lower than Taiwan's overall industry average turnover rate of 13.6% (including voluntary and involuntary turnover). The ratio of new hires and resignations maintained a certain turnover rate to enhance corporate competitiveness.

Numbers and proportions of new employees, 2023

		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	21	1.9%	63	5.7%	63	5.7%	147	13.2%
	Female	7	3.0%	4	1.7%	6	2.5%	17	7.2%
	Subtotal	28	2.1%	67	5.0%	69	5.1%	164	12.2%
31-50 years old	Male	34	3.1%	59	5.3%	44	4.0%	137	12.3%
	Female	15	6.4%	1	0.4%	8	3.4%	24	10.2%
	Subtotal	49	3.6%	60	4.5%	52	3.9%	161	12.0%
>51 years old	Male	4	0.4%	0	0%	4	0.4%	8	0.7%
	Female	0	0%	0	0%	2	0.8%	2	0.8%
	Subtotal	4	0.3%	0	0%	6	0.4%	10	0.7%
Total		81	6.0%	127	9.4%	127	9.4%	335	24.9%

Numbers and proportions of employees resigning, 2023

		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	18	1.6%	36	3.2%	59	5.3%	113	10.2%
	Female	1	0.4%	2	0.8%	3	1.3%	6	2.5%
	Subtotal	19	1.4%	38	2.8%	62	4.6%	119	8.8%
31-50 years old	Male	61	5.5%	38	3.4%	42	3.8%	141	12.7%
	Female	21	8.9%	1	0.4%	13	5.5%	35	14.8%
	Subtotal	82	6.1%	39	2.9%	55	4.1%	176	13.1%
>51 years old	Male	17	1.5%	9	0.8%	12	1.1%	38	3.4%
	Female	3	1.3%	0	0%	3	1.3%	6	2.5%
	Subtotal	20	1.5%	9	0.7%	15	1.1%	44	3.3%
Total		121	8.9%	86	6.4%	132	9.8%	339	25.2%

Note: The calculation method for the ratio of new hires to departures among male employees in each region and age group is the number of new hires to departures among male employees in that region and age group divided by the total number of male employees in the group at the end of 2023; the calculation method for the ratio of new hires to departures among female employees in each region and age group is the number of new hires to departures among female employees in that region and age group divided by the total number of female employees in the group at the end of 2023; and the calculation method for the ratio of new hires to departures among total employees in each region and age group is the number of new hires to departures among total employees in that region and age group divided by the total number of employees in the group at the end of 2023.

Employee type

Diversity

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

		Greater China	India	USA	Whole Group
2021	Number of personnel	7	0	126	133
	Proportion	0.9%	0.0%	43.4%	11%
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%

Note: Minority disadvantaged groups in the Greater China Linyuan Advanced Plant include individuals with disabilities as well as indigenous peoples. In 2023, five 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, 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	Whole Group
2021	Number of personnel	1	0	2	3
	Proportion	14%	0.0%	1.6%	2%
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%

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

		Greater China	India	USA	Whole Group
2021	Number of personnel	1	0	2	3
	Proportion	20%	0.0%	20%	20%
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%

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 professional skills, core functions, management capabilities, environmental safety and health, and new employee training. The scope includes regular employees of CSRC and its directly managed subsidiaries.

CSRC launched internal digital training courses in 2023. Course topics include product applications and production process introduction courses, aiming to break through time and space limitations so that employees can understand the extensive applications of carbon black and thereby enhance their job and product identity from their first day at work through videos. To further enhance training effectiveness, in 2023, we clearly outlined the training requirements for various job levels in factory production units and identified gaps through skills assessment. Personalized training and development plans were then arranged to precisely enhance employee capabilities.

New personnel training

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.

Core functions

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.

Management functions

Training activities planned according to the management abilities and responsibilities required by supervisors at all levels are as follows:

New supervisors

Roles and responsibilities of frontline supervisors

Frontline and middle management

Goal setting and performance management

Senior management

EMBA

Professional functions

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. In 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.

Environmental Safety and Health

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.

We conduct education and training surveys for various departments, conducting training needs interviews with supervisors to understand departmental needs and provide corresponding training materials and courses to strengthen and enhance employees' abilities, thereby accumulating their experience. In 2023, the most popular course was "Goal Setting and Performance Review." In 2023, the average training hours per employee at CSRC Group was 22 hours, an increase from 20 hours in 2022. 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 2023

Percentage of CSRC employees in each region receiving vocational or skills-related training in 2023

		Greater China	India	USA	Group
2021	Number of personnel	551	145	244	939
	Proportion	72%	80%	84%	76%
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%

Percentage of CSRC employees in each region receiving environmental (carbon reduction and climate change) or skills-related training in 2023

		Greater China	India	USA	Group
2021	Number of personnel	130	18	10	158
	Proportion	17%	10%	3%	13%
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%

Average training hours for the Group and each region

Employee category	Gender	2021				2022				2023			
		Greater China	India	United States	Group	Greater China	India	United States	Group	Greater China	India	United States	Group
Senior Supervisor	Male	9	-	5	14	32	-	5	37	16	-	5	21
	Female	39	-	-	39	19	-	-	19	20	-	-	20
Mid-level supervisor	Male	17	8	12	37	19	4	17	40	17	2	20	39
	Female	22	8	12	42	25	5	17	47	9	-	20	29
Basic level supervisor	Male	14	17	15	46	21	12	18	51	18	9	17	44
	Female	16	10	15	41	41	23	18	82	15	12	17	44
Professionals	Male	19	10	19	48	27	7	20	54	22	14	23	59
	Female	10	50	19	79	24	6	20	50	14	10	23	47
Direct staff	Male	13	2	25	40	23	6	28	57	33	13	36	82
	Female	12	-	25	37	20	-	28	48	54	-	36	90
Total		14	12	25	16	24	8	25	20	27	12	25	22

Note: Data for Greater China: 2022 does not include the Chongqing plant; 2021 does not include the Chongqing plant and the Anshan 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. The overall feedback on course satisfaction in 2023 was as high as 9.3 points (out of 10 points).

6.2.2 Employee function improvement project

Experience Inheritance and Knowledge Building Project

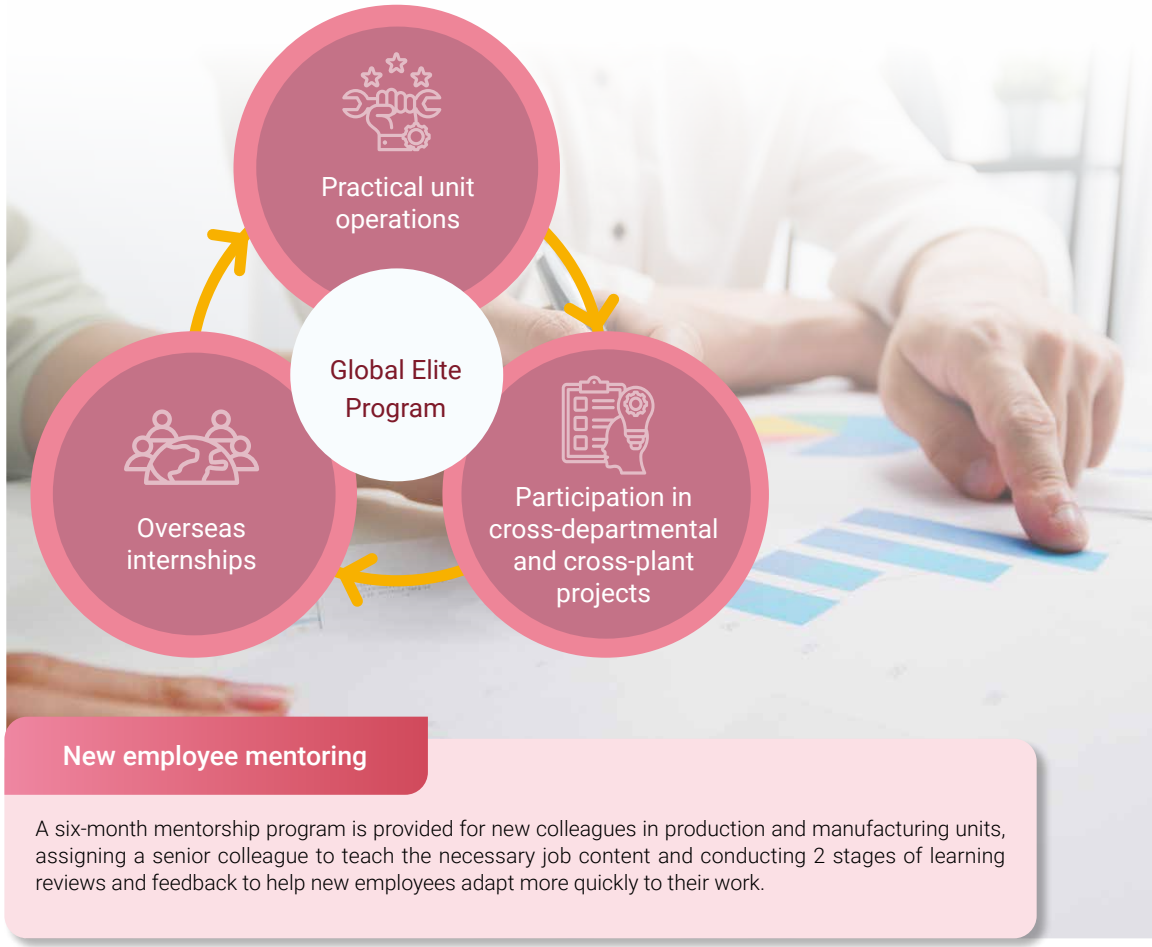
CSRC deeply understands the importance of internal knowledge exchange among employees. In addition to formulating the "Internal Lecturer Measures" (applicable to full-time employees of CSRC and its directly governed subsidiaries) to cultivate and encourage employees to teach, the Company also conducts 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. Additionally, since 2019, we have launched the "Experience Inheritance and Knowledge Building Project," through which senior employees use a mentoring system to transform years of accumulated knowledge and technical experience into important teaching materials for the Company. 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. Since 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, we pioneered the introduction of mentorship systems in the Linyuan Advanced Plant production units, assigning dedicated mentors to new employees for a 6-month personalized guidance period upon their entry to help them get started on their jobs more quickly. We promote professional skill development based on job manuals, identify required knowledge and skills, and design corresponding courses and training times based on final job performance expectations. Production and process units are currently completed and expanding gradually to engineering and quality assurance, among other plant areas.

Rehiring senior staff as consultants

In addition, CSRC makes full use of the skills and experience of senior staff, rehiring retired senior employees as consultants for the Company. In 2023, the Linyuan Advanced Plant in Greater China rehired one retired senior employee, and the India region rehired five, under contract with professional personnel. Leveraging nearly 30 years of practical experience from senior employees, they assist in cultivating new and existing staff and establishing a production process knowledge base, integrating and promoting improvement projects across all plants to build a talent pipeline.

Global Elite Program

CSRC actively supports the United Nations Sustainable Development Goals. In response to the Group's overseas expansion, through the CSRC Global Elite Program, we actively recruit and cultivate global management talent. Starting in 2023, the training period has been adjusted to 15 months, with initial practical unit operations and later deep involvement in cross-departmental and cross-plant large projects. Finally, practical overseas internships are arranged to enhance multidimensional cross-functional breadth and professional depth. In 2023, a total of 32 elites were trained across six sessions, with 10 becoming CSRC overseas executives, stationed in mainland China, India, and Turkey to manage overseas plant operations and production and to assist in new plant projects.



New employee mentoring

A six-month mentorship program is provided for new colleagues in production and manufacturing units, assigning a senior colleague to teach the necessary job content and conducting 2 stages of learning reviews and feedback to help new employees adapt more quickly to their work.

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 factory, 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 attaches great importance to gender equality and equal pay for equal work. The salary payment basis and basic starting salary do not differ based on gender. Remuneration is mainly based on business performance, peer salary levels, job evaluation and the Company's future operating needs and other related factors. Due to the industry specificity in the gender composition of talent in the industrial chain of CSRC, most of the professional and technical workers in the plant are currently men, while women mainly hold administrative/support type positions. According to market standards, there are different levels of positions for different types of positions. This difference has resulted in the pay gap between men and women in each plant. In order to manage the differences in the salary structure of employees in each region, CSRC's Human Resources Department regularly investigates internal and external market salaries every year to ensure the appropriateness and rationality of salary disbursement.

Male-to-female average salary ratio by job level for CSRC in 2023 (Male: Female)

Greater China	2021	2022	2023
Senior Supervisor	1.35:1	1.35:1	1.47:1
Mid-level supervisor	0.67:1	0.72:1	0.84:1
Basic level supervisor	1.06:1	1.04:1	1.11:1
Professionals	1.06:1	1.06:1	1.17:1
Direct staff	1.18:1	1.15:1	1.13:1

India	2021	2022	2023
Mid-level supervisor	1.58:1	1.48:1	1.47:1
Basic level supervisor	0.98:1	1.47:1	1.42:1
Professionals	0.80:1	1.36:1	1.21:1

USA	2021	2022	2023
Basic level supervisor	1.11:1	1.08:1	1.10:1
Professionals	1.11:1	1.08:1	1.10:1
Direct staff	1.11:1	1.08:1	1.10:1

Group	2021	2022	2023
Mid-level supervisor	1.13:1	1.10:1	1.15:1
Basic level supervisor	1.05:1	1.20:1	1.21:1
Professionals	0.99:1	1.17:1	1.16:1
Direct staff	1.15:1	1.11:1	1.12:1

Note: 1. Only the Greater China Taipei headquarters has female senior executives.
2. There are no female mid-level executives in the United States region.
3. There are no female direct personnel in the India region.

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 2023, 100% of CSRC Group employees successfully completed the annual performance assessment.

We also collected feedback from managers and colleagues on the current performance management system and initiated adjustments by the end of 2023. This includes promoting clearer and more consistent evaluation criteria and conducting a second performance calibration meeting at the Linyuan Advanced Plant, expanding the scope to include frontline supervisors. Through the conducting of assessment courses, we enable evaluating managers to understand the importance of performance communication and writing evaluations, as well as the significant impact of assessments on colleagues' futures, to establish a fairer and equitable performance management system and process.

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 2023	100%	100%	100%	100%
Assessment ratio for 2022	100%	100%	100%	100%
Assessment ratio for 2021	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
2021	100%	100%	100%	100%
2022	100%	100%	100%	100%
2023	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.

Mainland 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. CSRC provides a non-negotiated 6% contribution for employees, and a negotiated 3% contribution for unionized employees, with these benefits fully vested after three years.

"Comprehensive Incentive Plan" launched in the United States region

Employees who perform well will be rewarded points to improve operations, performance, profitability, and morale. The evaluation includes length of service, whether performance meets characteristics such as responsibility/honesty, and health evaluation (participating in smoking cessation activities). Points can be earned to exchange for incentive prizes. This plan applies to all employees in the United States region.


Continental Carbon

Total Rewards Program

At Continental Carbon our mission is to be a quality conscious, ethical and preferred developer, manufacturer and marketer of carbon black products. We've designed the Total Rewards Program to reward our employees who go above and beyond every day in living our core values.

The Total Rewards Program awards points throughout the year, much like frequent flyer miles. Points earned are saved in your personal online account which can be accessed 24/7 via the program website: https://continentalcarbonrewards.com. Points can be redeemed at any time for a variety of awards.

How do you earn points?
- YEARS OF SERVICE
- WELLNESS
  Safety, Fitness Days, Tobacco Cessation, Quarterly Challenges, Financial Wellness
- MANAGER ON THE SPOT RECOGNITION
- EMPLOYEE OF THE QUARTER
- BIRTHDAYS

To Access the Program Site:
Visit the program website:
https://continentalcarbonrewards.com
1. Enter your username and password found below:
   USERNAME: Employee ID Number
   PASSWORD: carbon
2. Click Login!
   You will be required to change your password when you login for the first time.

Other welfare measures

Number of benefit usage instances in 2023

Welfare item	Greater China	India	Total number of Group usage instances.
Birth announcement gift	18	-	18
Wedding congratulation gift	12	4	16
Children's educational stipends	1	-	1
Medical treatment subsidies	111	-	111
Health check subsidies	486	283	769
Funeral condolence offering	-	-	-
Personal travel allowances	209	-	209
Group travel allowances	209	-	209
New Year gift vouchers	740	-	740
Celebration activities	627	-	627
Health insurance	182	-	182

Note: Due to the adoption of the aforementioned points system 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.

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 adheres to a belief in gender equality. Female employees enjoy pregnancy leave without pay, prenatal check-up leave, and maternity leave. Meanwhile, male employees are entitled to paternity leave when their spouse gives birth. For employees with infant-care needs, we will handle the work of employees without pay for childcare leave in accordance with the "Gender Work Equality Act" and the "Implementation Measures for Infant Care Leave without Pay". Furthermore, after the expiration of the employee's period of leave without pay, we will arrange for a return to the original unit and position, and actively assist the employee to reintegrate into the workplace. Parental leave does not differ based on gender, position, or work area. Female employees in the Taiwan portion of the Greater China region are entitled to two breastfeeding breaks per day (each for half an hour), while male and female colleagues can apply for parental leave without pay. In the China region, male colleagues are entitled to 10 days of paid paternity leave and female colleagues are entitled to 158 days of paid maternity leave, as per Chinese government regulations. 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

	2021		2022		2023	
	Male	Female	Male	Female	Male	Female
Total number of employees eligible for parental leave (A)	24	21	10	21	9	22
Total number of employees actually using parental leave in 2023 (B)	8	6	6	10	4	8
Total number of employees expected to return to work in 2023 following parental leave (C)	8	5	7	7	4	7
Total number of employees actually returning to work in 2023 following parental leave (D)	5	3	6	7	4	6
Total number of employees who resumed work in 2022 after taking parental leave in the previous year (E)	2	1	3	3	3	5
Total number of employees who took parental leave in 2022 and were still working 12 months after reinstatement (F)	2	1	2	3	3	5
Application rate for unpaid parental leave (B/A)	33%	29%	60%	48%	44%	36%
Reinstatement rate (D/C)	63%	60%	117%	70%	100%	88%
Retention rate (F/E)	100%	100%	100%	100%	100%	100%

Note: The first production line of CCET in India commenced operations at the end of 2022, and will therefore only be included in statistics for 2023.

