DCC Dairen Chemical Corporation

2019

Corporate Social Responsibility Report

CCP Chang Chun Group

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About this Report

This is DCC's first corporate social responsibility report, and it is divided into four major chapters: In terms of responsible production, we provide a safe production environment, engage in continuous innovation and research and development, and promise to provide our customers with satisfying product quality and services. As for low-carbon sustainability, we implement the circular economy, carry out pollution prevention, protect the environment, and fulfill our social responsibilities. On the front of practicing common good, we spare no effort in talent cultivation and social contribution. Integrity is the Company's business philosophy, and we will actively communicate with our stakeholders to create a sustainable future.

This report demonstrates DCC's performance in sustainable development and commitment to society with the aim of achieving environmental and corporate sustainability goals.

Report Scope and Boundary

The scope and boundary of this Report include DCC's Taipei Head Office, all Taiwan-based factories, and four overseas production factories. For details, please see 1.1.1 Main Products and Operating Locations.

Reporting Period and Issuance Date

DCC will publish its Corporate Social Responsibility Report for the previous year each year. The "DCC 2019 Corporate Social Responsibility Report" is published in June 2019, covering the disclosure period of January 1, 2019 to December 31, 2019. To demonstrate trends in changes each year, certain information in this Report includes statistics in the past 3 years (since 2017). The scope of disclosure of other statistics and information that differ from the aforementioned scope shall be specified in the chapters.

Report Compilation and Audit

The content of this report is compiled by the CSR Executive Secretariat, four CSR teams, all factories in Taiwan, and four overseas factories. To ensure that this report is accurate and meets stakeholders' expectations, all content was approved by CSR Committee before its official release.

Report Compliance Standards

The contents and structure of the report are based on the GRI Standards published by the Global Sustainability Standards Board (GSSB). The information disclosure of relevant content indexes is carried out based on the Core Options, fully illustrating DCC's material issue management policies and implementation performance in economic, environmental, and social issues.

Contact

Feel free to contact us if you have any questions regarding the contents of the Report.

General Manager Poya Juang and Ko-Tieh Chang, Corporate Social Responsibility Executive Secretariat

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Message from the CEO

DCC, which has just entered its 40 years, has been committed to improving the production process and product quality. It has spared no effort in the research and development of new products along the way. The relevant products have been highly praised in the market. As an international company, we uphold the spirit of "diligence and pragmatism, concerted efforts, growth with customers, R&D and innovation, and contribution to society." In order to meet the needs of the global market, DCC actively provides customers with products with more competitiveness quality and more prompt and immediate services, while continuing to create a low-carbon process and a green environment. In line with international trends, with the issue of climate change gradually gaining global attention, we proactively introduced the Task Force On Climate-Related Financial Disclosures (TCFD) in 2019 to conduct inspection and sorting of risks and opportunities within the Company, to respond to possible risks as early as possible.

Top priority—effective safety management culture

DCC attaches great importance to industrial safety and health management. In addition to implementing operations in accordance with relevant regulations, we emphasize safety discipline, pay attention to occupational safety education, conduct occupational safety inspection, and continuously review and improve, while assisting our contractors in increasing their awareness of occupational safety. In 2019, we completed 15 education and training sessions on occupational safety for all employees, with more than 500 trainees. It is expected that all factories in Taiwan will fully pass the ISO 45001 occupational health and safety management system certification in 2020.

DCC implements the environment, safety, and health system as well as process safety management (PSM), and aims to increase the overall product life cycle and incorporate it into our responsible care system. With the advent of the Industry 4.0 era, we have incorporated artificial intelligence technology to move toward automated production to reduce potential risks.

Leading green smart production and groundbreaking innovation

Expertise and products in chemical materials are DCC's core capabilities that allow them to prosper and facilitate innovation and transformation of other industries for low-carbon emissions and sustainable future. Responsible chemistry is fused within DCC's DNA of sustainability. We respond to international trends, adopt green manufacturing process, product design, and occupational safety management, and team up with customers and suppliers to play our roles in the value chain and maximize the benefits and value of green materials.

DCC applies a large number of advanced electronic information tools to production, management, and information communication. In addition to improving production efficiency, strengthening product quality, and managing the environment, occupational safety, and health mechanisms, we adopt AI technology to integrate information systems between various factories effectively, improve equipment safety and maintenance, and even develop an environmentally friendly digital platform by ourselves so as to convey important management messages in real time and launch emergency response to quickly respond to customers' needs and maintain environmental safety.

Cultivation of talents who create influence

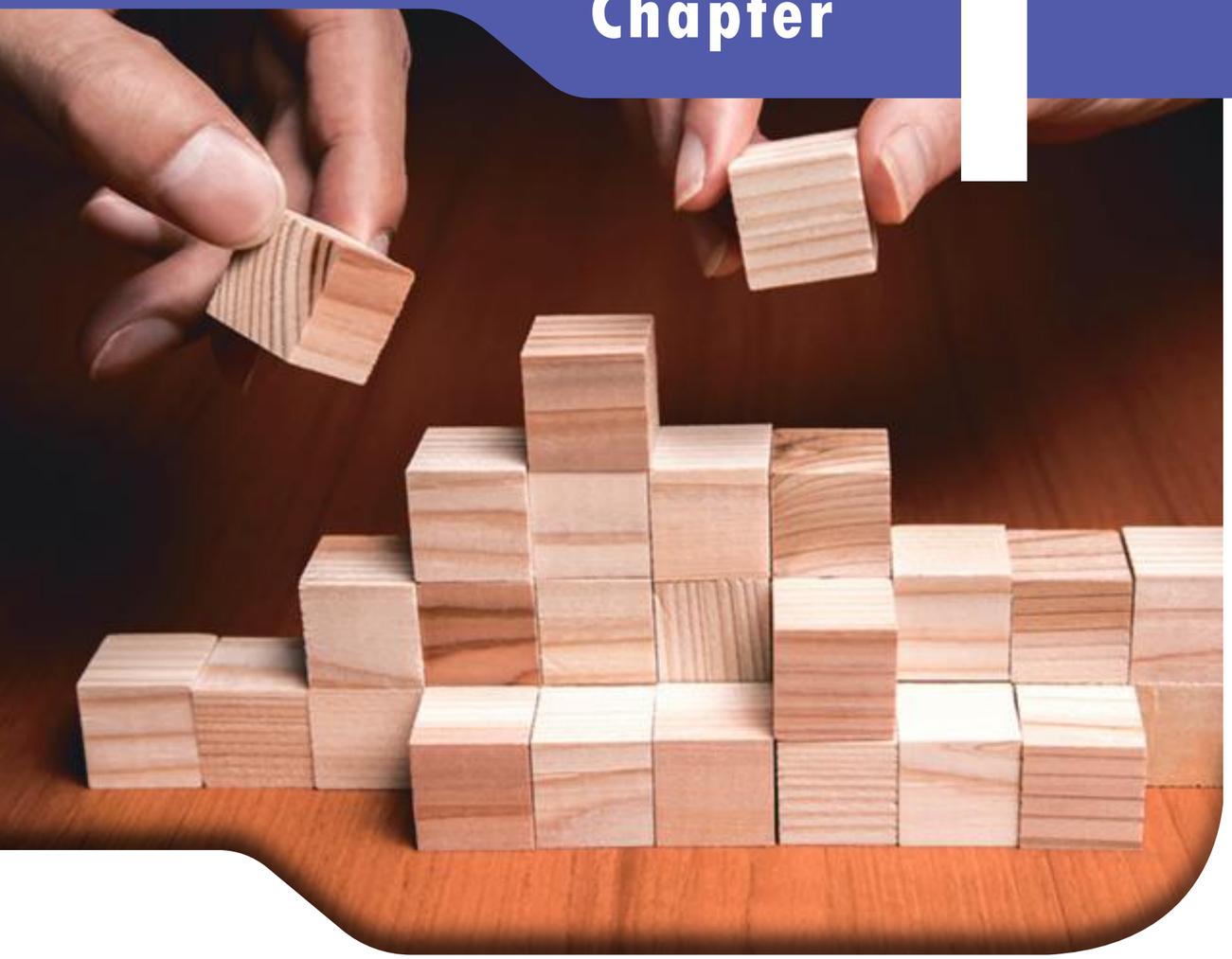
The joining of high-quality and diverse talents is the foundation of our long-standing presence on the international stage. In 2019, we have recruited talents from various universities and colleges, Taiwan External Trade Development Council (TAITRA), and government agencies, while applying for a quota for R&D alternative service, participating in industry-academia cooperation, and providing competitive salary and benefits as well as complete and professional classification of education and training, to actively attract and recruit outstanding talents. DCC develops an education and training system based on the Group's development strategy each year to grow with each employee and in turn achieve the goals of the organization.

Localization of talents has always been valued by DCC. Therefore, local talents are the first choice when it comes to recruitment of new employees, to provide employment opportunities in neighboring areas and give priority to employees and children in the neighborhood. More than 85% of the employees of DCC Kaohsiung Factory and Dafa Factory are local talents. It is hoped that through the cultivation of local talents, DCC's positive influence will spread to the local community through each employee in an in-depth manner, and will gradually extend to the wider society. In 2019, Dalian Chemical Industry participated in and sponsored 92 social feedback projects at home and abroad.

Looking forward to 2020, in the face of the promotion of corporate social responsibility, DCC will continue to adhere to the business philosophy of "Integrity, Customer First, and Creative Innovations" to grow together with stakeholders step by step and make continuous contributions to society through its diligence and pragmatism so as to demonstrate DCC's determination to implement sustainability.

Chairman *Lin, Shean-Tung*

Chapter 1



Responsible Production

Highlight Performance

93 patents
Held 93 patents, 4 more than in 2018

Education and training on the development of occupational safety culture for all employees
Completed 15 sessions of education and training on the development of an occupational safety culture for all employees, with more than 500 trainees

Won the medal for the underground-piping excellent model
Kaohsiung Factory won the medal for the underground-piping excellent model from the Ministry of Economic Affairs

Promotion of new version of Supplier Code of Conduct
Promotion of new version of supplier code of conduct: 100% of domestic suppliers in Taiwan signed the code of conduct

Promotion of Supplier Declaration of Conflict-Free Minerals
Promotion of Supplier Declaration of Conflict-Free Minerals: 100% of domestic suppliers in Taiwan and suppliers of overseas factories signed the declaration

Suppliers' corporate social responsibility risk assessment
Launch of the supplier's CSR risk assessment mechanism: 81% of the major suppliers of main raw materials are at the low-risk level, and mid- and high-risk suppliers were prioritized for annual on-site assessment

DCC adheres to the principle of "environment is the most precious asset for mankind, and environmental protection is our responsibility," by introducing the world's most advanced technologies and equipment, continuously improving manufacturing processes, promoting industrial waste reduction, implementing pollution prevention, researching and developing various technologies to enhance the effectiveness of pollution treatment. DCC considers "environmental sustainability" one of the primary goals and has taken both environmental protection and social responsibilities as its top priorities as it continues to progress toward sustainable development.

1.1 About DCC

Dairen Chemical Corp. (DCC) was established in 1979 as a joint venture by Chang Chun Plastics Co., Ltd. (CCP), Chang Chun Petrochemical Co., Ltd. (CCPC), and Nan Pao Resins Chemical Co., Ltd. DCC produces vinyl acetate monomer, and is the third largest core company of CCPG, while adhering to the business philosophy of establishing a business with integrity, customer first, and creative innovation, to work hard day and night.

Business Philosophy

Integrity
Integrity is the essence of DCC's business philosophy. It treats everyone with integrity, so customers receive its services with peace of mind, and has won the trust of the government, employees, suppliers, and the society.

Customer First
Under the quality policy of "improving quality and satisfying customers," DCC products are sold all over the world. From the purchase of raw materials to the satisfaction of the quality of the products delivered to customers, we provide customers with more competitive product quality and faster and immediate services.

Creative Innovations
"Innovation" is the spirit that DCC has been putting into practice for a long time. We have spared no effort to improve the production process, improve product quality, as well as research and develop new products, which is the greatest driving force behind the Company's growth.

Operating Principles

Be diligent and pragmatic; work together.
Grow together with customers.
Innovate through R&D and make contributions to society.

1.1.1 Main Products and Operating Locations

DCC started with the production of vinyl acetate (VAM). The Kaohsiung Factory started operating in 1983. It is the only domestic factory that produces VAM, which is used as a raw material for vinyl acetate-vinyl acetate ethylene (VAE) and polyvinyl alcohol (PVA) and for the supply to domestic and foreign markets. In order to meet customers' expectations and enhance the competitiveness of our products in the market, we have been committed to strict quality management, environmental assessment and protection, product research and development, process improvement, practice of responsible care, as well as implementation of comprehensive production automation and business digitalization since its establishment. Meanwhile, we strive to diversify the development of chemicals for various purposes and to establish globalized production and marketing bases.

Dairen Chemical Corp. (DCC)
No.8-1, Huaxi Road, Dafa Industrial Park, Daliao District, Kaohsiung City
Company Ownership and Legal Form: **Company limited**

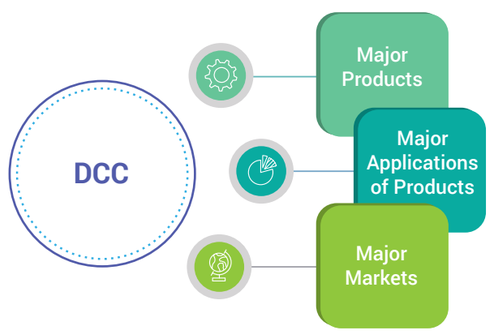
Taiwan Operations
- Taipei Head Office, Mailiao Factory, Dafa Factory, and Kaohsiung Factory

Overseas Operations

China	Chang Chun Dairen Chemical (Panjin) Co., Ltd.	Abbreviation →	CCDPJ
	Dairen Chemical (Jiangsu) Co., Ltd.		DCCJS
Southeast Asia	CCD (Singapore) Pte. Ltd.	Abbreviation →	CCDSG
	Dairen Chemical (M) Sdn. Bhd.		DCCM

DCC relies on 1,4-butanediol (BDO) and VAE emulsion, which it successfully developed, to become a major international manufacturer. We continue to invest in research and development (R&D) resources and are committed to R&D of new products and processes to enhance the competitive while continuing to grow and thrive. The main description of each product can be found in the section of "Market Application" on the Company's website.

Electronic Catalog



Vinyl acetate, vinyl acetate-ethylene copolymer emulsion, vinyl acetate-ethylene copolymer redispersible powder, allyl alcohol, 1,4-butanediol and polytetramethylene ether glycol, and 2-methyl 1,3-propanediol

Chemicals, coatings, resins, adhesives, paints, civil engineering, elastic fibers

Taiwan, Mainland China, Asia, America, Australia, Europe and Africa, etc.

DCC's products are closely related to people's daily life, such as food (plastics for food packaging and plastics for paper straws), clothing (sports elastic outfit, anti-wrinkle suits, and PU sole materials), housing (energy conservation in buildings, eco-friendly water-based paint, furniture decoration)), transportation (automotive precision parts), entertainment (electronic products and toy packaging materials), consumer solutions (cosmetics and cosmetic facial masks), etc., are all DCC's products and are an indispensable part of the modern life.

By understanding customers' and consumers' needs for sustainability, we have accelerated the pace of R&D and invested in innovative technologies, manpower, and resources in green products, such as process improvement, reduction of raw material use, and waste emissions, not only to increase our product competitiveness but bring more sustainable and eco-friendly value to the world.

DCC Product Life Map

Vinyl acetate monomer (VAM)

It is the raw material of VAE emulsion and polyvinyl alcohol (PVA), which can be used in the relevant industries such as adhesion.

Food

Food packaging adhesive

Vinyl acetate-ethylene copolymer emulsion (VAE emulsion):
VAE emulsion features good adhesion, particularly suitable for paper and plastic packaging adhesion. Low-VOC and low-toxicity VAE emulsion can be used for food packaging and paper straw adhesion.

Clothing

Clothing adhesive

Vinyl acetate-ethylene copolymer emulsion (VAE emulsion):
It can be applied to the printing adhesive for patterns on clothes, T-shirts, and the adhesive for female underwear.

Transportation

Building energy conservation, eco- water-based paint, and furniture

Vinyl acetate-ethylene redispersible powder (VAE powder):
It can improve the adhesion strength of mortar to different substrates and improve the durability of mortar. Mainly used in ceramic tile adhesive mortar, interior/exterior wall surface mortar, self-leveling floor mortar, waterproof mortar, exterior wall insulation mortar, repair mortar, which can achieve the purpose of exterior wall insulation and energy conservation in construction.

Ethylene-vinyl acetate-vinyl chloride emulsion (EVA-VC emulsion):
It can provide a wide range of adhesion for various substrates, particularly for adhesion of glass fiber, metal, plastic film, porous substrates, wood, and wallpaper.

Entertainment

Toy packaging carton adhesive

Vinyl acetate-ethylene copolymer emulsion (VAE emulsion):
VAE emulsion can be used as an adhesive for non-polar materials, such as PE, PET, PP, and OPP, and used in adhesives for toy packaging cartons.

Consumer solutions

Cigarette adhesive

VAE emulsion with low VOC content:
Low-VOC, formaldehyde-free, quick-drying, clammy, and suitable for high-speed adhesion of cigarattes, interface adhesion, and packaging.

DCC Product Life Map

Allyl alcohol(AAL)

Raw materials for BDO, MPO, and PTG

Clothing

Sports elastic outfit, anti-crease suit, and PU sole material

Polytetramethylene ether glycol (PTG):
It is the main raw material of polyurethane (PU) and thermoplastic polyester elastomer (TPEE). It can be used to make elastic fabrics: pantyhose, swimwear, sportswear, diving suits, etc., to increase the stretchability and comfort of the fabrics, and reduce the tightness.
It can also be used for gears, bottom of skates and roller skates, shoe materials, and electronic parts.

2-methyl 1,3-propanediol (MPO):
It can reduce the melting point of PET fabrics, lower the dyeing temperature, and increase the dyeability of fabrics.

Transportation

Safety glasses lenses, electronics, automotive precision parts, and home appliances

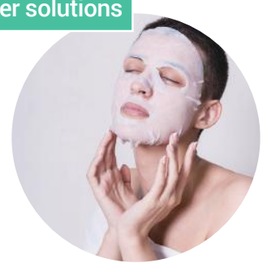
Allyl alcohol (AAL):
It can be used to manufacture safety glasses lenses and DAP resin; DAP resin is suitable for injection molding products, such as electronics, automotive precision parts, and home appliances.

Entertainment

Electronic products

1,4-butanediol (BDO):
It can be used to manufacture PBT engineering plastics, as a cases and electronic parts of electronic products and appliances.

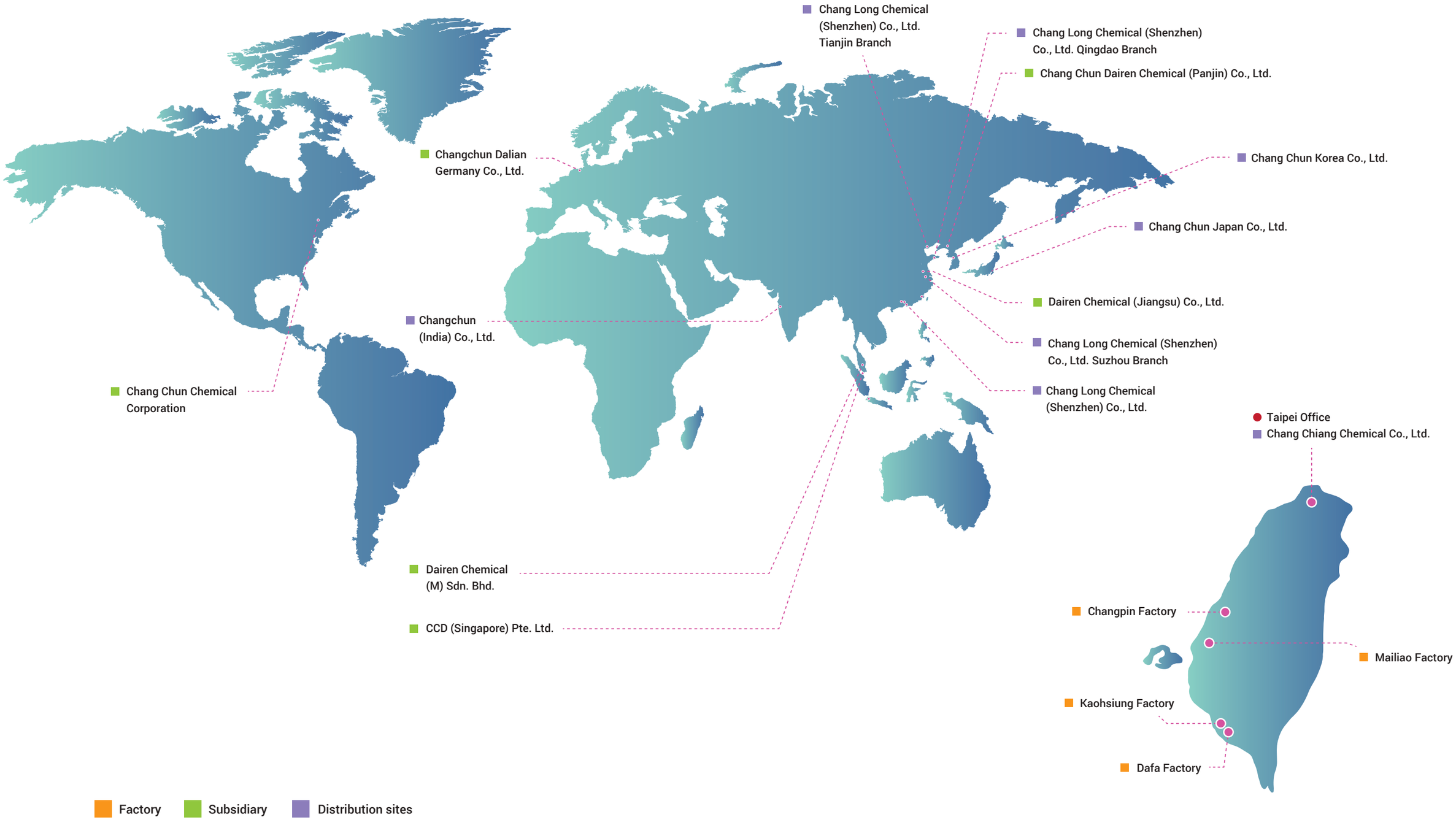
Consumer solutions



Cosmetic masks and elastic fiber

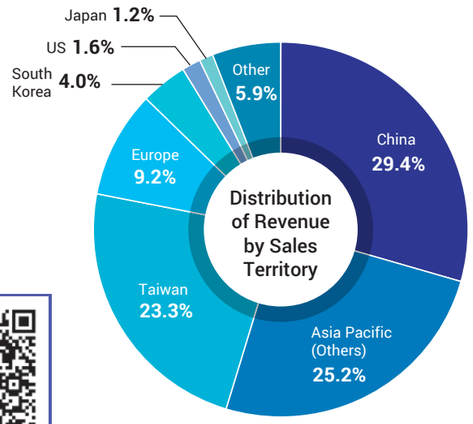
2-methyl 1,3-propanediol (MPO):
Formula for cosmetics and cleaning products.

Global Locations of Operation



1.1.2 Operating Performance

DCC's revenue and profit in 2019 still grew stably and its products were sold across the globe. The Company also continued to strengthen business developments in Europe, the United States, and emerging markets. DCC's robust financial performance contributed to the distribution of dividends as a reward to shareholders when the Company has earnings in the current year. The Board of Directors of the Company has formulated a 2019 earnings distribution proposal for distribution in 2020.



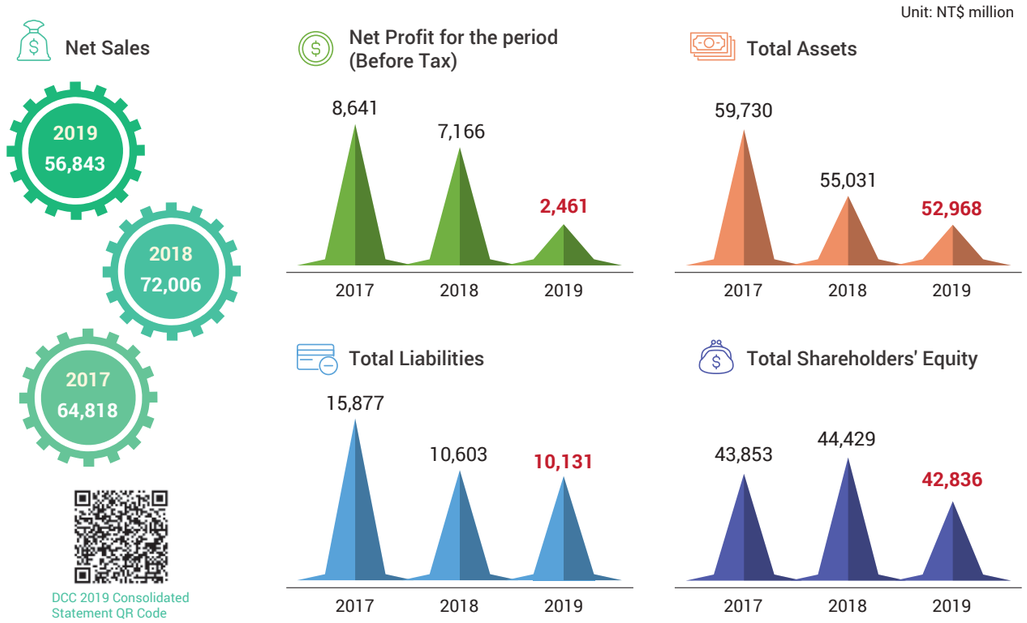
Good financial performance is mainly exemplified in the continuous increase of growth in revenue and profitability which are key to sustainability corporate development. The Company's good financial performance in recent years and its creation of long periods of stable economic value won tw AA- ratings from Taiwan Ratings.

Taiwan Ratings Reference website

Note: DCC's credit rating was not conducted separately; instead, it was included in the parent company-CCPC-which was the subject of the credit rating.

2017-2019 DCC Operating Performance

Unit: NT$ million



DCC 2019 Consolidated Statement QR Code

Note: This table includes data from the consolidated financial report inspected and certified by a CPA. In addition to the boundaries of the Report, it also includes information of merged subsidiaries.

The continuing Sino-US trade dispute has affected the degree of confidence in the market; the frequent geopolitical conflicts and the destruction of oil fields have impacted the supply and demand of crude oil, resulting in dramatic fluctuations in oil prices, making it difficult for petrochemical product prices to rise. The performance of various operations in 2019 was not as good as in the previous two years.

1.2 Quality of Products and Services

Expertise and products in chemical materials are DCC's core capabilities that allow them to prosper and facilitate innovation and transformation of other industries for low-carbon emissions and sustainable future. We aim to be a trusted material supplier. We have established comprehensive quality policies, strengthened manufacturing process controls, ensured the product quality and stable supplies, valued each requirement and idea of customers, implemented strict management of products, and actively invested in the development of technologies for green processes as well as innovation and R&D of green products.

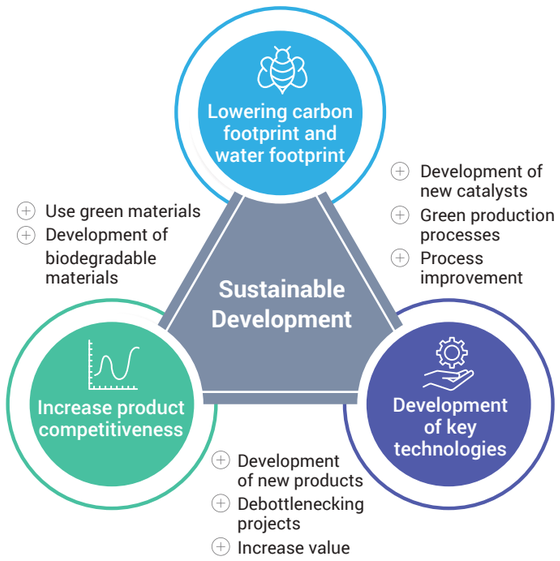
1.2.1 Green Processes and Products

DCC's products range from plastics addition, adhesives, electronic materials chemicals, pharmaceutical intermediates, industrial intermediates, and resins. In addition, raw materials, intermediate materials, and products all rely on traditional petrochemicals, which are likely to cause a negative impact on the environment.

The rise of environmental awareness and social responsibility in recent years has led to severe challenges for DCC and relevant domestic industries in terms of environmental protection and sustainable development. They are also important challenges that we must face.

R&D is our focus. We have established the Innovation Research Division and Application Development Division under the CCPG Executive Board, and factories in Taiwan have also established R&D Departments to continue advancement in innovation through the internal value chain. It also takes into account its economic, energy, environmental, process safety, and social responsibilities to actively develop byproducts that make full use of the process, products from waste materials, and non-petrochemical plastic products based on its core value of sustainable development. We also seek to improve the process to produce initial/intermediary materials and use energy/resource integration and green chemical technologies to achieve a circular economy.

Challenges facing DCC and solutions



Division of Responsibilities of R&D Teams

Innovation Research Division

R&D plans for new products, progress tracking, implementation of evaluation on results, instructions and reviews of patent and intellectual property rights applications for new products and processes.

Application Development Division

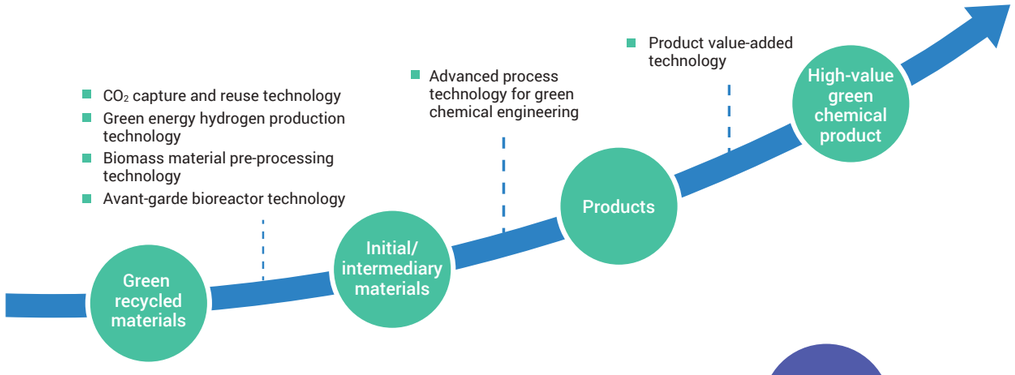
Application and development plans for existing products, progress tracking, implementation of evaluation on results, instructions and reviews of patent and intellectual property rights applications for existing products and processes.

DCC continues to invest resources in R&D. The amount of R&D investment in 2019 reached 7.6% of the net profit before tax and it obtained a total of 93 patents. We actively engage in industry-academia cooperation development and strategic partner alliances, investing more than NT$6 million every year. In addition to National Tsin Hua University that has worked with us in the Forward-looking Technology Industry-Academia Cooperation Program in its sixth year, our cooperating partners include National Taiwan University, National Chiao Tung University, National Central University, National Chung Hsing University, Yuan Ze University, Chung Hua University, National Taiwan University of Science and Technology, National Chung Cheng University, Industrial Technology Research Institute, Plastics Industry Development Center, and Food Industry Research and Development. Taking green chemistry, process strengthening, and biomass raw materials as the R&D direction, we strive to assist the Group in developing new products with high added value, enhancing the core technology of existing products, optimizing existing processes, and enhancing the expertise of researchers in the Group. CCPG's main innovation and results shall be described later in this Chapter.

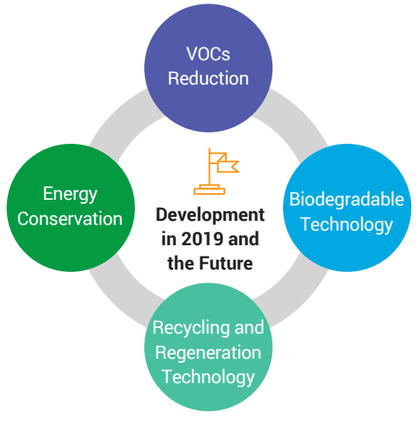
Number of Patents Obtained in 2019	4

Cumulative number of patents obtained	93

DCC's Next-Generation Green Chemical Technology Innovation Development



DCC plans to enter sectors, including renewable energy, biomass materials, and medical and healthcare materials. In addition to establishing green technologies from upstream raw materials to downstream products, we can develop high-value technologies of green energy as well as biomass processes and products, such as carbon capture, volatile organic compounds (VOCs) and toxic waste reduction, development of catalysts to improve process efficiency, as well as R&D and certification of biodegradable materials, to establish technical thresholds, so that our products can maintain high competitiveness in the industry, and we can also take the lead during the transformation of shale gas and coal chemical industries as a benchmark in response to climate change.



Green Processes and Green Product Applications

VOCs Reduction

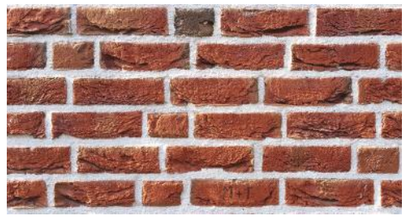
Vinyl acetate-ethylene copolymer emulsion (VAE emulsion)

- VAE emulsion can be used to produce waterborne emulsion paint which replaces traditional indoor paints and drastically reduces the health and environmental impact of VOCs. The waterborne paint product was awarded the national certification for Green Building Material and its VOC content (VOCs 1.4g/L) was far lower than EU standard of 30g/L (flat).

  We also used new technologies to improve the VAE emulsion paint so that it can absorb and counter the formaldehyde in the air after it is painted on indoor walls. It can remove up to 90% of the formaldehyde.

- We improved the process techniques and increased the VOC removal rate in VAE emulsion by up to 90%. The average VOC content of the existing products has fallen below 200 ppm, minimizing the impact of VOC on emulsion users' health and the environment. We also developed amine-free emulsion, applicable to automotive interior requirements for environmental protection.

Low VOC Vinyl acetate-ethylene redispersible powder (VAE powder)



We developed low-VOC VAE powder for use in algae mud paint decoration materials that reduced VOC emissions by 60-80%.

Biodegradable Technology

1,4-Butanediol (BDO) - Use in biodegradable plastic raw materials

The Polybutylene Succinate (PBS) a next-generation biocompatible and biodegradable green material made from the polymerization of succinic acid and BDO produced by CCPG. It is safe and non-toxic and it can be degraded by multiple types of microorganisms in the natural world to ultimately form carbon dioxide and water that helps reduce ocean waste.