Our human rights policy regulates diversity, tolerance, and equal job opportunities, and provides a safe and healthy working environment, in compliance with local regulations in different regions, such as the Gender Work Equality Act in Taiwan, the Special Provisions on Labor Protection for Female Employees in Mainland China, and the "PUMP for Nursing Mothers Act" in the United States. We have formulated the "Administrative Measures for Breastfeeding Rooms", extending compassion to female colleagues who must balance the demands of family and workplace. There are breastfeeding rooms or rest rooms for pregnant women in various locations of the Company provided for use by colleagues who need to engage in breastfeeding, thereby fully protecting maternal employment and family care. In the India region, facilities such as daycare centers are provided in accordance with the Maternity Act.

To ensure our colleagues work with peace of mind and to promote children's welfare, CSRC 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.

Maternity break room at the Maanshan Plant

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.
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.
Relief Massage Area	The "Relief Massage Room" sympathizes with colleagues' hard work and provides free professional massage masters to help employees relieve stress.
Employee Rest Area	A special floor is set up for employees to communicate and relax. There are many movable tables and chairs and small meeting rooms in the comfortably decorated space, allowing employees to choose to talk openly or privately. There is also a reading area, games area, VR area, beverage area, and even slides and ball pools for children to play. Having these spaces not only allows colleagues to maintain their best condition during work, but also allows family members to use them during vacation time, enhancing closeness between the Company and the family.

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 2023, employees took a total of 193 days of volunteer leave.
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.
Festive gifts	We provide gift vouchers, birthday gift vouchers, and New Year gift vouchers including for the Spring Festival, Dragon Boat Festival, and Mid-Autumn Festival.
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 accompany and support colleagues through all important stages of their lives.
Flexible working hours	CSRC has a flexible commuting system for non-scheduled employees where staff members choose times to go to and get off from work every quarter.
Annual gatherings	The Linyuan Plant in Greater China holds Spring Banquets and corporate year-end parties; the US region hosts holiday parties, crawfish boils, 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. It actively establishes diverse two-way communication channels in accordance with local labor-related implementation measures at each operational location. CSRC convenes labor-management meetings at least once every quarter in various regions, where both labor and management send representatives to discuss topics including but not limited to salaries and benefits, working conditions, employee assistance programs (EAPs), and vacation planning. In addition, if employees have any complaints, they can send an email to the chairman of the union. The labor union will understand and communicate the content of the complaint, and reach a consensus with the company through two-way discussions at the meeting to establish a harmonious working environment for labor and management.

The Linyuan Advanced Plant in Greater China registered a trade union in 2019, with 168 employees participating in 2023 and accounting for 70% of the plant's workforce. According to the "Articles of the Kaohsiung Trade Union of Linyuan Advanced Materials Technology Co., Ltd.", the union will assist members in the following tasks:

1. The conclusion, modification, or annulment of group agreements.
2. Promotion of matters related to improving working conditions and member welfare.
3. Handling of labor disputes or member disputes.
4. The formulation and revision of labor laws and recommendations for repeal matters.
5. Mutual assistance and cooperation for group members to ensure labor rights.
6. Assisting members to research and improve production skills, improve quality, and help reduce costs and develop production businesses.
7. Organization of member savings.
8. The organization of cooperatives such as production, consumption, and credit.
9. Organization or promotion of member recreation, medical equipment, mutual aid business, and labor education.
10. Establishment of a library and the printing and running of publications.
11. Surveys of members' livelihoods and the compilation of labor statistics.

Although plants in Greater China have not established labor unions, they have implemented employee suggestion boxes to solicit opinions or suggestions from employees. The suggestion box key is kept by the plant manager. Additionally, feedback from employees is summarized monthly, and every comment and suggestion is handled promptly with a response. The India region CCIPL Plant has nine union members, constituting 5% of the total workforce; the CCET Plant does not have a labor union. Both US plants have established unions, with a total of 104 unionized employees and accounting for 46% of the total US workforce.

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
2021	170	84%	18	10%	119	14%	307	25%
2022	163	83%	13	7%	113	44%	289	24%
2023	168	70%	9	5%	104	46%	281	21%

Note: The three plants of the Greater China region have not established labor unions; CCET Plant of 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. Furthermore, it actively maintains a good relationship between labor and management, and provides multiple internal communication channels. In addition to regular labor–management meetings, labor union communication and coordination, Company internal website message announcements, electronic newsletters, and other ad hoc meetings, the Company began holding regular staff forums starting in 2021. These forums gather colleagues' thoughts and suggestions, and provide periodic public responses to employee feedback. We also continued our collaboration with Hsinchu Lifeline on the Employee Assistance Program (EAP), utilizing services from professional psychological counseling agencies to strengthen the types of employee communication channels and ensure confidentiality throughout the entire process, while respecting employee privacy.

In 2023, 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

CSRC values employee opinions. In addition to regular smooth labor-management meetings, we also conduct employee opinion surveys to understand employees' recognition and engagement with the Company. A total of 379 questionnaires were collected, and we continue to improve Company practices based on employees' feedback on issues. We review individual employee needs, striving to meet the expectations of the majority of employees while also responding to the needs of individual employees. We continue to provide platforms to realize the value of employees, establish sound mechanisms, and provide them with development directions. A people-oriented approach is the foundation of the Company's development. We continuously improve various Company measures to enhance employee recognition and retention rates.

In addition to the Group-wide employee opinion survey, the Maanshan Plant and the Anshan Plant have also arranged to conduct employee satisfaction surveys. The survey results showed average approval rates of 85% and 95% for the Company. Based on statistical analysis of the survey, the Maanshan Plant will conduct diversified activities to continuously enhance employee cohesion. Employee interviews are conducted to collect opinions and suggestions, provide feedback to supervisors, and discuss improvement plans together. The Anshan Plant has proposed and implemented improvement plans for less satisfactory indicators, including improving performance evaluation communication, enhancing the work environment, and promoting positive responses from supervisors to employees. Employee satisfaction surveys were also conducted in the India region, with 220 questionnaires distributed and 156 questionnaires collected, achieving a response rate of 71% and an average satisfaction rate of 87%. The US region did not plan an employee satisfaction survey this year, but there were no labor disputes, indicating that employees still communicate through other channels.

Employee satisfaction survey dimensions

6.4 Human rights management

6.4.1 Human rights policy GRI 2-23、2-24

CSRC regards employees as its most important asset. A deep understanding of employees is an important cornerstone of the Company's growth. Therefore, we are dedicated to creating an equitable and respectful workplace, providing employees with a comprehensive and secure employment environment, and upholding our fundamental commitment to society and sustainable operations. In formulating its "CSRC Human Rights Policy," CSRC strictly adheres to the United Nations Global Compact, the United Nations Universal Declaration of Human Rights, and the ILO Declaration on Fundamental Principles and Rights at Work, along with labor-related laws and regulations applicable to each of its operational locations. The policy applies to CSRC, its domestic and foreign subsidiaries, joint ventures, and other Group-affiliated enterprise organizations with substantial control capabilities, covering 100% of its operations. It aims to fully demonstrate the responsibility to respect and protect human rights and to treat current colleagues with dignity and respect. We firmly believe that only when employees are happy, respected, and able to fully unleash their talents, can they grow together with the Company. Although the Company has not conducted a human rights due diligence assessment, it has conducted an internal employee risk assessment within the Group, covering inclusivity in the workplace, forced labor, human trafficking, sexual harassment, workplace misconduct, overtime work, child labor, occupational health and safety management, employment and occupational discrimination, totaling nine items. In 2023, CSRC Group had no incidents violating labor rights in the Greater China region, and the Maanshan Plant was recognized by the local government of Anhui Province as an Integrity Demonstration Unit for Labor Security and an A-grade unit in the Labor Security Integrity Evaluation of Maanshan City.

The Maanshan Plant was recognized by Anhui Province as an Integrity Demonstration Unit for Labor Security

CSRC Human Rights Policy

CSRC's Human Rights Policy and Implementation Status

Prohibition of Child Labor, Prohibition of Forced Labor

Each of the Company's plants complies with local labor regulations. Internal policies have been formulated to prohibit child labor and forced labor and with no employment discrimination. In this way, we are committed to creating a diverse, open, equal, and harassment-free work environment.

The Company prohibits the employment of children under 16 years of age. In 2023, the Company did not employ any child labor or have any incidents of forced labor.

Diversity, equality, and anti-discrimination

The Company's policies do not allow any differential treatment or any form of discrimination based on an individual's gender, sexual orientation, race, class, age, marriage, language, thought, religion, party, place of origin, place of birth, appearance, facial features, physical or mental disabilities, and so on. In 2023, the Company had no disputes or complaints related to discrimination.

Freedom of assembly and association and of collective bargaining

The Company values two-way communication and respects employees' rights to assembly and association, fostering positive employee relations. We emphasize diverse internal communication channels, including regular labor-management meetings, union communication coordination, company intranet announcements, newsletters, and other ad-hoc meetings, to listen to and express employees' opinions. In 2023, the number of missing cases in external audits at each operating site of the Company was 0.

The number of employee complaints was zero in all other plants, except for the Linyuan Advanced Plant, which had two complaints, and the India region, which had four complaints. Among the complaints in India, the main complaints were that employees failed to comply with SOPs and had poor work attitudes. Relevant communications and disciplinary actions have been taken with the 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 2023, the Company had no disputes or complaints related to health and safety.

In 2023, CSRC implemented human rights policy advocacy and training. In Greater China, 100% of personnel completed online readings of the human rights policy. Regarding training, new employees received education on the human rights policy (including prohibition of employment discrimination, diversity and inclusion, anti-discrimination and harassment, prohibition of child labor, prohibition of human trafficking, and prohibition of forced labor), maintaining a 100% compliance rate. In the future, CSRC will continue to conduct human rights advocacy and training in a variety of ways through online platform education and training in May 2024, and promote the practice of human rights advocacy across all operational sites.

Percentage of CSRC employees in each region receiving diversity, discrimination and/or harassment or related training in 2023

Greater China

2021	Number of personnel **765**	**100%**
2022	Number of personnel **779**	**100%**
2023	Number of personnel **761**	**100%**

India

2021	Number of personnel **181**	**100%**
2022	Number of personnel **188**	**100%**
2023	Number of personnel **360**	**100%**

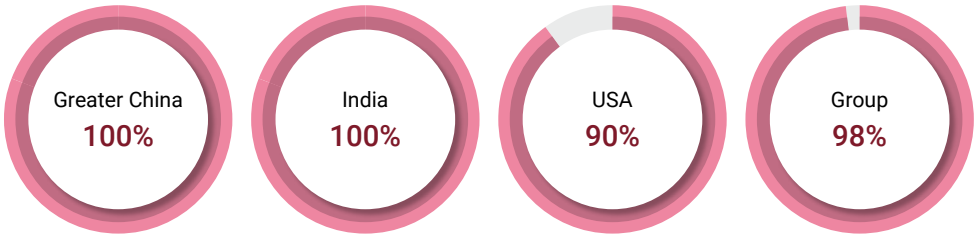
USA

2021	Number of personnel **261**	**90%**
2022	Number of personnel **233**	**90%**
2023	Number of personnel **203**	**90%**

Whole Group

2021	Number of personnel **1,207**	**98%**
2022	Number of personnel **1,200**	**98%**
2023	Number of personnel **1,324**	**98%**

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 guarantees the implementation of all national labor laws, prohibiting child labor and forced labor. Regardless of whether workers work overtime, shifts or regular holiday (leave) duty, there are corresponding measures to protect the rights and interests of employees and reduce the risk of forced labor by CSRC. In 2023, the CSRC Group did not have any forced labor incidents.

"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 emergency call-outs[Note].

"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.

"Rotation Work Method for Supervisors and Engineers on Duty on Regular Holidays (Leave)"

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.

"Regular Holiday Attendance Warning Notice"

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

"Leave Management Measures"

In order to direct employees of the Company to follow the rules for asking for leave, we have formulated leave management measures. Employee leave is divided into 15 kinds including marriage leave, personal leave, family care leave, ordinary injury sick leave, full-pay sick leave, physiological leave, bereavement leave, work-related injury sick leave, prenatal check-up leave, maternity leave, paternity leave, official leave, special leave, parental leave, and volunteer leave. Among these types, the Company aims to encourage colleagues to actively participate in public welfare services, care, and giving back to society by specially providing two days of volunteer leave per year to implement corporate citizenship, and contribute to society.

Note: Outbound overtime means that if there is an abnormality in equipment in urgent need of repair in the middle of the night, the on-duty workers 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 complaint process for sexual harassment is to file a complaint with the Human Resources Department after the incident. After the case is accepted, the application department will be established to conduct investigations in a private manner and the disposal will be implemented based on the investigation results. In response to the sexual harassment that has occurred, the target of a complaint shall be appropriately punished in accordance with the relevant provisions of the work rules and it shall be recorded in his or her personnel data. There shall be subsequent follow-up, assessment, and supervision of related behaviors to ensure the effective implementation of disciplinary or handling measures, and to avoid retaliation or any similar incident. If the subject has counseling or medical needs, he/she will be referred to professional counseling or medical institutions for treatment and counseling upon application. Additionally, the EAP shall be engaged for professional psychological counseling services.

We also conduct education and training on the prevention of sexual harassment, providing new employees with guidance on sexual harassment prevention, and explaining to employees the definition of sexual harassment, behavior patterns, internal complaint channels, and internal investigation procedures. For example, at the Linyuan Advanced Plant in the Greater China region, new employees are required to sign the "Linyuan Advanced Written Statement on Prohibition of Sexual Harassment in the Workplace." There is also a complaint mailbox: hrservice@csrcgroup.com.

In order to prevent workplace violence, we have established plans to prevent illegal harassment while performing duties. The "Linyuan Advanced Prevention Plan for Illegal Harassment while Performing Duties" aims to respond to workplace violence that has occurred, in addition to providing health and psychological counseling for associated employees while making work adjustments. We will also assist both parties in the coordinated handling of workplace violence, including necessary legal assistance, internal discipline, and so on, and follow up with related reviews and improvements. Furthermore, the relevant file records will be kept for at least three years.

At the same time, in order to protect the rights and interests of the physically and mentally handicapped, ensure their equal opportunities to participate in society, politics, economy, culture, etc., and promote their self-reliance and development, and in response to the Physically and Mentally Disabled Citizens Protection Act of the Ministry of Health and Welfare, our Linyuan Advanced Plant in the Greater China region has established barrier-free toilets and special physical ramps for people with disabilities to improve the working environment. No incidents of discrimination or harassment occurred at CSRC Group in 2023.

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

	Greater China	India	USA	Group
2021	0	0	0	0
2022	0	0	0	0
2023	0	0	0	0

Barrier-free facilities at the Linyuan Advanced Plant in the Greater China.





ch7 Occupational Health and Safety

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, putting people first; safety development, full participation, pursuit of 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.

Mainland area	Greater China	India	USA	Whole Group
Total number of individuals	99	44	4	147
Labor representation ratio	54%	41%	50%	50%

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 2023 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, Emergency preparedness plans, 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.

Senior 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 2023.

7.1.2 Safety and health management system

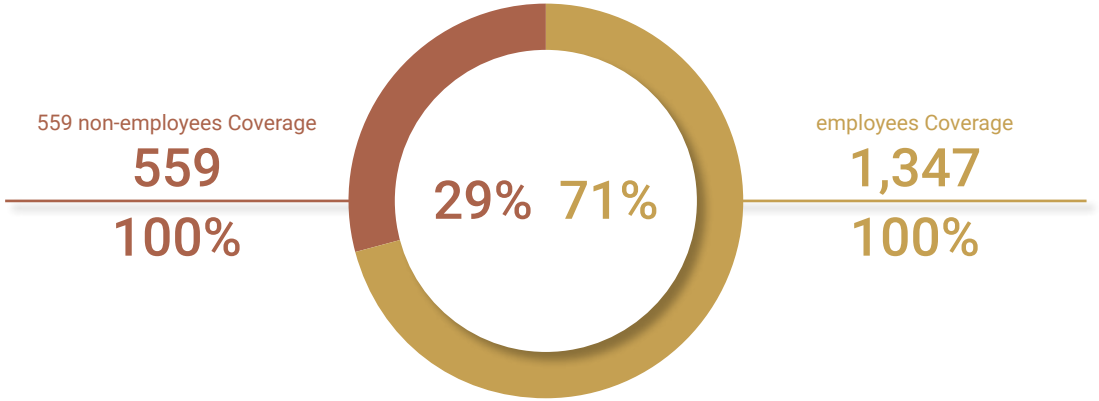
GRI 403-1、403-8

CSRC maintains a responsible unit in each factory, continues to promote the operation of ISO 45001 and GBT management systems, and strengthens contingency training to mitigate incidents and eliminate losses. During the overhaul period, we have implemented contractor management to mitigate incidents, provided health services and advanced health promotions, and used the management system to continuously reduce occupational health and safety-related risks in order to achieve our established goals. We have integrated the occupational health and safety system to formulate occupational safety, health, and environmental policies in accordance with the laws and regulations that must be complied with in various regions. These include Taiwan's Occupational Safety and Health Act, Process Safety Management, and Labor Health Protection Act; mainland China regulations such as the New Safe Production Law, the Basic Law on Labor Protection, the Prevention and Control of Occupational Diseases Law; India's Factories Act 1948, and requirements from the Occupational Safety and Health Administration (OSHA) in the United States, integrating occupational safety and health systems, to establish occupational safety, health, and environmental policies.

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 2023, 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%.