Recycling and Regeneration Technology

Gamma-Butyrolactone (GBL) - Usage as lithium battery liquid electrolyte

GBL was regarded as process waste. In response to the development of the circular economy, process waste reduction requirements, and the power battery industry in recent years, the current design process refines GBL into products for sale. It can be compounded to form N-Methyl-2-pyrrolidone (NMP) which is used as materials for the liquid electrolyte of lithium batteries. Power battery production has grown rapidly in recent years. The rise of new energy policies and energy storage projects for transportation and mobile communication would also help growth in the energy storage battery market.

Increase the value of polytetramethylene ether glycol (PTG) products

The development of PTG is trending toward thermoplastic elastomer (TPEE) and thermoplastic polyurethane (TPU) and researches are focused on energy and resource conservation and reuse. The waste acid produced in the production process of PTG can be refined into sulfuric acid and it meets the ideals for a circular economy.

Energy Conservation

VAE powder for energy conservation in buildings

VAE powder can be evenly mixed with inorganic dry mortar and features great water solubility. Meanwhile, its high adhesion and great toughness are complementary to inorganic materials; thus, it can be applied to exterior insulation finishing system (EIFS) to effectively keep buildings warm/cold and avoid unnecessary energy consumption while improving the energy conservation effect.

1.2.2 Product Quality Management

"Product quality and safety" management approach

Significance of Material Issues	We are committed to providing customers with satisfying products and services and grow along with customers and suppliers. We work hard and innovate to improve quality and ensure that all quality-related activities and product safety meet government regulations, product-related regulations, and customer demands.
Policy and Commitment	DCC continues improvements, honors commitments, improves quality, and satisfies customers in accordance with company policies to provide customers with satisfying products and services.
Target	Improve product quality and process capacity. Short-term ▶ ◆ Integrate the Group's quality operating system ◆ Continuous improvement of operation standardization ◆ Strengthening of general training on quality ◆ Continuous improvement of customer complaints and non-compliance **Establishment of customer-oriented quality requirements and expectations** Mid-term Long-term ▶ ◆ Improvement of Q&A ◆ Improvement of statistical technologies for process management and control and quality management ◆ Emphasis on changes in quality and improve product quality in the manufacturing process ◆ Introduction of automatic analysis equipment ◆ Improvement of knowledge databases
Action Plan	◆ CCPG QA Division takes the lead and implements system standardization along with quality assurance managers of the factories, production departments, and the Management Information Center. ◆ Appoint external lecturers to improve the Company's statistical technologies.
2019 Implementation Results	◆ Integrated and improved the quality system of the factories, including customer opinion management, non-conformance and correction measures management, and quality change management ◆ Completed four sessions of education and training on seven basic tools of quality and SPC ◆ Factories cultivated quality assurance talents in accordance with the training maps
Communication/ grievance Mechanisms	Customers can use the customer hotline, the section of "Customer" on DCC's official website, and e-mail to communicate or file complaints.

DCC upholds the quality policy of "continue improvements, honor commitments, improve quality, and satisfy customers" to provide customers with satisfying products and services. To ensure stability in quality and supply, we implement rigorous quality management to strengthen control of the production process and we have established a supplier management system (refer to 1.4 Sustainable Supply Chain Management for details) to promote sustainable development of the supply chain.

Quality Management Procedures

"Quality" is an issue that customers and we value. The Company's Quality Assurance Department establishes a quality goal each year and reviews related quality issues and improvements in system execution with quality assurance managers of all factories each month. In addition, we also use monthly management meetings in factories and production and sales activities for various products to explore quality improvement plans, new product development, and the development of new specifications for existing products. We hope to use continuous improvements for innovation and R&D to improve product quality and competitiveness and increase customers' trust and satisfaction with our products.

DCC has a comprehensive traceability management system that uses codes or batch numbers to track raw materials from entry and semi-finished products to product shipping and other production stages. Any anomaly in any stage can be traced upwards. DCC maintains comprehensive control over materials usage and production processes to improve the efficiency of processing anomalies and achieve rigorous and comprehensive product quality assurance purposes.

Process inspection

1. Conduct sampling and inspections in accordance with the production procedures.
2. Use the quality inspection system for records, determination, anomaly notification, and trend management in accordance with the process control standards.
3. Where the process exceeds the scope of control or statistical trends, it shall be processed as noncompliance of management procedures.

Packaging and shipping

1. Process in accordance with product shipping procedures and packaging operations.
2. Retain and trace samples of shipped products.

Material Sourcing and Procurement

1. The Procurement Department evaluates qualified suppliers and conducts procurement in accordance with procedures.
2. Factories receive materials in accordance with the sampling plan and related procedures for incoming materials.
3. Accept or reject materials based on the specifications.
4. Retain and trace samples of materials.

Finished product inspection

1. Conduct sampling and inspections in accordance with product sampling and inspection procedures.
2. Use the quality inspection system for records, determination, anomaly notification, and trend management in accordance with the specifications of finished products.
3. Disqualified products shall be identified and quarantined in accordance with procedures and noncompliance corrections shall be implemented.
4. Retain and trace samples of finished products.

Enhance quality education

In order to deeply cultivate the quality culture of DCC and continue to strengthen the quality and professional competence of employees, in 2019, a total of four training classes on Seven Basic Tools of Quality and Statistical Process Control (SPC) were offered, and all the classes were included in quality assurance personnel's personal career training program. In 2020, it is expected to launch a general course on quality, which includes the basic concepts of 8D Report, Seven Basic Tools of Quality, SPC, and Measurement System Analysis to improve all employees' awareness of quality.

Product certification

DCC has a total of 15 products, all of which have obtained the certification of the quality management system (ISO 9001: 2015), with the aim of pursuing high-quality products and services.

DCC Certification

Quality system audit

We adopted topic-centric and ad hoc internal and external audits (at least one audit for each factory each year) and unscheduled audits by customers to review the effectiveness of the DCC's quality management system and use PDCA for review and continuous improvements. In 2019, through seven mutual audits of factories in different countries, we conducted a comprehensive review of the timeliness of case processing, instrument and equipment management, operational planning, and document integrity, so as to continue to improve the quality system. To enable personnel performing the same duty at different factories to communicate with each other, share quality management experience, and strengthen the operating process.

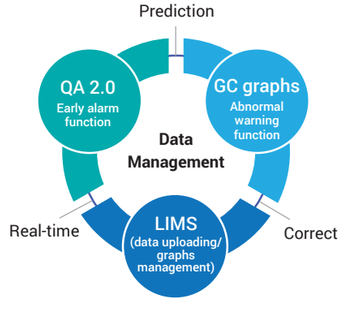
Product safety and labeling

DCC attaches great importance to the EU REACH regulations and inspects the substances of very high concern (SVHC) accordingly for its products, while paying attention to the RoHS restrictions on harmful substances in electrical engineering and electronic equipment. In addition, to expand business to meet customers' requirements, some products comply with the BPA-free regulations, FDA 21 CFR 175.105 in the US Food and Drug Administration's Code of Federal Regulations, GB9685-2016 in the Standard for food contact materials and articles additives, and YQ 5-2019 in safety requirements of adhesives for cigarette, so can be used in food containers, cosmetics, the cigarette glue industry, etc.

DCC is committed to the goal of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) to reduce the harm of chemicals on humans and the environment. We are aware of the development of relevant policies, and the Product Standards Department is responsible for planning and implementing the Company's GHS-related processes and operational matters, including the classification of GHS hazards of all products, standardization of safety data sheets (SDS), labeling matters, and increase of awareness of compliance, as well as the establishment of region-based emergency consultation hotlines. CCPG HSE Division follows the laws and regulations to organize general education and training on hazards at factories. The Product Standards Department has adopted reliability data, along with the classification logic to complete SDS and hazard labeling one by one, which should be provided to customers or required at operating sites; the validity period of SDS and hazard labeling is managed in a systematic manner. Meanwhile, in accordance with the global operation strategy, we provide SDS in customers' national language in line with their domestic legal requirements. As it is the basic requirement for product sales, we convey product safety information to customers as required (see 1.3.1 Chemical Management for details). In 2019, there were nearly 500 entries on SDS produced and issued annually.

Optimization of inspection data management mechanisms

In 2019, Dafa Factory planned a series of optimized inspection data management mechanisms, which were expected to be introduced into the laboratory information management system (LIMS), and the Management Information Center will develop a process deviation early alarm function for the product inspection system and the gas chromatography chromatogram abnormality early warning system. These three operations were fully automated, which helped Dafa Factory build a statistically significant big data database to simultaneously improve the laboratory's data management capabilities and process management capabilities.



In 2019, the process deviation early alarm function for the product inspection system had been developed and fully introduced into all factories in Taiwan. In 2020, it is expected to complete the introduction of LIMS and the gas chromatography chromatogram abnormality early warning system.

Smart Inspection Round System

In 2019, Dafa Factory introduced a smart inspection round system to digitize outdoor meter reading records, and the system would judge whether the data met the specifications, and would issue a notice automatically once the specifications were exceeded. It could also be incorporated with check-in/photographing functions according to the needs of inspection rounds. It has currently replaced handwritten records of approximately 17,200 entries/day, covering 55 record forms.

1.2.3 Customer Communications and Services

Management approach to "customer relationship management"

Significance of Material Issues	DCC has always upheld the business philosophy of customer first. It is the goal of all employees to provide comprehensive customer services and increase customer satisfaction.
Policy and Commitment	DCC is committed to providing customers with high-quality and competitive products to become a trustworthy business partner that grows with customers.
Target	Improve customer satisfaction rate and follow up on progress and effects. Short-term ▶ Improve customer satisfaction rate, enhance customer satisfaction and convenience in usage, and improve the questionnaire platform. Mid-term ▶ Maintain customer satisfaction rate above standards and increase customer loyalty. Long-term ▶ Improve customer service quality to achieve corporate governance benefits.
Action Plan	◆ Establish a customer relationship management (CRM) system ◆ Include customer opinions in regular meetings for review ◆ Integrate the Marketing & Sales Department, Research & Development Department, Quality Assurance Department, Production Department, and external partners to jointly resolve issues for customers.
2019 Implementation Results	◆ 2019 DCC Customer satisfaction survey: Products: 13 items. Average satisfaction rate: 4.5 points ◆ No breaches of customer privacy or losses of customer data were reported in 2019.
Communication/ grievance Mechanisms	DCC collects customer feedback through visits to customers, emails, the customer section on the Company's official website, and the customer hotline.

Good customer communication

DCC attaches great importance to customer-oriented quality management and customer relationship management. We maintain positive communication with customers using regular follow-up methods, including customer visits, customer satisfaction surveys, customer opinion forms, and a CRM system. With customers' feedback, we can then make correction or launch new development to reduce the defect rate and the customer complaint rate, while formulating improvement measures from customers' perspective. Through business, R&D, quality assurance units, and even external partners, we can find the cause of customer complaints together so as to create the maximum social value of the win-win situation between DCC and customers.

We aim to become a trustworthy business partner that grows with customers. In order to strengthen customer relations, in addition to the communication methods above, we actively participate in important international exhibitions, such as Beautyworld Japan 2019, to exchange market information with customers directly and to establish an instant communication channel.

Beautyworld Japan 2019

DCC's official website provides customers with a platform for the exchange of opinions, requests for information, and requests for quotations. In addition, we will use this platform to quickly process customer questions and opinions. The latest information from DCC will also be announced on the website for customers to obtain important information from us at all times.

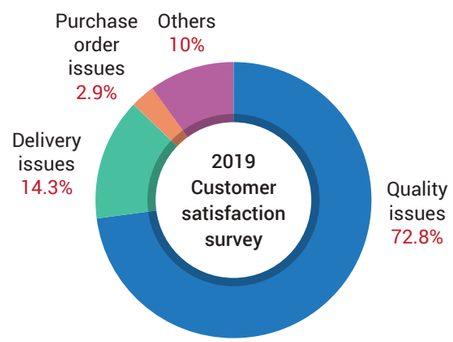
Product Information Disclosure

The Company's website provides customers with clear and detailed product information for each industry and product type. Customers can obtain information on the features, specifications, and applications of the Company's products and download digital catalogs and related certifications. If customers wish to request product specifications and chemical safety information or if they have any questions regarding products, they can also submit their requests and opinions on the website and the responsible units shall respond to related messages.

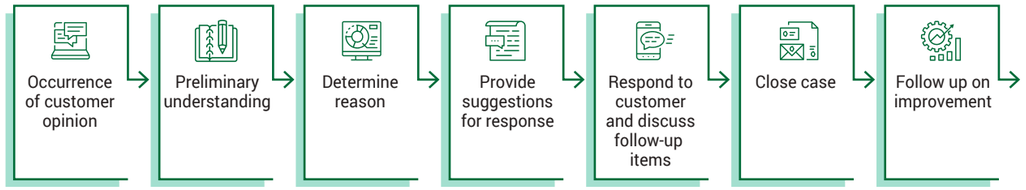
VAE Product Catalog | VAEP Product Catalog | CCPG's Product Catalog

Processing Customer Opinions

To learn about customers' valuable opinions, DCC has established clear customer complaint channels, product return and replacement procedures, and compensation application procedures. We collect customer feedback through visits to customers, emails, the section of Customer on the Company's official website, and the customer hotline. All relevant opinions are registered in the customer opinion system and the reason and progress of opinions. Related units designated by supervisors are responsible for analyzing the causes from different levels, responding to customers as quickly as possible, and submitting adequate improvement plans. DCC formulates improvement measures based on data from the customer opinion system to prevent the same issues from recurring.



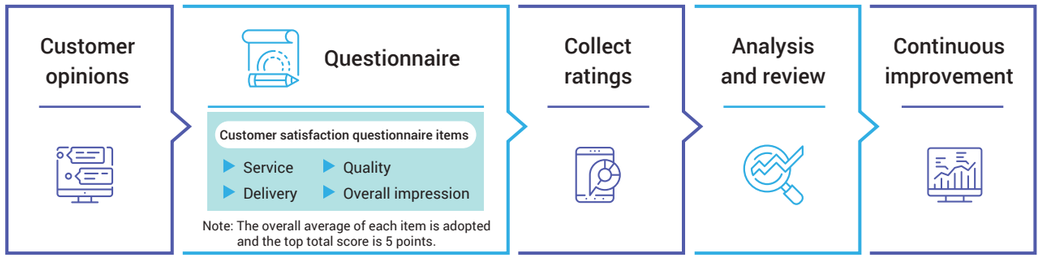
Customer Opinion Processing Procedures



Customer satisfaction survey

DCC attaches great importance to customers' opinions, and conducts a customer satisfaction survey every year. The survey targets customers who account for the top ten sales or have complaints in that year. The topics of the questionnaire include four items: services, quality, delivery time and comprehensive impression. Through the results of the questionnaire, we will examine whether the products and services meet customers' expectations, so as to collect opinions and continue to improve and maintain positive relationships and communication channels with customers with their satisfaction as the top priority.

Customer satisfaction survey model



There are 13 products in DCC's satisfaction survey. DCC strictly controls customer information. Please refer to the Management Approach in Customer Relationship Management for achievements in 2019. DCC did not infringe on customer privacy or lost customer information in 2019. Please refer to 4.1.3 Risk Management for relevant approaches.

1.3 Occupational Safety Maintenance

It is the duty and obligation of DCC's management and all employees to provide and maintain a healthy, safe, and environmentally-friendly workplace. We highly value occupational safety maintenance, and actively internalize the spirit of responsible chemistry into the Company. Through a well-established chemical management system, we ensure the safety of employees and customers, and also help contractors increase their awareness of occupational safety. Furthermore, through the implementation of environmental safety and health and promotion of process safety management (PSM), we continue to make improvement to achieve the goal of zero occupational accident. We also expect to incorporate the overall product life cycle into the larger DCC's responsibility care system.

1.3.1 Chemical Management

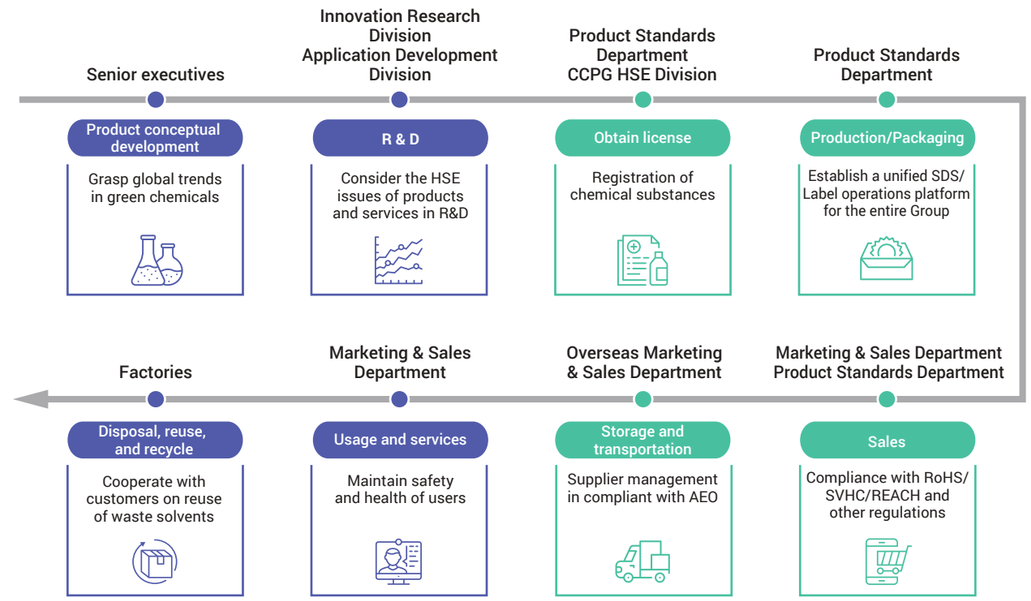
For chemical management, DCC prioritizes legal and regulatory compliance above all and it focuses on product compliance to satisfy customer demands and confidence in products. CCPG HSE Division is responsible for ensuring that products meet regulations on chemical products in the place of production while the Product Standards Department is responsible for ensuring that products meet the regulations of countries where they are sold. Affiliate companies of the Group can consult CCPG HSE Division or Product Standards Department through the IT system, on the telephone, or in person to quickly learn about the compliance status of products.

Countries administer chemical registration to implement the goals of the Strategic Approach on International Chemicals Management (SAICM) for 2020. The key to attaining the goals of the Product Standards Department for 2020 is to actively participate in the chemical registration in various countries to learn more about the hazards of the products of the Group and carefully deliver information on the hazards to downstream customers.

Internal management procedures for chemicals

We established a sound chemical management system. The process starts from the inventory of products and materials, and we complete the safety assessment of chemicals through the procedures from pre-registration assessment, identification of chemical substances to the registration of the scientific data of the substances. As of today, we have completed the registration or entry of dozens of chemicals in the EU. We also have multiple chemicals in Korea for which we must complete regulatory obligations before the statuary period in order to provide customers with product compliance protection.

DCC Value Chain of Chemical Management



CCPG HSE Division continues to promote chemical regulations at each factory every year, and updates the chemical operation list and material information of each factory, continuously expands the system function, and combines procurement, finished products, and inventory systems to make up for the missing chemical information of finished products and raw materials. In addition, the establishment of a toxic chemical documents management platform is used to control the legality of toxic chemicals in import and export. In 2019, we continued to optimize the system to include the control items of dangerous goods in transportation, and it is expected that the chemical substance information of the product inventory system will be established in 2020 to meet the requirements for annual manufacturing and import volume declaration in accordance with laws and regulations.

Management mechanisms for low amounts of toxic substances

Low amounts of toxic substances refer to cases where the total amount of toxic chemical substances in operations is lower than the minimum level for management and control specified in the "Toxic and Concerned Chemical Substances Control Act." We control the purchase request end and the CAS No. of chemicals that should be entered when a small amount of reagents or drugs are requested to be purchased through a procurement system. The system will judge whether it is a toxic chemical or not and issues a warning for control. In the subsequent planning, a database of chemical regulations integrated with a database of finished products will be established (expected to be completed in 2020), to control the sale of a small amount of toxic chemicals, while the compliance with regulations will be ensured through the above-mentioned dual control of the purchase and the sales ends.

Results of chemical registration/entries/certification in 2019

In 2019, the Product Standards Department had pre-registered 48 substances for DCC in South Korea in compliance with the Act on the Registration and Evaluation of Chemical Substances (ARECs), to ensure that products and supply chains met the requirements of chemical management laws in various countries while assisting customers in handling the existing chemical substances registration in Russia. In the face of the Turkish REACH (KKDIK regulations) pre-registration, UK-REACH, and India's statutory BIS certification project that will be launched at the end of 2020, preparations continue to be made.

Continuous optimization of the toxic chemical document management platform

The Toxic Chemical Document Management Platform is a web-based management platform developed by the Company. Since it was launched in 2018, it has achieved good results. All factories can upload toxic chemical documents (including licenses, registration documents, and approval documents) to this management platform to manage toxic chemicals effectively. This year, we continued to optimize this management platform and add a column of CAS No. to link the chemical regulations database to shipment management in the future in line with the spirit of compliance.

Optimization of the chemical regulations database

DCC continued to optimize the "chemical regulations and operations" in the Company's ERP system and included a list of regulations governing dangerous goods during transportation this year, so that procurement personnel could give an early warning during operation, apply for relevant transportation carbon copy invoices, and inform the transportation company. Meanwhile, we collected relevant information on chemical substances of finished products this year. It is expected that a database of finished products will be established in 2020 to meet the annual manufacturing and input declaration requirements in accordance with the laws and regulations.

Employee workplace safety management

DCC conducts education and training sessions on chemical management each year and assesses the employees' risks of exposure in the production process. It then adopts measures such as substitution, isolation, engineering controls, and personal protection equipment to eliminate the possibilities of exposure to chemical hazards. It also follows regulatory requirements to classify risks into different levels and consolidate the reporting items. The goal of the aforementioned chemical management mechanisms is to impose "zero harm" to employees. Qualified agencies are consigned to perform at least two inspections on the operating environment each year to protect the health and safety of employees. Please refer to 3.3.2 Healthy Workplace for detailed description.

Product safety and customer service

International regulations on the management of chemicals change rapidly and customers may request to understand product compliance at any time. In view of the increasingly stringent regulations on hazardous substances around the world, in addition to the general analysis and inspection equipment, we have ICP-OES, ICP-MS, GC/MS, LC/MS among other analytical instruments and equipment while entrusting a third-party agency when necessary to perform inspection and tests as a gatekeeper for hazardous substances in products. A set of rigid management mechanisms have also been established for the chemical transportation process. Please refer to 1.4.2 Supplier Management System for detailed description.

In addition to restricted chemical products, a few of DCC's products have been listed or will be listed as precursors of psychotropic substances. To demonstrate and fulfill corporate responsibilities, DCC, members of the industry, as well as industrial associations have begun to adopt global independent management to prevent illegal use and proliferation and effective management from production management to investigations on the use of the end customer have been implemented. In 2018, DCC reviewed the implementation plans for market supervision and operations of the European Chemical Industry Council with Taiwan Responsible Care Association and members of the industry.

1.3.2 Workplace and Process Safety

In order to build a safe working environment and continuously maintain and improve the occupational safety and health of employees, DCC has formulated occupational safety and health management policies and set the annual occupational safety goals annually. The Taipei Office and all factories have passed the certification of the occupational safety and health management system (OHSAS 18001), and in 2019, version of the occupational safety and health management system (ISO 45001: 2018) will be converted, including procedure conversion, education and training, and internal and external audits. We will complete the certification of the converted version in 2020.

Management approach to "workplace safety and health"

Significance of Material Issues

Effectively promote and implement health and safety policies to construct a workplace where laborers can contribute their hard work and achieve sustainable development of the Company.

Policy and Commitment

The senior management's commitment to safety and health is effectively exemplified in policies and investment of resources.

Target

Establish a work environment with zero hazards and zero occupational accidents.

	Safety	Health
Short-term ▶	◆ Adopt a strategy that values both process safety and occupational safety for implementation in all levels and all factories.	◆ Integrate work environment inspections and use the health management system to establish a line of defense for health.
Mid-term ▶	◆ Improve process safety through process safety engineer system and expand participation. Monitor safety performance by establishing KPIs.	◆ Use digitalized management in the work environment to effectively improve hazardous factors in the factories and cut off the opportunities and possibilities of personnel's contact with such factors.
Long-term ▶	◆ Establish an advanced safety culture and promote indicator-led preventative management to mitigate accidents, accumulate experience and investments, and create a safe environment with zero occupational hazards.	◆ Connect the environmental monitoring cloud and health examination cloud and implement effective management of the chemical substance cloud to eliminate the possibilities of occupational diseases.

Action Plan

External

- Industrial-academic cooperation: We invest more than NT$10 million in safety each year and invest more than NT$4 million in health each year.
- Participate in various PSM training.

Internal

- Factories appoint dedicated full-time personnel as process safety engineers to protect the production process.
- Organize a lecture tour on the development of occupational safety culture for all employees to reduce occupational accidents.
- Enhance the assessment of hazards in the PSM process.

2019 Implementation Results

Safety

- Launch a lecture tour on the development of occupational safety culture for all employees to enhance the safety culture.
- Establish and introduce a platform for digital permit forms.
- Implement incident reporting, investigations, transparent management, and experience sharing.
- Formulate rules of process safety and organize drills for safe production.

Health

- Complete the operations, tendering and acceptance regulations for the Group.

Communication/ grievance Mechanisms

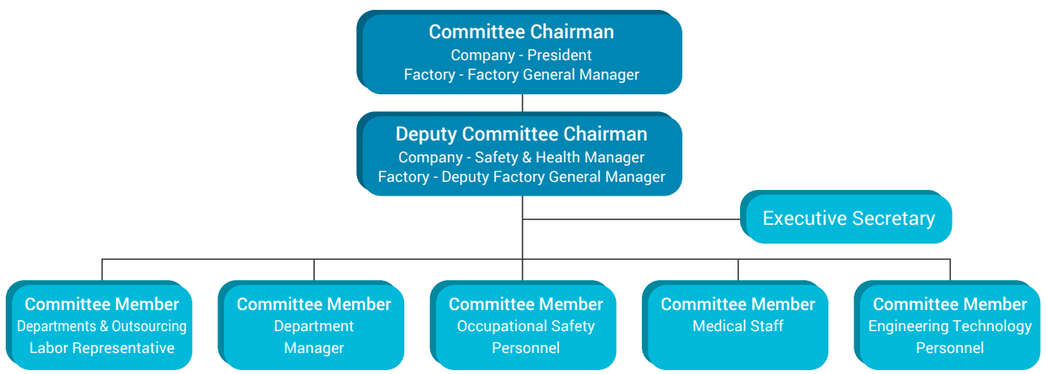
If a factory discovers any ESH issues or injustice, it can report to the safety and health supervisor of the factory. In the case of an issue that involves the comprehensive system, it can be reported to the CCPG HSE Division to ensure effective resolution.

Advancement of the Workplace Safety and Health Committee

We value workplace safety and promote culture and system of safety through committees of different levels, meetings and employee engagement that allow the safety policies to be implemented in the work of every employee and optimize the safety system based on feedback from employees. We have established and implemented the "Regulations on the Operations of the Workplace Safety and Health Committee" and established Workplace Safety and Health Committees of the Group and various factories. The committees are composed of both employers and employees, with the General Manager or factory director as the chair, The table below shows the number of members and the ratio of employees from various companies and factories in 2019. The Safety and Health Committee is responsible for proposing, coordinating, and supervising affairs related to the environment, safety, sanitation, and health in the factories. It also organizes a quarterly meeting to facilitate employee consultation and participation and to discuss the following issues in order:

- Suggestion for occupational health and safety policy
- Coordination of and suggestions for an occupational safety and health management plan
- Plan for implementation of safety and health education and training
- Operating environment monitoring, results, and measures adopted
- Health management, occupational disease prevention, and health promotion matters
- Various safety and health proposals
- Automatic inspection and safety and health audit matters
- Preventive measures for hazards of machinery and equipment or raw materials and materials
- Occupational accident and injury investigation report
- Review of safety and health management performance
- Safety and health management of contract business
- Other matters related to labor safety and health management

Workplace Safety and Health Committee Organizational Structure



Number of Members of Workplace Safety and Health Committee and the Ratio of Employees in 2019

Domestic and Overseas Operations	Total Number of Safety and Health Committee Members	Committee Staff	Percentage of Committee Staff
Taipei Office	13	9	69%
Mailiao Factory	16	6	38%
Dafa Factory	24	9	38%
Kaohsiung Factory	17	6	35%
DCCJS	30	18	60%
CCDPJ	14	13	93%
DCCM	10	9	90%
CCDSG	24	5	21%

Overview of occupational injury

DCC had a total of 20 occupational injury incidents (including offsite traffic accidents) in 2019, and they have all been included as a reference for management and as the basis for optimization and improvements. The causes of occupational injuries in various factories were mainly accidents, such as falling over, crush injuries and cuts during machine operation, burns, and chemical splashes. The frequency of traffic accidents outside the factory was relatively high.

In response to occupational injuries in the factory, in order to prevent personnel from being injured due to careless operation of mechanical equipment, education and training on standard operating procedures offered to personnel are strengthened, personnel are required to wear safety protective equipment, and job safety analysis (JSA) of the operation was also reviewed to formulate the most appropriate risk reduction measures (such as modifying standard operating procedures, modifying operating equipment, using safer tools and personal protective equipment) so as to prevent similar accidents from recurring.

Statistics on Various Indicators of Occupational Injuries from 2017- 2019

Year	2017			2018			2019		
Gender									
Total occupational injury incidents (number of cases)	3	1	4	4	0	4	17	0	17
Traffic accidents (number of cases)	7	0	7	3	0	3	3	0	3
Injury rate (IR)	0.64	0.48	0.62	0.45	0.00	0.40	1.94	0.00	1.80
Absentee rate (AR)	0.49%	0.32%	0.47%	0.44%	0.57%	0.46%	0.35%	0.28%	0.35%
Lost day rate (LDR)	45.66	4.84	40.89	7.68	4.99	7.37	24.57	0.00	22.77
Deaths	1	0	1	0	0	0	0	0	0

Note 1: There were no occurrences of occupational diseases in 2019. The occupational disease rate (ODR) is therefore 0.
Note 2: GRI Injury Rate (IR) = number of occupational injury incidents / (working hours + overtime hours)×200,000
Note 3: GRI Absentee Rate (AR) = (number of occupational injury leave hours + number of sick leave hours) / (working hours + overtime hours)×100%
Note 4: GRI Lost Day Rate (LDR) = number of lost days / (working hours + overtime hours)×200,000*
*: Refers to the percentage of for every 100 employees calculated based on 40 work hours each week and 50 weeks each year

Increased safety awareness among grassroots employees

Grassroots employees are the cornerstones of factory operations, and they are indispensable to the Company's operations, but unfortunately, accidents also tend to happen to this group of people most often. When accidents take place, the cost is often too high. Therefore, we realize that it is imperative to take more active actions to increase grassroots employees' awareness of safety, and a comprehensive course on safety culture was developed accordingly.

1. Safety Culture Workshop

The director of the CCPG HSE Division gave face-to-face lectures to each employee from top to bottom, and the course covered the reflection after major accidents and the skills of hazard identification, to let employees learn about the hazards from terrifying incidents and to increase their awareness through the change of mentality. A total of 15 sessions were held in 2019, with a total of more than 500 participants, accounting for around 20% of the non-managerial employees. This course has been listed as a routine event and will continue to be offered to all employees of DCC so as to achieve the effect of injury reduction.


Safety Culture Workshop

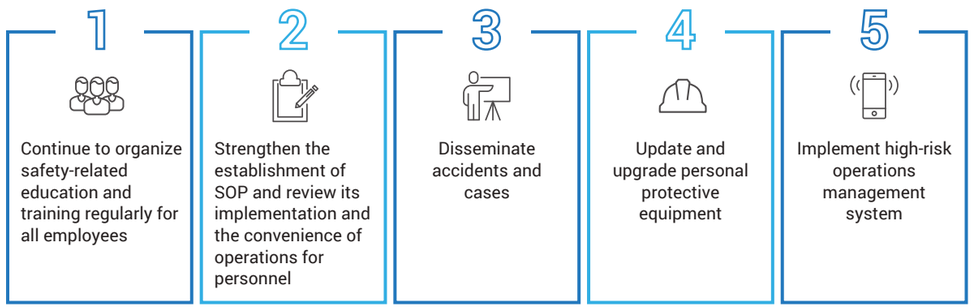
2. 10-minute safety promotion

For the establishment of the safety culture for grassroots employees, Dafa Factory has set up 28 electronic media promotion points (control rooms, offices, and lounges) in the factory, and employees will be gathered daily to watch a 10-minute safety promotion video (day shift, night shift, and graveyard shift). The content includes the review of major incidents in the factory area within 10 years, the deficiencies identified in the occupational safety and environment audits, as well as the Company's new regulations and requirements. In addition, through the employee-lecturer system, the factory designates an employee at each department as a lecturer and assign employees at the engineer level or above to assist in the explanation to enhance the learning effect through teaching, thereby increasing grassroots employees' safety awareness and strengthen the occupational safety culture.


Daily gathering to watch the safety promotion video

3. People-oriented Safety Culture

Grassroots employees face more serious hazards when working on the front line. We designed a questionnaire for the improvement of safety culture. In 2019, a total of 628 valid copies of questionnaires were collected. After analyzing the questionnaires, Top five improvement suggestions were listed below. The valuable feedback of each copy of the questionnaire will be the best driving force behind the cultivation of DCC's safety culture.



Workplace accident prevention and processing

We use statistics to analyze the cause of accidents and the results of investigations and formulate prevention plans for accidents that have already occurred in various workplace safety meetings. We then use safety and health hazard identification and risk assessment methods to uncover potential harm and implement control in order to protect the safety and health of employees.

Safety and Health Hazard Identification and Risk Assessment

DCC is committed to protecting the safety of all employees. In addition to personal protective equipment and relevant procedures and management, DCC continued to invest in improvement of relevant safety and fire safety equipment. Investments totaled NT$33 million in 2019, with the aim of reducing the possibilities of accidents and improving the capacity for responding to accidents to reduce damage caused by accidents.

Any accident in the Company, even near misses that do not lead to occupational incidents, shall be processed in accordance with regulations on incident management and investigations. Each accident shall become a supplement that makes the Company safer. In 2019, 198 false alarms were reported. Information on CCPS Beacon, Lloyd's Register's Process Safety Management whitepaper, and Marsh Risk Engineering Position Paper was shared in the ESH Announcement Area.