Coverage ratio of CSRC's occupational health and safety system for 2023:



Note: The main types of non-employee workers include cleaning staff, outsourcing contractors, security guards, construction and maintenance 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 2, 2026

Maanshan Plant, ISO 45001
Expiration date:
January 25, 2024

Anshan Plant, ISO 45001
Expiration date:
May 18, 2026

India CCET Plant,
ISO 45001
Expiration date:
March 28, 2026

India CCIPL Plant ISO 45001
Expiration date:
August 11, 2025

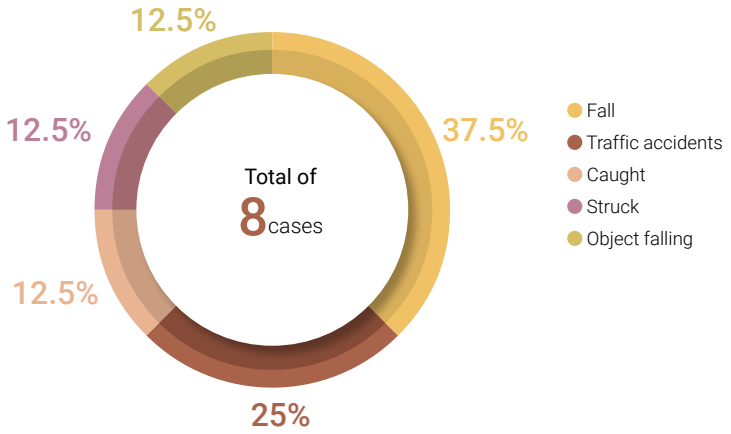
Chongqing Plant,
ISO 45001
Expiration date:
January 27, 2025

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.

2023 Employee occupational injury statistics



This year, there have been a total of 8 occupational injuries among employees, including 3 cases due to falls, 2 traffic accidents and the remaining incidents each occurred once. There were no occupational injuries among non-employees. The follow-up measures for various occupational injury incidents were as follows:

Fall	The department concerned has conducted safety education and added warning signs
Object falling	The accident area has been cordoned off and isolated, and the department concerned has conducted safety education and replaced pipelines
Struck	Adjusted work tasks to accommodate injuries or illness and provided medical assistance expenses
Caught	Adjusted work tasks to accommodate injuries or illness and provided medical assistance expenses
Traffic accidents	Advised the employee to commute to and from work using company vehicles or public transportation

Group occupational injury statistics of employees for the past 3 years

	2021	2022	2023
Total working hours	2,256,578	2,295,319	2,504,293
Number of general occupational injuries	14	10	7
Number of severe occupational injuries	5	4	1
Number of deaths	0	0	0
Total number of recordable occupational injuries	19	14	8
Total Recordable Injury Rate (TRIR)[Note 2]	2	1	0.64
Severe occupational injury rate [Note 3]	2	2	0.40
Resulting from occupational injuries [Note 4]	0	0	0
Disabling injury frequency rate (FR) [Note 5]	8	6	3.19
Lost days [Note 6]	239	332	599
Severity of disability injury (SR) [Note 7]	106	145	239

Note: 1. 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.

2. Total Recordable Injury Rate (TRIR) = (Recordable number of occupational injuries x 200,000 working hours) / Total working hours

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

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

5. 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.

6. 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.

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

Group occupational injury statistics of non-employees for the past 3 years

	2021	2022	2023
Total working hours	1,213,540	1,152,547	1,806,777
Number of general	0	0	0
Number of severe	0	0	0
Number of deaths	0	0	0
Total number of recordable occupational injuries	0	0	0
Total Recordable Injury Rate (TRIR)[Note 2]	0	0	0
Severe occupational injury rate[Note 3]	0	0	0
Resulting from occupational injuries Death rate[Note 4]	0	0	0
Disabling injury frequency rate (FR)[Note 5]	0	0	0
Lost days[Note 6]	0	0	0
Severity of disability injury (SR)[Note 7]	0	0	0

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

Group over the past three years for process safety incidents

	2021	2022	2023
Total Number of Process Safety Incidents (PSIC)	2	3	2
Total Incident Rate (PSTIR)	12%	17%	11%
Incident Severity Rate (PSSIR)	12%	12%	28%

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 2023, there were no major transportation accidents where raw materials or chemicals were leaked.

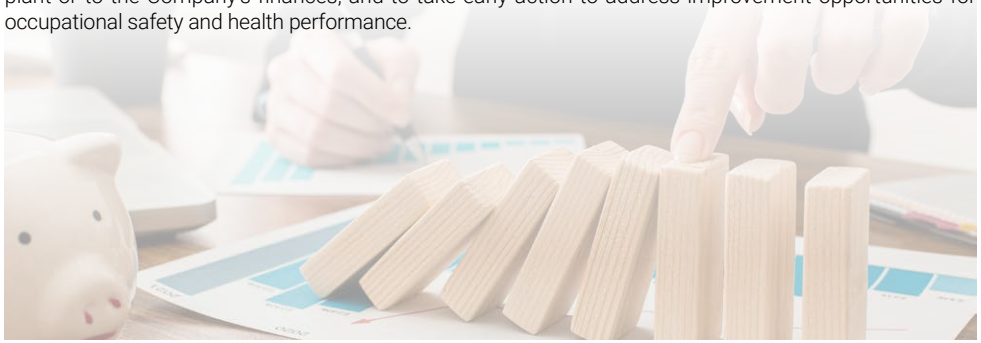
7.2 Occupational Safety Risk Management

GRI 403-2

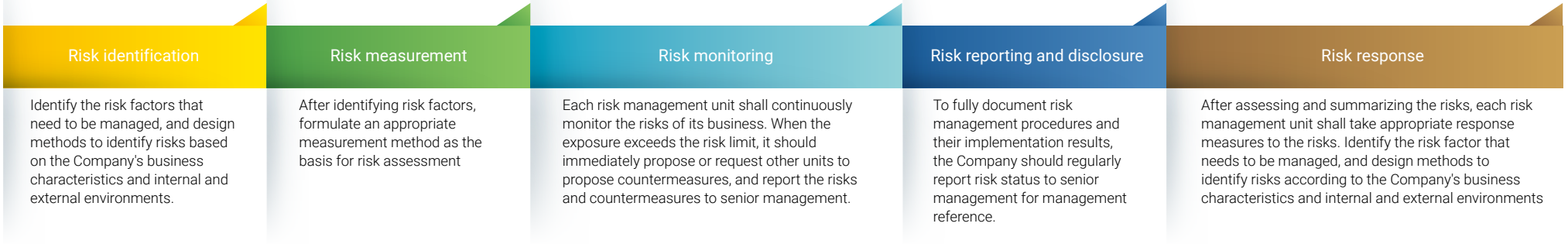
7.2.1 Risk management process

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).

Through our "Hazard Identification and Risk and Opportunity Evaluation Operations", CSRC handles items including risk management policies, risk management organization, risk management processes, and risk management categories and mechanisms, with the purpose of effectively controlling risks arising from business activities. This is to prevent the endangering of safety and health of personnel due to CSRC's operations, activities or services and facilities, causing losses to the safety and health of personnel in the plant or to the Company's finances, and to take early action to address improvement opportunities for occupational safety and health performance.



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 Procedures" according to ISO 45001 standards, actively identifying and assessing hazard factors involved in various operations or services. All evaluators have participated in risk assessment training courses to ensure their capabilities and awareness. The evaluation method can be proposed by factory colleagues (including contractors) or stakeholders of external units to their unit supervisor and reviewed, compiled, and tracked by the implementation task force. Additionally, the establishment of internal and external communication procedures allows employees to participate in incident investigations, hazard risk assessments, and control method decisions. This ensures that all relevant employees, contractors, suppliers, and stakeholders can promptly understand CSRC's occupational safety and environmental policies and the current status of the management system's operational requirements. We formulate routine and non-routine occupational hazard identification and risk assessment procedures based on the safety and health management system, identifying potential hazards and safety and health risks in each operational plant area and clarifying management strategies through hierarchical control.

The Linyuan Advanced Plant in Greater China categorizes risks into levels 1 to 5, going from large to small severity. Level 1 risks are the most serious and unacceptable, necessitating strict controls. The control methods determined after risk assessment are (a) elimination, (b) replacement, (c) engineering control and work reorganization, (d) use of administrative control including training/signing/warning/ administrative control, and (e) personal protection equipment. The control method adopted according to the assessment shall be considered according to the priority order of (a) to (e), and the most optimal control method shall be determined to reduce the risk to an acceptable level.

In the China area, risks are categorized into three levels based on colors. Every year, the main person in charge of the Company organizes a leadership task force with members to inspect production systems, equipment, facilities, workplaces, and other parts and links according to their respective responsibilities. They conduct a comprehensive and systematic safety risk identification evaluation and collaborate with relevant external experts to assess and demonstrate potential significant hazard sources. For daily risk assessments, the safety risk management and control leadership task force will identify new risk points arising from changes in the environment and production process based on safety production problems found in the comprehensive inspections and daily inspections. The list of risk points will be supplemented and revised by the safety and environmental protection unit. If employees find work to be dangerous, they can refuse the related risky work; and pursuant to Article 32 of the Labour Contract Law and the internal regulations under the "Three Violations Management System," this is not considered a violation of the labor contract. Employees are also encouraged to report violations and will be rewarded for doing so.

The India region also conducts risk assessment and hazard identification for all routine and non-routine operations and implements control measures accordingly, to reduce or eliminate risks. Among them, the CCET Plant categorizes incidents into four levels: minor, moderate, major, and natural disaster levels, each with specific handling protocols. Regular internal and external audits are conducted at the plant to ensure personnel adhere to procedures or SOPs for risk assessment and hazard identification, thereby preventing any process gaps. If a work item is dangerous, workers also have the right to refuse or interrupt the work to ensure worker 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 Agreement Organization Meeting

Contractor Hazard Communication Course

Process Safety Management (PSM)

To reduce CSRC's impact on safety and the environment and effectively mitigate process incidents, the Linyuan Advanced Plant in Greater China began implementing Process Safety Management (PSM). This implementation proceeds gradually through planning, execution, inspection, and improvement, enhancing the safety management of process operations. We aim to establish and enforce a factory safety culture and system, involving everyone from senior managers to employees and from equipment to personnel. The implementation of the overall plan is divided into two stages (36 months in total). The first stage involves system introduction, and the second stage focuses on deepening system and technology enhancements, with plans for gradual implementation in other regional plants.

Promotion of Process Safety Management (PSM)

First stage: System introduction

- Introduce favorable engineering practices
- Plan PSM 14 management systems
- Develop and revise implementation tools
- Strengthen operation processes
- Implementation of practice or example building

Second stage: In-depth strengthening of systems and technologies

- Duties and responsibilities of builders
- Build functional assessment
- In-depth strengthening of the technical aspects of PSM: PSM system audit and supervision, PSM index/maintenance performance index, PSM platform/CMMS system planning

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

Risk item	Explanation	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 entanglement or crushing incidents	Power equipment is not equipped with proper protection, and there is a risk of being rolled 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

In order to protect the health of employees and prevent the occurrence of industrial safety accidents, each operational site of CSRC complies with laws and regulations to formulate chemical management guidelines to reduce occupational safety risks caused 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 in making its safety and environment office responsible for formulating a Hazard Communication Plan and updating it in due course. All China-based facilities comply with the regulations of the Law of the People's Republic of China on the Prevention and Control of Solid Waste Pollution. Pollution from oil and chemical usage is controlled and managed. Chemical Management Measures are established at each facility in accordance with regulations to ensure workplace compliance with occupational safety requirements. This enhances employees' awareness of potential hazards from hazardous chemicals, preventing harm. Fixed and portable alarms are installed throughout the facilities to monitor toxic gas levels and ensure personal safety. Additionally, third-party monitoring is regularly conducted on labor operational environments, focusing on chemical and physical factors.

In India, chemical names are labeled according to local regulations. Material Safety Data Sheets are provided in English and local languages to ensure safe chemical handling and employee safety. Hazardous substances are managed in accordance with India's 1948 Factories Act, with internal work guidelines and relevant training 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.

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

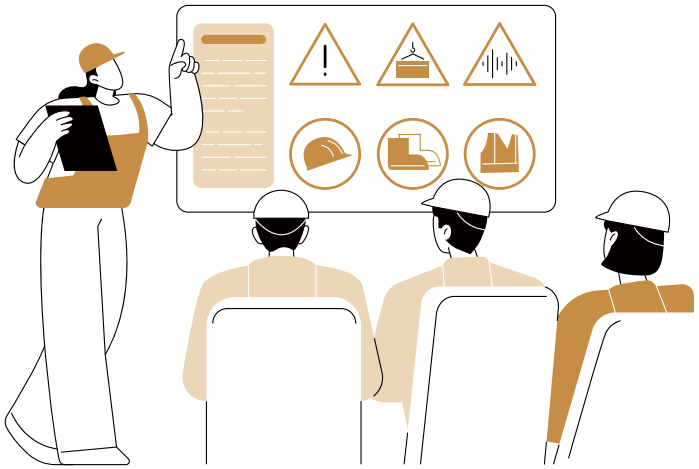
Items to be managed	Implementation content
Hazardous chemical inventory management	■ Make a list of hazardous chemicals and master the use and storage information of each hazardous chemical.
Safety Data Sheet management	■ Compile a safety data sheet to help employees understand the characteristics and 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	■ For chemicals purchased and brought into the factory, a safety data sheet should be obtained from the supplier (SDS) and safety labels placed on their storage containers. ■ The procurement of oil products and chemicals should be requisitioned by the relevant demand unit according to the material purchase requisition management method, and then the material department will purchase according to the qualified supplier. The provider is also required to provide information on the quality and performance of chemicals and chemical safety data sheets to ensure the quality and safe use of oil 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	■ 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	■ 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	■ 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: 1. 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. 2. 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. 3. 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 values the handling and immediate notification procedures of industrial safety accidents. It actively eliminates potential hazards in the workplace through its "Hazard Identification and Environmental Safety and Health Inspection Mechanism." The factory area usually strengthens automatic inspections, and initiates abnormal notification and emergency response procedures when any accident or abnormal event occurs. Employees need to leave the work position as quickly as possible to report to ensure that the severity of the accident is minimized as soon as possible. Afterwards, it must be controlled according to the severity of the accident, strictly investigate and issue a review report, and include the results as a reference for the annual review and improvement of the occupational safety system to achieve the goal of creating a healthy and safe working environment for employees.

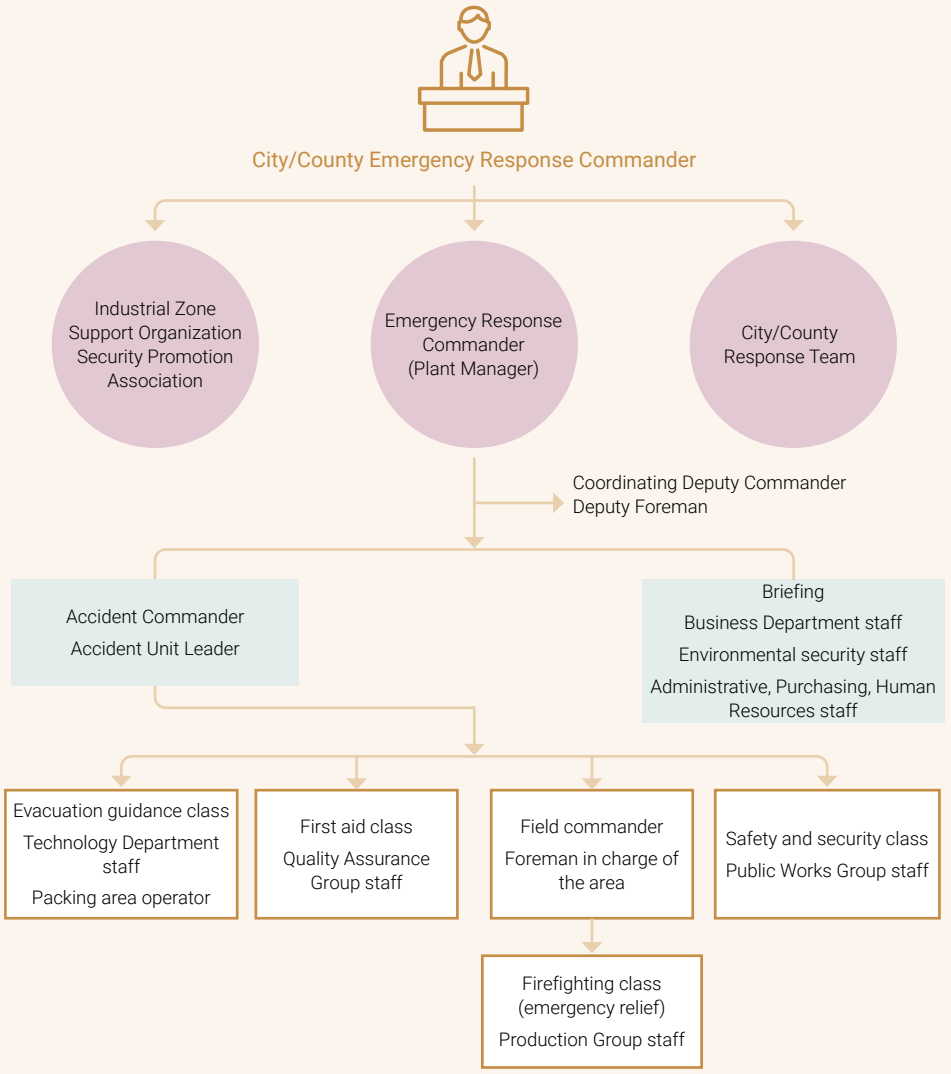
We also explain responses to emergencies at work in the education and training courses for each new recruit. When there is an immediate danger in the workplace, the employer or the person in charge of the workplace should immediately stop operations and make workers evacuate to a safe place. When a worker discovers that there is an immediate danger in performing his duties, he may stop the operation and retreat to a safe place on his own without endangering the safety of other workers, and immediately report to the direct supervisor. We also promise not to dismiss, transfer, or stop payment for the workers mentioned in the preceding paragraph for their wages during operations, or subject them to other disadvantages.

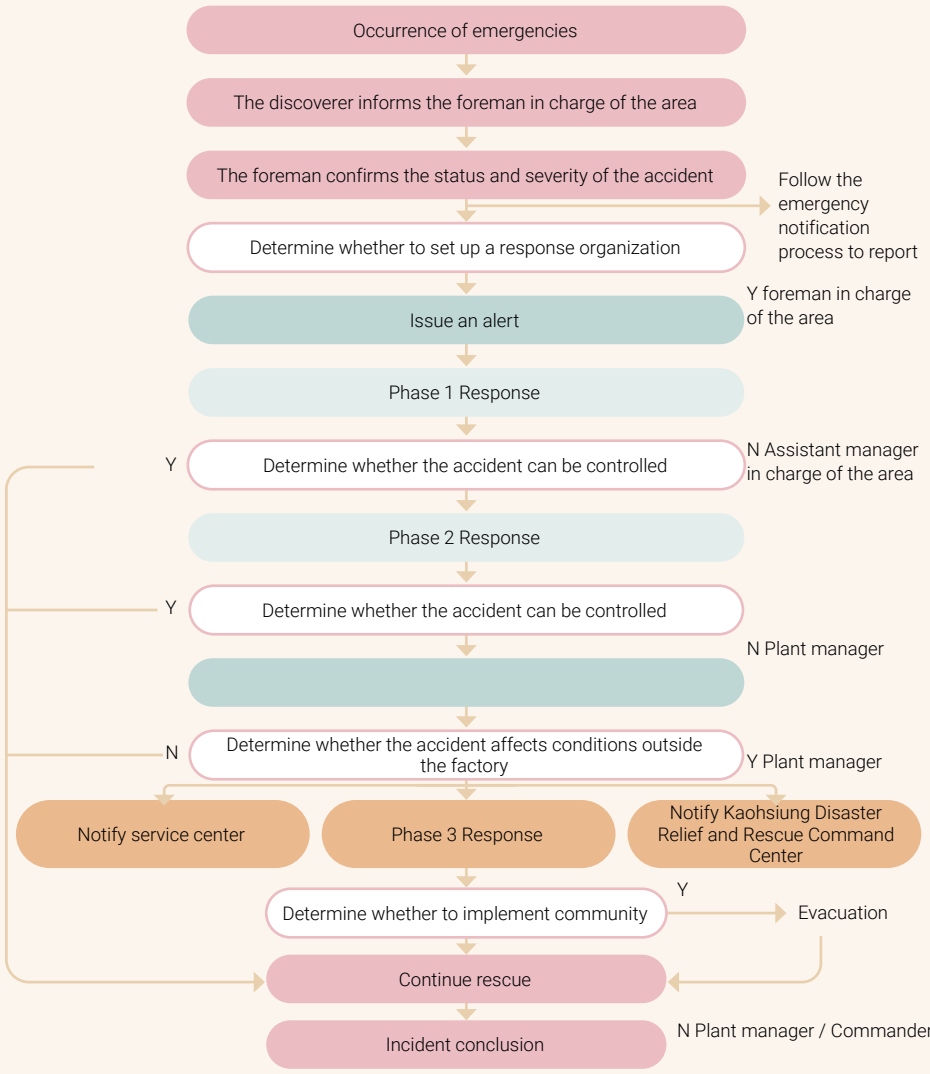
7.3.2 Emergency response plan operations

Each operating plant site has an emergency response plan. Taking the Linyuan Advanced Plant in Greater China as an example, when an emergency occurs, the foreman of the jurisdiction is notified first. The foreman decides whether to establish a response team and initiates a Level 1 accident response. If the situation cannot be contained, it will escalate to Level 2. At this point, it will be commanded by the managerial level and notify support units such as the fire brigade. When the situation is upgraded to Level 3 and represents that it will spread its effects outside of the plant, a complete emergency response plan organization will be activated for immediate management, and relevant units inside and outside the plant will work together to deal with the crisis.

System diagram of emergency response and emergency response plan operation process

System diagram of plant emergency preparedness and response





Hierarchical control

Level 1	Level 2	Level 3 (Expanding incident and one outside the factory)
An accident that causes minor injuries to fewer than five people, or a direct economic loss of less than NT$500,000 and more than NT$100,000. For a small amount of harmful or polluting substances leaks in the factory, small fires, or personal injuries that the on-site personnel in the jurisdiction can handle it by themselves.	An accident that causes serious injuries to fewer than three people, or minor injuries to more than five people, or direct economic loss of less than NT$1 million and more than NT$500,000. For a large amount of harmful or polluting substances leaking in the factory, medium-sized fires, or personal injuries that can be dealt with by seeking the personnel of other units or jurisdictions in the factory, and do not need to seek the support of units outside the factory.	Refers to an accident that causes more than one death or serious injury to three or more people, or a direct economic loss of more than NT$1 million. For when a large number of harmful or polluting substances are leaked or there are large-scale fires, and they may spread to neighboring factories or homes, and assistance from outside units for rescue must be sought.
Head of site command: Foreman on duty Response command center: Control room	Head of site command: Head of accident unit Response command center: Accident unit office	Head of site command: **Inside the factory:** Plant manager **Outside the factory:** Disaster Relief and Rescue Command Center of each region Response command center: Plant manager's office

7.3.3 Emergency Incidents and Fire Safety Training

In addition to the fire drills each CSRC factory also responds to potential crises in the factory by having an annual emergency response drill plan. This is aimed at making personnel familiar with the process flow through continuous training.

Number of emergency drills of each region

	Greater China			India			USA			Group		
	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
Number of emergency drills	42	53	43	1	2	5	1	2	3	44	57	51
Frequency of fire drills	22	22	25	4	4	6	1	2	3	27	28	34

The Linyuan Advanced Plant in the Greater China region conducted area joint defense emergency response team promotions and physical drills for chemical incidents


Maanshan Plant Confined Space Emergency Drill


The India region CCIPL Plant conducts safety simulation exercises and safety training

The Anshan Plant held three sessions in 2023 for "Emergency Response to Sudden Fires and Use of Fire Facilities," "Fire System Linkage Training," and "Fire Regulations and Safety Knowledge Training," establishing a fire rescue team. To ensure the implementation of fire safety concepts, comprehensive emergency drills for evacuation of the entire plant were conducted, including a "Filter Bag Replacement Toxic Incident Drill," as well as specialized drills such as "Pressure Vessel Explosion," "Tank Farm Fire," and "Carbon Black Dust Leakage." Collaboration was undertaken with the Anshan Fire Bureau to conduct a "Foam Injection Experiment," testing the foam liquid coverage of our fire equipment and guiding staff equipment operation, aiming to enhance corporate emergency self-rescue skills and regional emergency response capabilities. These efforts were intended to ensure timely, rapid, and safe handling of Company emergencies, minimizing life and property losses, and safeguarding production safety of all units in the region. We thus achieved third place in the 2023 Anshan Lishan District Fire Safety Key Unit Micro-Fire Brigade Skills Competition.



In 2023, the Chongqing Plant invited the park hospital to conduct cardiopulmonary resuscitation teaching and occupational health prevention and control training, actively participating in emergency skill competitions organized by the park.



The Chongqing Plant held a comprehensive emergency drill in 2023, with observation made through live video.



The Chongqing Plant held a comprehensive emergency drill at 8:45 a.m., May, 26, 2023 (through live video)

7.4 Health Service and Promotion

SASB RT-CH-320a.2

7.4.1 Occupational health service GRI 403-3

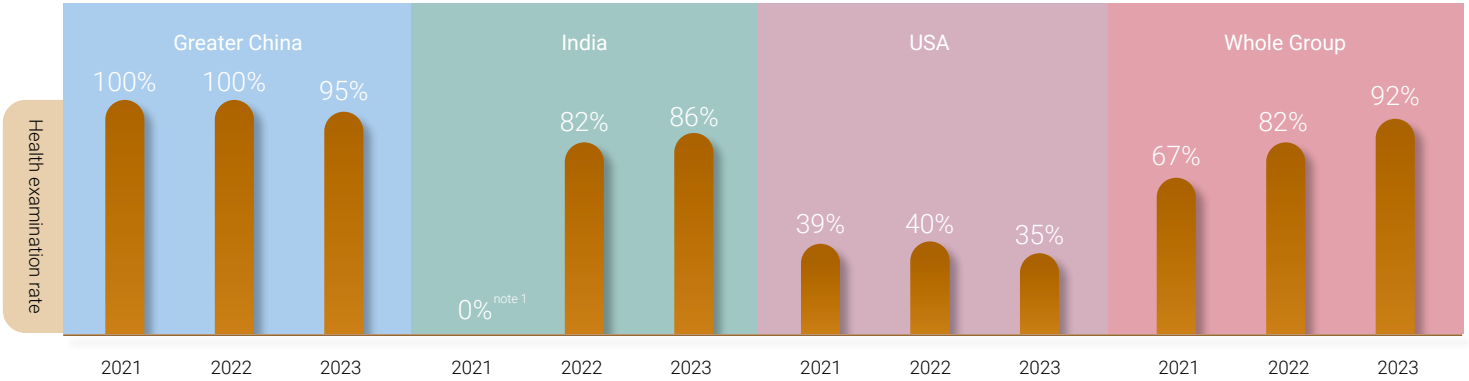
Health is invaluable in life. In addition to striving to prevent colleagues from being harmed in the workplace, CSRC also focuses on the overall health of employees. In order to take good care of the health of all colleagues, CSRC continues to introduce relevant safety and health mechanisms through the mechanism of PDCA; 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.

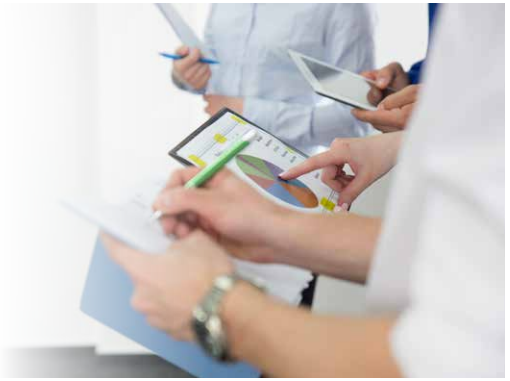
In addition to occupational health services, CSRC also provides all employees with personal health checkups at cooperative hospitals every year. In addition to the personal health check services for employees before and on duty, the Maanshan Plant and Anshan Plant in the Greater China also provide personal health checks upon resignation so as to help workers get the most complete health care. After the inspection report of the Linyuan Advanced Plant is released, the hospital will also provide temporary health consultation services for colleagues whose examination items are abnormal.

In order 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, ensuring continuous health care for workers. In addition, we plan special physical examinations for new employees and conduct the Nordic Musculoskeletal Questionnaire[note 2] (NMQ) Note as well as occupation-related special health inspections. The target is colleagues who work in environments that are particularly hazardous to health. (This includes those featuring high temperatures, noise, ionizing radiation, abnormal air pressure, lead, tetraalkyl 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 enter the plant for 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, facilities conduct annual special health checks based on occupational characteristics. The Maanshan factory reported inspection rates of 100% for dust, 100% for noise, and 100% for xylene in 2023. This strengthens occupational health management and services for colleagues. 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. In 2023, 126 individuals at the Anshan Plant participated in the occupational disease physical examination, and the occupational disease physical examination rate was 100%. For contractors, the Anshan Plant requires annually contracted contractors to submit worker's medical examination reports every year.

Employees at the India region CCIPL Plant enjoy annual health check services and have established an Integrated Management System (IMS) to ensure environmental hygiene in the workplace. All employees and temporary workers at the India region CCET Plant receive new and annual health check services, and quarterly monitoring of noise and air quality to protect employee health. In the US area, in addition to providing annual preventive health checks and physical exams for employees, occupational injury and illness service facilities are also available. Preliminary medical services are promptly provided if workers are injured on-site.





Note: 1. The health examination rate in India in 2021 was 0, having been suspended due to the pandemic.
2. 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, distinguishes specialty hazardous operations such as dust and noise, and implements controls and training for these operations. For example, we provide hearing protection education and training, respiratory protection education and training, or reduce exposure time as part of related risk control measures. In terms of personnel, it is not only limited to the control of the job site but also ensures superior to regulatory standards by conducting general and special health checks every year to ensure that employees can work at the plant with peace of mind. In the 2023 statistical dust and noise specialty health inspections, in the health classification, no one exceeded level 2, meaning that either the doctors conducting the special health examinations judged the results as normal, or judged them as abnormal but unrelated to work.

Special hazard occupational health management

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

	Number of people evaluated		Level 1 management		Level 2 management		Level 3 management		Level 4 management	
Health check item	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Noise	91	4	45	4	45	0	1	0	0	0
Dust	91	4	45	4	46	0	0	0	0	0
High temperature	0	0	0	0	0	0	0	0	0	0
Operations with organic solvents and specialty chemicals	2 (n-Hexane)	0	2	0	0	0	0	0	0	0

Odor Control

Due to the dispersion of powdered carbon black during the production process of carbon black products, granulation is required to reduce transport emissions. The bonding material used during granulation is general edible-grade molasses, but molasses often produces oxidation during drying and the sweetness of the caramel causes odors in the surrounding environment. The Linyuan Advanced Plant has installed two sets of odor facilities to reduce odor emissions.

Odor treatment and control facilities (scrubbing tower)

Backup odor treatment and control facilities

Noise Control

During the start-up and shutdown of steam turbines in the plant, some steam may need to be vented externally, causing noise pollution in the surrounding area. Various types of silencers have been installed throughout the plant to mitigate noise.

(The image shows a silencer installed at the Linyuan Advanced Plant on the left, and main control fan silencers and soundproof panels at the Maanshan Plant.)

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 2023, no cases of occupational diseases were reported in the China facilities. 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 region, occupational diseases are identified according to local regulations. In 2023, no occupational disease risks were identified in the two plants. In the United States region, occupational diseases are identified by third-party organizations. There were no cases of occupational diseases reported in 2023.

	Greater China			India			USA			Group		
	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
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 231 times across all plant locations in 2023.

CSRC Labor Health Promotion Service and Active Care Program

- Newcomer abnormal physical examination interview
- 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.
- Marathon and walking competition events were organized
- Sports gathering events were held at the US plant

Linyuan Advanced Plant health lecture

Maanshan Plant

CCET plant

Workplace maternal health protection measures

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.

Units classify work environment risks, conduct interviews with physicians and nurses, and regularly monitor them. The Linyuan Advanced Plant has implemented maternal health protection measures for 12 female employees to date.

Workplace stress and mental health interviews

Prevention of repetitive injury on-site assessments

Highlighted activities

In 2023, the Maanshan Plant strengthened the maintenance of packaging equipment to promote employee health and safety, adding barriers to prevent the dispersion of dust.

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 from dangers. 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 2023, a total of 1,244 people participated in CSRC Group's occupational safety and health-related training, totaling 16,451 hours.

CSRC's statistics on safety and health personnel training over the past three years

	Greater China			India			USA			Group		
	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
Number of participants in environmental, safety and health education and training	712	737	692	110	228	351	177	201	201	999	1,166	1,244
Total education and training hours	2,992	2,843	11,608	110	228	1,001	1,153	3,894	3,842	4,255	16,325	16,451

Note: The course content includes occupational safety-related topics (such as general operation training, hazardous operation training, AED operation training, hazard identification training, traffic safety promotion, emergency response drills during night shifts, respiratory protection training, hazard identification risk assessment, hazard general education training, hearing protection, chemical protection, hearing protection, chemical protection), and personal protective equipment-related topics.

Highlighted activity

In November 2023, the Changshou District Public Health Emergency Training Center of the Chongqing Plant organized plant personnel to participate in the "Public Health Emergency Skills Training" free of charge. One person in the plant passed the training examination and obtained a certificate.

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.)
- AED operation training
- Hazard identification training
- Traffic safety briefing
- Emergency response drills during night shifts
- Respiratory protection training
- Hazard general education training
- Hearing protection
- Chemical protection
- Hearing protection
- Chemical protection
- Hazard identification risk assessment for flammable materials and liquids storage training
- Accident case analysis
- Construction safety briefing during overhaul
- False alarm training
- Health Insurance Portability and Accountability Act (HIPAA) privacy and security training
- Boiler safety training
- Laboratory hazard 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 - Firefighting foam tank education and training:

India CCET plant occupational safety and health education and training

India CCIPL plant occupational safety and health education and 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 2023, a total of 1,267 non-employee participants from CSRC Group attended occupational health and safety education and training, totaling 9,258 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.

Relevant training on safety hazard notifications for CSRC management contractors:

Statistics on safety and health personnel training for contractors by CSRC in the past three years:

	Greater China			India			USA			Group		
	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
Number of participants in environmental, safety and health education and training	1,752	2,527	1,635	620	900	809	-	-	-	2,372	3,427	2,444
Total education and training hours	19,291	6,608	14,520	620	900	897	-	-	-	19,911	7,508	15,417

Note: Statistics for contractors in the United States have not been included.

CSRC transporter safety and health personnel training statistics in the past three years:

	Greater China			India			USA			Group		
	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
Number of participants in environmental, safety and health education and training	48	50	48	60	50	64	-	-	-	108	100	112
Total education and training hours	48	50	48	60	50	297	-	-	-	108	100	345

Note: Statistics for transporters in the United States have not been included.

Key training course items for contractors at plants in each region are as follows:

- Employees receiving this training should adhere to the safety (access control) regulations informed by the course instructors of the plant(s).
- Employees must strictly adhere to hazard-related protective measures that may arise from machinery, equipment, and raw materials upon entering the plant.
- Trainees must obtain an identification card issued by the factory to be qualified to enter the factory.
- Before entering the workplace at the plant(s), employees 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).
- Various events in the plant (site), occupational accidents, fire, explosion, and other emergency notifications and evacuation.
- 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, trainees 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, road safety
- Emergency response team (ERT) training.
- Fire handling training
- Chemical system typical accident cases

Contractor hazard communication course offered by the Linyuan Advanced Plant

Contractor agreement organization meeting convened by the Linyuan Advanced Plant

Contractor training process provided by the Anshan Plant

Contractor training process provided by the Maanshan Plant

Training process for contractors at the India CCET plant

ch8 Local Communities

CSRC values recycling and rebirth, guided by the vision of "Let Civilization and Nature Coexist" and the mission of "Energy Regeneration, Natural Symbiosis." 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 2023 totaled NT$3.87 million.

CSRC Promotion of Social Well-Being Initiative

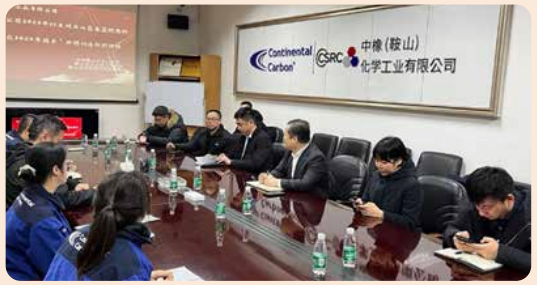
8.1 Social Feedback GRI 413-1

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.