Accident handling and investigation management approach

The review of chemical factory leakage accidents is particularly important as the leakage may cause personal injuries. In the event of flammable chemical leakage, there is even a possibility of a fire and explosion. In 2019, the following improvement measures will be formulated specifically for chemical leakage accidents:

1. Increase the proportion of accident investigations significantly. In addition to a large number of leakages or cases of personal injuries, accident investigations are required for small leaks in the process, with a view to reducing the chance of large-scale leaks.
2. Increase the frequency of safety observations of key operations where personnel shall work with chemicals, in addition to the existing JSA, to identify non-conformance or inappropriate procedures from the observation process so as to optimize the operating procedures continuously.
3. The process unit shall formulate safety production rules for the response to leakage or other hazardous situations in the process, and exercise relevant responses every quarter to strengthen the front-line personnel's proficiency in response to anomalies in the process, so as to strengthen the safe production work at each factory to prevent and reduce production safety accidents.
4. Organize case study seminars and select representative cases or cases of upset in the processes for discussion, and review the improvement measures through process hazard analysis (PHA) and JSA among other evaluation methods.


Case study seminar

Traffic Accident Prevention

In 2019, DCC had a total of three employee traffic accidents. In response to traffic accidents, a review was conducted on the three main aspects: people, vehicles, and roads and improvement were made accordingly. As for roads, the traffic environment of the section of the roads where accidents took place was re-examined to remind employees to pay more attention. In terms of vehicles, employees were advised to check their vehicles regularly to confirm that the tire pattern and tire pressure were normal, and they were also motivated to carpool or take public transportation instead of riding a scooter, or to ride a scooter equipped with an ABS anti-lock system. On the front of people, we brought forward the traffic accident cases at departmental safety and health meetings to help them establish defensive driving concepts and to increase their awareness of safety during commuting to and from work so as to reduce traffic accidents through the three aspects above.

Establishment of the concept of safe driving through promotion of traffic safety

Contractor Safety Management

To protect contractors and reduce the safety and health risks in contractors' operations, services, and activities at the Company, we establish environmental protection, safety, and health management procedures, organize coordination and organization meetings, and discuss with contractors before we assign the contracted work. We also inform the contractor of the hazardous factors of the work environment and operations such as hot work, elevated operations, repetitive moving tasks that may cause musculoskeletal disorders. We also supervise contractors in performing physical examinations for their employees in accordance with the risks of operations and provide health management measures. DCC also plans safety and health education courses to promote the safety awareness to the employees employed by contractors. For detailed training statistics, please refer to 1.4.2 Supplier Management System. In addition to managing the safety and health of the Company's employees, we revised the "Operating Procedures for the Prevention of Musculoskeletal Disorders Caused by Repetitive Moving Tasks" in 2017 and included contractors into its applicable scope to evaluate the high-risk working area for musculoskeletal disorders of personnel employed by contractors. We began automatic packaging machine operations in the high-risk areas for musculoskeletal disorders in 2018 to prevent musculoskeletal injuries for contractors' personnel.

Safety and health training for contractors' personnel

Automated packaging area

Enhancement of contractors' own occupational safety management abilities

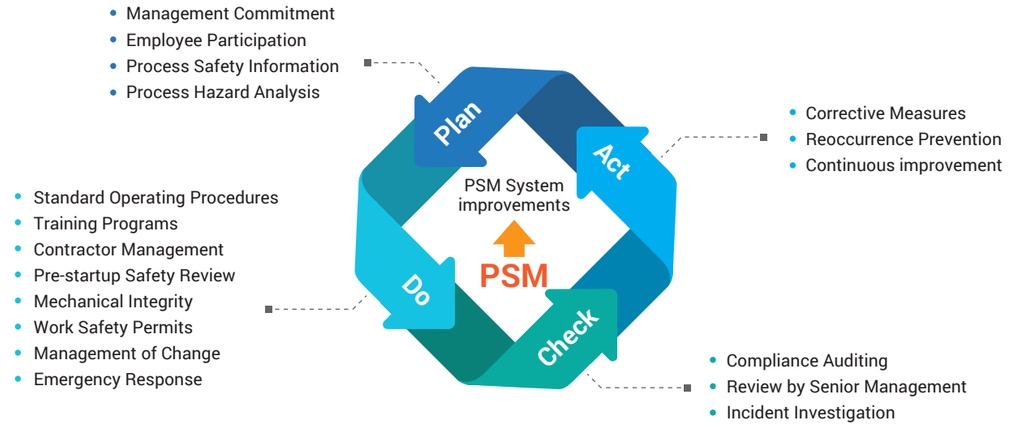
For the safety and health performance of the contractors in the factory, to encourage the contractors to improve their autonomous management of safety and to promote a virtuous cycle, DCC formulated the "Contractors' Occupational Safety Management Reward Measures" in 2019 to reward the contractors with excellent performance in safety and health. An assessment will be conducted based on the five major aspects of meeting participation, number of occupational safety accidents, number of violations, document review, and on-site management, while a comprehensive evaluation will be conducted every six months, and excellent contractors in the evaluation will be commended. Both rewards and disciplinary actions are adopted to enhance contractors' sense of honor, which is expected to greatly improve their performance in safety and health.

Mailiao Factory invited contractors to promote the importance of protective devices at the factory, and they have identified the problem of thermal hazards. At the toolbox meeting, they also promoted the knowledge of wearing of the high temperature resistant outfit and the location of the high temperature resistant outfit in the factory area.

Process Safety Management

We adopted 14 management elements in the three major structures for occupational safety, process safety, and mechanical integrity, and also developed a PSM platform and included the overall PSM performance indicators, PSM audits, PSM management meetings, and relevant PSM technologies of all factories into the platform for management. With the commitment of the senior management and employees' full participation, we integrated various PSM factors and constructed a more comprehensive safety net for continuous improvements of PDCA procedures.

Establish a PSM-based security management system



Process safety work planning

We continue to invest resources to implement the process safety system not only because of our persistence for safety but also for our goal of zero occupational injuries. DCC's process safety plans and resource investment are as follows:

Item	2019 Targets	Achievement Status	Benefits
Cultivate process safety management (PSM) related professional personnel	By 2020, the number of professional licenses obtained related to the Individual Certification Program (ICP), including API510, API570, and API653 (launched by American Petroleum Institute (API)) and PSM has grown by 100%, from 5 to 10.	As of 2019, DCC had a total of 13 international licenses, including API, NACE, and the functional safety engineer license.	Professional technical skills required for the implementation of mechanical integrity
Introduce foreign technologies and resources	Since 2013, DCC has begun strategic cooperation with National Kaohsiung University of Science and Technology, Yunlin University of Science and Technology, and domestic experts in the industry through education, training, and professional consultation	In 2019, external experts introduced root cause analysis (RCA) training to strengthen training for accident investigation	Effectively improved DCC employees' knowledge and expertise in PSM

Establishment process safety performance indicators

DCC refers to international standards and guidelines to establish the principles for determining process safety incidents and process safety near miss. Regarding process safety performance indicators, American Petroleum Institution (API) published API RP 754 in 2016; the International Council of Chemical Association (ICCA) released the Guidance for Reporting on the ICCA Globally Harmonized Process Safety Metric; then, the Center for Chemical Process Safety (CCPS) issued the Process Safety Metrics in 2018.

In accordance with the process safety metrics into the existing notification system, a total of five process safety incidents occurred in 2019, and three of them involved occupational injuries. The head office also engaged in the accident investigation and urged each factory to make improvement. According to the accident pyramid theory, there are 300 near miss behind every major injury accident. Therefore, DCC forms an accident investigation team to conduct a detailed investigation of each process safety incident and near miss, and requires relevant units to conduct inspection of deficiencies and make improvement accordingly. Through a proactive approach, DCC hopes to reduce the frequency of near miss to reduce possible major accidents.

2019 Process Safety Metrics

Number of process safety incident (case)	Process Safety Event Rate (PSER)	Number of process safety near miss notification (case)
5	0.61	64

Note 1: PSER = (number of process safety incident/total working hours) x 200,000*
Note 2: Data from overseas factories are not included
*: Refers to the percentage of for every 100 employees calculated based on 40 work hours each week and 50 weeks each year

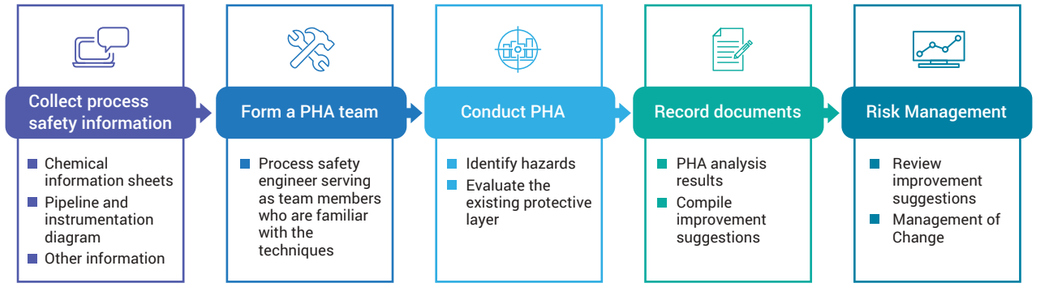
Tier 1 PSE	Accidents with serious consequences
Tier 2 PSE	Accidents with less serious consequences
Process safety near miss	• Any release of significant hazardous substances without reaching the threshold limit value of the Tier 2 process safety incidents • The challenges for safety systems can be divided into the following categories: ★ There is a demand for the operation of safety systems (pressure relief devices, safety instrumented systems, or mechanical parking systems) ★ An inspection of facilities when blockaded or test a value that exceeds the acceptable limit ★ Process divergence or deviation

Process Hazard Analysis (PHA)

PHA is a major focus in process safety management and can assist DCC in identifying hazards early. Subsequent efforts are made to improve personnel training, operations, processes, equipment maintenance, and scenarios, which are greatly beneficial to process risk management. A total of five process safety engineers were engaged by DCC in 2019, who were fully devoted to the promotion and implementation of process safety management.

Meanwhile, we have combined the PHA results with the information system and set up an audit mechanism. With three years as a cycle, each process shall complete PHA within the cycle, and the PHA analysis results shall be uploaded according to the self-scheduled progress. The CCPG HSE Division will conduct review during the verification process and conduct monthly tracking and management. Based on the number of scheduled analyses and the actual number of analyses completed, the PHA completion rate will be calculated each month and the entire process will be recorded to track and manage its implementation progress. Through an integrated system, we will continuously monitor the implementation effectiveness of the overall process hazard analysis to ensure process safety.

Process Risk Management Process



Process safety engineers play a critical role in planning progress and actual participation in PHA. In order to improve their analytical capabilities, the CCPG HSE Division arranged nine PHA seminars in 2019, selected the processes with serious accidents, and brought together the process personnel informed of the accidents, process safety engineers, and PHA experts in the Group for discussion, to break through the department-based thinking model in the past, reexamine the existing PHA results, and seek potential defects and possible risks in design or operation. This would thus strengthen process safety engineers' professional analysis ability and improve their proficiency and acuity.

Systematic management of work permits

High-risk operations refer to operations that may cause harm to operators, others, and the safety of surrounding buildings, equipment, and facilities, including hot work and unsealing of equipment pipelines. In 2019, the Company established a high-risk work permit system, combined with the advantages in the existing permit operations, to issue and manage work permits in a systematic manner, and safety and efficiency could be enhanced through the system. In addition, CCP MAP was incorporated to display the information of high-risk operations in the factory on the factory map, including the type, location, and status of each permitted operation.

High-risk operation permit control process

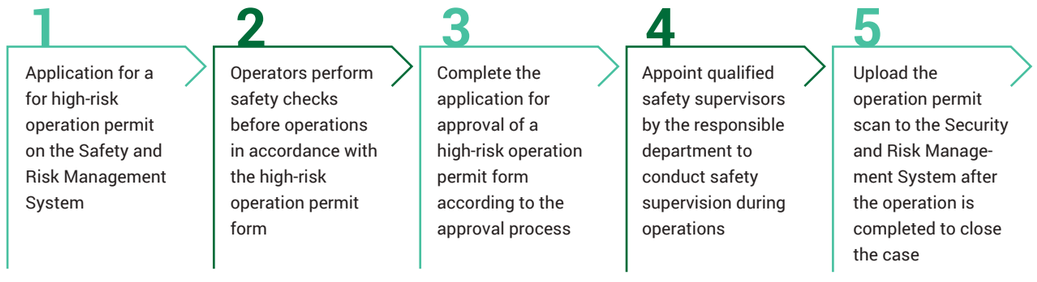


Diagram of high-risk operation permit system

DCC has set up a monitoring system for high-risk areas. In the control room or authorized mobile devices, we can see the actual situation on the ground instantly while continuously monitoring the operational status of equipment and personnel safety during operations. CCDPJ has also set up a monitoring center to monitor the real-time situation of the entire factories 24/7, to further enhance factory safety.

1.3.3 Response and Management of Major Incidents

DCC's emergency preparation and response plans are planned in advance to prevent accidents caused by all kinds of accidents at the workplace and to prevent and reduce losses to personnel, equipment, and properties.

Fires, explosions, poisoning, accidental local pollution, and other accidents may occur in the work environment due to leaks of chemicals. Major accidents may also occur for the aforementioned reasons that are by natural disasters. In response to illegal entry, anomalies in shipments, suspicious mail, the departments, and factories must implement all existing organizations, manpower, command system of the workplace for the units in the workplace to implement response measures in order to reduce damage, reduce harm to personnel, and restore normal conditions as quickly as possible.

In 2019, we launched emergency response seed instructor training, technical-level response personnel training, and commander-level response personnel training in order to continuously deepen the overall response capabilities. Multiple drills regarding the large-scale leaks from toxic chemical tankers to familiarize the response personnel from different factories with the mutual support model, so as to deal with large-scale incidents during transportation effectively and reduce the impact of leakage of toxic chemicals on the environment and society.

Management approach to "material incident management and response"

Significance of Material Issues

We use response training for personnel, incident review and analysis, and regular emergency response drills to familiarize employees with skills and correct procedures for responding to emergencies. The measures effectively reduce the impact on the society and environment in the event of material incidents.

Policy and Commitment

We comply with regulations of the competent authorities and reference international standards and regulations to continuously improve response strategies, equipment, and manpower and implement the policy in response measures for factories, transportation, public pipelines, and underground pipelines.

Target

Improve overall emergency response energy to minimize losses from accidents and environmental impact.

Short-term ▶
- Complete the allocation of qualified professional response personnel at all levels as soon as possible in line with the amendments to the laws and regulations, so that each factory can form into a group of professional response personnel at any time.
- Evaluate the effectiveness of fire alarm monitoring and fire equipment coverage to identify and extinguish a fire quickly at the beginning of the accident.
- Counsel transportation contractors to strengthen their emergency response capabilities and establish clear mutual support procedures to improve road transportation response mechanisms.

Mid-term ▶
- Establish an emergency response information platform
  - Allocate and manage professional response personnel and self-defense fire group
  - Inspect and manage response equipment on a regular basis
  - Manage operational procedure and response procedure drills for various emergency situations
- Strengthen the response capabilities for accidents during transportation; include CCPG, transportation contractors, and professional response agencies to establish a joint response system that covers hazardous chemicals
- Strengthen response capabilities for incidents occurring within the factory
  - Formulate response procedures for various scenarios for large-scale accidents, so that response personnel will be familiarized with the complex disaster response models.
  - Establish standard procedures for responding to high-risk chemical spill, hold regular exercises to enable personnel to be exposed to the scenarios to achieve the goal of reducing the degree of injury, and incorporate large-scale response drills to improve the overall response plan.

Long-term ▶
- Emergency contingency plans that integrate management for high-risk sections of the production process
  - Continue to research potential risks such as process hazard analysis, incompatible substance analysis, and loss of control over reactions in processes.
  - Integrate the capabilities of external experts and scholars and internal engineering personnel in all fields to create comprehensive response plans.

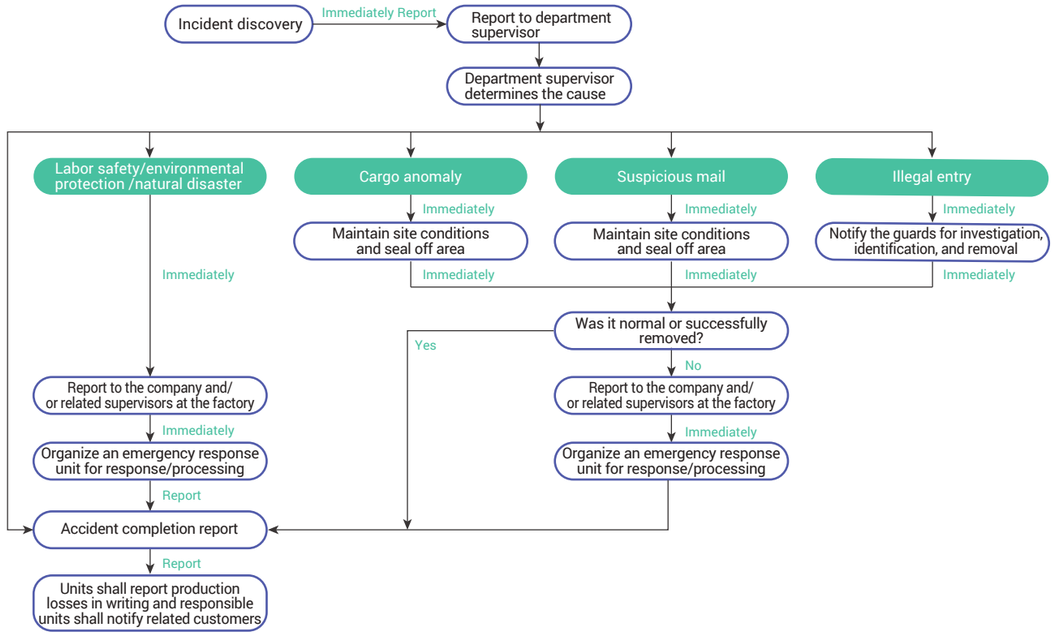
Action Plan
- Invest more than NT$3 million in industrial-academic cooperation for emergency response training each year to build a response network for comprehensive toxic and hazardous chemical substances of concern
- Inspect the coverage status of the fire alarm monitoring system of each factory and cooperate with external experts to review whether the radius of existing fire protection in high-risk areas is sufficient so as to strengthen the factory's independent fire protection capabilities
- Continue to organize training for professional response personnel at all levels and allocate response personnel in all shifts appropriately, to enable a 24-hour response network

2019 Implementation Results
- Completed 18-person emergency response primary seed instructor training, 180-person primary emergency response personnel training, 21-person technical-level response personnel training, and 19-commander-level response personnel training
- Mailiao Factory participated in a public pipeline drill in the Offshore Industrial Park, and completed four tests and a large-scale allyl alcohol response drill without an advance notice
- Kaohsiung Factory served as the leader of the emergency response team at the regional defense organization of underground-piping group 6 of the Kaohsiung City underground industrial pipelines to assist the regional defense organization of underground-piping group 6 in being selected as an excellent underground-piping joint defense organization in the field of underground- piping by the Industrial Development Bureau for two consecutive years.
- Dafa Factory served as the convener of the Chemical Family in the Dafa Industrial Park and held the joint defense organization's underground pipeline demonstration exercise.

Communication/ grievance Mechanisms
- The contact information for the Department of Environmental Protection, fire department, hospitals, and nearby companies of each factory and active reporting mechanisms have been established in the emergency response documents.
- A mobile app has been built to query the SDS function, so that first-line response personnel can quickly confirm the characteristics of the chemicals loaded by truck number and speed up the response process.

Emergency contingency plan procedures

In order to ensure that the accident can be eliminated smoothly, the handling process is pre-set for various accident scenarios, and the emergency response team of each plant hold drills regularly to review the process. Through repeated drills and improvements, we continue to optimize personnel's proficiency and contingency procedures.



Key plans for emergency response drills in 2019

Mailiao Factory—Continue to participate in joint drills of the public pipelines in the No. 6 Naphtha Cracker Complex

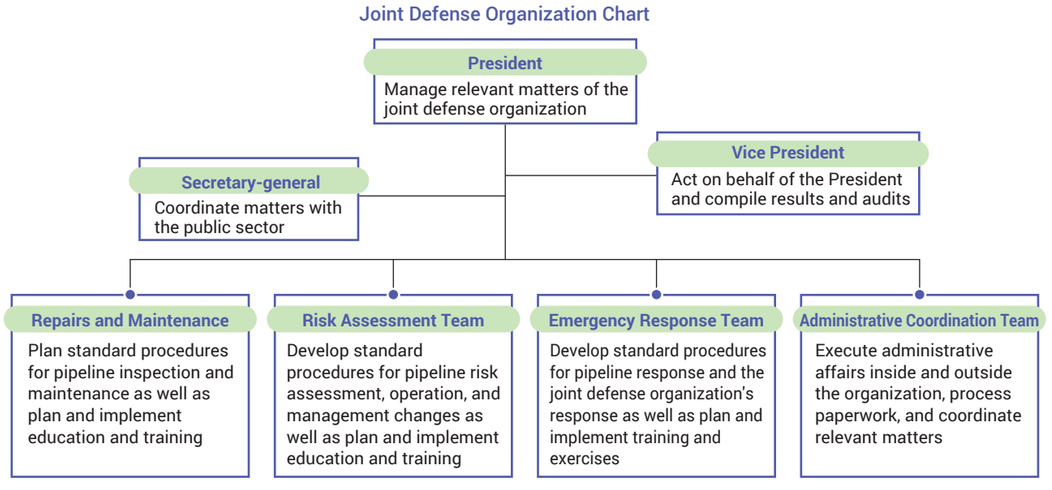
Since the public pipeline of the Mailiao Factory is part of the public pipeline system of the No. 6 Naphtha Cracker Complex in Mailiao. In order to familiarize its employees with the relevant response actions and mechanisms for continuous improvement, since 2017, it has included the fire brigade, and the pipeline team, and relevant response teams in the complex to carry out large-scale joint response drills to build the last line of defense for the safety of the public pipelines and to minimize the impact of accidents. In 2019, CCPG Miaoliao Factory and the Formosa Plastic Group jointly completed four public pipeline drills without an advance notice and a large-scale allyl alcohol response drill.



Emergency response to pipeline transport accidents

We continue to improve the independent management of underground industrial pipelines, comply with the relevant regulations of the authorities, and refer to international standards and regulations, while implementing integrity assessments of pipeline safety and formulate pipeline maintenance and repair plans every year. We manage to ensure the normal and safe transport of raw material fluids through on-site electronic inspection of pipelines, a leak detection system, corrosion potential and closed-interval potential of regular inspection, complete management of regular pipeline thickness measurement, including Intelligent Pig, to prevent pipeline damage and leakage hazards. In addition, through the joint defense organization, public safety awareness and public relations of underground industrial pipelines were established. In 2019, a total of five drills were conducted, including autonomous planning and joint defense emergency response drills for pipelines.

Joint Defense Organization Chart



Dafa Factory served as the convener of the Chemical Family in Dafa Industrial Park, organized industrial safety education and training and the joint defense organization's underground pipeline demonstration exercise to provide occupational safety approaches and response systems for family members' reference and implementation.


Occupational safety education and training


Decontamination process optimization education and training

In 2018 and 2019, Kaohsiung Factory served as the leader of the emergency response team at the regional defense organization of underground-piping group 6 of the Kaohsiung City underground industrial pipelines, coordinating, planning, and handling the emergency response joint defense work in the "underground-piping group 6" for 11 underground industrial pipeline companies (including CPC Corporation, Formosa Plastics Corporation, LCY Chemical Corp, China Petroleum & Chemical Corporation, and USI Corporation) to assist the regional defense organization of underground-piping group 6 in being selected as an excellent underground-piping joint defense organization in the field of underground-piping by the Industrial Development Bureau for two consecutive years.

Kaohsiung Factory (the joint defense organization in the sixth pipeline bundle district) was awarded a medal for the undeground-piping excellent model issued by the Ministry of Economic Affairs, commending its outstanding preparation and performance in response in normal times.



Autonomous drills in the underground-piping group 6


The undeground-piping excellent model issued by the Ministry of Economic Affairs

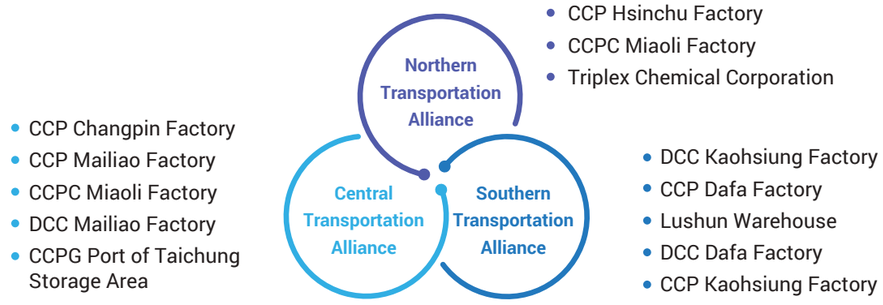
Emergency response to road transport accidents

A broad range of materials and products produced by DCC are transported via road transport to midstream and downstream factories for use. The transportation area encompasses counties and cities in Taiwan. However, chemicals may leak in the transportation process due to natural disasters or negligence in personnel operations that cause transportation vehicles to be overturned or collisions. The incidents could harm other individuals on the road and damage the environment.

In order to prevent this, CCPG conducted 16 evaluations of transport contractors in 2019, to audit their independent safety management. It was hoped that the transport contractors could improve the management of equipment inspection and maintenance, personnel management and training, as well as emergency response preparedness, to reduce the probability of transport accidents.

2019 On-site Evaluation of Transport Contractors

To ensure that leaks of chemicals transported by DCC can be controlled in the event of overturns or leaks on the road within the most opportune period and the affected scope can be effectively reduced and controlled, DCC and all factories of the Group have formed a transportation defense organization to integrate the Group's response capabilities in the northern, central, and southern production factories. In the event of an accident involving chemicals transported by the Company, response personnel in nearby production factories can be immediately sent to provide support, perform collaborated rescue, reduce losses from accidents, and prevent secondary pollution. In 2019, DCC continued to conduct drills for emergency response to road transportation accidents to strengthen personnel's familiarity with various operations.



Defense organization profile

Drill for large-scale leaks from toxic chemical trucks in 2019

In 2019, in response to large-scale leaks from toxic chemical trucks, we continued to strengthen the response and hold multiple drills to familiarize DCC's personnel with the on-site response procedures and personal protection priorities in the event of large-scale toxic chemical leaks, while strengthening the functions of commanders and safety officers, to enhance the control of personnel safety and emergencies.

Personnel conducted environmental inspections and divided the hot and cold areas

After the leakage situation was addressed, the environment was restored to normal.

The decontamination of personnel was completed properly to ensure the safety and health of response personnel

DCCM—Assisting transport tank trucks in enhancing emergency response measures

To enhance the local presence, DCCM cooperated with the local transportation company Interway Transportation to execute an emergency response drill; as such, the local contractors could understand DCC's emergency response procedures and enhance the efficiency of communication between the two parties.

1.4 Sustainable Supply Chain Management

Management approach to "Supplier management"

Significance of Material Issues

Suppliers are DCC's strategic partners for improving products and services as well as important stakeholders for implementing corporate social responsibilities. DCC adopts and implements a sustainable supplier policy to effectively manage suppliers, grow with suppliers, and achieve the goal of sustainable development.

Policies

- Procurement business ethics and respect of human rights
  Supplier Management System
- Legal Compliance and Local Care
- Green procurement and circular economy

Target

- Supplier Code of Conduct promotion—Obtain signatures from 100% of suppliers by 2020
- Supplier Declaration of Conflict-Free Minerals promotion—Obtain signatures from 100% of suppliers by 2020.
- Implementation of the CSR risk assessment of sustainable suppliers— Complete the on-site CSR audit of main raw material suppliers by 2022.
- Obtain at least 50% of procurement from local suppliers in the projects

Action Plan

- Supplier Code of Conduct promotion
- Supplier Declaration of Conflict-Free Minerals promotion
- Implement Supplier Social Responsibility Risk Assessment
  - Establish the Supplier Social Responsibility Assessment Questionnaire
  - Complete questionnaire survey and statistics on main materials suppliers and implement onsite audits on high
  - risk suppliers.

Implementation Results in 2019

- Promotion of Supplier Code of Conduct (new version)
  - Obtain signatures from 100% of suppliers in contract transactions/B2B system in Taiwan.
  - It is expected to obtain signatures from 100% of foreign suppliers in Taiwan by 2020
  - It is expected to obtain signatures from 100% of suppliers overseas by 2020
- Supplier Declaration of Conflict-Free Minerals promotion
  - Obtain signatures from 100% of suppliers in contract transactions in Taiwan.
  - It is expected to obtain signatures from 100% of foreign suppliers in Taiwan by 2020
  - Obtained signatures from all suppliers in foreign regions.

Communication/ grievance Mechanisms

- Continue to maintain communication with external suppliers and provide assistance and policy promotion for internal employees.
- Grievance mechanism: Complaint mailbox ccpgaudit@ccp.com.tw

In accordance with CCPG's Sustainable Supplier Policy, the management can be divided into four aspects: business ethics and respect for human rights, supplier management system, legal compliance and local care, and green procurement and circular economy:

Green Procurement and Circular Economy
- Packaging Reduction and Cycle Management

Supplier Management System
- Management of Raw Materials Suppliers
- Transportation Service Provider Management
- Authorized Economic Operator
- Contractor Management

Procurement Business Ethics and Respect for Human Rights
- Supplier Code of Conduct promotion
- Ban on purchases of conflict minerals
- Procurement personnel accountability education

Legal Compliance and Local Care
- Local Procurement
- Compliance with local regulations

1.4.1 Procurement Ethics

Supplier Code of Conduct promotion

To continue to improve the corporate social responsibilities of the supply chain partners, DCC educates all suppliers on issues such as labor rights, human rights issues, business ethics, and conflict minerals. Suppliers should complete the signing process during the establishment of contracts or agreements for transactions. In 2019, it was further prepared in both Chinese and English versions. Meanwhile, the aspect of "compliance" was added for raw material suppliers; the international norms of chemical substances were included in the new Supplier Code of Conduct, and the content includes:

(1) Chemical substances are subject to specific national regulations.

(2) Hazardous substances restricted by the EU's RoHS2 Directive and the substances specified in the Montreal Protocol shall not be supplied or the amount of supply shall be below the specific requirements.

(3) The REACH regulations and registration obligations shall be observed.

This has made the Supplier Code of Conduct more complete. The current status of the signing of the Supplier Code of Conduct is as shown in the table below. It is expected to obtain signatures of 100% of the Group's suppliers by 2020.

Current Status of the Signing of the DCC Supplier Code of Conduct

Year	Region	Factory	Implementation status
2019 (New Supplier Code of Conduct)	Taiwan	Taipei Office and factories in Taiwan	■ Obtain signatures from 100% of suppliers in contract transactions/B2B system in Taiwan. ■ Obtain signatures from 100% of foreign suppliers in Taiwan by the end of 2020.
	Overseas	DCCJS	84.5%
		CCDPJ	100%
		CCDSG	100%
		DCCM	42.4%

Note: Goal—the signing is expected to be completed by the end of 2020.

Ban on purchases of conflict minerals

DCC's basic policy for conflict minerals used by suppliers are as follows:

- ⊕ No conflict minerals have been used as production materials in any of DCC's products
- ⊕ Mailiao Factory, Kaohsiung Factory, DCCJS, and CCDSG use precious metal as the catalyst in the production process. In addition to the metals they own, they obtain other necessary metals through leases and they recycle the metals after use. They also work hard to reduce the loss rate in recycling and to minimize the consumption rate of resources.
- ⊕ DCC requests all precious metal lease service providers to submit declarations stating that they do not use conflict minerals.
- ⊕ For other materials and equipment suppliers, the statement is included in the DCC Supplier Code of Conduct and the signature is completed through standard form contracts or files created for suppliers.

Procurement personnel accountability education

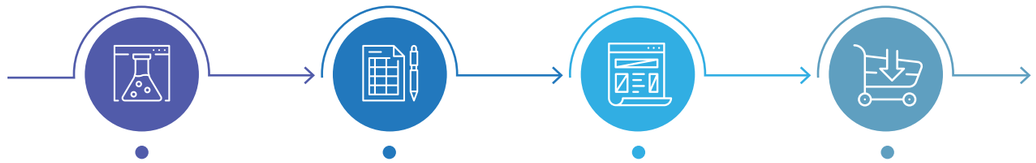
In addition to procurement strategies for suppliers, we believe that first-line procurement personnel who communicate with suppliers must be educated on corporate social responsibilities. In addition to providing education and training on corporate social responsibilities for new procurement personnel, we seek to develop basic ideas and help them understand the Group's CSR Policy. After becoming official employees, the CSR Team regularly uses the Group's e-learning education and training platform to organize courses on other relevant topics and continue to strengthen procurement personnel's CSR awareness.

Compliance with local regulations

To meet the EU's REACH and RoHS regulations and reduce the impact of chemicals on the ecology, DCC has established a set of chemicals management mechanisms based on the characteristics of the products (refer to 1.3.1 Chemicals Management for the management regulations) and required materials suppliers of relevant products to provide the following information for review:

- ⊕ 100% signing of the environment and substance management protocols for REACH/RoHS regulations in the DCC Supplier Code of Conduct.
- ⊕ Provide ICP-AES test data for testable substances or analysis reports from third-party certification institutions (e.g. SGS) on the 10 hazardous substances specified in RoHS.
- ⊕ Provide SDS

DCC Environment and Substance Management Procedures



1.4.2 Supplier Management System

DCC aims to continuously improve suppliers' management system and requirements to reduce their quality, environmental protection, safety, and social risks, thereby reducing their CSR risks.

DCC's supplier management system is explained as follows based on the three categories of the main raw materials, transportation service providers, and contractors:

Management of Raw Materials Suppliers

The Company's management regulations of raw material suppliers are as follows. In 2019, the total number of DCC's main qualified raw material suppliers were 159, including 12 in Taiwan and 147 overseas (the number of qualified suppliers was counted by each company in the Group. If a supplier was a qualified supplier in two companies under the Group, it would be counted into the number of the suppliers of each of the companies separately.)

Supplier Type	Management Regulations
New suppliers	■ Meet quality, environmental, health, and government regulations ■ Obtain ISO 9001 or other quality system certification ■ Quality assurance, production, and procurement departments form an assessment team to conduct on-site evaluation tasks on new suppliers. Those that meet requirements become qualified suppliers. ■ Disqualified suppliers are notified of the reasons for disqualification and they may reenter the assessment process after they make improvements.
Existing suppliers	■ DCC compiles the delivery records of products from suppliers to each factory in the previous year and evaluates suppliers based on the quality, environment, services, and integrity of delivery documents. ■ Suppliers with higher ratings will see increases in the frequency of DCC's purchases in the current year. No purchases shall be made from disqualified suppliers in the current year. ■ DCC arranges annual supplier audit plans to assess the suppliers' quality system, supplier management, materials delivery, production management, and environmental safety management.

Note: The aforementioned guidelines may differ due to different local regulatory requirements and regulations for operations.