8.1.1Community 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.

The Linyuan Advanced Plant in Greater China participates in community activities in Beishanli, fostering communication and coordination opportunities with the neighborhood through participation and sponsorship of local activities, enhancing interaction among neighbors.



Anshan Plant in the Greater China communicates with the local government.

CSRC's operations may affect air quality in neighboring communities. To mitigate the risk of air pollution, each operating 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 2023, it was evaluated that CSRC's operating activities had no significant negative impact on local communities and the environment.

CSRC expects to be a role model in the industry. In addition to minimizing environmental negative impact, we think more actively about engaging and communicating with the community to improve the local employment environment. Out of this, creating local jobs is an expression of action that actually connects with the local community. The Linyuan Advanced Plant and Maanshan Plant in Greater China, and the India region CCET and CCIPL plants, employ local staff at proportions of 82%, 96%, 57%, 84%. The Anshan Plant in Greater China and the CCC Ponca Plant in the United States, and the CCC Sunray plant recruit 100% local employees, reflecting CSRC's commitment to retaining local talent and promoting local 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. Activities conducted by each plant in 2023 are listed as follows:

Maanshan Plant in Greater China

Promoting community environmental development - weed removal

On the occasion of the 50th anniversary of the CSRC Group, and in response to the Group's philosophy to enhance employee environmental awareness and promote community environmental development, the Anshan Plant called on employees to jointly clear weeds in the community river flood control area and beautify the environment.

Anshan Plant in Greater China

Promoting community environmental development - picking up trash, organizing environmental protection day activities

In order to promote community environmental development, the Anshan Plant initiated a trash collection activity at Mengtai Park and held an Environmental Protection Day event.

Picking up trash in the park.

Environmental Protection Day activities.

Chongqing Plant in Greater China

Post-fire re-greening assistance plan

The Chongqing factory made a donation to the Beijing Xingyuan Charity Foundation in response to the re-greening plan after the Chongqing mountain fire.

India Region CCET Plant

Flood emergency relief

Vagra-Bharuch, a village near the Narmada river in India, was severely flooded due to river flooding, causing huge losses to the village and serious environmental damage. The colleagues of CCET Plant voluntarily went to the village to assist in waste removal, pest control, and to help rebuild homes for the disaster victims. A total of 18 colleagues participated.

Pest control

Assisting in rebuilding habitats

Award certificate for participating in emergency relief efforts

India Region CCCIPL Plant

Donation of notebooks and stationery supplies to impoverished schoolchildren

Some students in public schools near the CCIPL Plant are unable to afford stationery supplies due to poor family circumstances. Therefore, CCIPL donated a total of 650 notebooks and stationery supplies to Chipiyana area schools so that every student can learn equally.

Donation of portable health check machines

The CCIPL Plant donated two portable health check machines installed in community hospitals and health centers, allowing residents to check their health anytime.

Knowledge promotion for feminine hygiene products

Female employees of the CCIPL Plant conducted relevant sharing and promotion sessions with female students at local public girls' schools to increase awareness of feminine hygiene products. CCIPL sponsored a health and hygiene session on May 16, where the NGO “She Wings” spoke to young girls about the importance of menstrual hygiene. After the course, the CCIPL Plant provided sanitary products to all girls, with a target of 3,000 girls and to increase hygiene awareness.

Earthquake emergency relief

In February 2023, a severe earthquake struck Turkey and Syria, and the CCIPL Plant donated 3,000 blankets to provide warmth to the victims.

Donations of goods to impoverished children

With assistance from NGO organizations, the CCIPL Plant donated 150 sets of clothing to children in need.

India Yoga Day

Yoga is considered India's cultural heritage, and the government places great importance on International Yoga Day. To promote the health of our employees or the nearby community, CCIPL responded to the government's initiative by organizing yoga activities to enhance the physical and mental health of colleagues.

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

CSRC 50th Anniversary Activities

On the occasion of the 50th anniversary of the CSRC Group, the Linyuan Advanced Plant in Greater China held a Family Day event and initiated the Linyuan Advanced Plant in Kaohsiung for the first time. Company colleagues, relatives, retired colleagues, and neighbors were invited to participate. Attendees gained deep insights into the carbon black circular economy process, providing a unique opportunity for both the Company and its employees to acquaint their families with their work environment.

Ms. Chen, a family member of an employee, remarked: "This event provided children with a rare opportunity to understand up close the work their fathers do. It not only sparked curiosity among the children but also fostered stronger connections and interactions between them and their fathers, building deeper parent-child relationships." The CSRC Family Day not only strengthens employee cohesion but also aims to enhance the relationships among colleagues' families, extending the Company's care to all family members.

At the same time, through this Family Day event, CSRC specially invites retired comrades in the past to reunite to witness the continuous progress of the brand over the past fifty years and to experience the development and achievements of the Company together. Mr. Lin, a retired employee, stated, "CSRC feels like my second home. The equipment and every plant here are my old partners. Seeing the young generation who have grown up and are now taking charge, creating new breakthroughs and developments for CSRC, fills me with immense pride."

The Linyuan Advanced Plant in Greater China held a Family Day event.

The Maanshan Plant in Greater China celebrated its 50th anniversary by hosting activities to enhance employees' environmental awareness, including a "Love the Earth" championship speech competition and a charity second-hand auction.

The Chongqing Plant in Greater China held a charity second-hand auction.

8.1.2 Education Care

Shimin Academy

Through the "Shimin Academy" jointly promoted by the Taiwan Cement Group, CSRC has deeply cultivated schools located next to the Company's various carbon black plants over the long term. We are committed to nurturing the development of schoolchildren, promoting diversified horizons and enhancing their willingness to learn. We support community school education activities, providing academic tutoring for rural students to improve their various achievements and alleviate the financial burden on parents. In 2023, the Maanshan Plant in Greater China arranged after-school English and computer tutoring for 88 children at Fengqiao Elementary School, helping to improve their English listening, speaking, reading, and writing skills, as well as their computer operation abilities. Additionally, we conducted home visits and care for 10 impoverished students to ensure timely provision of necessary assistance. The Linyuan Advanced Plant in Greater China provided tutoring activities for Kaohsiung Shanwei Elementary School and Zhongyun Junior High School.

CSRC also established Shimin Academy scholarships and provided funding for nutritious lunches for underprivileged students, alleviating the financial burden on disadvantaged families. In 2023, CSRC awarded scholarships, nutritious lunches and tutoring funds. A total of NT$420,000 was allocated to 331 individuals.

Disbursement of Shimin School Scholarships

Greater China Linyuan Advanced Plant

Grants awarded for Shanwei Elementary School students.

Greater China Maanshan Plant

Grants awarded for Fengqiao Elementary School students.

Environmental education activities to promote circular economy

CSRC is committed to promoting the circular economy and upholding social care and educational implementation, embedding the concept of environmental sustainability within education. In collaboration with Tamkang University Science Education Center, CSRC held a chemistry-themed science camp integrating circular economy knowledge. Through the use of a mobile laboratory, the carbon black "Jiji Bang" experiment was conducted. The experimental process involved a hand-drawn maze game to enhance learning effectiveness through engaging, hands-on activities. In 2023, the science camp experience activities toured 23 schools, involving 700 students in hands-on experiments. This allowed students to understand the circular economy and recognize the ubiquitous applications of carbon black materials in daily life. The science camp included workshops held at elementary schools in remote areas of Kaohsiung, inviting local elementary school students and providing transportation support and experimental opportunities. In addition to hosting the science camp with the Tamkang University Science Education Center, in 2023, a "Carbon Black Materials Awareness" training camp for junior high school teachers in the Kaohsiung area was also organized. This aimed to enhance the thematic content and richness of chemistry courses, hoping to increase students' interest in chemical applications and develop their potential and creativity.

CSRC Chemistry Adventure

CSRC, in collaboration with the Tamkang University Science Education Center, held a chemistry-themed science camp integrating circular economy knowledge. Through the use of a mobile laboratory, the carbon black "Jiji Bang" experiment was conducted. The science camp included workshops held at elementary schools in remote areas of Kaohsiung, inviting local elementary school students and providing transportation support and experimental opportunities.





Kaohsiung Area Junior High School Teachers' Training Camp: "Carbon Black Materials Awareness"

To enhance the connection between school chemistry education themes and practical industrial chemistry and daily product applications, a "Carbon Black Materials Awareness" training camp for junior high school teachers in the Kaohsiung area was organized in cooperation with the Tamkang University Science Education Center, with a total of 16 teachers participating.

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 Conservation Center). Located in Gaoshu Township, Pingtung County, the Conservation Center 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 Hundreds of Prosperity and Alliance Operations

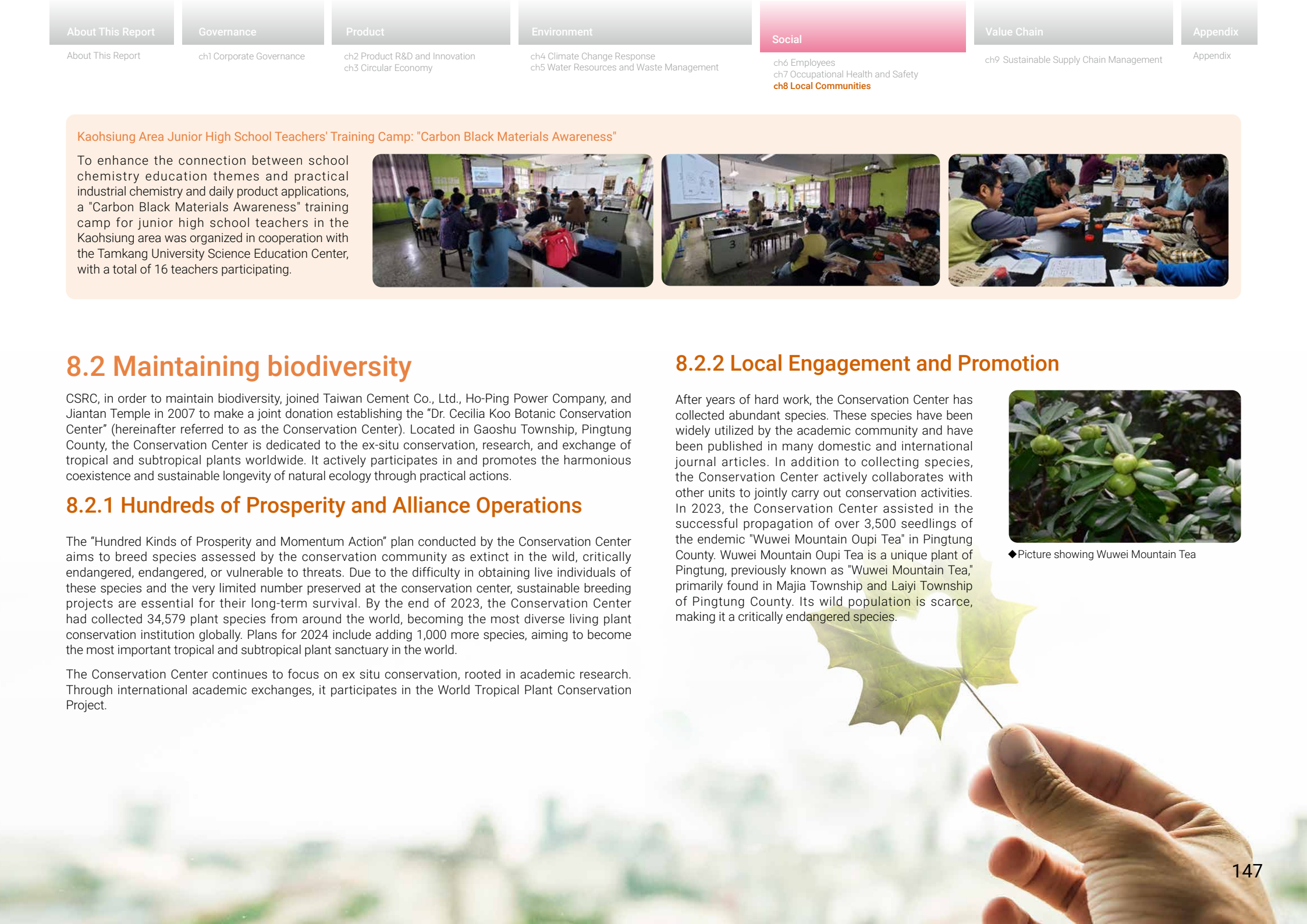
The “Hundred Kinds of Prosperity and Momentum Action” plan conducted by the Conservation Center aims to breed species assessed by the conservation community as extinct in the wild, critically endangered, endangered, or vulnerable to threats. Due to the difficulty in obtaining live individuals of these 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 2023, the Conservation Center had collected 34,579 plant species from around the world, becoming the most diverse living plant conservation institution globally. Plans for 2024 include adding 1,000 more species, aiming to become the most important tropical and subtropical plant sanctuary in the world.

The Conservation Center continues to focus on ex situ conservation, rooted in academic research. Through international academic exchanges, it participates in the World Tropical Plant Conservation Project.

8.2.2 Local Engagement and Promotion

After years of hard work, the Conservation Center has collected abundant species. These species have been widely utilized by the academic community and have been published in many domestic and international journal articles. In addition to collecting species, the Conservation Center actively collaborates with other units to jointly carry out conservation activities. In 2023, the Conservation Center assisted in the successful propagation of over 3,500 seedlings of the endemic "Wuwei Mountain Oupi Tea" in Pingtung County. Wuwei Mountain Oupi Tea is a unique plant of Pingtung, previously known as "Wuwei Mountain Tea," primarily found in Majia Township and Laiyi Township of Pingtung County. Its wild population is scarce, making it a critically endangered species.

◆Picture showing Wuwei Mountain Tea



8.2.3 Expanding overseas seed conservation activities

Since 2018, the Conservation Center, together with the National Museum of Natural Science and the Forestry Research Institute, has initiated plant surveys in Vietnam, replicating the successful botanical investigation experience in the Solomon Islands. The research team collaborated with the Southern Institute of Ecology of the Vietnam Academy of Science and Technology and the local Bidoup Nui Ba National Park, organizing a plant survey team. They collected abundant specimens and live plants from the jungle of the southern highlands of Vietnam.

The "Taiwan-Vietnam Joint Plant Conservation Research Center" was officially established in December 2018 at Bidoup Nui Ba National Park to promote the research and conservation of precious plants. The joint plant survey team from both countries has conducted three expeditions into the southern highlands of Vietnam, collecting rich specimens and live plants and discovering several new species of orchids and ferns. In addition to cooperating with Vietnam on plant resource surveys, publishing papers and flora, the Taiwan-Vietnam Joint Plant Conservation Research Center also invites plant researchers from Vietnam and other Southeast Asian regions to Taiwan for training courses and internships, promoting conservation awareness in Southeast Asia through diverse methods.

More information about the Conservation Center:

Biodiversity-related activities at operating locations of each region in 2023

Greater China Linyuan Advanced Plant

Linyuan Ocean Wetland Guided Tour and Beach Clean-up Activity

To promote the concept of marine wetland biodiversity protection, strengthen community relations in the Linyuan District, and encourage employee participation in environmental volunteer activities, a "Linyuan Ocean Wetland Guided Tour and Beach Clean-up Activity" was held in December 2023, with a total of 62 employees and their families participating.




India Region CCIPL Plant

Tree planting activity

In 2023, the India CCIPL plant, in response to World Environment Day, collaborated with the Uttar Pradesh Pollution Control Board Ghaziabad organization to plant a total of 3,800 trees.


"Save the Sparrows" Workshop

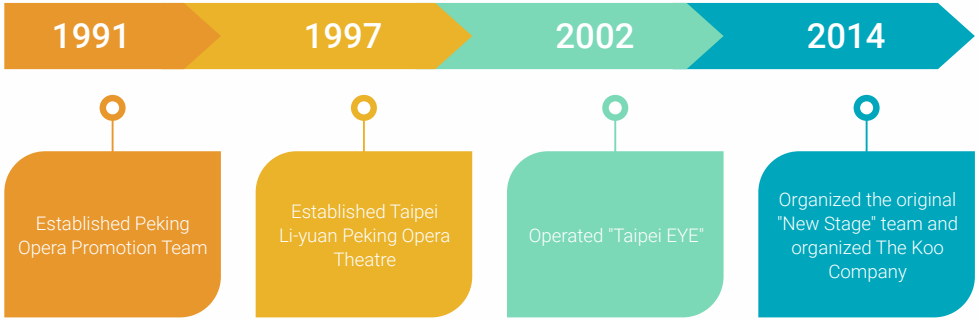
To enhance employees' awareness of biodiversity, the India CCIPL plant held a "Save the Sparrows" workshop, introducing species gradually disappearing due to environmental changes, with a total of 120 employees participating.

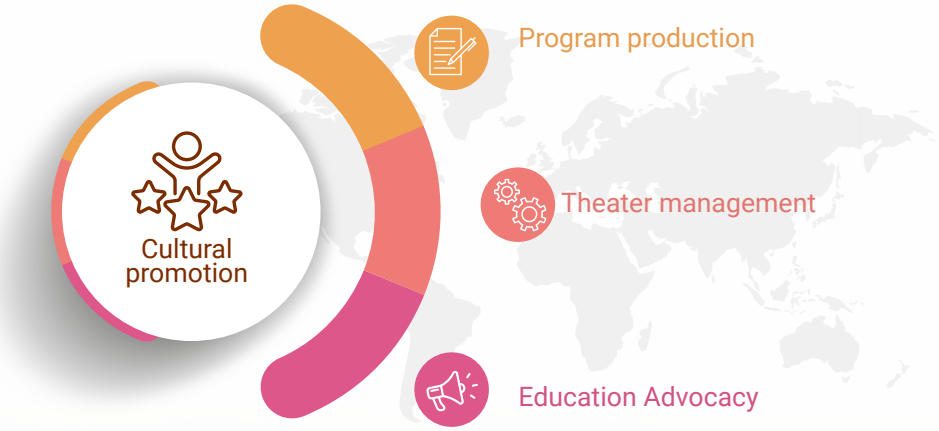

8.3 Cultural Promotion

The C.F. Koo Foundation was initiated in 1988 by Mr. Koo Chen-Fu (Koo Kung-Liang), Chairman of the Koos Group, jointly funded by CSRC and Taiwan Cement Corporation. Its mission is to promote Taiwanese arts and cultural activities through international (including cross-Strait) exchange programs. In 2023, the Koo Foundation continued to promote cultural preservation through three main areas: "Program Production," "Theater Management," and "Education Advocacy," continuously investing in cultural promotion efforts.

In 2023, as the COVID-19 pandemic gradually subsided, the performing arts ecosystem in Taiwan slowly began to recover to its pre-pandemic scale at a very slow pace. The Koo Foundation also gradually restored its capacity for both physical and online performances, completing two annual productions and continuously updating the content of Taiwan's only online opera channel, Koo Cloud Theater. It maintained its commitment to managing the children's theater, held campus promotion lectures in conjunction with annual productions, and continued its work in cultural preservation.

C.F. Koo Foundation establishment chronology





8.3.1 Program Production

The Koo Foundation's key productions in 2023 will continue to operate two major brands: "Plays New and Old" and "New Peking Opera." At the beginning of the year, the "Peking Opera Performance" series launched the "Plays New and Old," featuring many popular traditional operas including "Sitting in the Palace," "Stealing the Treasury Silver," and the southern style "Dragon and Phoenix Presenting Auspiciousness." Especially "Dragon and Phoenix Presenting Auspiciousness," a grand opera with a full range of roles, which had not been performed in Taiwan for many years and was well received by traditional opera enthusiasts. Despite being simultaneously broadcast live on the Koo Cloud Theater YouTube channel, it achieved a 95% box office success rate. The year-end "Cheng Gong" New Talent Stage is an annual series launched by the Traditional Arts Center. This year, the Taipei New Theater Company was invited to perform the Three Kingdoms play "Battle of Puyang," led by young actor Lin Ching-Chen in the martial young male role. Under the guidance of Company leader Lee Pao-Chun, Lin Ching-Chen made significant progress in both vocal performance and martial arts movements, earning widespread acclaim and effectively fulfilling the "Cheng Gong" platform's purpose of encouraging new talent.

In 2023, the most special events were the consecutive releases of two New Peking Operas, "In and Out of the Play" and "Granny Liu and Wang Xifeng," in the first and second half of the year. The former is set in the early Republic of China era, while the latter is inspired by the famous classical novel "Dream of the Red Chamber." Both operas combine elements of Western theater technology, from high-tech imaging and stage design to the use of Hollywood movie soundtrack sources in their musical design. The integration of Chinese and Western orchestras presents multi-layered musical lines, and the special invitation of musical theater soprano Lin Tze-Yin adds a vocal performance different from traditional

Peking Opera Performance.

New "Cheng Gong" Talent

Peking opera singing, providing an astonishing audiovisual experience for audiences who had never been exposed to Peking opera, resulting in sold-out performances. This was especially true of "Granny Liu and Wang Xifeng," which premiered with five sold-out performances in Taipei and Taichung, setting a new record for the Foundation. Lee Pao-Chun, who has been active in the Peking opera stage as a veteran performer in both civil and martial roles, broke through role boundaries this time by playing the most lovable character in "Dream of the Red Chamber," Granny Liu. He sang in his natural voice for veteran roles and used martial arts body movements, blending the characteristics of Peking opera performance and transforming them into a unique performance style, arousing great curiosity among both new and old opera fans.

In 2023, Koo Cloud Theater encompassed two major content categories. One was live broadcasts and ticketed performances by the Taipei New Theater Company, with one production launched each month. The other was a selection of Peking opera productions from the past 30 years by the Koo Foundation, paired with the "Laughing at Opera: Blooming Flowers of Liyuan in Spring" series co-produced with Fujian Straits TV in 2007. Since its launch, Koo Cloud Theater has accumulated recordings of 63 productions by the Taipei New Theater Company, 22 live broadcasts, and 55 selected mainland Chinese operas from the "Blooming Flowers of Liyuan in Spring" series, with a total of nearly 100 wonderful operas, attracting over a million viewers.

In 2023, Koo Cloud Theater turned three years old. The Taipei New Theater Company will continue to launch live performances, accumulate repertoires, and enhance stage skills. The past three years of operation of Koo Cloud Theater have also evidently brought new audiences to the Foundation's annual performances. Fortunately, this service goodwill cultivated amidst crises has led to a win-win situation for audiences, performers, and organizers!

From the launch of the Koo Cloud Theater channel to December 31, 2023, the channel had 12,494 subscribers. The accumulated viewership in 2023 was 997,615 views. The number of subscribers increased by 2,355 in 2023, a growth of 23% compared to 2022.

"Granny Liu and Wang Xifeng"

"In and Out of the Play"

8.3.2 Theater Management

From 2015 to 2023, the Foundation undertook the technical and service management of the Taipei City Arts Promotion Office's Parent-Child Theater backstage operations, responsible for venue rental and backstage management services. Over nine years, in collaboration with the supervisory authorities, several projects were completed to improve the theater's hardware and software, stabilizing its development across various dimensions. It has built a strong reputation in the industry and become one of Taipei City's preferred professional theaters, offering a space for audiences to enjoy various performing arts exhibitions.

In 2023, the Parent-Child Theater was available for use for 291 days: rented externally for 210 days, ticketed performances for 110 shows, and non-ticketed performances for 49 shows, totaling 159 events. Among these, there were 67 children's programs, serving a total audience of 91,832 people. Rental applicants included professional theater groups, dance troupes, children's theater groups, orchestras, music classrooms, educational institutions at all levels (kindergarten to university), and various arts and cultural organizations (Japanese dance, traditional opera, etc.). These statistics and the types of performing teams show that the Parent-Child Theater is widely recognized, becoming a professional venue eagerly sought after by all types of arts and cultural teams in Taipei City.

The 2023 audience survey statistics indicated that satisfaction levels exceeded 95.28% across categories such as "performance programs," "lighting and sound," "overall service by staff," "air conditioning adjustment," and "environmental cleanliness." This demonstrates that the Parent-Child Theater's services are highly rated and well-received by the audience.

◆Stage assistant education course: hands-on soundboard practice

◆Front desk service personnel

◆Achievement in changing stage curtains.

◆Practical courses in first aid and disaster prevention.

8.3.3 Education Advocacy

The lecture schedule in 2023 primarily focused on the latter half of the year. Due to the year-end performance of the classic play "Granny Liu and Wang Xifeng," which closely follows the theme of the classical masterpiece "Dream of the Red Chamber," it received high praise and recommendations from mentors. Consequently, many schools actively requested special lecture arrangements. Through these lectures, students learned about the performance characteristics of Peking Opera and how to appreciate it, thereby gaining practical theater experience.

In 2023, the lectures held at the following schools are listed in the table on the right. In addition to maintaining long-term friendly relations with schools, this year, it extended to Nanguo Elementary School in Changhua City and the Department of Chinese Literature at Chung Cheng University in Chiayi County, actively cultivating audiences in the central region, and increasing the visibility of the Company on central region campuses. At the same time, exchanges and discussions were conducted with students majoring in Western stage performance systems at the Drama Departments of Taipei National University of the Arts and National Taiwan University, exploring dialogue on script reading, character shaping, and performance methods, kindling different sparks and promoting learning and growth on both sides. In 2023, a total of 15 special lectures and promotional lectures were held, totaling 19 hours, with 1,100 participants.

North	Senior high school	Huaxiang Arts School, Zhongzheng Senior High School
	University	Shih Hsin University Chinese Department; Chinese Lecture Series, Culture University Korean Department; Drama Department of Chinese Culture University; Taipei National University of the Arts, School of Theatre; Drama Department of National Taiwan University; Chinese Department of National Chengchi University
Central	Elementary school	Changhua City Nanguo Elementary School
	Senior high school	Changhua City Jingcheng Middle School
	University	Department of Chinese Literature, Chung Hsing University, Taichung; Department of Chinese Literature, Tunghai University, Taichung; Department of Chinese Literature, Chung Cheng University, Chiayi

◆"In and Out of the Play" Campus Promotion by the Department of Chinese Literature, Shih Hsin University

◆"Granny Liu and Wang Xifeng" Campus Promotion at Nanguo Elementary School, Changhua

◆"Granny Liu and Wang Xifeng" Campus Promotion at Huagang Art School

◆"Granny Liu and Wang Xifeng" and "Cheng Gong" Campus Promotion by the Drama Department, Chinese Culture University

◆"Granny Liu and Wang Xifeng" Campus Promotion at Jingcheng High School

Value Chain

2023 Performance Highlights

The Group procures 100% of raw materials from local manufacturers.

The total amount of green procurement by the Group amounted to US$124,288

100% of suppliers who signed contracts in the Greater China region also signed an Integrity Clause and a Commitment to Corporate Social Responsibility.

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 (2024-2025)	2023 performance
Signing of Supplier Corporate Social Responsibility Code of Conduct and of Integrity Clause	The evaluation and signing ratio of suppliers across the entire Group has reached 100%	Greater China supplier signing and evaluation ratio has attained 100%	Greater China supplier signing ratio was 100%
Strengthen supplier evaluations			Greater China supplier evaluation ratio has attained 100%
Cumulative amount of recycled materials used with low environmental impact	A total of 35,000 tons of recycled materials will be used from 2021 to 2030	A total of 20,000 tons of recycled materials will be used from 2021 to 2025	A total of 13,297 tons of recycled materials has been used from 2021 to 2023

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 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 "Commitments to 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

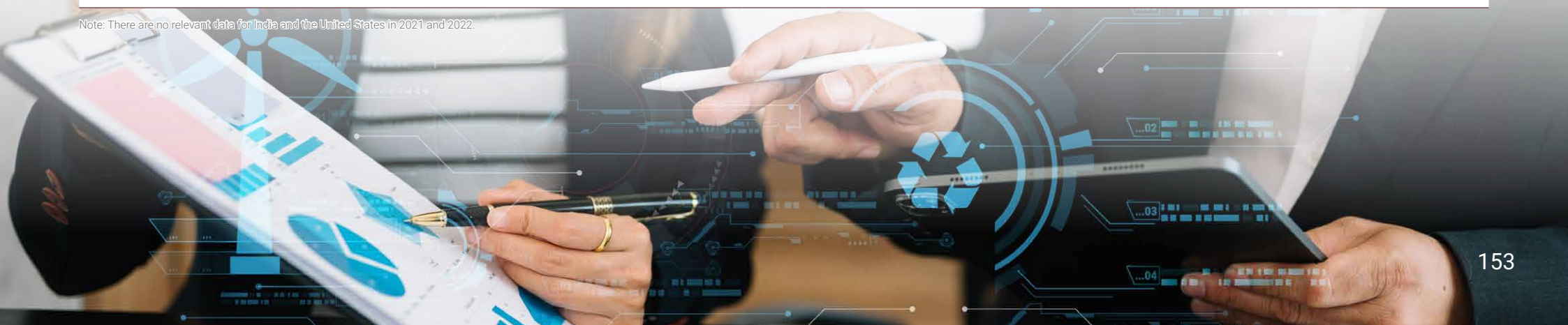
CSRC's suppliers are mainly divided into three types: upstream suppliers, downstream suppliers, and other suppliers. Upstream suppliers include raw materials, equipment spare parts, and packaging materials. Downstream suppliers include raw material transportation, finished product transportation, and 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 completed the signing of the Supplier Corporate Social Responsibility Code of Conduct and the Integrity Clause with all suppliers in Greater China in 2023. The Group will gradually require all suppliers worldwide to achieve 100% signing by 2030. According to the 2023 Global Sustainable Supply Chain Management Report released by the Carbon Disclosure Project (CDP) and the Science Based Targets initiative (SBTi), increased transparency, reduction of Scope 3 emissions, and deepening of supply chain partnerships are significant trends. CSRC has established a comprehensive data management system, tracking every step from raw materials to finished products, and has applied for the EcoVadis international sustainability supply chain assessment. The goal is to create sustainable value and a foundation of trust for upstream and downstream suppliers, the environment, and its own operations.

Number of suppliers in CSRC Group and operational plant areas

	Greater China			India[Note]			USA[Note]			Group		
	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
The total number of suppliers with actual transactions	620	766	672	2,948	3,030	559	-	-	33	3,568	3,796	1,264
Percentage of Suppliers Signing Contracts (Including Corporate Social Responsibility Clauses)	100%	100%	100%	-	-	75%	-	-	-	-	-	86%
Signed the Integrity Clause Percentage	100%	100%	100%	-	-	75%	-	-	-	-	-	86%

Note: There are no relevant data for India and the United States in 2021 and 2022.



CSRC 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

Environmental

- 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 Supplier Corporate Social Responsibility Commitment

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 2023, CSRC had 389 new suppliers (143 in Greater China, 246 in India; data for the U.S. region is not yet compiled). Among them, 100% of new suppliers in Greater China met social and environmental selection criteria; social and environmental selection criteria are expected to be introduced for non-Greater China regions in the 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 other regions, such as the Anshan plant in Greater China, 15.45% of supplier leadership positions were held by women in 2023.

Number of new suppliers and screening ratio for 2023

Greater China

Number of new suppliers	143
Number of new suppliers screened using environmental and social standards	143
Incorporation of environmental and social standards into the number of new suppliers and screening ratio	100%

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 2023, the re-signing rate for ESG clauses among new suppliers in Greater China reached 100%.

Audit evaluation items and score level

Product demand
- Product compliance
- Quality performance
- Delivery performance
- Continuous supply capability
- Quality management system evaluation
- Process capability

Transportation and service
- Transportation method
- Customer Service
- Construction contact
- Machines and equipment
- Environmental sanitation
- Customer satisfaction management

Management system
- Signing the supplier code of conduct
- Certification
- Environmental and Social Corporate Responsibility
- Financial stability
- Change management process
- Sustainability
- Compliance

Evaluation score level

A-level 90 points or more	B-level 80-89 points	C-level 60-79 points	D-level 59 points or less
As a good manufacturer, can give priority to bargaining opportunities.	Reliable manufacturers maintain general price comparison or bargaining opportunities.	Strengthen manufacturers' improvement and guidance; reduce bidding rights. If there is improvement in the next evaluation, the right to bid will be renewed.	Listed as a vendor to be eliminated; stop bidding

A-grade and B-grade suppliers in the Greater China region accounted for 96.96% in 2023, attributable to strengthened supplier management systems in 2023, which will continue to be strictly enforced. CSRC encourages ongoing improvements among suppliers. The proportion of C-grade and D-grade suppliers was 3.04%. For C-grade suppliers, CSRC will request improvement plans and conduct on-site audits with demand units. Cooperation with D-grade suppliers has already ceased. Non-Greater China regions (such as the CCET plant in India, CCIPL plant in India, CCC Ponca plant in the USA, CCC Sunray plant in the USA) did not collect supplier evaluation data in 2023. CSRC plans to gradually assist plants without supplier evaluations to implement them and formulate improvement plans based on evaluation results.

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 supplier evaluation		
		2021	2022	2023
A-level	Number	484	505	442
	Proportion	78%	68%	84%
B-level	Number	130	226	68
	Proportion	21%	30%	13%
C-level	Number	4	10	13
	Proportion	0.7%	1.3%	2.5%
D-level	Number	2	4	3
	Proportion	0.3%	0.5%	0.6%
Total number of reviews		620	745	526

		Greater China			India			USA[Note]			Group		
		2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
Status of on-site audits of major suppliers	Number	12	12	12	1	3	6	-	-	-	13	15	18
	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 values its partnerships with suppliers and maintains regular communication with them. In 2023, coinciding with CSRC's 50th anniversary, we invited major supplier partners to Taipei headquarters for the "Circular Economy Future Sustainability Forum." The forum focused on four key industry areas: establishing circular ecosystem business models, promoting green product design through customized services, highlighting the importance of local supply chains in green and circular economies, and the critical materials for green energy storage. CSRC shared its ESG philosophy with key supplier partners and invited experts from various sectors to delve into challenges and opportunities in these areas, exploring how to promote circular economic development within limited frameworks.

2023 CSRC 50th Anniversary Circular Economy Future Sustainability Forum

Dignitaries from industry, government, and academia included: Mr. Hsueh Jen-Chen, President of E-One Moli Energy Corp; Mr. Hsiao Yao-Kuei, President of the Plastics Industry Development Center; Mr. Huang Po-sung, President of CSRC; Mr. Chang Tze-Ching, Director of the Environmental Protection Administration; Mr. Jason Koo, Chairman of CSRC; Mr. Nelson Chang, Chairman of Taiwan Cement Group; Mr. Kao Hsiang-Kuei, Deputy Chair of the National Development Council; Ambassador Chien You-Hsin, Chairman of Taiwan Sustainable Energy Research Foundation; Mr. Cheng Yao-Hui, President of Taiwan Cement Group; Mr. Lin Ching-Chi, Chairman of the Taiwan Rubber and Elastomers Industry Association; and Mr. Chen Li-Wei, President of the Industrial Technology Research Institute's Industry Service Center.

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 2023, no substandard cases were found during the contractor's construction period in any region. 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 Health and Safety.

9.2 Raw Materials Management

The main raw materials for carbon black production are by-products remaining from the upstream petrochemical and steel industries' refining processes. Through the special carbon black production process, these can be transformed into high-value product carbon black, truly implementing 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 are actively establishing green supply chains, introducing natural gas as a fuel. This was implemented in our Chongqing plant in March 2023 and the Linyuan Advanced Plant in April 2023, with plans for other facilities underway. Notably, starting from 2021, our Greater China facilities have planned to use tire pyrolysis oil as an alternative fuel. By 2023, this accounts for approximately one-fourth of the fuel at the Linyuan Advanced Plant, where pyrolysis oil has transitioned from fuel to raw material, producing environmentally friendly recycled carbon black products. Similar plans are in progress for other facilities.