● **Corporate social responsibility risk assessment of the main raw material suppliers**

In addition, based on the risk assessment of corporate social responsibility, DCC began to investigate the main raw material suppliers' disclosure status of CSR information in 2018, and completed its first CSR risk survey in 2019. The assessment method is as follows:

Supplier	The main raw material suppliers whose total supplies account for more than 70% of total raw material purchases after the amounts of the main raw material purchases in the previous year (calculated separately by each company) are sorted.
Assessment Content	■ The first stage: To understand the main raw material suppliers' public disclosure status of CSR information, and those who actively disclose CSR information and declarations are listed as low risk. ■ The second stage: For suppliers with a low level of CSR information disclosure in the first stage, a CSR risk questionnaire will be issued to investigate the suppliers' implementation results in the aspects of quality/safety/environmental protection/human rights/society, and the suppliers shall submit supporting evidence. The suppliers' CSR risk level will then be determined according to the questionnaire survey results.
Survey frequency	Once every three years
Assessment disposal	After a two-stage assessment, medium- and high-risk suppliers will be planned to be included in the on-site audit in three years, and through field visits and exchanges, they will be provided with suggestions for various aspects and be requested to make improvement within a deadline to track the effectiveness.

Through the CSR risk assessment procedures for the above-mentioned main raw material suppliers, the 2019 survey results are as follows:

Statistics on CSR policy risk survey og main raw material suppliers by DCC

Company/ Factory	Number of suppliers surveyed	Number of suppliers disclosing CSR report	Number of suppliers distributing CSR questionnaire (number of suppliers)	Low risk (number of suppliers)	Medium risk (number of suppliers)	High risk (number of suppliers)	Low risk (percentage)
DCC	14	14	0	14	0	0	100%
DCCJS	4	4	0	4	0	0	100%
CCDPJ	41	15	26	25	1	15	61%
CCDSG	19	19	0	19	0	0	100%
DCCM	10	9	1	9	0	1	90%
Total	88	61	27	71	1	16	81%

The results showed that 81% of the Group's main raw material suppliers were aware of CSR and have taken proactive actions. A few high-risk suppliers were limited by the size of their companies and the resource constraints; DCC would develop on-site audit plans for guidance and in-depth review. An audit project is expected to be completed by the second quarter of 2022 to reduce its CSR risk in supplier management.

Transportation Service Provider Management

DCC also regards transportation and logistics as a part of product quality. The management regulations on transportation suppliers are as follows. In 2019, DCC had 75 qualified transportation suppliers, including 49 in Taiwan and 26 overseas.

Supplier Type	Management Regulations
New suppliers	■ ISO 9001 certified (Taiwan) ■ AEO certified (Taiwan; only for import/export) ■ Obtain relevant transportation licenses for controlled chemicals in accordance with regulations. ■ Vehicles equipped with GPS equipment (Taiwan) ■ Investigate contractors' safety, health, driver, vehicle safety, and vehicle and equipment maintenance systems as well as their implementation status.
Existing suppliers	■ The status of the previous year is evaluated based on the satisfaction survey filled out by the cooperating unit and suppliers with poor performance will be required to implement improvement plans for verification. ■ Suppliers are graded based on the annual satisfaction survey results and those who fail to reach standards will not be appointed.

Note: The implementation highlights above and management regulations will be slightly different due to the requirements of the local laws and regulations of the companies in each region, or the characteristics of the goods transported.

In order to evaluate whether the transportation suppliers, who carry the products purchased or sold by DCC, meet CCPG's requirements, so as to reduce transportation risks and improve the transportation quality, on-site assessment procedures have been established. In 2019, DCC performed audits of a total of 16 transportation suppliers in Taiwan and 7 overseas; 100% of transportation suppliers have passed the assessment. Take Taiwan as an example, the assessment rules are as follows:

Supplier	Frequency	Assessment Content
Newly developed transportation supplier	■ Suppliers who are qualified based on the management procedures above and operate on a trial basis for one year.	Assessment items include: 1. Management 2. Safety, health, environment, and security 3. Supply chain management and subcontracting 4. Equipment 5. Security during transportation (safety) 6. Operating procedures and points of contact for clients 7. Order processing and operation 8. On-site inspection
Original transportation supplier	■ Routine assessment: Conduct assessment once every one to three years according to the level. ■ Level C and above: Issued with a certificate and continue to be appointed. ■ Level D: Improve within a time limit and will be re-evaluated after six months.	
	■ Temporary evaluation: Whenever there is an abnormal situation during the year.	
	■ Survey of satisfaction with transportation companies: Completed by the cooperating factories every year.	Assessment items include: 1. Coordination capability 2. Equipment and operations 3. Relevant laws and regulations 4. Abnormal incident

Note: The aforementioned guidelines may differ due to different local regulatory requirements and regulations for operations.

In addition, to improve the evaluation system for qualified suppliers, DCC began planning a new management system for operations in Taiwan in 2018 with a reference to the Road Safety & Quality Assessment System (RSQAS), which is expected to be completed by 2020.

● Authorized Economic Operator (AEO)

DCC's all factories in Taiwan and CCDPJ have obtained AEO certification. They have included raw material and transportation suppliers into business partner management procedures, reviewed business partners' safe operating procedures and facilities regularly or at any time, and ensure their safety standards meet the requirements to reduce the risk of logistics security.

Contractor Management

DCC requires contractors to comply with local regulations and be responsible for providing insurance coverage and ensuring the safety of employees or contracted personnel. In addition, the Company's factories clearly define contractor regulations and penalties, manage the behavior of contractors' personnel at the factory effectively to maintain the safety of the factory's operations. The management regulations for contractors are as follows. In 2019, DCC has a total of 512 qualified contractors, including 371 in Taiwan and 141 overseas.

Supplier Type	Management Regulations
New Contractors	■ Content of the "profit-seeking enterprise registration certificate" ■ Qualification certifications required by related industries or governments ■ Qualifications and licenses of related personnel ■ Labor insurance or accident insurance required by local governments ■ Factory safety and health training for contractor personnel
Existing contractors	■ CCPG periodically verifies related qualification certifications of various contractors and the validity period for personnel training ■ CCPG established and announced related penalties and requests contractors to pay fines for violations ■ Contractors with severe violations or those that fail to implement improvement measures shall be suspended

Note: The aforementioned guidelines may differ due to different local regulatory requirements and regulations for operations.

DCC provides labor safety and health education courses to each worker who enters a DCC factory for operation. Only individuals who have completed the training thoroughly are permitted to work in the factory. If individuals need to enter the factory again after the validity period of the training course expires, they shall be required to take the training course again. In 2019, DCC trained and tested 7,098 persons employed by contractors. The statistics on the number of persons trained are as follows:

Number of Hours of Training Provided to Contractors by DCC in 2019

Training hours	6,525	326	Total 6,851
Number of persons at the end of the year	6,767	331	Total 7,098
Average hours	0.96	0.98	Total 0.97

Note 1: DCC Changpin Factory and CCDSG's contractor training was held together with CCPC Changpin Factory and CCSG; therefore, the data was calculated together.
Note 2: Please refer to Appendix A for details of each factory in 2019

1.4.3 Local Procurement and Circular Economy

Local Procurement

DCC prioritizes local companies in the country where each factory is located for procurement in the process of outsourcing expansion or annual preventive maintenance projects with the aim of achieving co-prosperity and development together with local enterprises while the requirements for quality and cost are met. The total procurement amount from the local companies in the country where each factory is located accounted for more than 50% of the Group's total procurement amount in 2019.

Packaging Reduction and Cycle Management

DCC materials and products require a diverse range of packaging materials and transportation methods. DCC continuously evaluates suitable transportation and packaging methods for its various units, suppliers, and customers to achieve the purpose of environmental protection while meeting customers' requirements. The improvements can be divided into two categories:

A. Recycling packaging materials with customers/suppliers (including procurement within the Group)

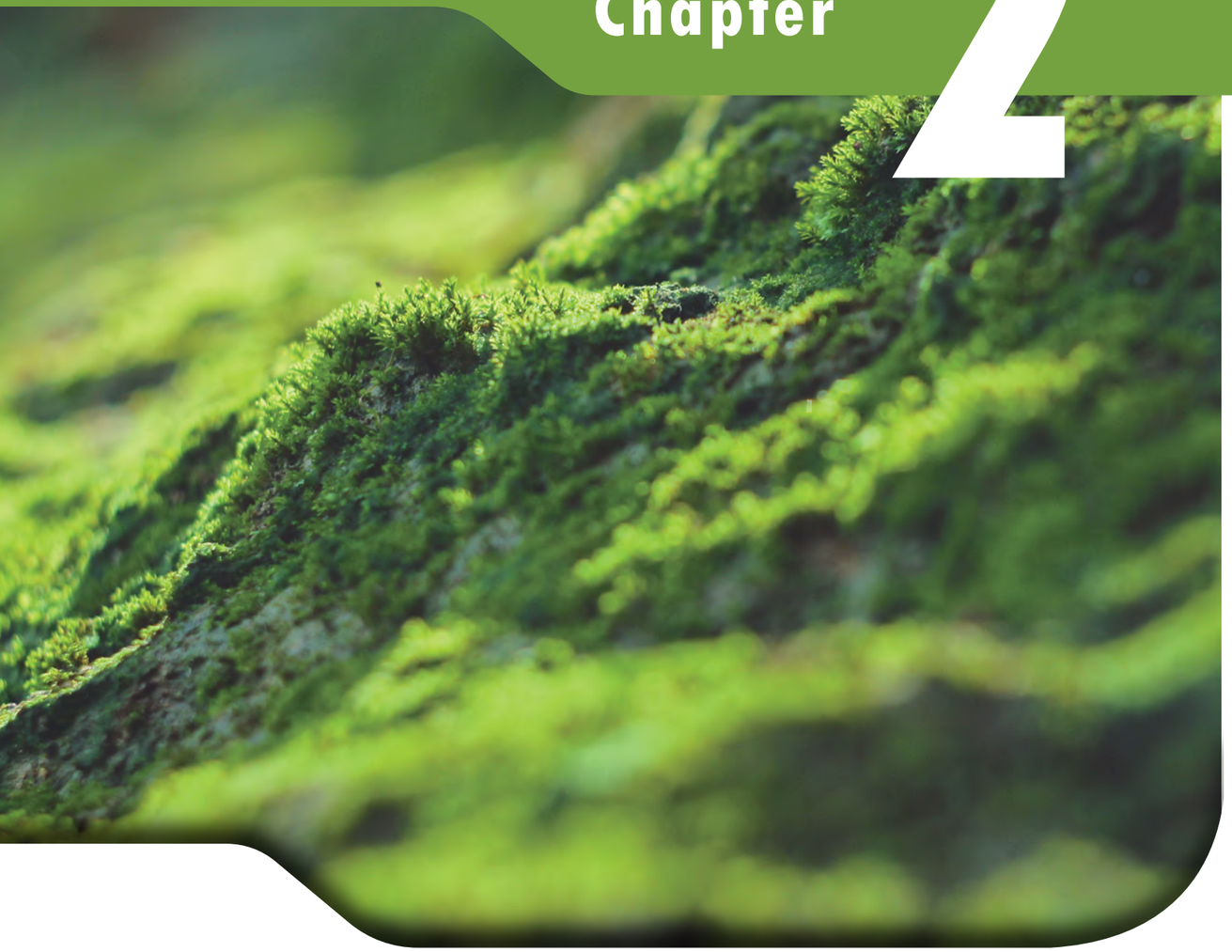
B. Convert to recyclable (repeated use) materials

Summary of Packaging Materials Reduction and Cycle Management Results in 2019

Improvement Type	Region	Targets	Packaging Materials/Implementation Method	Annual Recycling (Reduction) Quantity
A	DCC	Group	Recycling of iron barrels for finished products	1,248
			Recycling of PE barrels for finished products	17,684
			Recycling of bulk bags for finished products	2,480
	CCDSG	Group enterprises	Recycling of pallets	28
B	DCCJS	Customers	Reuse of IBC	2,500
	CCDSG	Group enterprises	Plastic containers changed to IBC containers	112

The safety of packaging must be considered as we promote recycling and reduce packaging materials to ensure proper storage of products in the transportation and storage process. Therefore, we will continue to seek innovative packaging materials or transportation methods. Meanwhile, DCC shall improve factoring unloading, transportation and storage equipment, and automation to reduce the use and consumption of packaging materials and achieve environmental protection goals.

Chapter 2



Low-Carbon Sustainability

Highlight Performance

84 energy conservation projects

A total of 84 energy conservation projects in 2019 with a cost of NT$380 million reduced in total

Introduction of TCFD

Introduction of Task Force on Climate-Related Financial Disclosures (TCFD): Focused on five major climate-related risks of DCC

Investment of NT$490 million

Invested NT$490 million in environmental protection in 2019

Generation of 480,000 kWh through solar power per year

DCCM solar renewable energy facilities generated 480,000 kWh per year

CO_2 capture technology

Dafa Factory and the National Tsin Hua University jointly developed and built CO_2 capture technology

Won the High Distinction Award in the Industrial Group of the Water Conservation Counseling and Improvement Rewards

Dafa Factory won the High Distinction Award in the Industrial Group of the Water Conservation Counseling and Improvement Rewards of the Water Resources Agency of the Ministry of Economic Affairs

Among all the industries, the chemicals industry has always been regarded as an energy-intensive industry with high environmental risks. It is our basic mission and goal as a sustainable producer to minimize the impact of DCC's daily operations and processes on the environment while fully implementing environmental protection measures in all factories and for all employees. Through environmental cost accounting that combines products and finance, we will continue to improve the evaluation of product costs; meanwhile, we will prepare for the future carbon pricing trend and implement DCC's commitment to environmental protection.

2.1 Environmental Protection Strategy

DCC deeply understands that enterprises should not only pursue profits but also perform their corporate social responsibilities. CCPG has therefore listed "environmental protection" as a top priority and we firmly believe that the implementation of a sound management system can improve the environment and contribute to people's wellbeing.

DCC follows CCPG's environment, safety, health, and energy policies, and its management objective is to meet or exceed the standards of laws and regulations while implementing relevant environmental protection measures. To achieve this goal, the factories shall continue to improve waste recycle and production efficiency in order to reduce the level of pollution generated in the production process. It shall also invest in pollution prevention and process improvement equipment in order to implement optimal feasible measures for equipment maintenance, repairs, replacement, and installation and achieve sustainable development goals.

Environment, Safety, Health and Energy Policy Statement

Each factory of DCC has introduced an environmental management system (ISO 14001) to ensure that the factory's emissions and waste disposal in the production process are in compliance with legal regulations, and to manage and respond to material environmental issues. With ISO 9001 and OHSAS 18001 introduced, the three aspects of environment, occupational safety and health, and quality are managed in an integrated manner to create maximum benefits. This year, the ISO 50001: 2018 energy management system was introduced to identify the energy equipment of each factory and establish energy indicators, and continue to promote energy conservation and carbon reduction activities. Please refer to 4.2 Stakeholder Communications for relevant complaint mechanisms.

Environmental Protection Commitment

In order to implement the concept of sustainable operation in a consistent manner, in 2019 DCC's environmental protection-related expenditures and environmental protection project investments (each project established in the amount of NT$1 million or more) were NT$380 million and NT$110 million, respectively. We continued to invest in additional equipment to reduce the impact of the production process on the environment.

Implementation of Green Accounting

In order to clearly summarize the Company's environmental protection expenditures, DCC continued to support and cooperate with the green accounting promoted by CCPG. The implementation process is as follows:

August 2006
CCPG started receiving guidance from Environmental Management Accounting Network-Taiwan (EMAN-TW) starting with CCP's Kaohsiung Factory and gradually promoted the guidance to the entire Group.

April 2009
CCPG officially launched measures to match accounts with environmental coding for purchase applicants or accountants to enter the environmental code of the environmental protection expenditure to the system to generate various environmental protection expenditure statements.

2017
CCPG simplified the environmental protection codes and made them more practical. The accounts are automatically numbered with the environmental codes by the account system. In 2017, CCPG has 100% introduced green accounting.

2018
in response to the Greenhouse Gas Reduction Act and the Group's green accounting policies, the Group has added calculations for the carbon emissions reduction/carbon cost and compiled analysis reports for reference to senior executives.

Environmental Cost Benefit Assessment

In response to trends in environmental protection regulations, we have conducted internal assessments on the cost of carbon to facilitate overall carbon asset management for the future. At the same time, we have also evaluated investments on pollutant prevention equipment and other capital expenditures to reduce the impact of products or processes on the environment and improve the management of environmental costs. Singapore has implemented a carbon tax in 2019 and China will price greenhouse gas emissions. We regard greenhouse gas emissions as part of future financial management and environmental costs. DCC will include carbon emissions and carbon cost-benefit analysis for new investment or expansion of production lines, and DCC HSE Division will conduct environmental cost-benefit assessments from the perspective of carbon emissions management for the Company.

Legal Compliance

DCC has reviewed the deficiencies of each case, and has put all the cases on record and completed improvement and tracked the progress accordingly. In addition, it has established the Laws and Regulations Identification Method since 2017, which covers advance notices of Taiwan's environment, safety, and health regulations, identification of compliance with changes in environment, safety, and health regulations, identification of environment, safety, and health regulations that have an impact for response to target management, periodic evaluation of license compliance, regulatory inquiry, audit result notification and implementation, and identification of regulations related to the process for centralized management and audit. The execution units of this method are the heads of the safety and health departments of various companies (factories) and the supervisors at the production departments. This aims to reduce the number of fines by 80% in the mid- and long-term. However, the Group had no cases of water resource, soil, or groundwater pollution in 2019. "Zero pollution ticket" is our ultimate goal to be responsible for the community residents and the surrounding environment.

Table of the number of environmental violations and amount of fines from 2018-2019

Unit: NT$10 thousand

Item/year	2018		2019	
	Number of Cases	Amount	Number of Cases	Amount
Air pollution	3	30	3	30
Waste pollution	0	0	2	54.7
Total	3	30	5	84.7

Note 1: The incidents disclosed here are mainly deficiency cases over NT$100,000.
Note 2: The remaining pollutants not listed in this table represent no violations during the years.
Note 3: Please refer to Appendix B for detailed information of each factory in 2019.

2.2 Response to Climate Change

DCC adopts active management and positive engagement attitudes on climate change as well as energy conservation issues and risks. We organize energy conservation and carbon reduction meetings each month to adjust the implementation of energy conservation and carbon reduction measures and keep following up on the effectiveness. With regard to the management plan, the CCPG HSE Division periodically obtains information, tracks changes in related regulations, and provides responsive measures. It also conducts an inventory of greenhouse gases each year to verify the energy conservation and carbon emissions reduction effects of the current year and submit the plan for the next year for implementation.

2.2.1 Energy Conservation and Carbon Reduction Action

DCC follows CCPG's promotion of energy conservation and carbon reduction, and continues to implement energy conservation and carbon reduction measures, improve energy efficiency, as well as strengthen energy and greenhouse gas management, to reduce the impact on the global environment and the climate.

CCPG Energy Conservation and Carbon Reduction Advancements

The Group established the energy conservation and carbon reduction implementation unit in 2018 and established a goal for the Group of reducing unit energy consumption by 3% each year. During the implementation period, the Company reviews energy and water consumption reduction measures each month and complies with the government's relevant policies for energy conservation and carbon emissions reduction in all factories.

In 2019, CCPG held a total of 12 energy conservation review meetings. Through the discussion at the meetings, each factory could effectively learn the methods and implement them accordingly at the factory, to continue to promote various energy conservation measures, reduce energy costs, and reduce greenhouse gas emissions. Fulfilling the corporate social responsibility is the goal toward which all employees of the Group should strive.

In 2019, DCC implemented a total of **84** energy conservation projects, and the cost reduced amounted to NT$**380** million.

Water saving benefit
796,926 tons/year

Steam-saving benefit
496,361 tons/year

Electricity saving benefit
10,367 thousand kW h/year

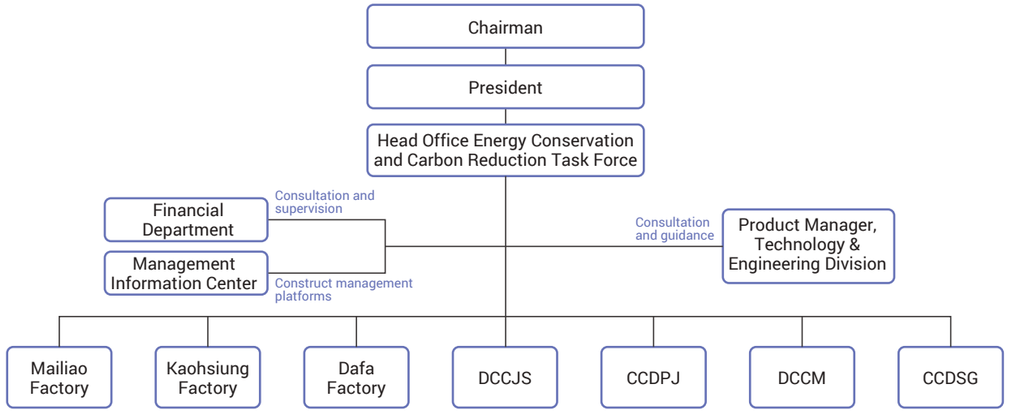


Energy Conservation & Carbon Reduction Promotion Meeting

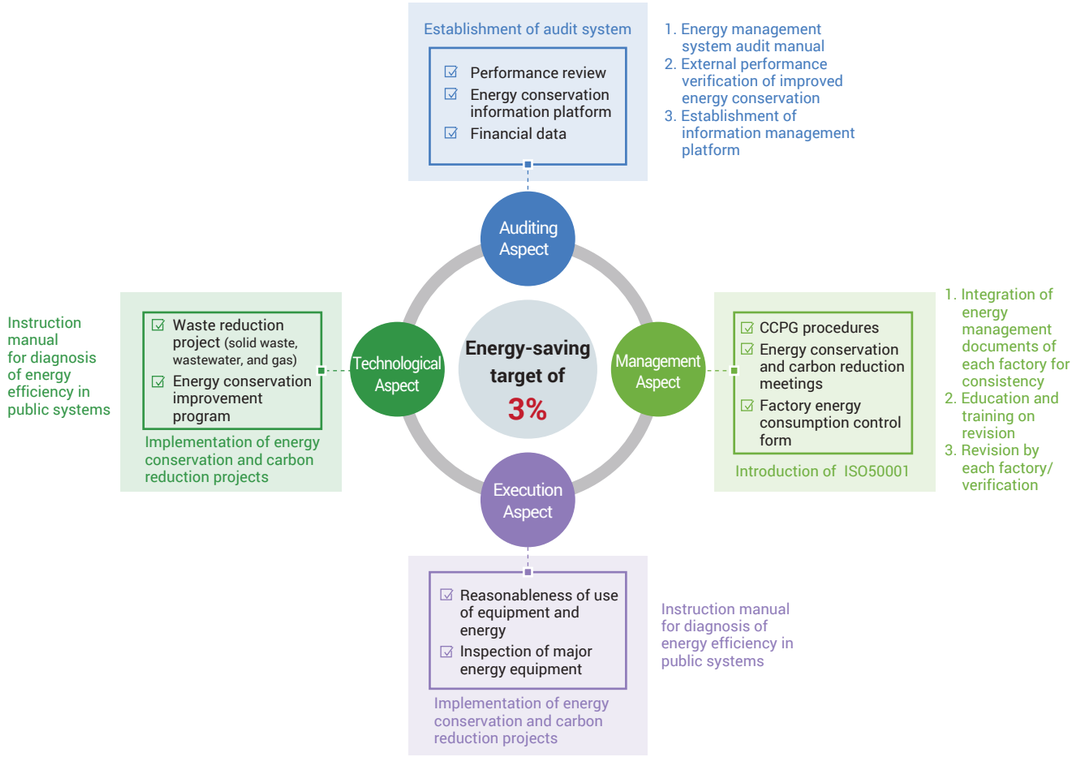
Energy conservation implementation strategy

- Formulate water, steam, and electricity saving measures for all factories.
- Establish carbon reduction and reduction performance management to facilitate follow up inspections.
- Advance energy conservation and carbon reduction education and communication to promote energy conservation and carbon reduction concepts for factories.
- Plan and implement optimization of process systems; develop renewable energy.

Energy Conservation and Carbon Reduction Organization Structure



DCC's commitment to energy conservation and carbon reduction



Introduce the ISO 50001 Energy Management System to Factories

In order to effectively manage energy use and improve energy efficiency, DCC focused on energy management issues and further enhanced the Company's excellent environmental protection, safety, health, and energy image so as to respond to the daunting challenge facing energy management in the future.

In 2019, the Company's energy conservation and carbon reduction team implemented a series of energy conservation and carbon reduction activities. Through four levels of management, execution, technology, and audit, a strategy map was developed, with the aim of strengthening employees' energy saving and carbon reduction capabilities at each factory. Meanwhile, the Company introduced ISO 50001 energy management system, and actively applied for the Energy Management Guidance Program of the Industrial Development Bureau, Ministry of Economic Affairs. Through the establishment of a PDCA (Plan-Do-Check-Action) mechanism and guidelines and methods, it is expected that comprehensive third-party certification will be obtained in 2020.

Solar power cloud monitoring system of DCC Malaysia Factory

DCC Malaysia Factory started to plan the evaluation and design of solar roof in 2019, to build solar power generation equipment on the roof of the warehouse of the factory in an area of around 2,736 square meters. It is expected to build a total of 920 solar modules with the installed capacity of 360 KWp per year, and the power generation capacity is roughly 480,000 kW h a year.

Clean Production Process of CCDPJ

CCDPJ's polytetramethylene ether glycol (PTG) and 1,4-butanediol (BDO) officially passed the clean production audit led by the Ecology and Environment Bureau of Panjin in 2019, and it rated our factory's BDO/PTG process at the clean production level II standard, which was an advanced level in China. A total of NT$6 million has been invested to improve, and the results are as follows:

In 2019, water consumption was reduced by 90,330 tons/year, electricity consumption by 4.3337 million kW h/year, steam consumption by 62,315 tons/year, loss of BDOH by 1,440 liters/year, hydrogen peroxide consumption by 369 tons/year, methanol consumption by 1,150 tons/year, and the unorganized emissions of BDO were reduced. The benefits created were increased output and production efficiency. The Company's complete system management has improved employees' awareness of cleaner production and achieved great economic and environmental benefits.

盘锦市生态环境局文件

盘环发〔2019〕309号

关于长连化工（盘锦）有限公司清洁生产审核评估意见的通知

长连化工（盘锦）有限公司：

盘锦市生态环境局于2019年12月12日组织召开了长连化工（盘锦）有限公司清洁生产审核评估会，会议邀请两名专家进行技术评估，会后，企业已将审核报告按照评估会议形成的专家意见修改完善，经专家复核基本达到要求，经研究，意见如下：

一、基本情况

长连化工（盘锦）有限公司成立于2011年1月，位于盘锦市辽东湾新区，是由大连化学工业股份有限公司、长春人造树脂厂股份有限公司和长春石油化学股份有限公司共同出资组成的子公司，目前生产建有一套15万吨/年的1,4-丁二醇（BDO）装

-1-

CCDPJ Cleaner Production Process Certification

CO_2 capture technology at Dafa Factory

Dafa Factory adopted innovative technology and worked with National Tsin Hua University to jointly develop carbon dioxide supergravity revolving bed capture technology, and build a carbon dioxide capture trial production plant in the factory area, with the aim of serving as a demonstration device for domestic carbon dioxide capture technology. This technology can capture 100kg-CO_2/day. The future goal is to provide purified CO_2 to the Group for the development of downstream green energy chemicals.

Dafa Factory CO_2 Capture Trial Production Plant

CCDSG Heat Integration Energy Conservation Program

An assessment found that part of the thermal energy was wasted in the synthesis area of the process at the AAL plant of CCDSG, resulting in an increase in the heat load of the cooling tower. New distillation recycling equipment was added to the thermal energy conditions, and the waste heat was integrated into the distillation tower; thus, steam consumption had been reduced by 106,760 tons in 2019, and around 24,885 CO_2 eq tons of emissions were reduced as well.

The Kaohsiung Factory improved the reaction operation model to increase output and reduce electricity and steam consumption

As a result, the Kaohsiung Factory's vinyl acetate-ethylene copolymer emulsion (VAE) process witnessed a 6% increase of the output for each batch through the modification of the reaction model, and the reaction time was reduced to 55% of the original time required. With the cooling system changed from ice water to cooling water to reduce the electricity consumption of the ice water machine, the overall electricity saved was 1,052,530 kW h per year, and the use of heat of polymerization instead of steam for temperature control reduced the overall steam consumption by approximately 3,070 tons per year.

Energy usage statistics from 2017-2019

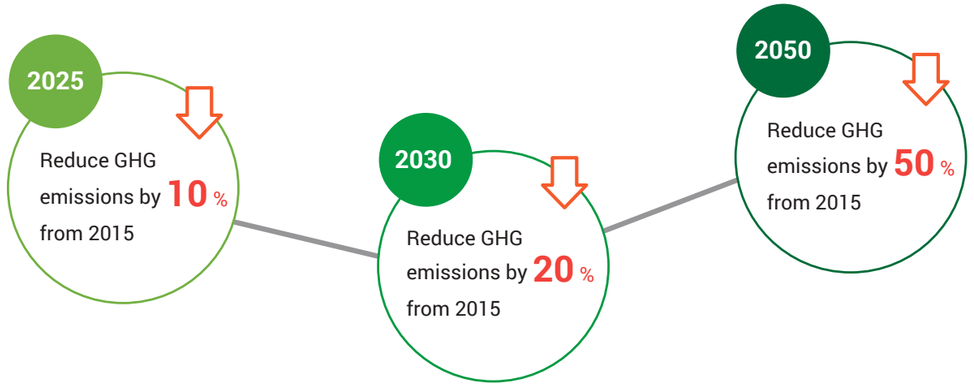
Unit: Gigajoules (GJ)

Item/year	2017	2018	2019
Externally purchased electrical power	3,406,283	3,297,604	3,123,976
Diesel	31,262	32,701	35,637
Natural Gas	1,617,427	1,308,919	1,157,970
Heavy oil/fuel oil	360,547	345,372	276,625
Coal	2,253,519	2,279,707	1,139,438
Externally purchased steam	12,391,173	11,950,723	10,729,371
Steam sold to external parties	26,768	60,340	58,955

Note 1: Please refer to Appendix B for detailed information of each factory in 2019.
Note 2: There is no electricity sold to external entities.

2.2.2 Greenhouse Gas (GHG) Emissions Management

DCC complies with Taiwan's greenhouse gas emissions reduction targets and we have established reduction goals for the Group for the year 2025, 2030, and 2050. We also established short, medium, and long-term GHG action plans to follow up on energy consumption, GHG emissions, and reduction benefits. DCC also uses the monthly energy conservation & carbon reduction meeting organized by the Group each month to review whether the carbon reduction performance of the Company has reached reduction targets. Special teams shall conduct evaluations and improvements for factories that failed to reach reduction goals.



Every year from June to August, DCC's factories in Taiwan commission a third-party certification unit to perform audit of ISO 14064-1 greenhouse gases, obtain the audit statement issued by the third-party certification unit, and register relevant reports on the national greenhouse gas registration platform before the end of August according to the requirements of laws and regulations.

The Company's factories in China conduct annual inspection of greenhouse gases in accordance with the China Chemical Engineering Production Business Greenhouse Gas Emissions Calculation Method and Reporting Guidelines. The Company will continue to promote energy conservation and carbon reduction activities to reduce greenhouse gas emissions. For details, see 2.2.1 Energy Conservation and Carbon Reduction Action.

DCC's greenhouse gas emissions from 2017- 2019

Unit: kt CO_2e

GHG Type	2017	2018	2019
Direct GHG emissions (Scope 1)	530	553	452
Indirect GHG emissions (Scope 2)	1,848	1,999	1,919
Total volume of emissions	2,378	2,552	2,371
Net sales (NT$ million)	64,876	72,006	56,843
Greenhouse gas emissions per unit of sales (kt CO_2e/NT$ million)	0.037	0.035	0.042

Note 1: GHG emissions in Scope 1 included carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and hydrofluorocarbons (HFCs). No other gases were emitted.
Note 2: GHG emissions in Scope 2 included carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). No other gases were emitted.
Note 3: The inspection of greenhouse gases at DCC's factories includes statistics of Scope 1 and Scope 2 GHG, which are reported to the Environmental Protection Agency, and GHG under Scope 3 are not inspected.
Note 4: For the data of overseas factories, the factories in China only inspected CO_2 emissions.
Note 5: Please refer to Appendix B for detailed information of each factory in 2019.

GHG Offset Program Application

In 2019, the Environmental Protection Agency confirmed the review and passed DCC Mailiao Factory's "VAM2/VAM3 process heat integration engineering improvement project" for registration in the offset program, and it was expected to offset 14,726 tCO_2e per year. DCC Dafa Factory's "Hot Oil Boiler Fuel Modification," already registered in the offset program in 2014, was audited by a third-party certification unit, and an account for GHG offset was opened accordingly. Based on the certification result, 11,676 tCO_2e of offset credits could be obtained which are still pending approval of the Environmental Protection Agency.

Carbon Cost Management—Establishment of an Internal Carbon Cost System

The Company established its internal carbon cost system based on the information, such as fuel type, electricity, steam, and gases and liquids from the process, and the emission coefficients of the annual greenhouse gas inspection data of each factory. Based on the amortization principle in the financial system, the carbon cost of each product was calculated. Meanwhile, the internal carbon cost information was checked according to the annual greenhouse gas inspection data of each factory to be in line with the actual emissions so as to conduct carbon asset management in the carbon trading market after total volume control was implemented as set out in the future laws and regulations.

2.2.3 Climate Change Adaptation

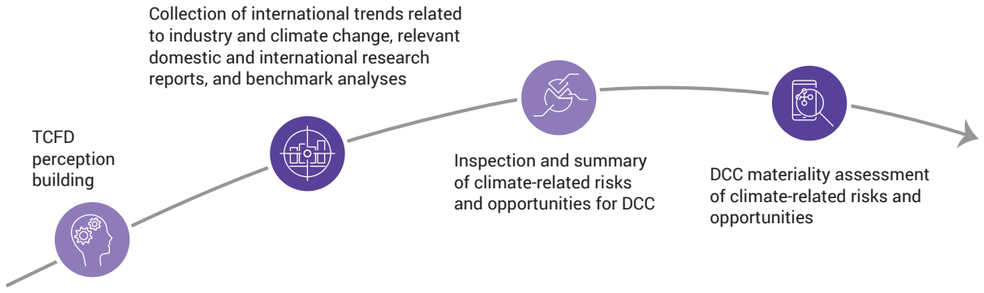
We actively respond to the risks brought forth by climate change and turns risks into opportunities. Factories stored appropriate reserve materials and optimized production schedules to reduce impacts on the production process. They also advanced energy conservation plans to reduce carbon emissions in response to the requirements in the Greenhouse Gas Reduction and Management Act and advances the carbon cost and energy conservation and carbon emissions reduction measures in response to the impact of future carbon taxes.