Units: tons

		Greater China			India			USA			Group		
		2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
Non-renewable materials [Note 1]	Raw oil + fuel oil + natural gas	383,836	300,210	286,731	109,142	97,819	106,702	321,863	302,131	273,248	814,841	700,160	666,681
	Packaging materials [Note 2]	3,454	2,296	1,172	534	560	880	192	227	261	4,180	3,083	2,313
Renewable materials [Note 3]	Recovered oil [Note 4]	-	5,790	3,879	-	-	-	-	-	-	-	5,790	3,879
	Recycled packaging materials	1,480	1,262	660	-	-	221	2	2	0	1,482	1,264	881

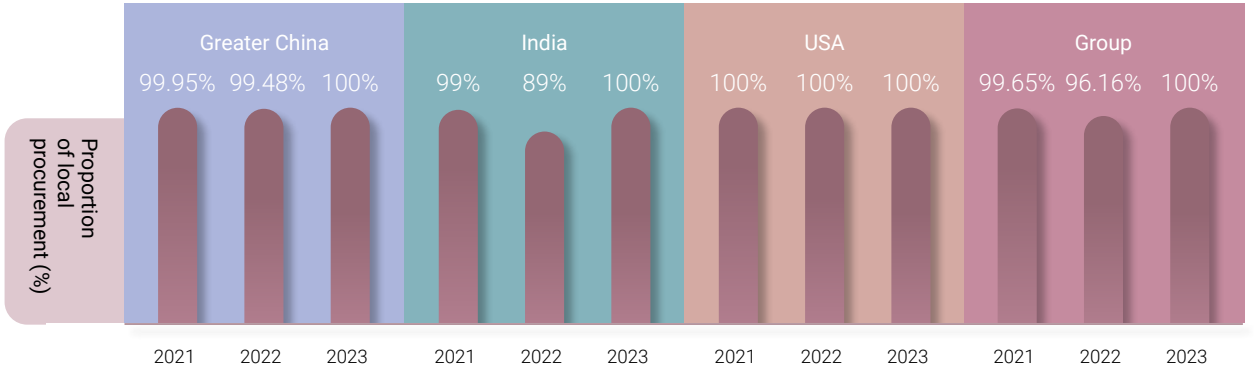
Note: 1. Non-renewable materials are defined as resources that cannot be replenished in the short term. E.g.: minerals, metals, oil, natural gas, coal, etc.
2. Non-renewable packaging materials include plastic pallets and bulk bags.
3. Renewable materials are defined as those that can be quickly restored through ecological recycling or agricultural procedures and can be used continuously for future generations. E.g.: wood, water.
4. Recovered 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 supply, CSRC actively develops local suppliers and implements local procurement to achieve timely and appropriate procurement, reducing management and operation costs and lowering indirect greenhouse gas emissions from international transportation. Furthermore, this creates local jobs and economic prosperity. It is also easier to grasp the supply status of raw materials and reduce operational risks, and this makes production operations more stable. All of CSRC's plants purchased 100% from local manufacturers in 2023.

Proportion of local procurement by region in the past three years



Note: Local suppliers are defined as suppliers registered in the country where the plant is located.

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 2023 was approximately US$124,288.

Proportion of local procurement by region in the past three years

Units: USD

	Greater China	India	USA	Group
LED lights	25,255	24,388	7,500	57,143
Energy-saving equipment	67,145	-	-	67,145
Total	92,400	24,388	7,500	124,288

Note: Environmental protection products are identified in accordance with the laws and regulations of the country where the plant is located.

Appendix

Report Boundary

Category	10 principles		Inside the organization	Outside the organization				
			CSRC	Government agencies	Customers	"Suppliers" Contractors	Investors Shareholders	Neighboring communities
Ethical management	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.						
Business performance	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.	●	○	●	●	●	○
	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.						
Sustainable Supply Chain Management	Description of positive impact	By implementing the sustainable management of the supply chain, CSRC improves the resilience of supply of raw materials, reduces the negative impacts of ESG on suppliers, and improves the overall sustainability performance of the supply chain, while enhancing the corporate reputation and reducing the risk of violations in the supply chain.	●	○	●	●	●	○
	Description of negative impact	Improper ESG management of the supply chain may lead to a raw material supply crisis, impacting the business continuity and undermining business profits and reputation.						
Greenhouse gas emissions / Response to climate change	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 floods, 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, 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.						

Category	10 principles		Inside the organization	Outside the organization				
			CSRC	Government agencies	Customers	"Suppliers" Contractors	Investors Shareholders	Neighboring communities
Waste management	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. Due to Taiwan's current treatment capacity, storage of waste on site or improper disposal by the waste disposal service providers may cause pollution to the land and the environment.						
Water resource management	Description of positive impact	We endeavor to reduce waste and sewage discharge, lower impacts on the environment, 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	We will have high-efficiency pollution prevention and control equipment in place in advance and regularly review the prevention and control efficiency to ensure that it is higher than the regulatory requirements and aligned with the standard 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 and production parameter and equipment optimization and take direct and effective measures to reduce energy consumption, while indirectly recovering thermal energy and exhaust 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	Employee safety in the workplace is CSRC's foundation for development. We need to ensure a safe work environment, improve safety, safety awareness, and employees' operational skills; and consciously prevent safety and health risks in the process of business operations, and protect employees' health and safety in the workplace to ensure a promising future.	●	●	○	●	○	○
	Description of negative impact	During the Company's operations, improper occupational safety and health management will result in occupational injuries, occupational illness, or occupational accidents. Severe casualties may force the Company to suspend operations, affecting the Company's normal operations.						

Category	10 principles		Inside the organization	Outside the organization				
			CSRC	Government agencies	Customers	"Suppliers" Contractors	Investors Shareholders	Neighboring communities
Talent training and development	Description of positive impact	Establishing employee training and related performance evaluation systems can improve employees' capabilities and work efficiency, thus increasing the Company's revenue; well-established training and career development plans can help enhance employees' sense of identity with the Company and enhance their commitment to the organization.	●	●	○	○	○	●
	Description of negative impact	If employee training is not properly offered, employees' capabilities and professional skills may be inadequate, thus affecting work efficiency and output, causing the Company's revenue to decrease, and undermining the Company's competitiveness; if employees are not provided with a complete career development plan, employees' sense of identity with the Company may be affected, leading to an increase in the turnover rate.						
Product and service innovation	Description of positive impact	The sustainable development of an enterprise requires continuous innovation and self-transcendence. To maintain competitiveness in the market, we must continue to invest in R&D. Product innovation and the concept of a circular economy are also CSRC's core competitiveness, allowing us to grow together with customers.	●	●	○	○	●	●
	Description of negative impact	Lack of innovation and R&D capabilities may cause the Company to encounter bottlenecks during the development process.						
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 important customers are seeking circular economy solutions, and our carbon black business is a model of circular economy, which is in line with the market trend and customer demand for this concept.	●	●	○	●	○	●
	Description of negative impact	Failure to effectively implement a circular economy model will result in a waste of resources and may also increase production costs, fail to meet customers' requirements, and lose orders.						
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
Specific assurance indicators	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	"SGS Taiwan Ltd. (SGS Taiwan)"
			China Quality Certification Center (CQC Center)
			China Quality Mark Certification Group (CQM)
			SGS United Kingdom Ltd.
			IRCLASS
			DNV
	ISO 14064-3:2019 Greenhouse Gas Inventory	1 site (CSRC parent company)	British Standards Institution (BSI)
	ISO 50001: 2018 Energy Management System	1 site (Linyuan Advanced Plant)	
	CNS 14064-3:2007 Greenhouse Gas Inventory	1 site (Linyuan Advanced Plant)	
	Chongqing Enterprise Greenhouse Gas Emission Accounting Methods and Reporting Guide—Chemical Industry	1 site (Chongqing Plant)	Chongqing Energy Utilization Monitoring Center
	Greenhouse gas emissions accounting methods and reporting guidelines (Trial)	2 sites(Maanshan Plant, Anshan Plant)	China Classification Society
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.
			IRCLASS
			DNV
	CNS 45001 Occupational Safety and Health Management System	1 site (Linyuan Advanced Plant)	SGS Taiwan Ltd. (SGS Taiwan)
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.
			SGS China
			SGS United Kingdom Limited
			IRCLASS
			Quality Systems Registrars (QSR)
	ISO/IEC 17025:2017 ; CNS 17025:2018	1 site (Linyuan Advanced Plant)	Taiwan Accreditation Foundation (TAF)
	ISO/IEC 17025:2017	1 site (CCIPL)	National Accreditation Board for Testing and Calibration Laboratories (NABL)
	IATF 16949 : 2016	6 sites including Linyuan Advanced Plant, Maanshan Plant, Anshan Plant, Chongqing Plant, CCIPL, CCET	ABS Quality Evaluations
			SGS China
			SGS United Kingdom Limited
			IRCLASS
			DNV

GRI Content Index

GRI Standard	Disclosure	Reference	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 Health and Safety 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.
	2-5 External assurance	About This Report Appendix	3 177	
	2-6 Activities, value chain and other business relationships	1.1 About CSRC 1.6 Operating Performance 2.2 Green Product 3.1 Innovation and Circular Economy 3.2 New Circular Economy Model in Practice 9.1 Supplier Management	21-22 39 45 55-56 57-62 153	
	2-7 Employees	6.1.2 Personnel Structure	108	
	2-8 Workers who are not employees	6.1.2 Personnel Structure	107	
	2-9 Governance structure and composition	1.2 Governance Structure	24-28	
	2-10 Nomination and selection of the highest governance body	1.2.1 Board of Directors	25	
	2-11 Chair of the highest governance body	1.2.1 Board of Directors	24	
	2-12 Role of the highest governance body in overseeing the management of impacts	1.2.1 Board of Directors	11-12	
		1.2.1 Board of Directors	24	
	2-13 Delegation of responsibility for managing impacts	Sustainable blueprint	11-12	
	2-14 Role of the highest governance body in sustainability reporting	Sustainable blueprint	11-12	
	2-15 Conflicts of interest	1.2.1 Board of Directors	25	
	2-16 Communication of critical concerns	-	-	There are no key significant events to be communicated to the board of directors in 2023.
	2-17 Collective knowledge of the highest governance body	1.2.1 Board of Directors	26	
	2-18 Evaluation of the performance of the highest governance body	1.2.1 Board of Directors	26	

GRI Standard	Disclosure	Reference	Page	Note
GRI 2: General Disclosures 2021	2-19 Remuneration policies	1.2.1 Board of Directors	25	Please refer to CSRC annual report for the remuneration paid to Directors, Supervisors and President. In addition, there is no clawback mechanism in place at CSRC.
	2-20 Process to determine remuneration	1.2.1 Board of Directors	27	
	2-21 Annual total compensation ratio	-	-	1.The annual total compensation of the highest-paid individual in the group compared to the median annual total compensation of other employees (excluding the highest-paid individual): 4.59 2.Ratio of the annual total compensation for the organization's highest-paid individual to the median annual total compensation for all employees (excluding the highest-paid individual):1.51
	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	28-29 120	
	2-24 Embedding policy commitments	1.3 Ethical Management 9.1 Supplier Management 6.4 Human Rights Management	28-32 153-154 120-122	
	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 3 Management 6 Employees 7 Occupational Health and Safety 8 Local Communities 9 Sustainable Supply Chain Management	18-20 42-43 64-68 105-106 152	
	2-26 Mechanisms for seeking advice and raising concerns	1.3.4 Reporting system and channels	31-32	
	2-27 Compliance with laws and regulations	1.4.3 Compliance with laws and regulations and improvements	34	
	2-28 Membership associations	1.1 About CSRC	22	
	2-29 Approach to stakeholder engagement	Stakeholder Engagement and Analysis of Material topics	15-16	
	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 Analysis of Material topics	13	
	3-2 List of material topics	Stakeholder Engagement and Analysis of Material topics	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 3 Management 6 Employees 7 Occupational Health and Safety 8 Local Communities 9 Sustainable Supply Chain Management	18-20 42-43 64-68 105-106 152	

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	1.3.3Anti-corruption risk assessment and results	31	
	205-2 Communication and training about anti-corruption policies and procedures	1.3.2 Policy communication and training	30	
	205-3 Confirmed incidents of corruption and actions taken	1.3.3Anti-corruption risk assessment and results	31	
GRI 206: Anti-competitive Behavior 2016	206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	1.3.3Anti-corruption risk assessment and results	31	
Business 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 operating results	39	
	201-2 Financial implications and other risks and opportunities due to climate change	4.1.1 Risks and Opportunities of Climate Change and Its Financial Impact	72-78	
	201-3 Defined benefit plan obligations and other retirement plans	6.3.2 Employees Welfare	115	
	201-4 Financial assistance received from government	1.6.1 operating results	39	
Sustainable Supply Chain Management				
GRI 3: Material Topics 2021	3-3 Management of material topics	9 Sustainable Supply Chain Management	152	
GRI 204: Procurement Practices 2016	204-1 Proportion of spending on local suppliers	9.3.1 Local Procurement	158	
GRI 308: Supplier Environmental Assessment 2016	308-1 New suppliers that were screened using environmental criteria	9.1.1 Supplier Selection	155	
	308-2 Negative environmental impacts in the supply chain and actions taken	9.1.2 Supplier Evaluation	155-156	
GRI 414: Supplier Social Assessment 2016	414-1 New suppliers that were screened using social criteria	9.1.1 Supplier Selection	155	
	414-2 Negative social impacts in the supply chain and actions taken	9.1.2 Supplier Evaluation	155-156	
Climate Change Response、GHG Emissions				
GRI 3:Material Topics 2021	3-3 Management of material topics	4 Climate Change Response	64	
GRI 201:Economic Performance 2016	201-2 Financial implications and other risks and opportunities due to climate change	4.1.1 Risks and Opportunities of Climate Change and Its Financial Impact	72-78	
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	4.2.2 Reduction of GHG	84	
	305-2 Energy indirect (Scope 2) GHG emissions	4.2.2 Reduction of GHG	84	
	305-3 Other indirect (Scope 3) GHG emissions	-	-	No scope 3 greenhouse gas inventory was conducted in 2023.
	305-4 GHG emissions intensity	4.2.2 Reduction of GHG	84	
	305-5 Reduction of GHG emissions	4.2.1 Improve energy efficiency 4.2.2 Reduction of GHG	81-83 86-87	

GRI Standard	Disclosure	Reference	Page	Note
Circular Economy				
GRI 3: Material Topics 2021	Management of material topics	3 Circular Economy	43	
GRI 301: Materials 2016	301-2 Recycled input materials used	3.2.1 waste recycling	58-60	
Energy Management				
GRI 3: Material Topics 2021	Management of material topics	4 Climate Change Response	65	
GRI 302 Energy : 2016	302-1 Energy consumption within the organization	4.2.1 Improve energy efficiency	80	
	302-3 Energy intensity	4.2.1 Improve energy efficiency	80	
	302-4 Reduction of energy consumption	4.2.1 Improve energy efficiency	81-83	
Water Resource Management				
GRI 3: Material Topics 202	3-3 Management of material topics	5 Water Resources and Waste Management	67	
GRI 303: Water and Effluents 2018	303-1 Interactions with water as a shared resource	5.1.1 water management	91-93	
	303-2 Management of water discharge-related impacts	5.1.2 wastewater management	97-100	
	303-3 Water withdrawal	5.1.1 water management	94	
	303-4 Water discharge	5.1.1 water management	94	
	303-5 Water consumption	5.1.1water management	94	
Air Pollution Control				
GRI 3: Material Topics 2021	3-3 Management of material topics	4 Climate Change Response	66	
GRI 305: Emissions 2016	305-6 Emissions of ozone-depleting substances (ODS)	-	-	All sites of CSRC (Linyuan Advanced Factory, Ma'anshan 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	
Waste Management				
GRI 3: Material Topics 2021	3-3 Management of material topics	5 Water Resources and Waste Management	68	
GRI 306: Waste 2020	306-1 Waste generation and significant waste-related impacts	5.2.1 waste disposal	101-102	
	306-2 Management of significant waste-related impacts	5.2.1 waste disposal	101-102	
	306-3 Waste generated	5.2.1 waste disposal	103	
	306-4 Waste diverted from disposal	5.2.1 waste disposal	103	
	306-5 Waste directed to disposal	5.2.1 waste disposal	103	

GRI Standard	Disclosure	Reference	Page	Note
Occupational Safety and Health				
GRI 3: Material Topics 2021	3-3 Management of material topics	7 Occupational Health and Safety	105	
GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system	7.1.2 Safety and health management system	124	
	403-2 Hazard identification, risk assessment, and incident investigation	7.2 Occupational Safety Risk Management	126-131	
		7.3 emergency management	131-134	
	403-3 Occupational health services	7.4.1 occupational health services	135	
	403-4 Worker participation, consultation, and communication on occupational health and safety	7.1.1 Safety and health policies and concepts	123	
	403-5 Worker training on occupational health and safety	7.5 Occupational safety and health education and training	138-141	
	403-6 Promotion of worker health	7.4.3 Employees health promotion	137-138	
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	7.2.2 Risk assessment and hazard identification	127-128	
		7.5.2 Non-Employees Occupational safety and health education and training	139-141	
	403-8 Workers covered by an occupational health and safety management system	7.1.2 Safety and health management system	124	
	403-9 Work-related injuries	7.1.3 Work injury statistics	125-126	
	403-10 Work-related ill health	7.4.2 Occupational disease identification and management	136-137	
Product and Service Innovation				
GRI 3: Material Topics 2021	3-3 Management of material topics	2 Product R&D and Innovation	42	
Staff Training and Career Development				
GRI 3: Material Topics 2021	3-3 Management of material topics	6 Employees	106	
GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee	6.2.1 General functional training	111	
	404-2 Programs for upgrading employee skills and transition assistance programs	6.2.1 General functional training	110-112	
	404-3 Percentage of employees receiving regular performance and career development reviews	6.3.1 Compensation and performance	114	
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	418-1Substantiated complaints privacy and losses of customer data concerning breaches of customer	1.5.3 CSRC Risks and Responses 2.4 customer relationship management	35-38 53	

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 Compliance with laws and regulations and improvements	34	