In addition, we also established early warning measures and standard operating procedures for natural disasters in response to torrential rains, typhoons, and water shortages generated by extreme weather. The establishment of procedures and control of all sorts of updated information effectively integrates execution in factories and decision making in the CCPG Executive Board in Taipei for full control of internal and external conditions.

In 2019, DCC introduced the Task Force on Climate-related Financial Disclosures (TCFD) framework as the guidelines, collected climate change issues from the Company and each factory, and identified the important issues that we believed were affected by climate change. We have formulated strategies to respond to enable employees at all levels to make appropriate decisions and actions at the right time and to implement the strategies effectively to reduce the impact on the Group through the assessment results.

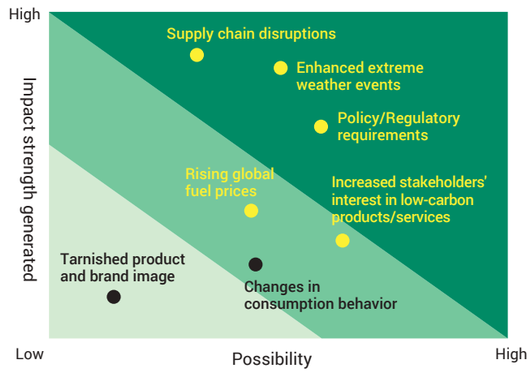
Climate change is an important issue of long-term concern for DCC. In addition to long-term attention to related trends, we will deepen climate change management in 2019. According to the TCFD guidelines, we identified the risk responses and opportunities at each stage of operation of DCC, with the aim of gradually establishing a management mechanism and measurement indicators based on the results identified.

DCC TCFD implementation method

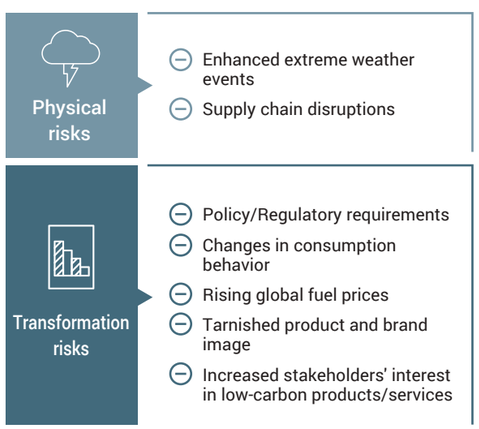


DCC collected and identified 21 climate-related risks that might affect operations, and then sorted the risks into categories. Through the cross-analysis of the probability of occurrence and the degree of impact, the relevant risks were evaluated for the degree of potential impact on economic loss, daily operations of each base, personnel safety, and brand goodwill. The final focus was placed on five material climate-related risks in the aspects of physical risks, regulatory risks, and market risks, namely enhanced extreme weather events, policy/regulatory requirements, increased interest of stakeholders in low-carbon products/services, supply chain disruptions, and rising global fuel prices. In addition, five major opportunities were identified according to the framework suggested by TCFD.

Matrix of DCC Climate-related Material Risks



Note: Enhanced extreme weather events, such as the increase in typhoon intensity, the gradual increase in instantaneous rainfall, and the update of high-temperature records over the years, may cause changes in shipment schedules, damage to plant equipment, and an increase in shipping and delivery cost.



Risks of materiality	TCFD risk type	Risk ranking and description	Response of DCC
Enhanced extreme weather events	Physical risks immediacy/ long term	■ Increase in typhoon frequency/intensity leads to depreciation of production equipment or delay in production scheduling ■ The outdoor fire pipelines of the factory freezes, causing the water in the pipelines to stop flowing ■ Emergency cost increases ■ Heavy rain, flooding, and water shortage around the factory affect operation and safety ■ Weather factors lead to increased costs of storage and transportation of raw materials and finished products ■ Rising sea levels have caused some factories to face the issue of relocation	■ Increase the reutilization rate of water resources ■ Improve equipment efficiency ■ Conduct heat integration in the process to reduce volatile losses ■ Optimize the drainage procedure ■ Adjust facilities at the factory, such as waterproof gates and rainstorm collection pool ■ Strengthen response measures ■ Purchase relevant insurance policies and establish disaster prevention and response organization ■ Strengthen weather condition tracking mechanism and organize drills
Policy/ Regulatory requirements	Transformation risk policies and regulations	■ Increase in fees and taxes related to greenhouse gas emissions ■ Stricter relevant laws at home and abroad and increase in the number of relevant penalties or litigation	■ Increase the ratio of cogeneration power ■ Adopt solar power generation ■ Improve manufacturing process to reduce power consumption
Increased stakeholders' interest in low-carbon products/ services	Transformation risk goodwill	■ Relevant requirements in the environmental aspects of the production process ■ Requirement for announcement of all carbon footprint information and declaration of reductions ■ Requirement for recycling plastics or increasing the use of recycled materials	■ The trend of electric vehicles and the continuous investment in the production of copper foil products ■ Continuous research on the possibility of reducing the impact of processes and product specifications on the environment
Supply chain disruptions	Physical risks immediacy	■ Impact of sudden climatic factors on product delivery ■ Insufficient or interrupted supply of raw materials	■ Invest in circular economy ■ Conduct supplier climate change assessment ■ Strengthen the management of inventory and tracking of shipping schedules
Rising global fuel prices	Transformation risk market	■ Costs related to new equipment, process, or technology research and development ■ Increase in production costs ■ Increase in the cost of raw materials or cost of product transportation ■ Increase in product/waste disposal and recycling costs	■ Adopt energy-saving and high-efficiency equipment ■ Improve manufacturing process to reduce power consumption ■ Research the use of biomass energy

DCC Climate-related Opportunities

TCFD opportunity type	Description
Enhanced energy efficiency of products	■ Purchase high efficiency or carbon reduction equipment ■ Propose an improvement plan according to its own process by each factory ■ Catalyst technology changes may affect yields and by-products ■ Heat integration in the process reduces volatile losses caused by cooling water heat load ■ Adjust the concentration multiple or heat load of the cooling water tower to reduce the amount of water discharged and water to be replenished
Low-carbon energy use	■ Examine the material suppliers who can provide biomass fuel ■ Install solar panels on coal bunker roofs and other areas
Enhanced quality of products and services	■ Keep abreast of the shipping schedule and the inventory of each factory and respond in time ■ Develop odorless, VOC-free, and non-toxic emulsion adhesive, applicable for paper straws, as well as biodegradable materials ■ The emulsion will freeze in case of low temperature, and then it will be changed to powder afterwards to avoid temperature change, or it will be transported and stored early in winter to assist customers in dealing with cold and thermal insulation
New market channels	■ In response to external technological developments, the emergence of new specifications helps to improve procurement plans ■ Conducting supplier climate change assessments can improve the management system and increase customers' confidence ■ Demonstrate efforts in carbon reduction to customers ■ In response to customers' needs for heat-insulating and warm-keeping building materials, coatings products can function as adhesives for customers' products
Enterprise resilience	■ Create checklists and review high-risk items ■ Set thresholds for weather events and formulate inspection around plans to track deficiencies regularly ■ Plan an information exchange platform between factories ■ Discuss the number of risks occurring and severity records regularly ■ Develop emergency response measures and supplier risk diversification measures, supplemented by dynamic tracking of regulations

2.3 Water Resources and Discharge Management

Water resource shortage and environmental destruction are common challenges facing the world, and DCC attaches great importance to environmental protection. We minimize the impact of daily operations and processes on the environment. In terms of water resources, we have integrated the Company's resources and launched multiple projects, including rainwater recycling, reuse of recycled water, and saving water in the process, and strengthening the removal of pollutants in wastewater. In air pollutant emissions and waste management, we have ensured that the declaration conforms to regulations and managed to reduce emissions and waste through relevant equipment so as to achieve the sustainable development goal of DCC.

2.3.1 Water Management

DCC attaches great importance to water resources management issues and continuously improves the efficiency of use of water resources in daily operations. Since 2018, the head office has organized energy conservation and carbon reduction promotion operations and set a target of reducing the original unit water consumption at each factory by 3% each year, while adopting a strategy diagram of efficiency improvement measures with the aim of using water resources effectively in the aspects of management, technological improvement, and data collection.

CCPG's strategic water efficiency improvement plan

- Process
- Cooling tower
- Waste cleaning tower
- Purified water
- Steam

- Establish balanced water consumption diagram
- Meet environmental assessment commitments
- Increase water recycling rate of entire factory
- Increase water recycling rate in process
- Reduce total waste water discharge rate

- Unit equipment water consumption reduction
- Use of alternative water sources
- Economic benefit assessment
- Set up water meters

- Overall water quality analysis
- Recycle water for reuse
- Water conservation in process
- Rainwater collection

Goals for Water Resource Management

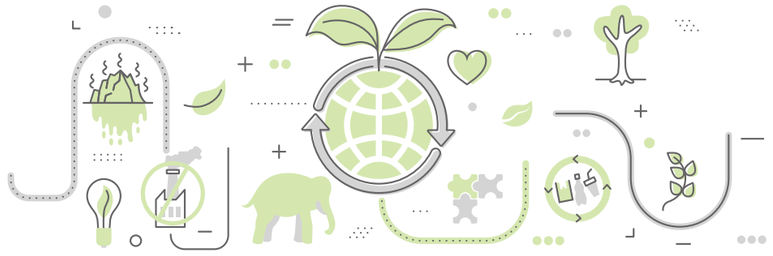
In response to the shortage of water resources, we have established short- and mid- to long-term goals for the management of water resources in order to implement the Company's water usage efficiency improvement measures and continue to optimize the efficiency in the use of water resources:

2016-2019 short-term goals

Completed the implementation of water efficiency improvement measures at Mailiao Factory and Dafa Factory

2019-2029 mid- to long-term goals

Reduce unit water consumption by 3% in all processes at each factory

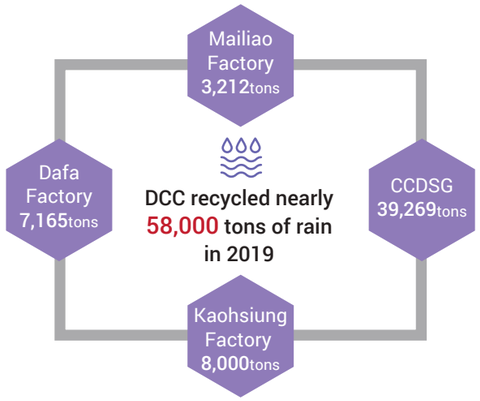


Implement comprehensive rainwater recycling at the factory

Rainwater is the most precious gift from the heavens and the Company is also committed to advancing rainwater recovery. Our efforts are to reduce the use of tap water and raw water and demonstrate our commitment to maintaining a clean factory environment. Each employee maintains good habits for 7S for on-site environment management and they regularly perform leak prevention and water and sewage separation tasks to recycle high-quality rainwater.

The year of 2019 was the most productive year in terms of rainwater recycling performance for DCC. The Dafa Factory began to build a rainwater recycling system in 2017; the establishment was completed in 2018, and 5,500 metric tons of rainwater was recycled in the same year. Under the instructions of the highest leadership, all factories were required to need to implement rainwater recycling. In 2019, nearly 58,000 tons of rainwater was recycled, demonstrating our emphasis on water resources.

2019 DCC Rainwater Recycling Performance



Note: DCCJS, CCDPJ, and DCCM are expected to complete the construction of a rainwater system in 2020.

CCDPJ

CCDPJ collects rainwater on the roofs of electrical rooms, warehouses, and rooms of refrigerators, air compressors, and back-pressure steam from various processes. In order to improve the efficiency of water use, each unit implements the rainwater recycling project according to its main responsibility area. In 2020, 20,000 tons of water are estimated to be saved while the effective area recycling rate is expected to reach 52.2%.

DCCM

DCCM is located near the equator. The climate is humid and hot all year round. In order to reduce the dependence on raw water, the factory began to invest in rainwater recycling equipment in 2019 using the advantage of the rainy weather. It is expected that the equipment will start operating in 2020 and recycle around 1,500 tons of rainwater each year. In the second stage, the ground recycling plan will be launched, and it is expected that the rainwater recycled will be increased to 15,300 tons per year and reused in the processes in 2021.

CCDSG

CCDSG began to recycle rainwater in March 2019, and planned to collect rainwater for the first time in the initial stage. Through the existing collection area, the rainwater was effectively reused in the cooling tower. A total of 39,269 tons of rainwater was collected, with an average volume of 107 tons/day. It accounted for 2.5% of the annual water consumption.

Dafa Factory Won the High Distinction Award in the Industrial Group at Water Conservation Awards of the Water Resources Agency of the Ministry of Economic Affairs

DCC Dafa Factory carried out heat integration modification across BDO/AAL/PTG processes to reduce the use of steam by recycling waste heat from processes and to greatly reduce the evaporation loss of cooling water heat load. As a result, the effective steam reduction at full load was around 440,000 tons/year, the total steam consumption at Dafa Factory was reduced by 20%, CO_2 by 116,552 tons/year, and cooling water by approximately 300,000 tons/year, which also increased the R2 water recycling rate by another 3.4%. Dafa Factory won the High Distinction Award in the Industrial Group of the Water Conservation Counseling and Improvement Rewards of the Water Resources Agency of the Ministry of Economic Affairs in 2019.

Water Resources Statistics from 2017-2019

Unit: Ton

Item/year	2017	2018	2019
Running water consumption	6,623,285	6,405,274	5,461,091
River water consumption	3,626,487	3,482,425	3,021,310
Pure water purchased	1,018,665	1,016,527	848,332
Steam condensate purchased from external entities	454,526	486,284	653,879
Total water intake	11,722,963	11,390,509	9,984,612

Note 1: Please refer to Appendix B for detailed information of each factory in 2019.
Note 2: DCC did not use reservoir water, well water, groundwater, or pure water purchased from external entities.

Water recycling statistics from 2017-2019

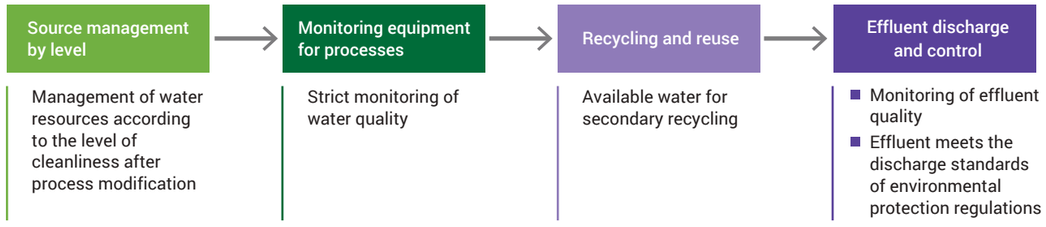
Item	Unit	2017	2018	2019
Total volume of recycled and reused water	Ton	16,865,576	17,281,996	13,650,983
Total volume of recycled and reused water as a ratio of total water intake	%	144%	152%	137%

Note: Please refer to Appendix B for detailed information of each factory in 2019.

2.3.2 Wastewater Management

In order to improve the reuse rate of water resources, each factory of the Company managed to seek opportunities through the establishment of a water balance chart.

■ **Wastewater treatment process**



Each factory is equipped with a sewage treatment plant. The wastewater generated in the process will be treated in a biological or chemical manners according to the characteristics of the wastewater. The quality of the treated water meets the discharge standards of environmental laws and regulations.

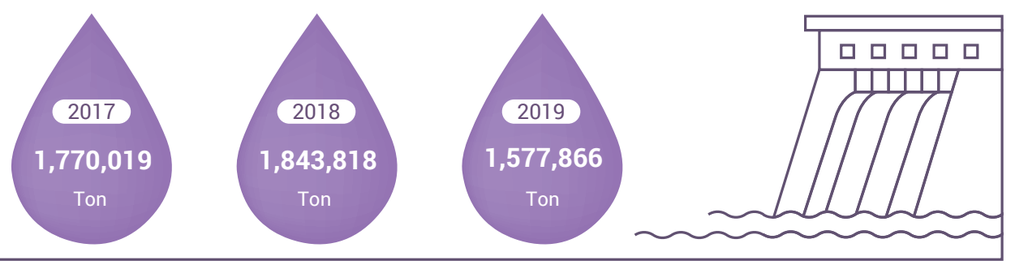
■ **Effluent Wastewater Quality Monitoring**

To strengthen wastewater monitoring and control and implement active management, the factories in Taiwan have installed automatic monitoring systems at each discharge point for instantaneous notifications. Irregular data are processed through automation electronic notification procedure to effectively control the water quality of wastewater discharge points. The Head Office strictly requires factories to transmit at least 90% of valid monitoring data each month. Factories that fail to reach this standard will be regularly announced for review. We have implemented plans to include overseas factories into the management system.

監測項目及限值	一般監測項目				
	化學需氧量(COD) (<480mg/L)	導電度 (ms/cm)	懸浮固體(SS) (<400mg/L)	溫度 (N/A)	pH值 (5~9)
監測顯示數據	19.4	1.5	105	26	7.6

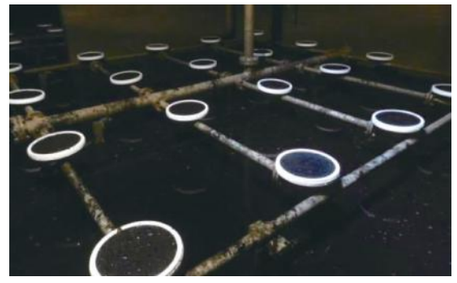
Effluent wastewater quality monitoring system diagram

Wastewater statistics from 2017-2019



Note 1: Wastewater that meets the discharge standards—Dafa Factory, Kaohsiung Factory, and overseas factories discharged wastewater to the sewage treatment plant in the industrial zones, while Mailiao Factory discharged effluents to the Taiwan Strait.
Note 2: Please refer to Appendix B for detailed information of each factory in 2019.

Improved Efficiency of DCC Kaohsiung Factory Wastewater Treatment



DCC Kaohsiung Factory carried out the optimization of the operation of the wastewater treatment plant in 2019, and the disc diffusers of the aeration tank were completely replaced as the diffusers were in a state of elastic fatigue due to the long-term use. The disc diffusers were consumable items; therefore, poor function would cause the sludge treatment efficiency to decrease, which would in turn cause the dual impact of increased investment in blowers and increased consumption. After the disc diffusers of the aeration tank at the wastewater treatment plant were replaced, both the aeration rate and the wastewater COD treatment efficiency increased with an annual electricity reservation of 43.868 kWh. After the sludge dewatering machine was adjusted and dryer operation was optimized, the sludge weighted 243 tons in 2018 and 135 tons in 2019 with 108 tons of sludge reduced, which achieved waste reduction. A replacement mechanism will be planned in the future to maintain the best performance.

2.3.3 Air Pollutant Emissions Management

Management approach to "air emission management"

Significance of Material Issues	Enabling Taiwanese people to have clean and fresh air and a healthy living environment is our biggest driving force for continuous improvement of air pollution.
Policy and Commitment	Clean fuel, waste reduction in the process, and air pollutant reduction
Target	For granular, sulfur oxide, and nitrogen oxide pollutants, we will continue to use the best available control technology (BACT) to reduce the air pollutants generated by cogeneration boilers. In addition, clean fuels are used for all small- and medium-sized steam boilers, or end-of-the-pipe prevention technology is adopted, to continue to control the effects of odors generated from the dispersion of volatile organic compounds (VOCs) or solvents. Short-term ▶ Zero odor dispersion in the process Mid-term ▶ Reduce TSP, SOx, NOx, and VOCs by 5-10% from 2017 Long-term ▶ Zero failure of prevention equipment and aim for zero emissions from the flare stack
Action Plan	◆ Define and review technical feasibility and compliance with regulations. ◆ Convene and set up a task force team at each factory to implement the action plan. ◆ Review and track the improvement progress and effectiveness of each project.
2019 Implementation Results	The task force was convened regularly to review the implementation progress of the zero odor dispersion in the process plan. In addition to strengthening independent management in the process operation, VOCs detectors were widely distributed to monitor the dispersion status to achieve the effect of improvement upon leakage. As a result, the number of complaints from residents was reduced significantly.
Communication/ grievance Mechanisms	Customers can use the customer hotline, Customer section on DCC official website, and e-mail to communicate or file complaints.

We have continued to actively reduce air pollutant emissions, invested a great deal of funds to introduce the latest domestic and international prevention control measures, and have now met the performance of the BACT level. In addition to the installation of prevention and control equipment, we have adopted exhaust gas recycling technology so as to reduce the burden of end-of-the-pipe control technology and improve the efficiency of pollution control effectively. DCC's air pollution improvement performance is explained as follows:

1. **Hot oil boiler air pollution reduction:**

   In order to reduce the emission concentration of nitrogen oxides in hot oil boilers, the Mailiao Factory installed ozone denitration equipment at the end of the pipe to restore nitrogen oxides (NOx) into water-soluble nitrogen oxides (NO_2, N_2O_3, or N_2O_5), followed by washing and removal using the existing wet flue gas desulfurization (FGD) tower to achieve the purpose of removing NOx. The emission concentration could be less than 30 ppm, which met the strict emission standard of 100 ppm for boilers implemented by the Environmental Protection Agency on July 1, 2020.

2. **Flare emission reduction plan:**

   During the preventive maintenance period of Dafa Factory and Mailiao Factory in which the processes are suspended, a large amount of exhaust gas will be discharged to the flare for treatment. In order to reduce exhaust gas emissions, the following methods will be adopted:

   (1) Extend the frequency of preventive maintenance of the process to once every two years.

   (2) Exhaust gas shall be discharged to the boiler for combustion, and then discharged to the flare for treatment when it exceeds the load of the boiler.

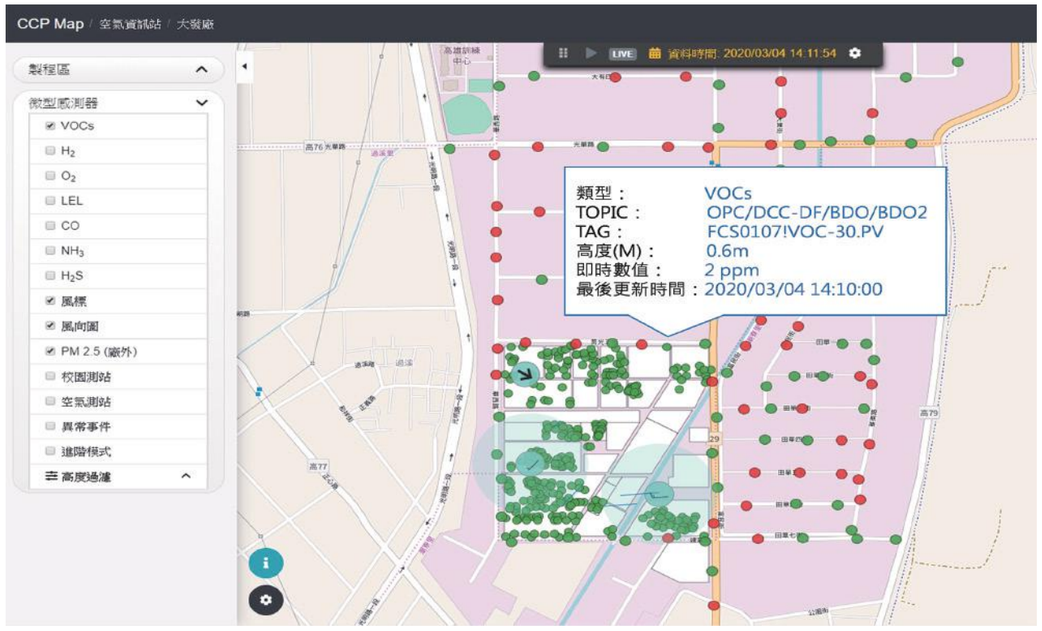
3. **Flare abnormality monitoring and notification:**

   The flare is an important safety protection equipment. The regulations also stipulate that the pilot shall not be extinguished and that when the cumulative amount of exhaust gas reaches15,000Nm3/day, the Environmental Protection Agency shall be notified within 1 hour after the occurrence of the fact. In order to implement the spirit of compliance, DCC adopts the "CCPG Flare Management Platform" particularly established by the CCPG HSE Division to continuously monitor the use status of the flares of factory 24/7. With an abnormality notification function, in the case of an abnormality occurring to items monitored, the system will automatically send a warning message via e-mail and iSender (internal communication software developed by the Company) to remind the process personnel to confirm the situation in the first place, report, and troubleshoot the abnormality as soon as possible. This notification reaches as high as the level of General Manager, which further highlights the Company's determination to be eco-friendly.

Flare management platform and monitoring screen

4. **Development of Air Pollution Map:**

   In order to reduce and keep abreast of the VOCs leakage at Dafa Factory, Dashe Factory, and Mailiao Factory, VOCs detectors are widely distributed in the process area of each factory; the detectors are combined with a dynamic map and an aerovane for real-time measurements, which are presented on the Air Pollution Map in a visualized manner. If the value of each detector exceeds the standard, the system will send a warning message automatically to notify the process personnel. In addition to the detectors installed at each of the factories by the Company, the inspection data of the miniature sensors installed by the Environmental Protection Bureau is imported into the system synchronously, so as to stay up-to-date with the impact of air pollution on the residents in the neighborhood.



Air Pollution Map

Air pollutant emissions from 2017-2019

Unit: Ton

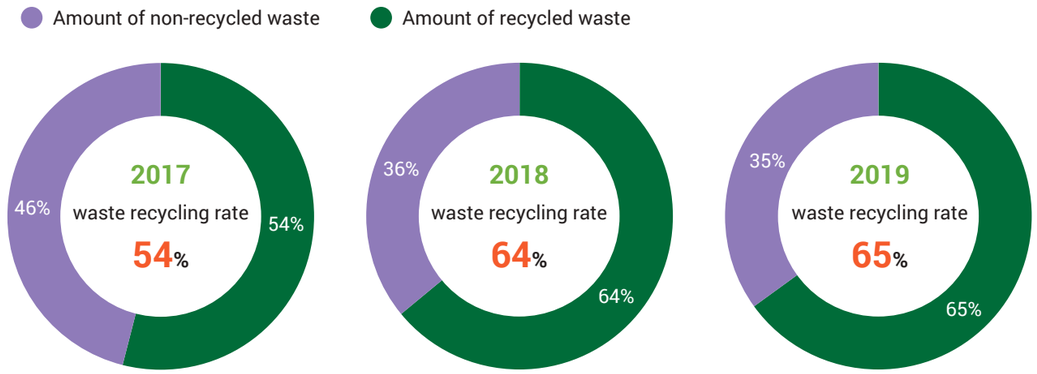
Item/year	2017	2018	2019
Nitrogen oxides (NOx)	213	181	131
Sulfur oxides (SOx)	238	94	50
Volatile organic compounds (VOCs)	362	309	328
Suspended particles (PM)	11	8	10

Note: Please refer to Appendix B for detailed information of each factory in 2019.

2.3.4 Waste Management

To implement waste management, we are committed to implementing improvements for operations and technologies in processes. We are deeply aware that reduction at the source is more important than waste recycling or disposal and should be prioritized. All outsourced waste disposal tasks are contracted to qualified contractors. We also file online reports to track the movement of the waste and factories organize at least one visit to the disposal sites of waste of concern each year. The Head Office organizes waste regulations compliance audits each year and organizes internal administrative measures for each factory to fulfill environmental responsibilities.

DCC adheres to the concept of waste recycling economy and adopts the eco-friendly 3R (reduce, reuse, and recycle) method; the data showed that the waste recycling rate increased from 54% in 2017 to 65% in 2019 with a trend of increasing year by year. The total waste output decreased from 20,068 metric tons in 2017 to 16,168 metric tons in 2019, demonstrating our efforts in waste management.



CCDPJ

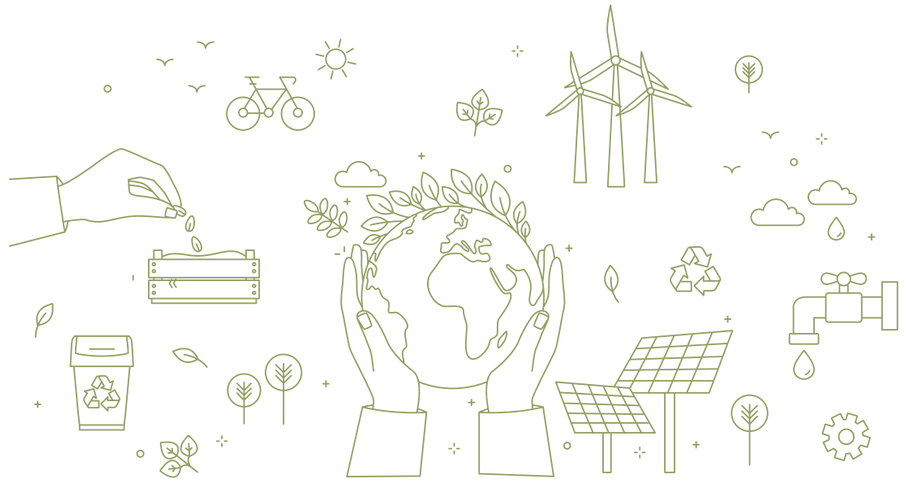
In 2019, CCDPJ sewage treatment plant put activated sludge into an anaerobic system, and the sludge would be digested and decomposed through the anaerobic system to achieve the waste reduction effect. Compared with the previous process, after concentration and pressure filtration, the amount of sludge produced could be reduced to one fifth of the original amount, to achieve zero-emission sludge. In terms of the qualitative and quantified benefits, compared with last year's sludge reduction, the sludge output decreased from 56 tons in 2018 to 10 tons in 2019, a significant reduction of 46 tons a year.

Waste statistics from 2017-2019

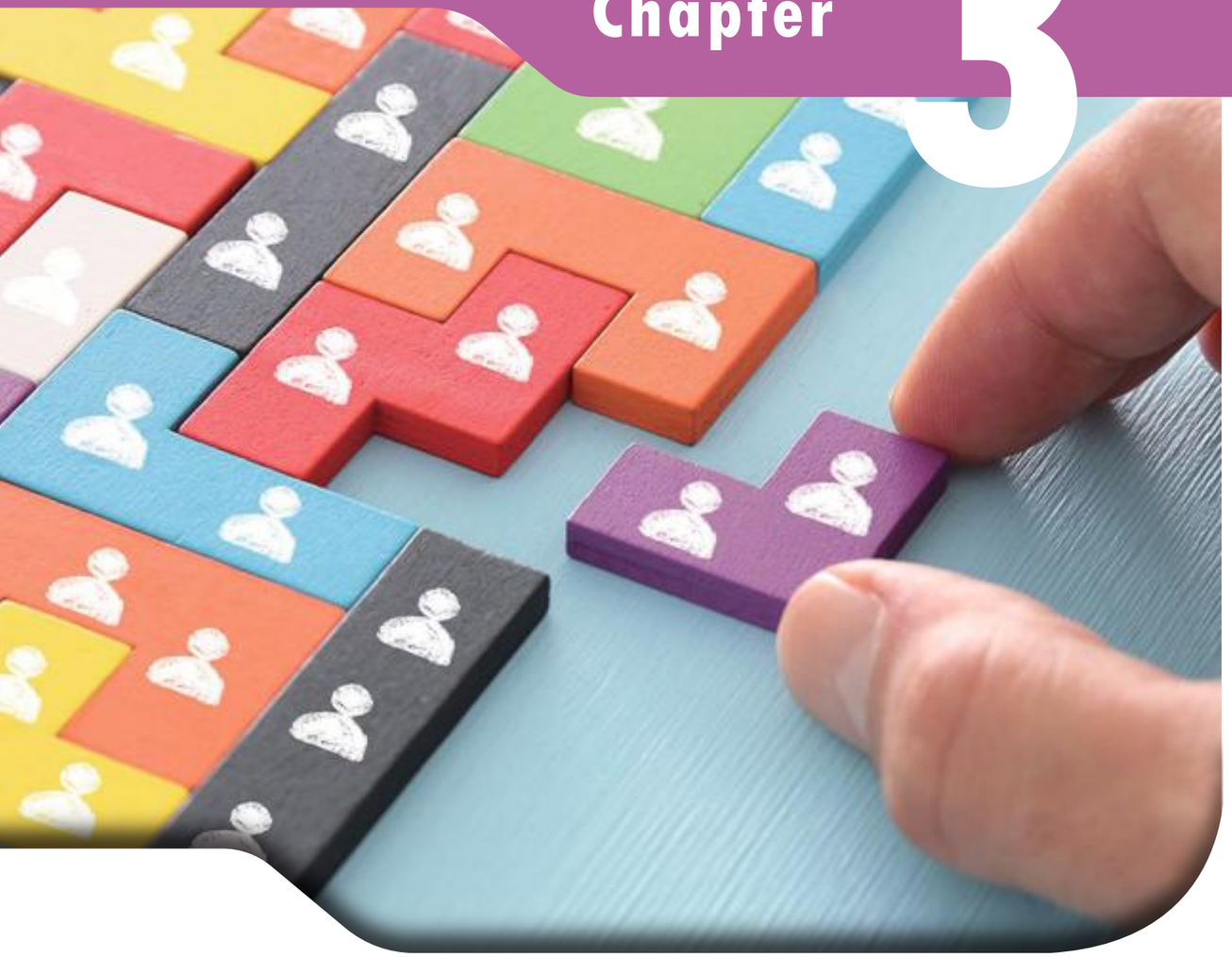
Unit: Ton

Item/Year	2017	2018	2019
Total general industrial waste	2,272	2,286	2,681
Total recycled general industrial waste	686	810	1,065
Total incinerated general industrial waste	500	695	932
Total buried general industrial waste	1,014	537	640
Total general industrial waste processed through other methods	71	245	43
Total hazardous industrial waste	17,795	18,978	13,487
Total recycled hazardous industrial waste	10,102	12,789	9,393
Total incinerated hazardous industrial waste	496	434	720
Total buried hazardous industrial waste	255	322	353
Total other hazardous industrial waste processed through other methods	6,943	5,433	3,021
Total waste output	20,068	21,264	16,168
Waste recycling rate (%)	54%	64%	65%

Note 1: Other industrial waste treatment methods: heat treatment, solidification treatment, physical treatment, chemical treatment, etc.
Note 2: Other hazardous waste treatment: heat treatment and high-temperature wet air oxidation treatment.
Note 3: Please refer to Appendix B for detailed information of each factory in 2019.



Chapter 3



Practice Common Good

Highlight Performance

100% native labor policy

100% of employees in Taiwan are native Taiwanese.

The Self-appropriation of 6% Plus 1% New Pension System Reward Project

For each employee who self-appropriates 6% under the new pension system, the Company appropriates 6% plus 1% to 7% for the pension as a reward

Birth incentive system

The amount of birth incentives applied for in 2019 reached NT$997,000

92 social contribution projects

In 2019, DDC participated in and sponsored 92 social contribution projects at home and abroad

- Held a total of two beach-cleaning and one mountain-cleaning activities in northern, central, and southern Taiwan
- Held blood donation activities, with a total of 543 bags of blood donated
- Assisted the local government in Malaysia to inspect the pollution in Kim Kim River

"Talent" is the foundation of DCC's sustainable operation. We adopt various human resources management policies, appropriate and multi-functional education and training programs, and the employee assistance program (EAP) to construct comprehensive talent recruitment, cultivation, promotion, and retention system, while conducting employees' physical and mental health management to provide a friendly work environment to build a sense of cohesion among employees and strengthen their sense of identity with the Company. In addition, we continue to interact with local organizations in the community where we are located to strengthen local relationships. Not only do we provide financial and material sponsorships, but also organize various charity activities, in order to contribute our share to society in various forms.

3.1 DCC Talents

DCC talents are equipped with extensive professional knowledge, dedicated work attitude, and integrity, which are the codes of conduct of each DCC employee and the key to its exponential growth. Therefore, designing a flexible, diverse, and thoughtful talent management system and human resources development policy is our goal of continuous improvement.

3.1.1 Human Resource Policy

Employees are DCC's most important partners as well as some of the most important stakeholders. We value human rights and follow internationally recognized guidelines for sustainability and human rights, including the core labor standards of basic conventions in the United Nations Global Compact and International Labour Organization. DCC also complies with local applicable laws and regulations of the location where each factory is based.

We follow the Code of Conduct amended by CCPG in 2017, which is binding on all employees of DCC. We promise employees to be respected and to ensure that they will have a sound and safe work environment, to pursue DCC's sustainable development while taking into account environmental sustainability and abiding by corporate ethics. We reviewed five human rights issues based on international human rights regulations in the sustainability evaluations, and benchmark trends and requirements to ensure that each issue is provided with comprehensive management mechanisms to mitigate risks to human rights.

Human rights issues valued by DCC

- Providing a safe and healthy workplace environment
- Prohibiting illegal discrimination to ensure equal work opportunities
- Ban on child labor
- Ban on forced labor
- Facilitating employees to uphold physical and mental well-being and balanced work and life

To implement related policies for human rights, employees at the Taipei offices, factories in Taiwan, and overseas factories complete human rights education, training, and tests through the Chang Chun e-Learning System every year. The training includes fair and equal treatment, prohibition on forced labor, ban on child labor, anti-discrimination, harassment prevention, protection of employee privacy rights, ensuring humane treatment, and providing a healthy and safe environment.

Since 2019, in order to enhance employees' awareness of laws and regulations, human rights-related issues were further included in the DCC's education and training courses required for all employees every year. Meanwhile, the simplified and English versions of human rights-related education and training for factories in China and DCCM were offered to increase employees' awareness of human rights, improve their self-awareness, and safeguard their own rights and interests.

In the meantime, the Human Resource Department launches a tour among all factories every year to hold the human rights policy seminar for department managers so as to strengthen the illustration of the Group's human rights policy.

Percentage of employees trained in human rights education and training in 2019

Management roles	Percentage of employees trained	100%
Non-management roles	Percentage of employees trained	98.7%

Note 1: Management: entry-level supervisors (inclusive) and above; non-management: general staff.
Note 2: Please refer to Appendix C for detailed information of each factory in 2019.

A human rights policy seminar organized for department managers of the Group

Key points in human rights seminars

1. Overview of labor rights
2. Ban on forced labor
3. Fair and equal treatment
4. Sexual harassment prevention

3.1.2 Talent Composition

100% local laborers at factories in Taiwan

The joining of high-quality and diverse talents is the foundation of our long-term presence on the international stage. In 2019, we have recruited talents across universities, Taiwan External Trade Development Council (TAITRA), and government agencies, while applying for a quota for R&D alternative service, participating in industry-academia cooperation, and providing competitive salary and benefits as well as complete and professional classification of education and training, to actively attract and recruit outstanding talents.

In 2019, the factories in Taiwan participated in nine job fairs on campus, four held by the public sector, and three by International Talent Institute, TAITRA, while overseas factories also participated multiple job fairs on campus and held by the public sector to attract outstanding talents to join the CCPG family.


National Tsing Hua University Career Fair


National Taiwan University Career Fair

National Cheng Kung University Career Fair

National Chiao Tung University Career Fair

National Central University Career Fair

Job Fair at Liaoning Mechatronics College


Talent Recruitment Fair Organized by Panjin Talent Service Bureau

Localization of talents has always been valued by DCC. Therefore, local talents are the first choice when it comes to recruitment of new employees. In particular, more than 85% of the employees of DCC Dafa Factory and Kaohsiung Factory are local talents, and 95% or more at factories in China and Malaysia. To determine the salary, in addition to job scarcity as a reference, job difficulty, and professionalism of majors, work experience, professional certification, and foreign language ability of new recruits are also included in the comprehensive consideration.

Proportion of local employees in factories in Taiwan in 2019

DCC Changpin Factory	DCC Mailiao Factory	DCC Dafa Factory	DCC Kaohsiung Factory
Taichung Changhua Region	Yunlin Region	Kaohsiung Region	Kaohsiung Region
Percentage of local employees 66.7%	Percentage of local employees 70.9%	Percentage of local employees 85.3%	Percentage of local employees 88.9%

Proportion of local employees in overseas factories in 2019

DCCJS	CCDPJ	CCDSG	DCCM
Percentage of local employees 98.1%	Percentage of local employees 95.3%	Percentage of local employees 41.06%	Percentage of local employees 98.9%

The number of DCC employees at home and abroad has remained stable for the past three years. In terms of composition of employees, the majority of them are 30-50 years old. The average age of the overall employees is around 39 years old. The average year of service is about 12 years. They belong to the young and middle-aged group with extensive experience and great physical strength. The fact that all bases in Taiwan employ 100% of Taiwan's local workers is much praised by outsiders.

Composition of manpower from 2017-2019

Unit: Person

Contract Type		Region	2017		2018		2019	
Fixed-Term Contract Temporary employees	Student employees, contracted drivers, consultants	Taiwan	2	2	2	4	2	4
		Overseas and assignment	0	0	0	2	0	3
		Subtotal	2	2	2	6	2	7
Non-Fixed Term Contract	Other employees	Factories in Taiwan	822	54	856	60	869	64
		Overseas factories and assignment	542	137	544	134	538	129
		Subtotal	1,364	191	1,400	194	1,407	193
Total			1,366	193	1,402	200	1,409	200

Age distribution of employees from 2017-2019

Unit: Person

Region	Age distribution	2017		2018		2019	
		Management roles	Non-management roles	Management roles	Non-management roles	Management roles	Non-management roles
Taiwan	30 years old or under	0	134	0	128	0	125
	30-50 years old	59	582	61	619	60	633
	50 years old or above	38	67	41	73	42	79
Overseas	30 years old or under	1	156	0	197	0	149
	30-50 years old	53	447	45	406	46	441
	50 years old or above	10	12	13	19	13	21
合　計		161	1,398	160	1,442	161	1,448

Age distribution of new employees from 2017-2019

Unit: Person

Age distribution	Region	2017		2018		2019	
30 years old or under	Taiwan	44	2	44	10	36	9
	Overseas	46	8	38	10	28	4
30-50 years old	Taiwan	7	3	12	2	6	3
	Overseas	25	10	12	6	25	1
50 years old or above	Taiwan	1	0	0	0	4	0
	Overseas	1	0	2	0	1	2
Total		124	23	108	28	100	19

Age distribution of employees resigning from 2017-2019

Unit: Person

Age distribution	Region	2017		2018		2019	
30 years old or under	Taiwan	11	1	24	2	16	7
	Overseas	45	4	31	6	31	3
30-50 years old	Taiwan	19	1	10	2	21	0
	Overseas	26	5	25	6	17	3
50 years old or above	Taiwan	5	0	1	0	8	0
	Overseas	1	0	1	0	1	2
Total		107	11	92	16	94	15

Note: The turnover includes retirement, dismissal, death, discontinuation of student employee/consultant contract upon expiry, and personnel transfers between companies of the Group.

Distribution of employee's job ranks from 2017-2019

Unit: Person

Rank	Region	2017		2018		2019	
Executives	Taiwan	4	0	4	0	5	0
	Overseas	5	0	6	0	4	0
Senior managers	Taiwan	14	0	15	0	13	0
	Overseas	6	0	13	1	13	1
Mid-level managers	Taiwan	24	1	24	1	26	1
	Overseas	12	4	8	3	9	3
Junior managers	Taiwan	47	7	50	8	48	9
	Overseas	32	5	24	5	24	5
Regular employees	Taiwan	735	48	765	55	779	58
	Overseas	487	128	493	127	488	123
Total		1,366	193	1,402	200	1,409	200

Note 1: The proportion of female senior managers in 2019 was 2.8%.
Note 2: Proportion of female senior managers = (number of female senior managers + number of female executives) / (number of senior managers + number of executives)

In 2019, the proportion of local-hire senior managers was 100% in Taiwan and 22.2% for overseas areas. The Company adopts comprehensive management competence training to actively cultivate local management personnel.

Distribution of senior management in 2019

Unit: Number of people

2019	Taiwan	Overseas
Total number of senior managers (executives + senior managers)	18	18
Local-hire senior executives	18	4
Percentage	100%	22.2%

Management: entry-level supervisors (inclusive) and above; non-management: general staff.

We explicitly declare in various management measures, operating procedures and policy announcements that there shall be no discrimination in recruitment, selection, performance evaluation, salary adjustment, promotion, salary, retirement, dismissal, dismissal, training and education, benefit measures, etc. due to factors, such as gender, religion, political affiliation, age, marital status, sexual orientation, or race. DCC hired six people with disabilities in 2019 and protected their equal right to employment to create a friendly employment environment. DCC also provides retiring employees with opportunities for appointment as consultants based on their professional skills.

Diversity of employees from 2017-2019

Unit: Person

	2017		2018		2019	
	Management roles	Non-management roles	Management roles	Non-management roles	Management roles	Non-management roles
People with disabilities	1	6	1	6	1	5

3.2 Talent Cultivation and Development

Talent assets are the foundation of the sustainable development of an enterprise. "Where there are people, there is a business; where there are no people, there is no business;" DCC's achievements are based on the continuous accumulation and continuous cultivation of high-quality talents. Based on the six core competencies defined by CCPG in 2016, we hope to develop common cultural viewpoints, the same code of conduct, and consistent values for each of all DCC employees. Furthermore, a Talent Development Committee was established and chaired by the General Manager. The Committee would discuss and formulate plans for talent recruitment, cultivation, promotion, and retention with the head of the Human Resource Department each month.

We launch an education and training system in line with the Group's development vision, and we look forward to working together with each employee to grow together and in turn to achieve organizational goals. DCC Education and Training System is as shown below.

We conduct task assignment at work, rotation, and development training corresponding to the three aspects of "depth," "width," and "height" so as to enhance employees' abilities, enable them to develop across different departments, and cultivate them to be managerial personnel.

CCPG's education and training system

Ability enhancement:
Improve employees' overall professional qualities trough rigorous and meticulous hands-on practice at work, supplemented with a mentor system.

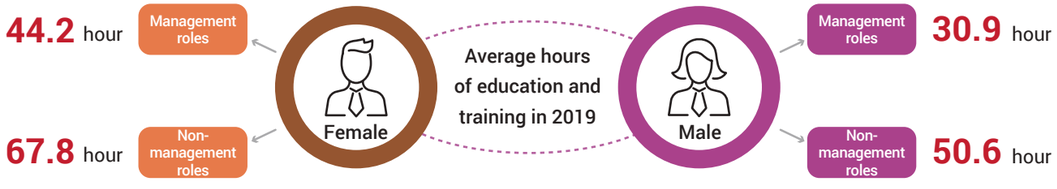
Managerial skill cultivation:
Cultivate employees' managerial skills to be foremen, heads of sections, senior managers, and leaders at all levels.

Development across different departments:
Provide opportunities to participate in projects and be assigned overseas, and cultivate employees' international perspective


Counseling of training personnel at the factory

Cultivation and development of mid-level and senior managers

In 2019, we investigated the career development of each product supervisor of the Company and understood managers' work and training needs. The Human Resource Department played the role of a "strategic partner" to assist each factory and managers at all levels to expand the management and training work.



Management: entry-level supervisors (inclusive) and above; non-management: general staff.

DCC's education and training programs can be classified by the recipients into the following three categories:

Orientation training for "new employees"

Provide new employees with basic training and divide them into common training for the Company (including professional competencies), common training for each unit (including factories and subsidiaries), and orientation training (including departments of the head offices and factories) so that each new employee can receive complete and comprehensive training and education.

2019 Orientation training for new employees

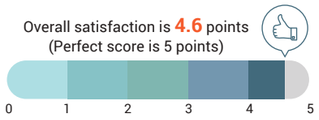
The 2019 New Recruits Guide Manual was issued in electronic format, including "traditional Chinese version" and "simplified Chinese version," with 27 new recruits accessing it online, so as to help them understand the Company's history, systems, and training resources. Meanwhile, through the operation of the "mentorship" system, new recruits could fit in with the organization and the work environment more quickly and effectively. As of the end of 2019, a total of 12 employees actually worked as mentors, specifically demonstrating the CCGP's culture of developing other people's abilities.

Core, management, and professional competency training for "current employees"

More than 8,286 courses on "core, management, and professional competency training" were organized for current employees in 2019. The training programs are described below:

1. Management personnel

For those who hold different managerial positions, corresponding management function training is given to enable managers to have the consistent values and shared vision, and to have the management capabilities required to complete their tasks at work, so that the managerial personnel can have a consistent corporate culture and management skills, and behavior patterns. More than 147 people at the Company have participated in various management training sessions.



Manager coaching skills training

Management trainee expatriate assignment training

2. Advanced training for employees assigned overseas

In order to help the employees to be assigned overseas better adapt, each employee can receive pre-assignment training through Chang Chun e-Learning System before serving at an overseas factory, so that they can fully understand the matters and regulations concerning leave, dependents, and dormitory after the assignment. Meanwhile, from 2019, for the employees who are expected to be assigned overseas to hold managerial positions, management training will be provided before assignment in the hope that all employees dispatched overseas will be properly prepared at the physiological, psychological, and professional levels.

3. Various required professional courses at the level of engineers/administrators

In 2019, the Human Resource Department listed a total of 111 required courses at the level of engineers/administrators, in which senior colleagues served as internal instructors, passing their important work capabilities and precious work experience of given departments down to the trainees.

4. Human Resource Department and personnel responsible for education and training in factories

In 2018, a consensus meeting on the vitality of education and training personnel of the Human Resource Department and in factories was held, to not only reach a consensus on the annual training plan, the education and training system, and the standard operating procedures, but to improve the factory personnel's ability to organize training sessions. In 2019, even managers in charge of personnel in overseas factories participated in the meeting to incorporate the perspective of the overseas personnel to continue to advance the Company's talent strategy planning.

Consensus Meeting of the Human Resource Department

Internal instructor training (Train the trainer)

To improve the quality of training for internal instructors, we developed our own textbooks and handouts and even conducted lecturing skills training to gradually lead colleagues to improve their ability to develop training programs so as to continue to accumulate the internal knowledge assets of the Group. In addition, the "CCPG Employee Award" reward mechanism was established to promote knowledge sharing and deepen the inheritance of experience. A total of 24 employees nominated by each factory won the award, including 3 experienced employees, 13 internal instructors, and eight digital course producers.

2019 internal instructors' online courses were officially launched

Internal instructors' lecturing skill training in 2019

Winners of the 2019 CCPG Employee Award

Chang Chun e-Learning System

Since 2016, the Chang Chun e-Learning System has been built, integrating the education and training database of each factory of the Company, so that the courses in the past, after being collected, analyzed, and integrated, could be adopted as a reference for planning of education and training courses for 2018 and 2019. In addition, the online learning platform has made the Group's common courses available for the employees at overseas factories. As of 2019, a total of 259 courses have been uploaded on the Chang Chun e-Learning System, including various self-produced or online courses from other units/institutions, 61 of which were newly added in 2019.

EMBA magazine learning platform book club

In addition to the internal platform, we further cooperate with external online learning platforms and institutions, including Studio Classroom, Shuwoon, and EMBA Magazine Learning Platform, to provide more diverse online learning resources to DCC employees.

Annual education and training review and audit of the Company and each factory

2019 annual factory education and training review

There was no major deficiency in 2019

The implementation and effectiveness of education and training are specifically reflected in employees' work performance and the "zero incident" record in occupational safety. To this end, key management review is conducted twice a year, and education and training have been audited since 2019. Internal audits are conducted on the implementation status of the annual education and training plans proposed by various departments and factories.

DCC Kaohsiung Factory

Cultivation of Professionals

Starting in 2019, DCC Kaohsiung Factory organized a technician qualification examination twice a year in each department to strengthen various professional technical assessments and set pass scores. If a technician fails the test, he/she will receive strengthened training and take make-up exams until he/she passes it.

Continuous learning and improvement

Kaohsiung Factory's average training time per person was 85.7 hours in 2019, demonstrating its active effort in enhancing its employees' professional competitiveness. (The average training hours for each factory in Taiwan in 2019 was 61).

3.3 Employee Care and Benefits

DCC is committed to advancing both employee salary and benefits as well as a work environment that balances work and life. We provide various thoughtful benefit systems as well as physical and psychological health care.

3.3.1 Employee Benefits

"Bonus" benefits

Annual festival bonus
- Bonuses for the three traditional holidays including Mid-Autumn Festival, Dragon Boat Festival, and Labor Day
- Chinese New Year work commencement red envelope
- Bonuses
- Year-end bonus

Incentive system
- Overtime pay calculation more favorable than those specified in the Labor Standards Act
- A commemorative a gold coin for employees with 20 years of service
- A commemorative a gold coin for retired employees
- One month of salary for employees as marriage cash gift
- Childbirth incentives and daycare subsidies
- The Self-appropriation of 6% Plus 1% New Pension System Reward Project

Care for employees assigned overseas
- Allowances for overseas assignments
- Subsidies for education expenses of expatriates' children

"Non-bonus" benefits

Health Care
- Labor insurance premiums level and pensions payments are based on full salary
- Group insurance for employees
- Free annual health examination for all employees
- Regular special health examination
- CCPG good mood hotline consultation and services

Work Benefits
- Employee restaurant equipment purchase
- Employee uniforms
- Free work meals for Chinese employees of factories in China
- Subsidies on accommodation, transportation, and air tickets for returning to Taiwan for expatriates
- Subsidy on meals missed due to work schedule for factories in China

Emergency Relief
- Interest-free emergency aid loan from employees' salary
- Funeral cash gift for the death of employees or their family members
- Employee emergency rescue services overseas

Self-Growth
- Diverse education and training courses
- Free English and Japanese language courses
- Internal instructor training courses
- Digital textbook producer training course
- EMBA Magazine Online Course
- Taipei Office Reading Club

Work and Family Balance
- Family Day
- Parent-child seminars
- Hand-in-hand beach cleaning activities
- Painting CCPG—paint coloring contest
- Promotion of employees to apply for parental leave for child rearing without salary

Diverse Life
- Establishment of an employee welfare committee and appropriation of welfare funds in accordance with laws
- Two days of paid travel leave each year
- Subsidies for employee sports activities, holiday activities, and club activities
- Subsidies for activities of (retired) employees' associations

CCPG Good Mood Hotline

CCPG launched the "CCPG Good Mood Hotline" consultation services for domestic and overseas employees in 2018. Employees can request assistance from professional psychologists in the aspects of health, life, and work via telephone or communication software, such as LINE to WeChat. Each employee is eligible for two one-on-one interview sessions each year. A total of 49 people used the services in 2019 in the CCGP (nine interview sessions in Taiwan and 40 in overseas factories).

The Self-appropriation of 6% Plus 1% New Pension System Reward Project

To encourages employees in the new pension system to pay attention to retirement life planning and protection. If an employee's personal appropriation rate is 6%, the Company's statutory appropriation rate will increase by 1% (from 6% to 7%) as a reward. Before the launch of the project in DCC, only 110 people had self-appropriated 6%, accounting for 14% while by the end of the year, it had reached 445 people, accounting for 57%.

Note: Applicable in Taiwan

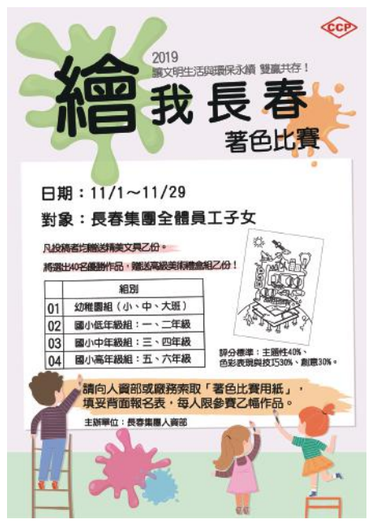
Painting CCPG—paint coloring contest

In order to enhance employees' and their families' recognition of the Company, the paint coloring contest of "Painting CCPG" was held in 2019, and it was well-received. There were 128 works submitted. Through paint coloring by parents and children together, the most beautiful memories were created.

Senior kindergarten
Selected Work

Grade 3
Selected Work

Grade 6
Selected Work



Care-free retirement life is a demonstration of DCC's long-term care for employees. We set up a “Labor Retirement Reserve Supervision Committee” to supervise employee pensions. We entrust external consultants to conduct pension actuarial calculations each year, to ensure that the Company's financial capacity is sufficient to pay for employee pensions. Meanwhile, a gold coin with the text of CCP carved on it will be granted to retiring employees as a permanent commemoration and for them to hand it down to the next generation.

Appreciation for Twenty Years of Contribution

An award presentation ceremony of "Appreciation for Twenty Years of Contribution" will be held each year for employees who have served for 20 years. In 2019, there were 17 employees who had served for 20 years. Compared with their inexperienced look as new employees, they are now transformed into experienced and competent senior employees. They have really come a long way.

Senior kindergarten

In response to the government's childbirth incentive policy, DCC joined the ranks of "promoting birth rates," with a childbirth incentive of NT$20,000 per child; the childcare allowance is NT$3,000 per child each month until the child reaches the age of 2. In 2019, the total number of applicants in the Company was 26, and the total of the incentive and allowance amounted to NT$997,000.

Note: Applicable in Taiwan

Various activities were held to promote employee communication and enrich their life

CCPG Panjin Factory's model employees visited Taiwan for a traineeship and travel

DCC Yizheng Factory and the Sunshine Community jointly held a fun sports fair

CCPG Panjin Factory's outing activity

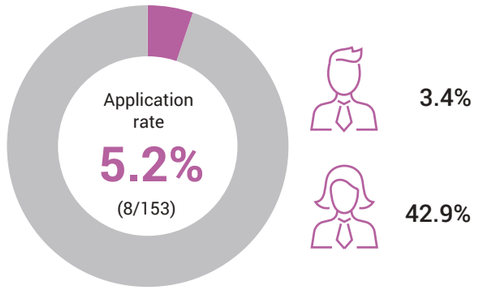
CCPG Panjin Factory's family movie-watching event

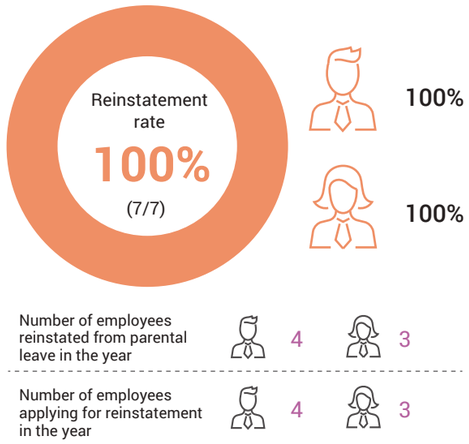
DCC encourages employees to apply for unpaid parental leave based on their actual needs. The Company approves 100% of applications and 100% of employees will be reinstated to their original posts after the parental leave. This measure allows employees to take care of the future of the nation with peace of mind.

Analysis of Unpaid Parental Leave in Factories in Taiwan from 2017 to 2019

Item	2017		2018		2019	
Number of employees eligible for parental leave in the year	40	10	128	5	146	7
Number of employees on parental leave in the year	4	3	4	1	5	3
Application rate	10%	30%	3.1%	20.0%	3.4%	42.9%
Number of employees reinstated from parental leave in the year	1	0	2	2	4	3
Number of employees applying for reinstatement in the year	1	0	2	2	4	3
Reinstatement rate	100%	100%	100%	100%	100%	100%

Note 1: Application rate = Number of employees on parental leave in the year / Number of employees eligible for parental leave in the year
Note 2: Reinstatement rate = Number of employees applying for reinstatement in the year / Number of people reinstated from parental leave in the year

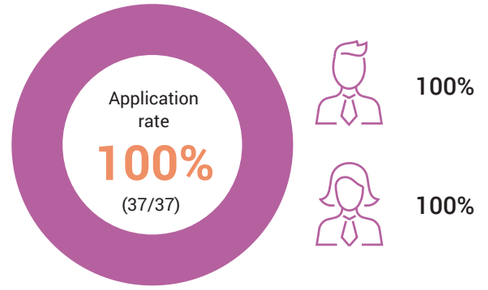


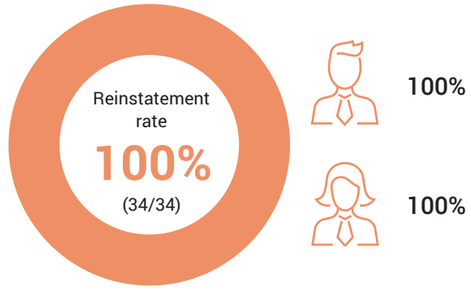


Analysis of Unpaid Parental Leave (Maternity Leave) in Factories in Overseas Regions from 2017 to 2018

Item	2017		2018		2019	
Number of employees eligible for maternity leave in the year	35	11	32	12	24	13
Number of employees for maternity leave in the year	35	11	32	12	24	13
Application rate	100%	100%	100%	100%	100%	100%
Number of employees reinstated from maternity leave in the year	30	9	31	9	24	10
Number of employees applying for reinstatement in the year	30	9	31	9	24	10
Reinstatement rate	100%	100%	100%	100%	100%	100%

Note 1: Application rate = Number of employees on parental leave for the year / Number of employees eligible for parental leave for the year
Note 2: Reinstatement rate = Number of employees applying for reinstatement for the year/Number of people reinstated after parental leave for the year





Labor-Management Relations and Communications

DCC's subordinate factories established the first labor union as early as in 1985 and there are a total of five corporate unions. An annual meeting of representatives is held with each labor union each year to facilitate the labor-management communication channel.

Labor Union Composition

Region	Year of Establishment	Number of Members	Union Member Percentage
Kaohsiung Factory	1985	199	90.5%
Dafa Factory	1999	294	86.7%
Mailiao Factory	2006	199	73.4%
DCCJS	2011	320	100.0%
CCDSG	2014	41	27.2%

To ensure smooth and transparent communication between labor and management and effective delivery of information on material events, we have established multiple labor-management communication channels to resolve labor-management disputes through communication. In addition to the annual meeting of union representatives, labor pension fund supervisory committee, and labor-management meetings, employees may use informal communication channels, such as telephones, email, and face-to-face communication, with factory supervisors and union officers. Employees may also use the Employee Welfare Committee, employee grievance channels, interviews with the Human Resource department to propose opinions and suggestions to the companies of the Company. The key topics for discussion in 2019 are shown on the right, and both parties have achieved satisfactory results.

Key discussion topics in 2019 labor-management relations communication

- Improvement of parking lot facilities and environmental quality
- Installation of additional restaurant equipment
- Replacement of dormitory facilities in the factories
- Maximum year-end bonus
- Increase of pay raises

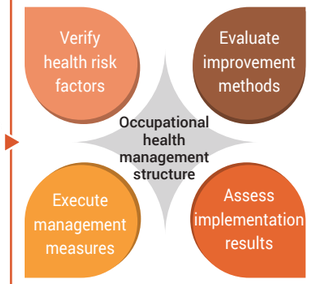
3.3.2 Healthy Workplace

To promote a healthy workplace environment for employees, DCC has adopted a systematic occupational health management framework to provide comprehensive management and regulations for implementation from the identification of health risk factors, evaluation of improvement methods, and implementation of management measures to the evaluation of performance so as to provide employees with healthy workplace. DCC has established health-related regulations for operations to achieve the aforementioned goals and implement relevant measures to protect employees' health.

The factories of the DCC have formulated health management promotion plans based on an occupational health management framework and employees' health needs; internally, all-employee participation in health promotion activities is implemented to enhance employees' health; externally, through the effect of healthy workplace certification, the Company's friendly workplace can be enhanced and the health protection of employees strengthened, to allow the industry, suppliers, and external assessment units to examine the factories' efforts in caring for employees so as to strengthen the Group's competitiveness.

DCC Health Management Regulations

- Occupational Safety and Health Committee Regulations
- Employee Health Management Regulations
- Contractor Safety and Environmental Sanitation Management Procedures
- Hazardous Chemical Products Evaluation, Rating and Management Procedures
- Personal Protection Equipment Usage Regulations
- Operating Procedures for the Hearing Protection and Implementation Plan
- Operating Procedures for the Prevention of Musculoskeletal Disorders Caused by Repetitive Moving Tasks
- Operating Procedures for Preventing Diseases Caused by Abnormal Work Load
- Operating Procedures for the Prevention of Illegal Infringement at Work
- Operating Procedures for Maternity Health Protection for Female Laborers.



In 2019, the Kaohsiung Factory obtained the Badge of Accredited Healthy Workplace from the Health Promotion Administration and was committed to a smoke-free workplace and health promotion and actively implemented relevant measures, to establish an excellent work environment and fulfill its corporate social responsibility.


Health examination


Weight-loss boxing aerobic

Badge of Accredited Healthy Workplace—Kaohsiung Factory

Regarding health management, the short-term and mid-term targets of the health management of employees and contractors we plan are to comprehensively investigate and evaluate if the exposure concentration of chemical hazardous factors in employees' working places is less than one-tenth of the limit value; for the long-term target, we plan to develop the risk trend analysis of the top five diseases with the highest prevalence in DCC and to invest health management resources corresponding to the high-risk diseases to create a healthy work environment. The short-term implementation measures are as follows:

Occupational Health Management Measures

We have compiled employees' health management data over the years and digitized the data through the employee health management system is built in CCPG's enterprise resource planning (ERP) database so that employees can observe changes in medical examination data and pay attention to their health status. By defining the categorization and grouping of various health examination data and confirming the clinical standards of each category of health examination data, the factory nurses can analyze the health examination data and evaluate the effectiveness of health management.

Measurement and management of work environment particularly hazardous to health

DCC is committed to identifying each factory's operating environment that is particularly hazardous to the health and entrusts professional inspection and testing agencies; all the five agencies have been approved by the Occupational Safety and Health Administration, Ministry of Labor, and perform inspection and tests in accordance with the laws and regulations. On the premise of ensuring the validity of the inspection and test data, the implementation of the short-term and mid-term targets (comprehensively investigating and evaluating if the exposure concentration of chemical hazardous factors in employees' working places is less than one-tenth of the limit value) shall be improved and managed, and its effectiveness shall be evaluated. We collaborate with a team of professors and experts from various universities to discuss an operating environment testing guidance plan to confirm the actual status of the test performed by each factory and the testing guidelines that are followed. It is the experts that review the monitoring plans and reports submitted by each factory to strengthen the quality of the measured data, which can be provided as a reference for future assessment of exposure of health hazard risks and for evaluation of the effectiveness of operational improvement.

Operating environment inspection and testing institution approved by the Occupational Safety and Health Administration, Ministry of Labor—Institution entrusted by the Company

Approval number	Inspection and testing institution	Category of approval	Rating
TOSHA-MA2	Zhaoding Environment Technology Co., Ltd.	Physical factor operating environment inspection and testing, chemical factor operating environment inspection and testing (organic compounds, inorganic compounds, asbestos and other mineral fibers, nuisance dust, and carbon dioxide)	2019: B
TOSHA-MA5	SanChuen Technology Co., Ltd.	Physical factor operating environment inspection and testing, chemical factor operating environment inspection and testing (organic compounds, inorganic compounds, nuisance dust, and carbon dioxide)	2019: A 2018: A
TOSHA-MA6	Data Test Scientific Co., Ltd.	Physical factor operating environment inspection and testing, chemical factor operating environment inspection and testing (organic compounds, inorganic compounds, asbestos and other mineral fibers, nuisance dust, and carbon dioxide)	2019: B
TOSHA-MA10	Industrial Safety and Health Association (ISHA) of the R.O.C.	Physical factor operating environment inspection and testing, chemical factor operating environment inspection and testing (organic compounds, inorganic compounds, nuisance dust, and carbon dioxide)	2018: Excellent
TOSHA-MA11	TCRSH	Physical factor operating environment inspection and testing, chemical factor operating environment inspection and testing (organic compounds, inorganic compounds, nuisance dust, and carbon dioxide)	2019: A 2018: A

Health inspection management of operations with special hazards to health

DCC conducts special hazard health examination for employees exposed to health hazards in the working place in accordance with the laws every year, and records their actual work status on weekdays as well as the concentration and quantity of the chemicals exposed to in the operating environment as a reference for health checkup doctors to determine if there is occupational exposure so as to confirm whether employees come down with diseases due to occupational exposure. For employees who have abnormal indicators in the examination result, DCC will refer to the doctor's advice for administrative management measures, such as improvement of the nature of the risk source or transfer from the current job. In 2019, the coverage rate of the special hazard health examination conducted by DCC was 100%, and the examination results had no special anomalies.

Note: Please refer to Appendix C for detailed examination items.

Emergency response training

CPR + AED Education and Training

In order to protect the health of employees, emergency response first-aid training is a necessary and practical part in health education and training. In terms of CPR and AED, more than 90% of the employees at Mailiao Factory completed CPR and AED education and training; the AED administrator also completed the training course, and Mailiao Factory obtained the certification of AED Safe Areas from the Ministry of Health and Welfare in January 2019.