Tax Governance			
GRI 207: Tax 2019	207-1 Approach to tax	1.6.2 tax policy	40
	207-2 Tax governance, control, and risk management	1.6.2 tax policy	40
	207-3 Stakeholder engagement and management of concerns related to tax	1.6.2 tax policy	40
Employment Relations			
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	6.1.2 Manpower structure	108
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	6.3.2 Employees Welfare	114-118
	401-3 Parental leave	6.3.2 Employees Welfare	116
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 Manpower structure	25 108
	405-2 Ratio of basic salary and remuneration of women to men	6.3.1 Compensation and performance	113
Human Rights			
GRI 406: Non-discrimination 2016	406-1 Incidents of discrimination and corrective actions taken	6.4.3 Anti-Discrimination and Harassment	122
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	121
"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	121
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"	46
	416-2 Incidents of non-compliance concerning the health and safety impacts of products and services	2.3 Product quality and safety	52
GRI 417: marketing and labeling 2016	417-1 Requirements for product and service information and labeling	2.3.2 Product safety label	53
	417-2 Incidents of failure to comply with laws and regulations regarding information and labeling of products and services	2.3.2 Product safety label	53
Local Communities			
GRI 413: Local Communities 2016	413-1 Operations with local community engagement, impact assessments, and development programs	8.1 Social feedback	142-145

Sustainability Accounting Standards Board (SASB) Reference Table

SASB Topic	SASB Code	Accounting Metric	Chapter	Page	Note
Greenhouse Gas Emissions	RT-CH-110a.1.	Global Scope 1 emissions, percentage covered under emissions-limiting regulations	4.2.2 Reduction of Greenhouse Gas Emissions	84	
	RT-CH-110a.2.	Discussion of long-term 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 Responses to Climate Change and Energy management	64-65	
			4.2.2 Reduction of Greenhouse Gas Emissions	86-87	
Air Quality	RT-CH-120a.1.	Air emissions of the following pollutants: (1) NOX (excluding N2O), (2) SOX, (3) volatile organic compounds (VOCs), and (4) hazardous air pollutants (HAPs)	"4.3 Reduction of Greenhouse Gas Emissions"	90	
Energy Management	RT-CH-130a.1.	(1) Total energy consumed, (2) percentage grid electricity, (3) percentage renewable, (4) total self-generated energy	4.2.1 Improving Energy Efficiency	79-80	
Water Management	RT-CH-140a.1	(1) Total water withdrawn (2) Total water consumed (3) percentage of (1) and (2) in regions with High or Extremely High Baseline Water Stress	5.1.1 Water Usage Management	93-94	
	RT-CH-140a.2	Number of incidents of non-compliance associated with water quality permits, standards, and regulations	1.4.3 Regulatory Compliance and Improvements	34	
	RT-CH-140a.3	Description of water management risks and discussion of strategies and practices to mitigate those risks	5.1.2 Wastewater Management	97-100	
Hazardous Waste Management	RT-CH-150a.1	Amount of hazardous waste generated, percentage recycled	5.2.1 Waste Disposal	103	
Community relations	RT-CH-210a.1	Discussion of engagement processes to manage risks and opportunities associated with community interests	8.1.1 Neighborhood Care	142-145	
Worker health and safety	RT-CH-320a.1	(1) Total recordable incident rates and (2) fatality rates for (a) direct employees and (b) contract employees	7.1.3 Management Objectives and Performance	125-126	
	RT-CH-320a.2	Describe efforts to assess, monitor, and reduce employee and contract employee exposure to long-term (chronic) health risks	7.4 Health services and promotion	135	
Product design	RT-CH-410a.1	Product revenue designed to improve resource efficiency in the usage phase	2.2.4 Sustainable benefits of green products	47	
Safety & Environmental Stewardship of Chemicals	RT-CH-410b.1	(1) Percentage of products that contain Globally Harmonized System of Classification and Labeling 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 and/or environmental impact	7.2.3 Hazardous Chemical Management	129-131	
			3.2.1 Raw material recycling	58-60	

SASB Topic	SASB Code	Accounting Metric	Chapter	Page	Note
Genetic modification	RT-CH-410c.1	Percentage of revenues from products containing genetically modified organisms (GMOs)	-	-	Our company's business does not involve this project
Management of laws and environmental regulations	RT-CH-530a.1	Discuss the Company's position in relation to government regulations and/or policy proposals that address environmental and social factors affecting the industry	1.4 Compliance with laws	32-33	
			1.5.3 Risks and Responses	35-38	
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 Work injury statistics	126	
	RT-CH-540a.2	"RT-CH-540a.2	7.1.3 Work injury statistics	126	

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	Reference	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 Improving Energy Efficiency	79-80	
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	94、100	
3	Amount of hazardous waste generated during production and percentage recycled according to legal requirements or voluntary disclosure.	Quantitative	5.2.1 Waste Disposal	103	
4	Number and rate of individuals subject to occupational accidents	Quantitative	7.1.3 Management Objectives and Performance	125-126	
5	Operating activities which have significant actual or potential negative impacts on local communities.	"Discussion and Analysis"	8.1.1 Neighborhood Care	142-145	
6	Specific and effective mechanisms and actions taken by the company and its suppliers to reduce negative impacts on the environment or society.	Discussion and Analysis	9.1 Supplier Management	153-154	
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

TCFD Suggested Disclosures		Climate-Related Information of TWSE/TPEx ListedCompany	Reference	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, Opportunities, and Financial Impact	69-70	
TCFD 1(b)	Describe management's role in assessing and managing climate-related risks and opportunities.				
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, Opportunities, and Financial Impact	71	
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.		72-78	
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.		71-72	
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, Opportunities, and Financial Impact	71	
TCFD 3(b)	Describe the organization's processes for managing climate-related risks.				
TCFD 3(c)	Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.				
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, Opportunities, and Financial Impact"	72-78	
		7.If internal carbon pricing is used as a planning tool, the basis for setting the price should be stated.	-	-	Carbon pricing was not used.
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 and reduction targets, strategy, and concrete action plan.	4.2.2 Reduction of Greenhouse Gas Emissions	84-87	

TCFD Suggested Disclosures		Climate-Related Information of TWSE/TPEx ListedCompany	Reference	Page	Note
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 Reduction of Greenhouse Gas Emissions	84-87	

United Nations Sustainable Development Goals (SDGs) Index

Goals	Targets	Reference	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	126-131
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 Contribution	142-147
	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	110-112
	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 Contribution	142-147
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	91-100
SDG 7	7.2 By 2030, increase substantially the share of renewable energy in the globalenergy mix	4.2 Energy Management and Greenhouse Gas Management	79-87
	7.3 By 2030, double the global rate of improvement in energy efficiency	2.1 Innovation and R&D	44
		3.1 New Circular Economy Model in Practice	55-56
		3.2 Innovation and Circular Economy	57-62
		4.2 Energy Management and Greenhouse Gas Management	79-87
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	1.5 Risk Management and Information Security	34-38
		1.6 Operating Performance	39-40
		2.1 Innovation and R&D	44
		3.1 New Circular Economy Model in Practice	55-56
	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	9.1 Supplier Management	154

Goals	Targets	Reference	Page
SDG 8	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	7.1 Safety and Health Policy	123-126
		7.5 Occupational Safety and Health Education and Training	138-141
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	1.5 Risk Management and Information Security	34-38
		2.1 Innovation and R&D	44
		2.2 Green Products	45-49
		3.1 New Circular Economy Model in Practice	55-56
SDG 10	10.4 Adopt policies, especially fiscal, wage and social protection policies, and progressively achieve greater equality	6.3 Salary and Benefits	113
SDG 11	11.4 Strengthen efforts to protect and safeguard the world's cultural and natural heritage	8.3 Cultural Promotion	149-151
	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 Prevention and Control	87-90
		5.2 Waste Management	101-103
SDG 12	12.2 By 2030, achieve the sustainable management and efficient use of natural resources	3.1 New Circular Economy Model in Practice	55-56
		3.2 Practicing the new circular economy model	57-62
		5.1 Water Resource Management	91-100
		5.2 Waste Management	101-103
	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	49-53
		2.4 Customer Relationship Management	53-54
		3.1 New Circular Economy Model in Practice	55-56
		7.2 Occupational Safety Risk Management	126-131
		9.1 Supplier Management	153-157
	12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse	3.1 New Circular Economy Model in Practice	55-56
		3.2 Practicing the new circular economy model	57-62
		5.2 Waste Management	101-103
		9.2 Raw material management	157-158
	12.7 Promote public procurement practices that are sustainable, in accordance with national policies and priorities	9.3 Sustainable purchasing	158
SDG 13	13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries	4.1 Climate Change Response	69-78
	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	34-38
		4.1 Climate Change Response	69-78
		4.2 Energy Management and Greenhouse Gas Management	79-87
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	147-148
	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	147-148
	15.a Mobilize and significantly increase financial resources from all sources to conserve and sustainably use biodiversity and ecosystems	8.2 Maintaining biodiversity	147-148
SDG 16	16.5 Substantially reduce corruption and bribery in all their forms	1.3 Ethical Management	28-32

UN Global Compact Index

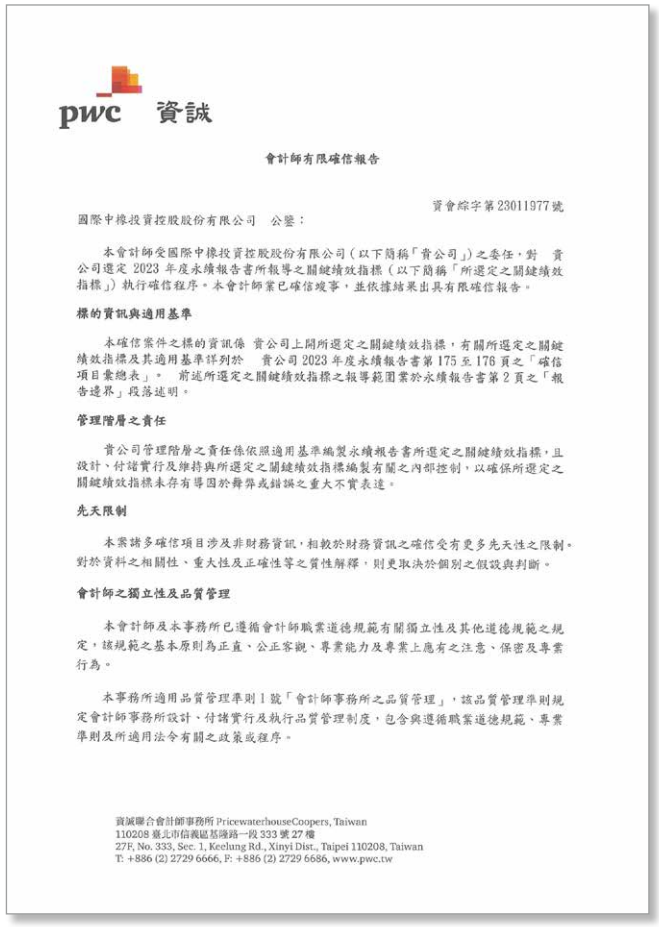
Category	10 principles	Reference	Page
Human Rights	Businesses should support and respect the protection of internationally proclaimed human rights.	6.4 Human Rights Management	120
	Make sure that they are not complicit in human rights abuses.	6.4 Human Rights Management	120
category	Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.	6.3 Salary and Benefits	118
	The elimination of all forms of forced and compulsory labour.	6.4 Human Rights Management	121
	The effective abolition of child labour.	6.4 Human Rights Management	121
	The elimination of discrimination in respect of employment and occupation.	6.4 Human Rights Management	122
Environment	Businesses should support a precautionary approach to environmental challenges.	1.5 Risk Management and information security	34-38
		4 Climate Change Response	69-78
		5.1 Water Resource Management	91-97
		3.1 Innovation and Circular Economy	55-56
		3.2 New Circular Economy Model in Practice	57-62
		2.2 Green Product	45-49
		2.3 Product Quality and Safety	49-53
	Undertake initiatives to promote greater environmental responsibility.	4 Climate Change Response	69-78
		5 Water Resources and Waste Management	91-103
		3 Circular Economy	55-62
		2.2 Green Product	45-49
		2.3 Product Quality and Safety	49-53
	Encourage the development and diffusion of environmentally friendly technologies.	3 Circular Economy	55-62
		2.2 Green Product	45-49
		2.3 Product Quality and Safety	49-53
Anti-Corruption	"Businesses should work against corruption in all its forms, including extortion and bribery."	1.3 Ethical Management	28-32
		9.1 Supplier Management	154

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：2023 年能源消耗總量為 27,208,463 GJ。 2. 外購電力百分比：2023 年外購電力比例為 2%。 3. 再生能源使用率：2023 年再生能源使用率為 0.68%。 4. 自發自用能源總量：2023 年自發自用能源總量為 3,146,261GJ。	79、80	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 4,636 千立方公尺。 2. 總耗水量為 4,469 千立方公尺。 3. 廢（污）水排放量 167 千立方公尺。	94	1. 依據集團之 2023 年自來水用水量。 2. 依據集團之 2023 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：2023 年有害廢棄物總量為 786.4 公噸。 2. 有害廢棄物回收百分比：2023 年有害廢棄物回收量占有害廢棄物總量為 0.61%。	103	1. 依據有害廢棄物轉移聯單統計 2023 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 2023 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	員工 / 2023 年 總經歷工時 / 2,504,293 一般職業傷害數量 / 7 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 / 8 可記錄職業傷害率 / 0.64 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 / 3.19 損工日數 / 599 失能傷害嚴重率 / 239	125、126	依據公司內部事故調查及處理程序，統計 2023 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。

<table>
<tr><th>編號</th><th>項目</th><th>標的資訊</th><th>頁碼</th><th>適用基準</th></tr>
<tr><td>4</td><td>說明職業災害人數及比率</td><td><table><tr><td>非員工</td><td>2023 年</td></tr><tr><td>總經歷工時</td><td>1,806,777</td></tr><tr><td>一般職業傷害數量</td><td>0</td></tr><tr><td>嚴重職業傷害數量</td><td>0</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>0</td></tr><tr><td>可記錄職業傷害率</td><td>0</td></tr><tr><td>嚴重的職業傷害比率</td><td>0</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>0</td></tr><tr><td>損工日數</td><td>0</td></tr><tr><td>失能傷害嚴重率</td><td>0</td></tr></table></td><td>125、126</td><td>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。</td></tr>
<tr><td>5</td><td>對當地社區具有顯著實際或潛在負面衝擊之營運活動</td><td>2023 年評估國際中橡營運活動對於當地社區與環境無顯著之負面影響。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。</td><td>142</td><td>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。</td></tr>
<tr><td>6</td><td>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</td><td>1. 2023 年集團實際有交易之供應商總數為 1,264 家。
2. 2023 年集團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 86%。
3. 2023 年集團實際有交易之供應商簽署廉潔條款百分比為 86%。</td><td>153</td><td>1. 2023 年集團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 2023 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。</td></tr>
<tr><td>7</td><td>依產品類別之產量</td><td>依產品類別之產量：國際中橡 2023 年生產碳黑 348,325 公噸。</td><td></td><td>國際中橡 2023 年生產碳黑之產量。</td></tr>
</table>

Independent Limited Assurance Report



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會計師有限確信報告

資會綜字第23011977號

國際中橡投資控股股份有限公司　公鑒：

本會計師受國際中橡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 2023 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 2023 年度永續報告書第 175 至 176 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本身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。

本事務所適用品質管理準則 1 號「會計師事務所之品質管理」，該品質管理準則規定會計師事務所設計、付諸實行及執行品質管理制度，包含與遵循職業道德規範、專業準則及所適用法令有關之政策或程序。

資誠聯合會計師事務所 PricewaterhouseCoopers, Taiwan
110208 臺北市信義區基隆路一段 333 號 27 樓
27F, No. 333, Sec. 1, Keelung Rd., Xinyi Dist., Taipei 110208, Taiwan
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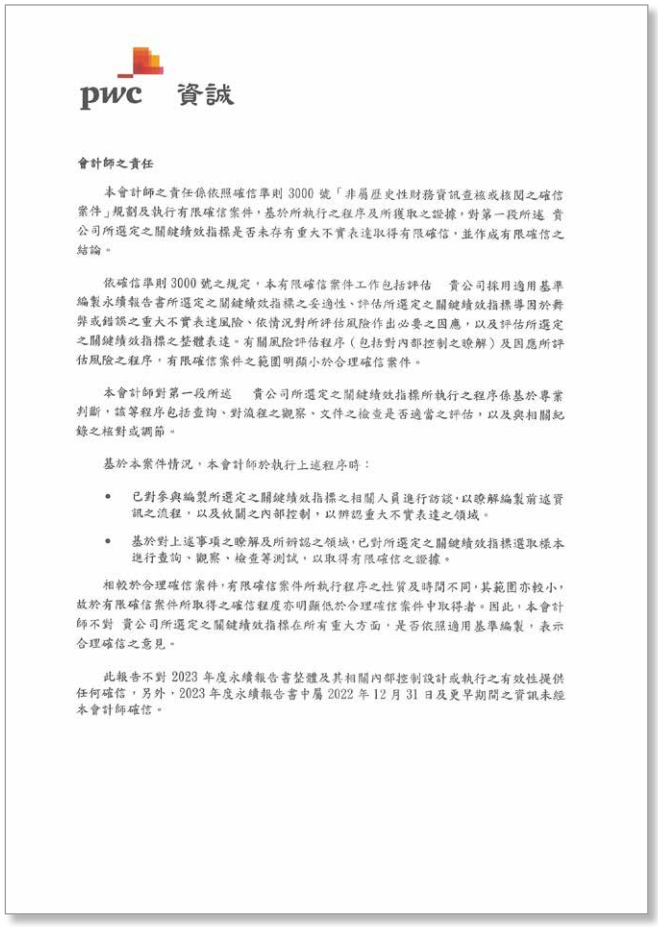

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會計師之責任

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選取樣本進行查詢、觀察、檢查等測試，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 2023 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，2023 年度永續報告書中屬 2022 年 12 月 31 日及更早期間之資訊未經本會計師確信。

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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

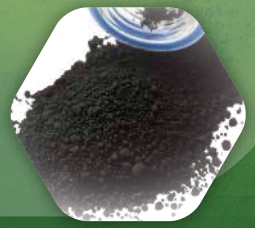
貴公司網站之維護係　貴公司管理階層之責任，對於確信報告於　貴公司網站公告後任何所選定之關鍵績效指標或適用基準之變更，本會計師將不負就該等資訊重新執行確信工作之責任。

資 誠 聯 合 會 計 師 事 務 所

會計師　徐潔如

2 0 2 4 年 7 月 3 1 日

Circular Economy
Green Life Sustainability



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