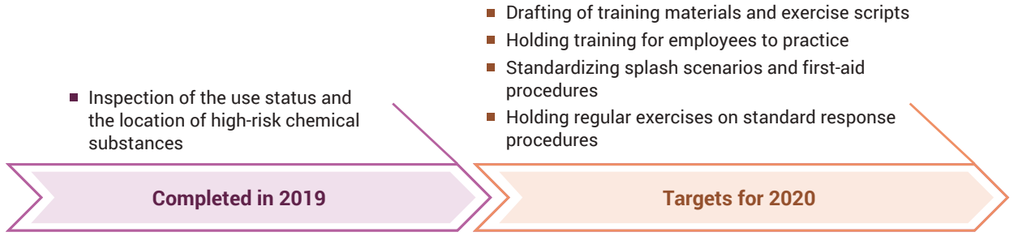

Mailiao Factory

Number of participants	250
Participation ratio	98 %
Passing ratio	100 %

Certification of AED Safe Areas—Mailiao Factory

Emergency Response Exercises for High-risk Chemical Spill Accidents

In addition, DCC is committed to enhancing the importance of response exercises for high-risk chemical (such as phenol,) spill accidents. With a standard procedure for response to high-risk chemical spills established and regular exercises of this procedure, the degree of injury after high-risk chemical spills can be reduced. In 2019, we completed the inventory of high-risk chemical substances in each factory of DCC. It is expected to complete training materials, exercise scripts, and education and training in 2020. In the future, we will standardize the spill scenarios and first-aid process for employees to exercise to achieve the goal of injury reduction.



Motherhood in Workplace

DCC continues to strive to build a high-quality maternal health environment for female employees. We have established breastfeeding rooms at each factory in accordance with the Act of Gender Equality in Employment, Labor Health Protection Rules, and Standards for Establishment and Administration of Public Breastfeeding (Collecting) Rooms, while designating dedicated personnel to manage the rooms in accordance with the usage and cleaning maintenance regulations; as such, female employees, contractors, or visitors during pregnancy or breastfeeding period will have a comfortable and private breastfeeding environment.

3.4 Social Investment

As a member of CCPG, DCC looks forward to exerting its own social influence. Through the efforts of linking employees, their families, local communities, schools, and various organizations, we have managed to bring together efforts made by various factories at home and abroad to interact closely with the community in the hope of not only creating economic values but creating value for society at the same time.

DCC responds to the 17 sustainable development goals put forward by the United Nations and further listens to the local needs where each factory operates. In 2019, we focused on the five major action topics of the common good value through questionnaires and interviews, namely 1. promotion of healthy lives and well-being for human beings, corresponding to SDG3; 2. cultivation of chemical professionals, corresponding to SDG4; 3. implementation of the new thinking of responsible production practice, corresponding to SDG12; 4. strengthening of industrial environment, safety, and health, corresponding to SDG9; 5. integration of community capital and communication, corresponding to SDG17.

In the future, we will continue to base our efforts on these five major action topics and integrate internal and external resources actively to invest in various fields, while working with the local community to create a sustainable future. For the content of "3. implementing the new thinking of responsible production practice," please see 1.2.1 Green Processes and Products.

Five Major Action Topics of the Common Good Value

Topic 1	Topic 2	Topic 3	Topic 4	Topic 5
Promoting healthy lives and well-being for human beings	Cultivating chemical professionals	Implementing the new thinking of responsible production practice	Strengthening industrial environment safety and health	Integrating community capital and communication

DCC participated in or sponsored a total of 92 domestic and overseas social contribution projects in 2019.

Promotion of Healthy Lives and Well-being for Human Beings

DCC expects to promote the health and environmental awareness of local communities through its own influence. In 2019, we organized multiple events and activities, including blood donation, health lectures, environmental education, mountain cleaning, and beach cleaning at home and abroad, to strengthen and put into practice health concepts and environmental awareness through practical actions with employees, their families, local community residents, and contractors.

In 2019, DCC's factories at home and abroad responded to 13 blood donation events in 2019, with 543 bags of blood donated.

Dafa Factory

A workplace health education session was held, at which professional pharmacists were invited to teach the concept of correct medication, so as to enhance employees' knowledge of safe medication.

CCDPJ

On the World Cleanup Day on September 21, 2019, we and Panjin Jinghuan Environmental Protection Technology Co., Ltd. jointly held an event under the theme of "Under the Same Blue Sky and in the Same Homeland Environmental Protection Starts with Me" on the plaza of the Dawa East Lake Park, attracting around 200 people to participate to learn the knowledge of environmental protection and garbage classification and to have environmental awareness enhanced.

CCDSG

The factory made a donation to respond to the tree planting project on the Jurong Island organized by JTC Corporation and NParks, to achieve the goal of purifying the air through the green environment and the absorption of carbon dioxide in the atmosphere using trees.

Beach cleaning、Mountain cleaning

CCP, CCPC, and DCC's factories in Taiwan jointly held two beach cleaning activities and one mountain cleaning activity in 2019. We not only invited employees, but their families and contractors to participate in these activities collectively.

Beach cleaning in Northern Taiwan

DCC's Taipei Office, CCP Hsinchu Factory, and CCPC Miaoli Factory jointly launched a beach cleaning activity at the Xin-Yue Sand Bay. A total of 262 people participated and cleared 201 kilograms of marine garbage. In addition to the activity, a fun quiz game concerning the hazards of marine garbage and the methods of reducing the generation of marine garbage was held to promote the concept of caring for the Earth.

Beach cleaning in Central Taiwan

A total of 213 people from Changpin Factory and Mailiao Factory participated in the activity and cleared 1.2 tons of garbage.

Mountain cleaning in Southern Taiwan

The mountain cleaning activity under the theme of "2019 Autumn Beautiful and Evergreen Dagangshan Mountain" organized by Alian District Office and co-organized by Dafa Factory, Kaohsiung Factory, and CCP Kaohsiung Factory, attracted around 307 participants.

Changpin Factory

The Company cooperated with the Environmental Protection Bureau, Changhua County, to adopt the beaches in the Changbin coastal area, and held three beach cleaning activities in 2019, through which 177 kg of general waste and 203 kg of recyclable waste were cleared.

Cultivation of Chemical Professionals

The continued vigorous development of the industry is based on a steady stream of outstanding talents; thus, DCC continues to use its core competencies and resources to contribute to advance education. We continue to conduct industry-academia cooperation and corporate lectures with local schools to help students understand industry-related knowledge and industry development status, so as to cultivate their interest in the petrochemical industry and pave the way for industrial talent capital.

To realize the vision of "cultivating and recruiting talents locally," we continued to implement the industrial-academic cooperation model established by the Renwu Senior High School and a total of 13 businesses in the Renda Industrial Park in 2019 (including DCC Kaohsiung Factory, CCP Kaohsiung Factory, Formosa Plastics Renwu Factory, USI Kaohsiung Factory, and Dashe Industrial Park Manufacturers' Association) and sponsored the Petrochemicals Industry-Academia Program offered at the Renwu Senior High School, including scholarships and company visits. In addition to the general senior high school courses, the basic courses on the petrochemical industry will be strengthened through elective courses to train students with basic employment skills with the aim of enlivening the regional economy, promoting local development, and alleviating the outflow of population. With resources from the industry, government, and academia, the Company aims to achieve the goal of enlivening education and shorten the gap between urban and rural areas, so as to jointly create a win-win-win for businesses, schools, and the local community, while training students to develop scientific and rational thinking, a pragmatic attitude, and, at the same time, sparking their curiosity about local affairs.

In addition, we also provide opportunities for internships, with a view to strengthening students' skills in business practice and further enhancing their understanding of DCC.

DCC Kaohsiung Factory, CCP Kaohsiung Factory

In 2019, the Company continued to promote and participate in Renwu Senior High School's Petrochemicals Industry-Academia Program; the employees awarded outstanding students scholarships in person, and the Company supported students to visit the companies in the petrochemical industry in Japan, allowing students to learn about the development of petrochemical industry in different countries.

DCCJS

Chang Pi-Fu, Deputy General Manager, participated in an enterprise seminar at Yizheng Technician College to share the development and status quo of the industry so as to assist students in acquiring relevant knowledge and having a better understanding of DCC.

DCC

DCC provided a total of 10 internship opportunities in 2019. Through education and training and internship projects, it aimed to strengthen interns' practical skills and achieve the goal of training excellent chemical talents.

Strengthening of Industrial Environment, Safety, and Health

"Environmental protection and safety first" is the responsibility and obligation of CCPG's management and all employees. As DCC is a member of CCPG, not only the environmental safety and sanitation in the factory area and product transportation but also the surrounding area of each factory is our high priority. We conduct rigorous inspection rounds both on weekdays and weekends and expect to maintain the safety of the local environment and community residents with surrounding companies as well as the local government and community through sharing our expertise in industrial safety. For details, please see 1.3.3 Response and Management of Major Incidents.

DCCM

The illegal dumping of toxic chemical waste in the Kim Kim River in the State of Johor, Malaysia, in March 2019 has led to the spread of toxic gas pollution, causing many schools to announce suspension of classes and affecting the health and safety of surrounding residents.

By tapping into the Company's expertise, Malaysia Factory and more than 10 local companies collaborated with the local government to detect the pollution level of the river and to offer household supplies to local school children and their families, including masks, milk, and mineral water, to help the local residents who were affected.

Integration of Community Capital and Communication

DCC has always maintained positive relations with local communities, managed to understand their needs through daily communication, and actively organized or participated in local activities based on the needs of local communities, to shorten the distance from local residents, while maintaining diverse communication channels with heads of neighborhoods and villages, persons in charge of communities, and residents.

In addition, we have actively provided various resources to society, such as donating supplies for firefighting training and donating funds and supplies to social charity groups, to deliver strength and warmth to society.

DCCJS

The factory invited residents from the Sunshine Community to visit the company. Through environmental protection lectures and quality assurance laboratory visits, the factory introduced rules and regulations as well as environmental protection equipment and technologies, allowing the residents to have a new understanding of the chemical industry while conveying our emphasis on safety and environmental protection to the residents.

Dafa Factory

The factory adopted about 100 pings of the lawn at Zhao Ming Elementary School in the Daliao District, endeavoring to develop a green schoolyard to enable students to learn happily in a green environment.

Mailiao Factory

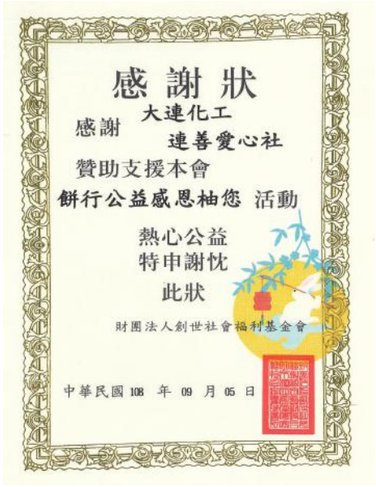
As firefighters needed to use a large number of wooden pallets and hoses in firefighting drills to be in line with the fire scene on the ground, the factory donated wooden pallets and 200 fire hoses to the firefighters at the Fire Fighting Training Center in Zhushan, Nantou County, for drills, to fulfill its social responsibility.

Mailiao Factory

Mailiao Factory's charity club visited the Xinyi Child's Home in Dounan, and sent the donations made by the factory's colleagues to the home, in the hope of bringing warmth to the children.

Kaohsiung Factory

The Lian-Shan charity club, formed spontaneously by the employees, has participated in a number of charity events and activities, including sponsoring charity sales and supporting the Genesis Social Welfare Foundation's activities to deliver love to those in need.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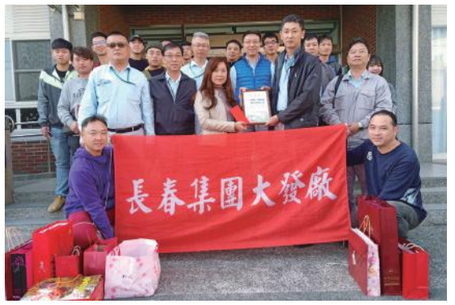
中華民國 108 年 09 月 05 日

Dafa Factory

The factory donated supplies to the Yongan Children Home, in the hope that the children and teenagers would grow up healthily and happily.



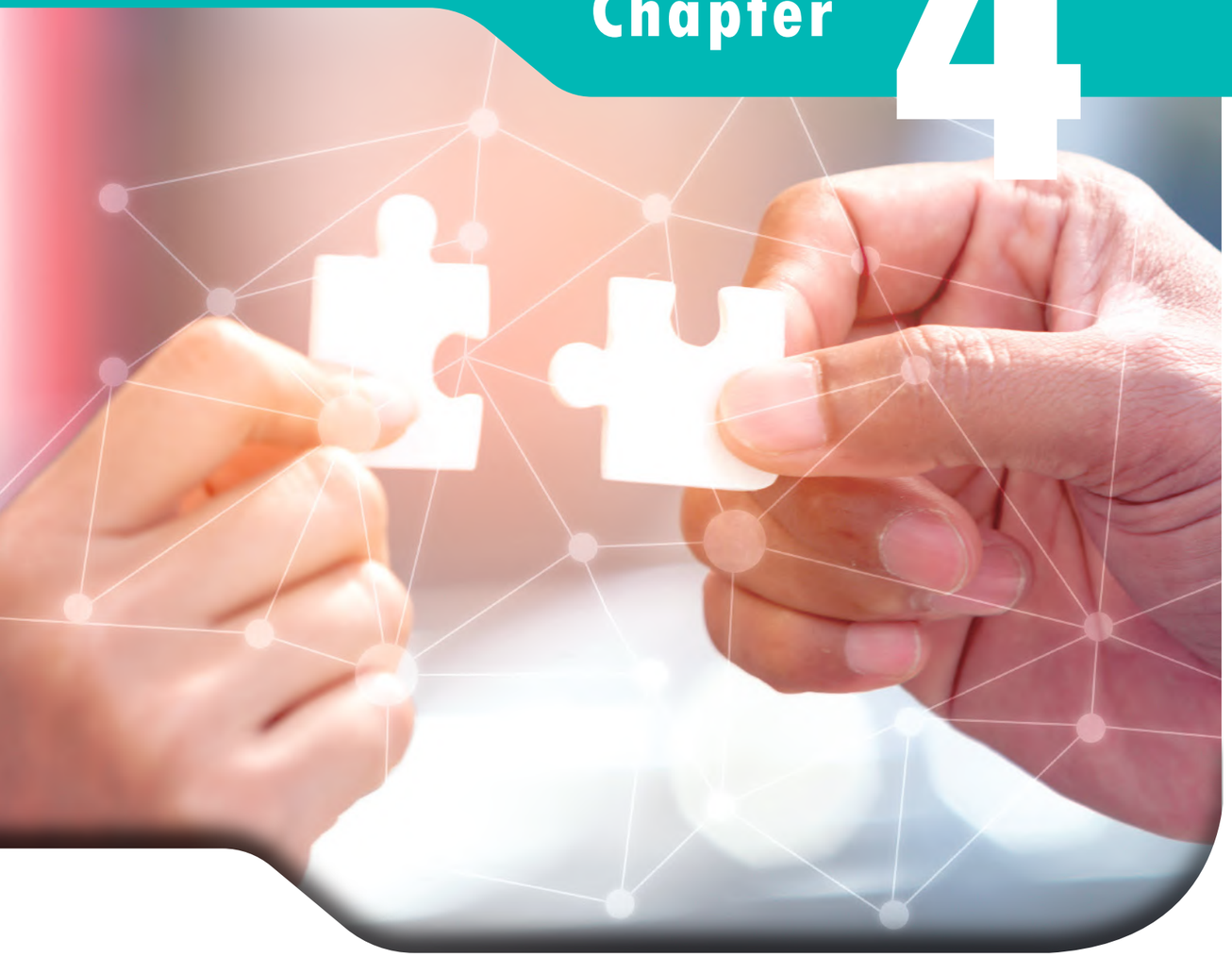
CCDSG

To help disadvantaged children in Malaysia to have a better learning environment, the factory donated six computers to show its care. All computers were delivered by colleagues at the Singapore Factory one by one in person in the hope that they could learn well with the assistance of technology.

Mailiao Factory

The factory sponsored the Xin-Xing Elementary School in Taihsi Township to participate in the 2019 National Music Competition, allowing students to learn and develop in a diverse manner and to enhance education from elementary school.

Chapter 4



Integrity

Highlight Performance

Training rate of 98.7%

Legal compliance and anti-corruption education and training: Company-wide training rate reached 98.7%, and policy communication rate 100%

Won the EcoVadis Silver Medal

DCC won the EcoVadis Silver Medal (ranked among top 13% in the industry)

Important positions in associations

Hold important positions in 7 public associations

Artificial intelligence (AI) applications

Artificial Intelligence (AI) applications: iEar Project—early confirmation of equipment abnormalities based on abnormal sounds

4.1 Corporate Governance and Sustainability

DCC insists on operational transparency, and sets up a Board of Directors in accordance with the Company Act and the Securities and Exchange Act; meanwhile, DCC focuses on shareholder equity and employee benefits. For a long time, the Board of Directors has continuously improved its corporate governance system, and conducted self-examination to reinforce employees' awareness of legal compliance as well as supervision and management of its subsidiaries; meanwhile, it also deepens its corporate social responsibility, emphasizes the concept of sustainable development, and maximizes the interests of its stakeholders. Starting from the Group's own core business, DCC focuses on three aspects including environmental protection, social relations, and corporate governance by providing well-cared products and services to create a better life for our society.

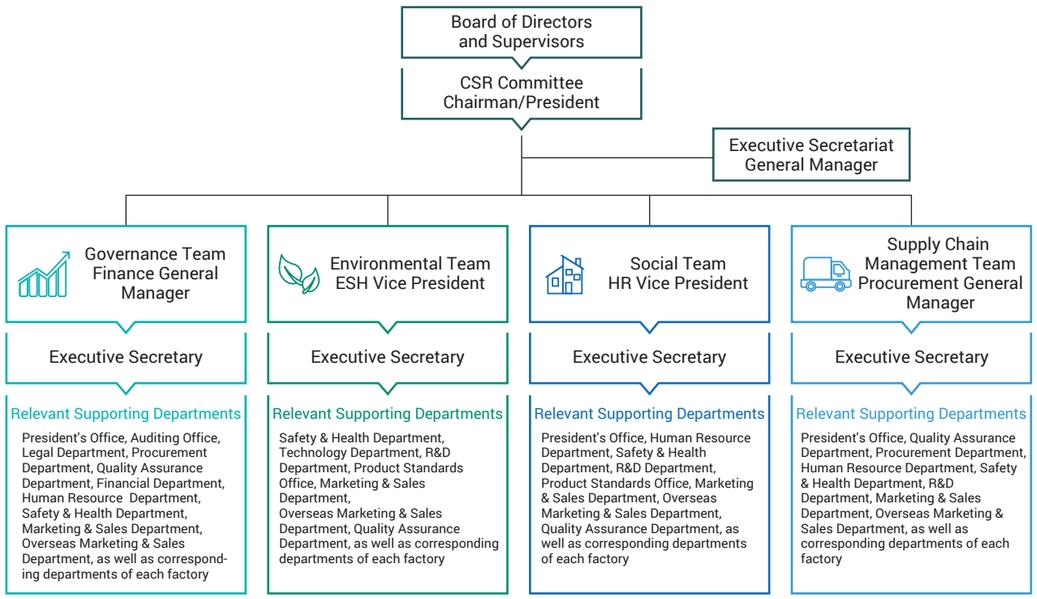
4.1.1 Sustainable Management Strategy

CSR Governance and Management Organization

DCC established its CSR Committee in 2019. Following the Group's organizational structure, the Chairman serves as the Committee Chair, and Presidents serve as Committee Vice Chairs, under which are Executive Secretariat, Governance Team, Social Team, Environmental Team, and Supply Chain Management Team, and the Executive Director of the Executive Secretariat and all team leaders are held by heads of responsible departments and they are also members of the Committee.

The Executive Secretariat supports cooperating departments and helps integrate issues with factory representatives, while reporting results of sustainable performance and stakeholder communication results, on a quarterly basis, to the CSR Committee.

DCC's CSR Committee Structure



In order to implement the sustainable development strategy, the CSR Committee, in collaboration with its subordinate CSR teams, formulates short-term and mid- to long-term sustainable development goals as well as action plans, and systematically plans related risk management issues for each responsible unit to implement and report. The heads of all CSR teams are responsible for leading and supervising the implementation status and reporting regularly to the Executive Secretariat, which shall then report to the Chairman and General Managers.

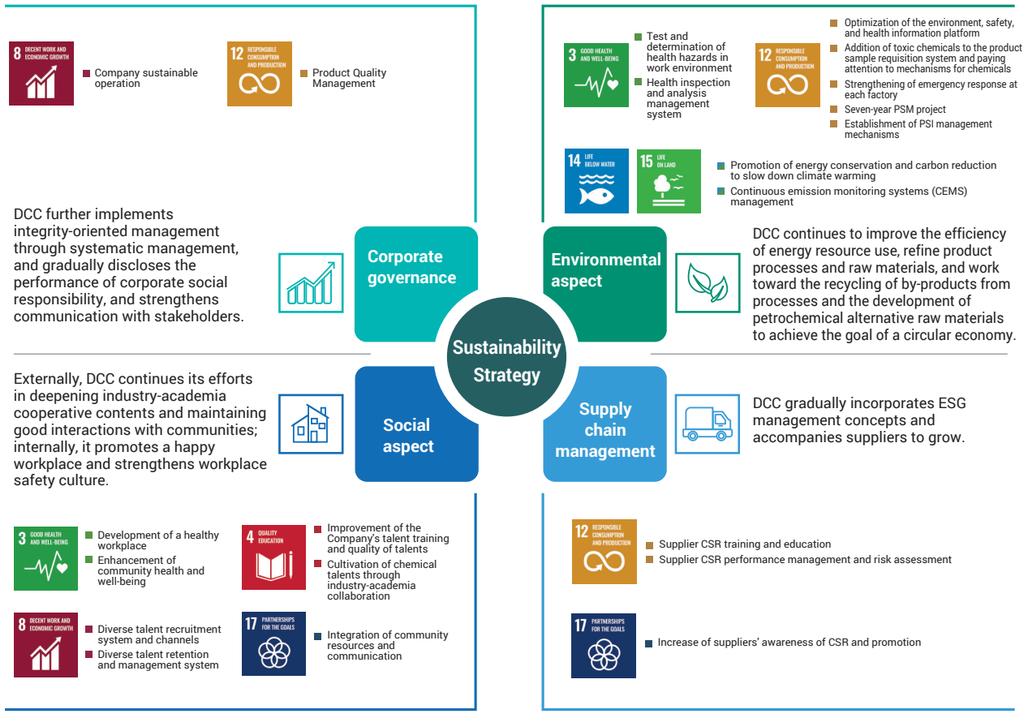
DCC's Response to the UN's Sustainable Development Goals (SDGs)

Since its establishment, DCC, as a part of the Group, has been committed to future sustainable management while pursuing revenue growth based on the corporate social responsibility; centered on its business philosophy, the Group has worked to shape the corporate culture and develop a sustainability strategy based on the core industry, seeking growth and common prosperity for businesses, the environment, and society.

In addition, DCC understands that the integration of our sustainable development strategy and the UN's Sustainable Development Goals (SDGs) requires overall investment and support of the organization. We conducted analyses of different phases based on the following steps in 2019:

DCC has striven hard to respond to the following 11 goals for sustainable development. We encourage all employees to increase their understanding of SDGs and inspire employees to help society through their professional work. Meanwhile, in line with DCC's core ideal for "creating sustainable value with society," DCC will grow and prosper along with stakeholders, satisfy the society's needs and expectations for DCC, and expand its positive influence.

Sustainability Strategy



DCC, as a member of the Group, sets the sustainable development goals and action plans together with the Group in accordance with the Group's value. See the table below for details:

Governance Aspect

Completed | In progress

2019 Achievement Status Description	2020-2021 Short-term Goals and Action Plans	Mid- and long-term Goals and Action Plans
Group ethics and integrity		
✓ Implemented compliance and anti-corruption education and training through E-learning, the training rate of DCC was over 98.7%. Please see Appendix D for the completion rate of each factory	■ **Implement the Group's code of ethics** ▸ Human rights and legal compliance training and education are implemented each year and the training is extended to overseas factories.	■ **Implement the Group's code of ethics** ▸ Strengthen grievance, reporting channels, and internal investigation procedures
Co-exist and co-prosper with stakeholders		
✓ Collected 74 copies of questionnaires from senior executives and 325 copies from stakeholders at home and abroad, identified six material topic s after analysis, and revealed relevant performance in the 2019 CSR report	■ **Understand stakeholders and their connections with the Group** ▸ Expand the scope of the stakeholder questionnaire distribution to overseas factories	■ **Obtain stakeholders' trust and respect for the Group** ▸ Establish diversified and systematic communication channels, interact with stakeholders, and explain their issues of concern
Product quality		
✓ Integrated and improved the quality system of the factories, including customer opinion management, non-conformance and correction measures management, and quality change management ✓ Completed 4 sessions of education and training on seven basic tools of quality and SPC. ✓ Factories cultivated quality assurance talents in accordance with the training maps	■ **Continuous improvement of product quality** ▸ Integrate the Group's quality operating system ▸ Continuously improve operation standardization ▸ Strengthen general training on quality ▸ Continuously improve customer complaints and non-compliance	■ **Establish customer-oriented quality requirements and expectations** ▸ Improve Q&A ▸ Improve statistical technologies for process management and control and quality management ▸ Value changes in quality and improve product quality in the manufacturing process ▸ Introduce automatic analysis equipment ▸ Establish knowledge databases
Group's sustainable development		
✓ Evaluated CSR issues in the assessments of risks/opportunities in the ISO quality and environmental safety and health system and established relevant goals ✓ The Group held 14 sessions of SDGs recognition training (130 participants from DCC), 14 sessions of SDGs workshops, interviews with three senior executives, and finally drew up a CCPG's SDG sustainable strategy blueprint, and linked the Group's goals to 11 SDGs	■ **Promote CSR governance framework** ▸ Evaluate CSR issues in the ISO assessments of risks/opportunities ■ **Connect to the United Nations Sustainable Development Goals (SDGs) and use universal language and goals** ▸ Deepen the connection between SDGs and the core business of CCPG, and continue to develop feasible action plans	■ **Link the Group's core values and products with CSR** ■ **Periodically assess CSR implementation performance and management principles**
Corporate image		
✓ The Group, of which DCC is a member, has issued the CCPG CSR report in June 2019, disclosing CSR-related issues ✓ Placed the Traditional Chinese, Simplified Chinese, and English versions of its CSR Report on CCPG's official website for stakeholders to download so as to achieve effective communication	■ **Reinforce information transparency and establish the Group's CSR image** ▸ DCC is expected to issue the first CSR report in May 2020 to strengthen its disclosure of CSR performance of each company ▸ Establish a CSR website to improve the accessibility of the website and the effects of external communications	■ **Become CSR benchmark for industry peers** ▸ Continue to improve CSR strategies and programs

Supply chain

Completed | In progress

2019 Achievement Status Description	2020-2021 Short-term Goals and Action Plans	Mid- and long-term Goals and Action Plans
CSR advocacy and commitment		
✓ Completed the revision of the English standard contract in 2019 and incorporated it into the Supplier Code of Conduct ✓ Fully established the method and channel for signing the Supplier Code of Conduct in 2019	✓ The Group continues to complete the 100% signing of the Supplier Code of Conduct.	■ **Develop sustainable procurement policies and advocate related concepts** ▸ Update the contents and include them in the Supplier Code of Conduct based on the sustainable supply chain strategy ▸ Implement supplier CSR training and education and facilitate CSR value exchanges and communication ▸ Plan the establishment of a B2B platform for foreign suppliers and launch the digital signing of the Supplier Code of Conduct
CSR risk assessment and management		
✓ Completed the review of the risk assessment elements of the main raw material suppliers in 2019 [quality/safety/environmental protection/ human rights/society] ✓ Completed CCPG's CSR risk assessment questionnaire ✓ Completed CSR questionnaire survey and statistics for DCC's 27 main suppliers of major raw materials in 2019; please see 1.4.2 Supplier Management System for details	✓ The Group continues to conduct on-site audits of suppliers with high CSR risks	■ **Practice supplier CSR performance management and risk assessment** ▸ The Group continues to conduct on-site audits of suppliers with high CSR risks ▸ Commend suppliers with good performance ▸ Adjust procurement strategy to encourage suppliers to practice CSR

Environmental Aspect

Completed | In progress

2019 Achievement Status Description	2020-2021 Short-term Goals and Action Plans	Mid- and long-term Goals and Action Plans
Group energy conservation & carbon reduction		
✓ Completed multiple water conservation and energy conservation projects; refer to 2.2.1 Energy Conservation and Carbon Reduction Action and 2.3.1 Water Management ✓ Formulating an instruction manual for energy efficiency diagnosis for public systems (cooling water, pneumatic, and ice water systems, as well as boilers) ✓ Tracking factories' status of energy consumption and reduction measures and scheduling review of 11 major product at original units and explanation of status of energy consumption ✓ Introducing the ISO 50001 energy management system to the Group at home and abroad	■ **Reduce unit energy consumption by 3% for energy and water consumption at various factories** ▸ Implement ISO 50001 Energy Management System ▸ Improve the performance management system of energy conservation targets ▸ Continuously optimize energy conservation and carbon reduction platform ▸ Perform diagnosis of factory energy efficiency performance by a team of experts ▸ Offer regular feedback on energy conservation performance for completed improvement projects ▸ Instruction manual for energy efficiency diagnosis of public systems (cooling water, pneumatic, and ice water systems, as well as boilers) ▸ Promote waste recycling economy ▸ Supervise the implementation performance of the Group's water recycling, with a water recovery rate (R1) of more than 75%	■ **Optimize Group energy usage structure and performance** ▸ Improve the energy conservation and carbon emissions reduction management system ▸ Establish an energy conservation and carbon emissions reduction platform ▸ Produce digital review forms ▸ Establish waste reduction KPIs ▸ Performance management of carbon emissions reduction action plans in various factories ▸ Enhance recycling of water resources at the Group's factories

Environmental Aspect

Completed ✓ In progress ✓

2019 Achievement Status Description	2020-2021 Short-term Goals and Action Plans	Mid- and long-term Goals and Action Plans
Climate Change Adaptation		
✓ Introduced TCFD; please refer to 2.2.3 Climate Change Adaptation for details ✓ Collected and compiled 21 climate-related risks that may affect operations ✓ Held four TCFD interviews and education training sessions, with a total of 50 participants from DCC	■ **Collect and evaluate issues related to TCFD opportunities** ▶ Collect issues that may lead to opportunities arising from climate change that may affect operations ▶ Draw up response measures for issues related to opportunities	■ **Establish a climate change adaptation management system** ▶ Introduce TCFD to environmental management system ▶ Continuously improve PDCA
Expand and optimize the management system of the environment, safety, and health information platform		
Regulations identification system ✓ Expanded the scope of reports for changes in regulations to include regulations under the jurisdiction of various departments of the Head Office ✓ Defined and evaluated the boundaries of regulations (involvement of business management) ✓ Completed the establishment of procedures for changes, identification and reporting, and approval ✓ Completed holding seminars on regulations management systems at home and broad	■ **Optimize the regulations identification system** ▶ Add new regulations on the environment, safety, and health; optimize the change execution procedure system ▶ Continuously optimize the system for adding of draft regulations and amendment notification ▶ Comply with ISO management review standards ▶ Autonomously audit the record system for certificates in all factories	■ **Comply with laws to prevent risk exposure of the Group** ▶ Expand the jurisdictions of regulations identification to the laws and regulations governing Singapore and Malaysia ▶ Extend the list of regulations under management to the contracts and agreements with stakeholders, involved during business operations ▶ Continuously amend the regulation changes, identification, non-conformity improvement, and approval procedures ▶ Organized briefing sessions on the operation of the regulation identification system between different factories from time to time
Environmental protection certificate management mechanisms ✓ Completed the toxic chemical certificate and document management system in the first year, and the data sorting and collection in air pollution, wastewater, and waste systems	■ **Establish information platform for environment, safety, and health certificate management** ▶ Gradually establish air pollution, waste water, and waste system modules ■ **Establish a license management platform for dedicated personnel** ▶ Define the scope of management of air, water, waste, and toxic chemical dedicated personnel, safety, and health certificates and documents	■ **Reduce the number of environmental protection penalties** ▶ Continue to optimize the environmental protection certification management platform and procedures
Chemical Management of the Group		
Link ERP product and raw material system to chemical regulations database ✓ Organized chemical management education and training for each factory of the Group and explained the contents of the form to be filled in; held seven sessions with a total of 94 participants ✓ Investigated the short code of finished products and the UN number of dangerous raw materials, and updated the material number (Hp code) and the CAS number ✓ Added and optimized the chemical database and linked the classification of dangerous goods transported between domestic and overseas procurement as well as import systems ✓ Linked product counting and declaration system to regulations database	■ **Conduct registration of the Group's existing chemical substance standards and declaration of annual manufacturing and import volume** ▶ Complete registration of chemical substance standards (32 items for the CCPG HSE Division; seven items for the Product Standards Office) ▶ Declare annual manufacturing and input volume (300 or more items) ▶ Strengthen chemical substance information in the product system ■ **Establish control mechanisms for toxic chemicals and chemical substances of concern in product sample requisition system** ▶ Link the product sample system to the chemical regulation system for management and control	■ **Establish the chemical products operations database.** ▶ Strengthen the review and alert mechanisms of the chemical substance operation system ▶ Establish control mechanisms for regulations on chemicals in manufacturing and procurement operations ▶ Strengthen the education and training of the contact person in charge of chemicals at each factory and the operation of system platforms

Environmental Aspect

Completed ✓ In progress ✓

2019 Achievement Status Description	2020-2021 Short-term Goals and Action Plans	Mid- and long-term Goals and Action Plans
Chemical Management of the Group		
Operations and management system for small amounts of toxic chemical substances ✓ Completed sample requisition and sampling of the chemical management databased in the first year ✓ Because of the consideration for the Environmental Protection Agency's chemicals newly added for management, the second-year plan is incorporated into the 2020 plan with chemical substances of concern added to be implemented together	■ **Establish a management mechanism for chemical substances of concern** ▶ Confirm and announce the list under management and control ▶ Screen and provide a list to each factory for operations ▶ Raise awareness of the matters that need to be done ■ **Establish a laboratory inventory control system for toxic chemical substances and chemical substances of concern** ▶ Compile the lists of toxic chemicals and chemical substances of concern in all laboratories and factories ▶ Establish a laboratory inventory control system for toxic chemical substances and chemical substances of concern	▶ Reduce the number of toxic chemicals in operation and reduce associated operational risks ▶ Establish a list of toxic chemical substances in laboratories ▶ Coordinate the establishment of operations and management systems for small amounts of toxic chemical substances ▶ Conduct onsite inspections on the use, reports, and quantity from time to time
CEMS information platform		
Group wastewater, exhaust gas incineration tower, and equipment component usage monitoring and management system ✓ Completed the establishment and connection of the flares at overseas factories with the CEMS reporting management system ✓ Completed the establishment and connection of the outlets of effluent at overseas factories with the CEMS reporting management system ✓ Completed the automatic reports on iSender and mails for flares and outlets of effluent	■ **iVOCs leakage monitoring information platform** ▶ Turn process lay-out diagram and VOCs detector into digital images and information ▶ CMMS communication system for equipment component leakage and early warning repairs form ■ **CEMS information platform** ▶ Real-time data records of cogeneration plants	■ **Improve the monitoring and management system** ▶ Complete automatic notification on iSender and mails ▶ Expand to overseas factories
Strengthen emergency response of each factory and conduct information management		
✓ Completed two response personnel training sessions for a total of 70 drivers with the Group; DCC completed one primary instructor personnel training session for 18 participants, two technical/expert emergency response personnel training sessions for a total of 41 participants, and one emergency command personnel training session for 19 participants ✓ Completed three drills of large amount of toxic chemical leakage (dilution) from tank trucks ✓ Preplan for fire accidents ✓ Establishing and planning an emergency response information platform	■ **Improve the joint defense and factory emergency response performance** ▶ Plan training for professional response personnel at each factory according to the requirements of the amendments to laws and regulations ▷ One general-level professional response personnel training session ▷ One operational-level professional response personnel training session ▷ One technical-level professional response personnel training session ▶ Evaluate the expansion of the scope of the joint defense between each factory according to the number of professional response personnel required by the regulations on the joint defense during transportation ▶ Transportation joint defense drill; response drill within factories ▶ Implement leakage protocol drill and audits ▶ Audit the regular inspection of the equipment, the coverage of the equipment, and the self-defense fire fighting teams as set out in the fire-fighting plan, as well as the deficiencies and improvements in fire-fighting audits in the past years ▶ Organize high-risk chemical exposure response drill	■ **Intensify the joint defense and factory emergency response performance** ▶ Compile statistics on the emergency response plans and personnel training items in all factories to improve the effectiveness of resource investments and strengthen emergency response management ▶ Cooperate with professional response organizations and strengthen the resources for response ▶ Establish a CCPG emergency response mechanism (factories in Taiwan)

Environmental Aspect

Completed | In progress

2019 Achievement Status Description	2020-2021 Short-term Goals and Action Plans	Mid- and long-term Goals and Action Plans
Cultivate the occupational safety awareness of all employees		
Cultivate the occupational safety awareness of all employees ✓ Completed 15 sessions, with more than 500 trainees ✓ Strengthening the irregular execution of job safety analysis (JSA) ✓ Collecting traffic accident videos, regularly raising awareness of traffic safety, and taking care of employees who have a traffic accident	■ **The number of occupational injuries was fewer than 141, and the injury rate (IR) was lower than 0.33** ▶ Continue to organize safety education and training (safety culture and JSA) to increase the coverage rate of employees who have received such training by 20% ▶ Completed the grassroots-level technicians training in conjunction with seed instructors ▶ Disclose the number of occupational injuries and the incident rate at each factory monthly	■ **Improve personnel's safety awareness and build a safety culture for the Group** ▶ Continue to reduce the occurrence of occupational hazards ▶ Use seed instructors to continue to implement education and training for entry-level technical personnel
Seven-year PSM project		
ISO 45001 Safety and Health Management System ✓ Revised the occupational safety and health procedures according to the requirements of ISO 45001 ✓ Organized ISO 45001 education and training for all factories	■ **Implement ISO 45001 Safety and Health Management System** ▶ Organize ISO 45001 education and training ▶ Obtain ISO 45001 certification	■ **Obtain ISO 45001 certification and continuous improvement procedures** ▶ Organize ISO 45001 education and training for all plants ▶ Continue to integrate and optimize the procedures
✓ Completed the review of the process safety management (PSM) measures, process safety information management measures, and CCPG process hazard analysis and management measures ✓ Assisted each factory with work related to process hazard analysis (PHA), including ECR, PVA6, HP6, and re-assessment of other substances in Class A and C. ✓ Completed nine PHA seminars on incident cases with the Group, through which the process safety engineers drew on the experience and strengthened their PHA techniques ✓ Completed the audits by PSM experts and scholars and cross-factory audits, and incorporated relevant deficiencies identified in the audits into the system for improvement and tracking management ✓ All factories in Taiwan have adopted the CMMS system, and organized seminars on introduction of the system ✓ Reviewed PSSR procedures	Tier-1 process safety incident was fewer than three cases ■ **Enhance PSM process safety hazard assessment** ▶ Introduce PHA for non-routine operations ▶ Introduce Layers of Protection Analysis (LOPA) ▶ Establish process safety management performance indicators ▶ Review failure cases ■ **Implement group-wide chemical essential hazards (SDS)** ▶ Develop a plan for raising awareness of the essential hazards of chemicals substances ▶ Launch training to enhance all staff's knowledge of chemical substances ▶ Track training effectiveness ■ **Safety production operational code (including the introduction of leakage response regulations)** ▶ Incorporate leakage response regulations into the safety production operational code ▶ Track the effectiveness of drills	■ **Continue to improve PSM performance in all factories** ▶ Continue to review and revise the PSM procedures ▶ Intensify PSM concepts ▶ Regularly review and amend the audit manual to cultivate audit and observation capabilities of PSM auditors
Establish a platform for digital permit forms		
✓ Completed the discussion and formulation of the work permit procedure and the format of the work permit form ✓ Completed the establishment of management systems for the hanging operation, operation in confined space, elevated operation, hypoxic operation, unsealing operation, excavating operation, and operation using a water jet cutter, and launched the systems after testing ✓ Divided of the CCP MAP of each factory into the first and the second tiers ✓ Took Dafa Factory as the pilot factory, and organized a briefing session and system testing at the factory	Completed in 2019	-

Environmental Aspect

Completed | In progress

2019 Achievement Status Description	2020-2021 Short-term Goals and Action Plans	Mid- and long-term Goals and Action Plans
Establishment of PSI management mechanisms		
✓ Completed review of PSI procedures ✓ Established a management system executed by process safety engineers for PSI ✓ Completed the establishment of inspection forms in accordance with relevant API and other international standards, including P&ID, atmospheric tanks, emergency shut off valves, and control rooms ✓ Continuously incorporated inspection results into the system for management	Completed in 2019	-
Implement effective evaluation of special hazardous operations		
✓ Completed labor exposure survey and tested similar exposure groups ✓ Formulated and promoted bidding and acceptance guidelines for testing ✓ Implemented a pilot testing plan and the regulations on report review ✓ Launched the bidding and acceptance guidelines for testing at each factory to improve data quality ✓ Confirmed the location planning and control measures for formaldehyde detection at the Mailiao Factory ✓ Selected high-risk chemical substances at each factory for exposure evaluation	■ **More than 95% of the data executed by each factory in accordance with the test regulations** ▶ Confirmed the effectiveness of each factory's implementation of the Group's test regulations ▶ Conduct exposure assessment of high health hazard risks at each factory ▶ Evaluate the optimal locations of formaldehyde detection at Mailiao Factory ▶ Evaluate the effectiveness of the improvement of the formaldehyde factory at Mailiao Factory ▶ Formulate the Group's respiratory protection procedure plan	■ **Continue to implement effective evaluation of special hazardous operations** ▶ Review the monitoring plans and monitoring reports of factories ▶ Screen high-risk areas for chemical exposure
Health inspection and analysis management system		
✓ Confirmed the health checkup items of all the factories (general and special) of the whole Group ✓ Formulated the confidential consent form before health checkup and a questionnaire management system ✓ Established a notification management system for special and abnormal items after health checkup ✓ Established an annual general post-checkup evaluation and grading management system ✓ Established a grading and management system for predicting overwork (cardiovascular status) ✓ Established electronic records management system for professional physicians' on-site services	■ **The import rate of all employees' health examination data exceeded 95%** ▶ Establish a personalized health checkup data inquiry system ▶ Plan to establish visualized health charts over the years ▶ Compile occupational health materials in a database ▶ Establish electronic records of interviews given by professional medical staff ▶ Plan to link health data to management measures	■ **Establish analysis functions and health management modules** ▶ Design connections in the health education system ▶ Train factory nurses in the use of the analysis management system

Social Aspect

Completed ✓ In progress ✓

2019 Achievement Status Description	2020-2021 Short-term Goals and Action Plans	Mid- and long-term Goals and Action Plans
Diverse talent recruitment system and channels		
✓ Achieved more than 95% in annual planned manpower requirement adequacy ratio of the Group as planned and more than 90% in recruitment adequacy ratio for temporary demands. Completed manpower replenishment within six weeks. ✓ The Group participated in nine job fairs at school, two job fairs held by the International Trade Institute, and four general job fairs ✓ Optimized the operation of the talent recruitment website interface, autobiography and transcripts could be uploaded to the recruitment website for reference	■ **Expand recruitment channels** ▶ Enter the campus to increase the visibility of the Company (organized 8 sessions of campus talent recruitment activities) ▶ Share the Group's recruitment experience and promotional materials and resources with overseas companies ■ **Establish a talent recruitment website for overseas companies to put together talent recruitment resources** ▶ Create a WeChat official account to diversify the Company's publicity channels	■ **Key talent recruitment** ▶ Analyze functional requirements and give feedback to talent recruitment
Optimize talent cultivation and placement regulations		
✓ Optimized and promoted an instructor system and developed online courses regarding instructor teaching skills ✓ Offered classes on core functions and management functions at various job levels, management function-related classes, and professional function classes for the Human Resources Department (DCC's class hours reached a total of 1,900 hours with a total of 353 participants) ✓ Launched the digitalized annual training program system online to share course resources ✓ Offered various classes regarding leadership improvement for supervisors at the department and the section levels ✓ Performed audits of education and training at the Group's domestic and overseas factories ✓ Performed inspection of product supervisors' work ✓ Integrated the human resources business of each factory and promoted the Group's policy (close-range assistance) ✓ Helped the Group's factories and Head Office produce digital education materials ✓ Encouraged employees to learn independently and provided all employees with free platforms for learning English and Japanese ✓ Selected awardees and presented the CCPG Award ✓ Launched the overseas performance appraisal system ✓ Conduct an inspection of professional competencies and establishing a key talent database	■ **Optimize existing education and training institutions and system for full promotion, visits, and implementation** ▶ Establish education and training committees for each professional category ▶ Integrate management reports for education and training hours ▶ Promote an internal instructor system ▶ Model senior employees' experience sharing ▶ Promote in-house instructor training (including digital course developers) ■ **Accelerate the establishment of professional courses** ▶ Help the Group's factories and Head Office produce digital education materials ▶ Perform inspection of engineers' work at the department level ▶ Assist in launching copper foil training classes and the product introduction of each section under the Marketing& Sales Department online ■ **Enhance executives' management skills:** ▶ Organize various courses such as cultivation of high-performance employees for the heads of sections and departments ▶ Define required courses for the heads of sections and departments ▶ Senior executive strategic management training ■ **Plan annual training programs based on the theme of communication** ■ **Integrate the human resources business of each factory and promote the Group's policy (close-range assistance)** ■ **Continue to promote the CCPG Reading Club and EMBA essay competition, to encourage the exchange of experience and knowledge** ■ **Plan grouping, diversion, and remote working in response to the impact of COVID-19**	■ **Plan talent development blueprint** ▶ Establish key talent bank, develop employee individual development plan, and organize management trainee program

Social Aspect

Completed ✓ In progress ✓

2019 Achievement Status Description	2020-2021 Short-term Goals and Action Plans	Mid- and long-term Goals and Action Plans
Talent retention and management Diversify the system		
✓ Organized the paint coloring contest of"Painting CCPG" and the senior employee award presentation of "Appreciation for Twenty Years of Contribution" ✓ Implemented the self-appropriation of 6% plus 1% new pension system reward project ✓ Provided education subsidies for children of expatriate employees ✓ Additionally provided psychological counseling services to employees via the communication software of Line and WeChat, and expanded the services to employees at overseas factories ✓ Reviewed the salary structure of overseas companies	■ **Execute a project of promoting executive technicians to engineers** ■ **Enhance a recommendation and reward system of overseas factories** ■ **Fully promote the non-salary benefit items** ▶ Promote the CCPG Family Day and parent-child seminars ▶ Expand the CCPG paint coloring contest ■ **Strengthen relations with employees** ▶ Human Resources Department interviews employees returning from overseas assignments and provide suitable resources ▶ Organize work satisfaction surveys for Section Chiefs every three years	■ **Establish a happy workplace** ▶ Formulate reward and talent retention related measures ▶ Regularly collect employees' opinions for the Company to review and improve corporate strategy ▶ Enhance employee benefits and build a friendly working environment ▶ Promote club activities and encourage employees to establish various clubs
Increase social welfare involvement		
✓ Collected 39 internal copies of questionnaires and established five major themes of common good between CCPG and society (see 3.4 Social Investment for details) ✓ In 2019, DCC participated and sponsored 92 events at home and abroad ✓ DCC held blood donation activities with a total of 543 bags of blood donated, and held a total of two beach-cleaning and one mountain-cleaning activities in northern, central, and southern Taiwan ✓ Implemented an internship system, with a total of 11 interns in DCC	■ **Organize activities in line with the five major themes of the common good between the Group and society and deepen the connection with stakeholders** ▶ Establish a common good proposal platform and a reward system to motivate proposals from various factories ■ **Continue to promote summer internships for sophomore and junior undergraduate students and first-year graduate students**	■ **Integrate the Group's resources for social investment** ▶ Propose long-term and continuous charity activities ▶ Promote Taiwan's petrochemical strength and actively participate in the government's high-value petrochemical industry promotion

4.1.2 Corporate Governance

DCC's corporate governance is effectively supervised and strategically guided by each company's Board of Directors. DCC assigns dedicated auditing personnel to complete the supervision function, and conducts operational audits for each company and each department. This is to ensure that the business operations are conducted without any irregularities, that all information is correct, that its disclosure is immediate, and that the laws and regulations are strictly followed. The supervisors learn about the Company's actual operations through the audit report and financial statements and propose recommendations.

Secondly, in principle, the Board of Directors meets on a quarterly basis, and the frequency of meetings is increased when necessary. The Board of Directors, on a quarterly basis, listens to the management team's reporting, including General Manager, and has dialogues with management team members. The management team proposes the Company's vision and strategy to the Board of Directors. The Board of Directors assesses the feasibility of the Company's strategy and urges the implementation schedule.

Members of the Board of Directors 15

Number of meetings in 2019 5

Attendance Rate 92%

In 2019, the Company convened five meetings of the Board of Directors according to business needs, amending partial provisions of the following four parts

- "Procedures for the Acquisition or Disposal of Assets"
- "Regulations for Endorsements and Guarantees"
- "Regulations for Lending to Others"
- "Procedures for Engaging in Derivatives Trading"

Procedures for the selection of Directors and Supervisors of DCC have been established in accordance with related regulations and rigorous selection procedures. In addition to professional management expertise, the Company values personal ethics and leadership skills to ensure their professionalism and independence and provide the most appropriate strategic guidance for the future development of the Company. To further improve the Company's operating procedures and strengthen the improvement of the Board of Directors' corporate governance and compliance with laws and regulations.

The professional experience of Board members and supervisors as well as relevant discussions have been publicly disclosed in the Group company's annual report. For the corporate governance structure of DCC, please refer to the official website—Organization.

official website—Organization

4.1.3 Risk Management

DCC upholds the Group's core management philosophy of "Integrity, Customer First, Creative Innovations" as revealed by CCPG's three founding members, and clearly defined its Code of Conduct as the guidelines for all employees to follow while cooperating with customers, suppliers and other business partners, shaping the Company's ethical corporate culture.

DCC adheres to the Group's value. In order to effectively keep abreast of business risks and opportunities, after we assess the impacts of relevant issues on sustainable operation, the risk management is divided into six major aspects. Each dedicated department produces a risk matrix according to the frequency and severity of the occurrence, proposes response measures with respect to high-risk issues, conducts management following the PDCA process, and regularly reviews and tracks effectiveness at the management review meeting. In response to the impact of climate change, the seventh major aspect of risk management was added. In 2019, the Task Force on Climate-Related Financial Disclosures (TCFD) was introduced to identify risks in advance, to continue to strengthen the management system of DCC, and to reduce possible operational impacts.

Seven Aspects of Risk Management

Legal compliance

1. **Establishment of the "Legal Compliance Committee"**

DCC established the "Legal Compliance Committee" to ensure that the corporate governance and management activities comply with the requirements of competent authorities. The President serves as the Chair of the Committee and members include the directors of departments, factory directors, and presidents of overseas factories. They conduct self-evaluations and assessment in accordance with the "Legal Compliance Management Regulations" and Legal Department accompanies the audit units in onsite inspections and regularly reports to the Board of Directors. The Committee continues to follow up on the improvement status of units with discrepancies to improve the Company's sensitivity toward legal compliance.

2. **Legal Compliance and Anti-Corruption Training**

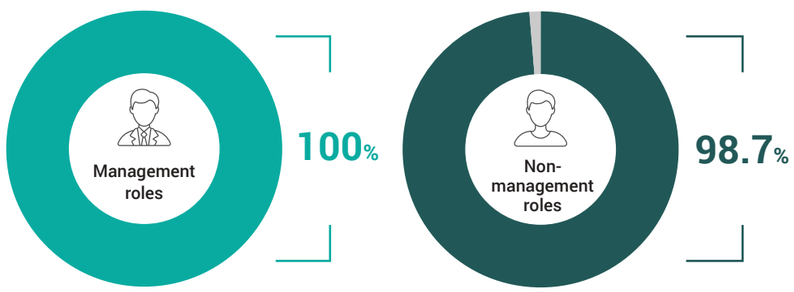
The company-wide training rate is expected to reach 100% by 2020

Starting from 2017, the Directors, Supervisors, and employees in management and non-management roles completed legal compliance and anti-corruption training and passed tests through the Chang Chun e-Learning Platform. Starting from 2019, DCC has organized legal compliance and anti-corruption training every year, and the company-wide education and training rate is more than 98.7%, which is expected to reach 100% in 2020 and in turn helps implementation of the Company's code of ethics.

Compliance and Anti-corruption Education and Training Topics:

- Corporate Code of Conduct
- Compliance—Non-violation of Laws
- Maintenance of Fair Competition Environment—Prohibition of Concerted Behavior and Abuse of Dominant Position
- Anti-bribery and Anti-corruption—Strict Prohibition of All Corruption
- Confidential Information Protection Norms—Business Secrets, Information Security, and Personal Data Protection, and Strict Compliance with Confidential Information Protection Regulations
- Investor Protection—Prohibition of Insider Trading
- Conflicts of Interest and Money Laundering Prevention

Compliance and anti-corruption education—employee training completion rate



Note 1: Management: entry-level supervisors (inclusive) and above; non-management: general staff.
Note 2: Please refer to Appendix D for detailed information of each factory in 2019.

3. **Announcement of Related Anti-Corruption Policies**

   For internal personnel, we use channels such as announcement boards and emails to announce related anti-corruption information. As of the end of 2019, we completed communication with 161 management personnel and 1,448 non-management personnel. The communication ratio of the entire Company was 100%. For external entities, we require suppliers and contractors to sign the Supplier Code of Conduct (1.4.1 Procurement Ethics) to effectively communicate our anti-corruption policies.

   Employees or stakeholders suspected of involvement in illegal activities or violations of codes of conduct may be reported through confidential channels such as the reporting hotline and mailboxes (please refer to 4.2 Stakeholder Communications and Feedback), and the Company will investigate and impose penalties to prevent relevant incidents from recurring.

Internal Control and Risk Management

The Company has established the Auditing Office under the Board of Directors, and independent auditing systems have been adopted to review whether the conduct of the Company meets regulations, internal rules, and operating procedures based on “Internal Control System” and “Internal Audit Implementation Guidelines” established in accordance with the scale and characteristics of the Company. It conducts internal control evaluations each year and reports results to the Board of Directors. The results are adopted to issue the Statement on Internal Control of the Company.

The Auditing Office conducted routine audits of DCC's factories and overseas subsidiaries in 2019, and also conducted unscheduled ad-hoc audits and special audits of internal control cycles. A total of 26 suggestions for improving internal cycles were put forward throughout the year (statistics are provided below), and corrective measures regarding the 23 out of the 26 suggestions have been completed. The remaining three long-term corrective measures still in progress have been included in the system for management and follow-up till completed.

Internal Control Cycle	Suggested Corrections	Completed Corrections	Corrections in Progress
Sales Cycle	4	4	0
Production Cycle	4	4	0
Procurement Cycle	9	8	1
Financing Cycle	1	1	0
Salary Cycle	3	3	0
Property, Plant and Equipment Cycle	3	2	1
Other Control Operations	2	1	1
Total	26	23	3

The Auditing Office has established an independent report mailbox ccpgaudit@ccp.com.tw to actively implement anti-corruption and anti-fraud operations. If a company employee or external party discovers any illegal conduct committed by an employee of the Group, he/she may report the violation.

Financial Risk Management

The Company's financial risks are divided as follows:

1. **Credit Risk:** The main goal is to maintain the quality of accounts receivable. We use credit investigations, credit ratings, payment insurance, assignment of accounts receivable, endorsements and guarantees, and security deposits to lower risk of financial losses arising from the failure of customers or the trading counterparties of financial instruments to perform contractual obligations.
2. **Liquidity Risk:** Maintain cash, cash equivalents, high-liquidity securities and sufficient bank financing limits, etc., required for operations to ensure that the Group has sufficient financial flexibility and liquidity.
3. **Market Risk:** Properly manage exchange rates and interest rate, to control the degree of exposure within an acceptable range.
4. **Property Risk:** Various property insurances are purchased for operating assets, such as fire insurance, property insurance, comprehensive general liability insurance, and cargo transportation insurance, to thereby reduce the risk of losing business assets caused by natural disasters or non-natural disasters, by transferring part of the risks to insurance companies.

Quality Risk Management

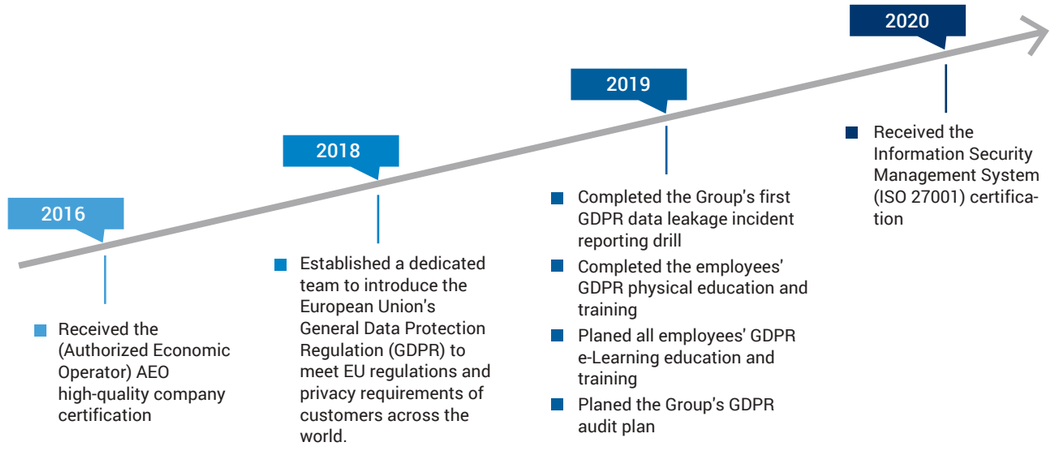
In 2016, a quality risk management system was formulated; from high-risk items identified through annual risk matrix, and major change issues raised through the "List of Internal and External Issues" and "List of Stakeholders and Topics of Concern," the Company assesses the risk levels which may influence the Company's quality management systems, in order to take countermeasures and control measures, reduce the impacts on products and services, and increase competitive advantages.

Environmental and Occupational Safety and Health Risks

Occupational safety and health are the most important issue of concern to the Company. DCC has implemented new ISO requirements and updated the material issues, environmental concerns, and safety and health hazard identification to implement risk assessments inside and outside the Company and factories. DCC also actively implements four major plans, namely the Job Safety Analysis (JSA), standard operating procedures (SOP) for operation safety requirements, hazard and operability study (HAZOP), and labor health protection, as well as comprehensive emergency response procedures to reduce its environmental, health, and safety risks. Please refer to 1.3.2 Workplace and Process Safety.

Confidential Business Information Protection

To meet information security requirements of employees, customers, and related stakeholders, DCC introduced the Information Security Management System (ISMS) and Trade Secret Management System (TSMS) and received various information security certifications.



In order to enhance the Group's information security protection, the Company introduced mobile office, new-generation firewall, and email security system in 2018, and AEO and compliance were included in the focus of information security audits in 2019. It is expected that the information security management system (ISO 27001) will be certified in 2020.

In addition, we attach great importance to information security issues. We provide continuous information security training programs each year and implements the “Information Security Policy” and "Business Secret Management Goals and Policy” to continue to enhance employees’ safety awareness through continuous promotion of the policies.

Climate Change Risk Management

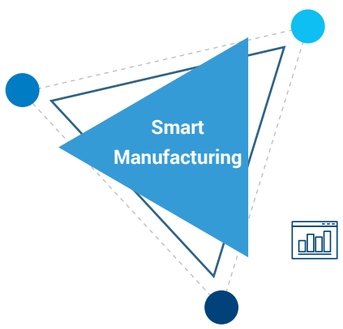
In recent years, the global impact of climate change has intensified. The Company has realized that the climate is no longer a change but a state of emergency, and introduced the TCFD framework in 2019 to identify relevant risks in advance and to reduce possible operational disasters. For details about related relevant and response strategies, see 2.2.3 Climate Change Adaptation.

4.1.4 Smart Manufacturing

DCC applies a large number of advanced electronic information tools in production, management, and communication, improves production efficiency, strengthens quality management, and optimizes the environmental safety and health mechanism, and in turn effectively integrates the information system between each factory to convey important management information in real time and to quickly respond to customer service needs.

With the continuous evolution of information technology and the Company's needs for internationalization, DCC will continue to develop into a smart manufacturing enterprise with the most advanced electronic information technology to realize its business philosophy.

Smart manufacturing applications



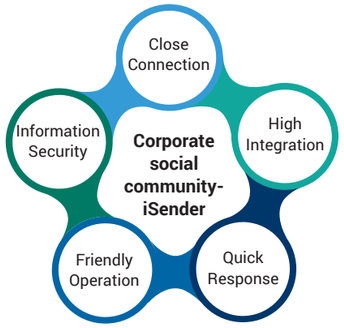
AI Applications
- Product defect classification and defect detection
- Immediate product quality judgment
- Automatic operation process
- Early prediction of equipment abnormalities based on abnormal sounds
- Facial recognition system
- Production data dashboard

Corporate Social Community -iSender
- Replace desktop computers, support different platforms, and browse data directly on mobile phones
- Real-time mobile phone communication; promote team efficiency and information security

Digital Platform for Environmental Protection Regulations
- Real-time air quality monitoring
- Continuous monitoring of wastewater discharge
- Continuous monitoring of flares
- Factory laws and regulations identification
- Equipment uptime rate monitoring

Corporate social community-iSender

The self-developed "iSender" is a powerful internal instant messaging system for the Company, which is indispensable for all employees. iSender has smooth basic communication and group discussion functions, and an announcement section, so that each employee can immediately stay up-to-date with important announcements; it also allows employees to operate the leave, business trips, and overtime systems easily. With a friendly interface, users only need to click a few icons to complete the process, making the application steps simple and fun.



Importantly, iSender is highly integrated with ERP, closely linked with multiple corporate systems, and implements the concept of "Internet of Things." The data of each factory can be transmitted to the management's mobile phones in time, so that they can quickly understand the situation and conduct preventive control before problems occur. iSender is not just a general administrative system; instead, it has gradually developed into the field of industrial control, making the Group a pioneer in the new trend of "Industry 4.0." For a detailed introduction to iSender, please refer to the book "Community Power—Innovation and Application of CCPC App" by Chairman Shean-Tung Lin of DCC.

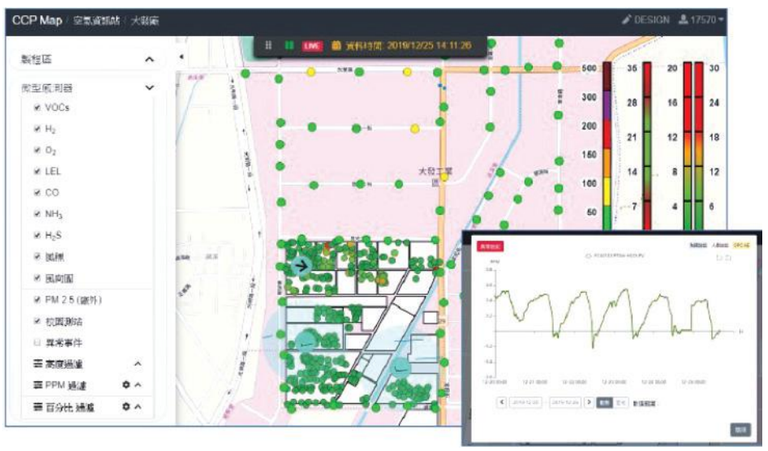
iEar Project—Early confirmation of equipment abnormality based on abnormal sounds

In recent years, during DCC's smart manufacturing transformation, a number of innovative projects have continued to be developed, such as the iEar project, which originated from the fact that CCPG Executive Board Chairman Shu-Hong Lin heard abnormal sounds from equipment while visiting the factory, and then the equipment was repaired early as a result. Afterwards, the team of the Management Information Center began to use AI to simulate the experience of the Chairman, set up an ultrasonic recording device next to the equipment, made good use of AI to analyze the time-frequency plot, and finally successfully developed an automatic warning function to judge the equipment abnormality, so that the production line could prevent equipment abnormalities as early as possible to prevent accidents from occurring. In the future, iEar will be incorporated into the notification robot iSender. If the sound of devices exceeds the threshold value, an alarm will be sent in time to notify relevant personnel, and abnormal audio frequencies will be added to the training so that AI is able to identify the category of each abnormality.

1. Set up an ultrasonic recording device next to equipment
2. Establish AI model with normal sounds of equipment
3. Continue to receive sounds, calculate the distance from normal sounds
4. There is a significant difference between the time-frequency plot and the normal sounds
5. On-site engineer informs that the equipment sound is different from usual
6. Successful judgment, confirm equipment abnormality, and then repair

Self-developed environmental protection digital platform to monitor relevant data in real time

DCC also applies the spirit of smart manufacturing to environmental protection, and has developed an environmental protection digital platform by itself to integrate and monitor the relevant data shared with each factory and the Environmental Protection Bureau, so that the Company's senior management and the CCPG HSE Division at the Taipei Office can keep abreast of the situation and strengthen internal control. If an anomaly occurs to the data, the notification robot iSender will automatically notify the relevant personnel to deal with the emergency and maintain the safety of the environment.



Real-time air quality monitoring

4.2 Stakeholder Communications and Feedback

DCC takes stakeholders' needs and expectations very seriously and it uses questionnaires to conduct surveys and identify and analyze stakeholders' issues of concern as a reference for information disclosure in the report and as the basis for formulating corporate social responsibility policies to facilitate effective communications with different stakeholders.

Identification

7 types of stakeholders

Through AA1000 SES 2015, we identified 7 types of stakeholders of DCC, including employees, suppliers (including products, freight services, and engineering), customers, government/competent authorities, shareholders/joint ventures, community residents, and trade associations.

22 sustainable issues

Based on feedback from internal and external stakeholders, issues related to the company's core business, CSR norms/standards, sustainable trends in the petrochemical industry, and benchmark companies in the industry, 22 sustainable issues were collected.

Analysis

Opinion survey of **74** senior managers

325 valid copies of questionnaires from stakeholders at home and abroad

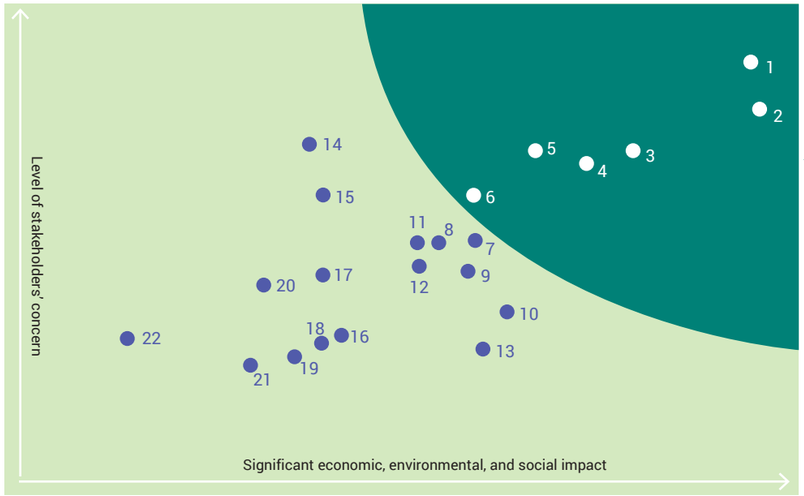
We adopted GRI guidelines, adjusted material topics on questionnaire, and collected the degree of attention of internal and external stakeholders on various issues as an important basis for the analysis of the matrix of material topics.

Confirmation

6 material topics on sustainability

Based on the analysis results of the external stakeholders' and senior managers' opinions, and after the internal discussion of the CSR committee, the opinions of external experts, and the report to the Chairman and General Manager for confirmation, a matrix of material topics of DCC was produced. It was decided that six sustainability topics were critical and important to the company, and are the topics to be disclosed first.

Among them, in corresponding to the topics in the GRI standard, the product quality and safety topic has a high impact on the company's CSR and stakeholders; thus, a product quality and safety management policy was established as the basis for the disclosure of this report.



Six Material Sustainability Topics

1. Material Incident Management and Response
2. Occupational safety and health
3. Product quality and safety
4. Air emission management
5. Customer relationship management
6. Supplier management

7. Risks and opportunities
8. Sustainable development strategy
9. Business performance
10. Talent recruitment and cultivation
11. Environmental impact management and assessment
12. Waste management
13. Labor relations and benefits
14. Corporate governance and integrity
15. Product transportation security
16. Energy management
17. Chemical management
18. Legal compliance
19. Water resource management
20. Product strategy and R&D innovation
21. Community engagement and community care
22. Climate change mitigation and adaptation

Scope and Boundaries of Material Topics

Issues	Corresponding GRI Standards	Significance of Material Topic for DCC	Stakeholder			Stakeholder					Management Approach and Relevant Information	Page number
			Employees	Suppliers		Customers	Governments/ Competent authorities	Shareholders/ Joint ventures	Community Residents	Trade Associations	Corresponding Sections and Chapters	
Material Incident Management and Response	GRI 102-11	We use response training for personnel, incident review and analysis, and regular emergency response drills to familiarize employees with skills and correct procedures for responding to emergencies. The measures effectively reduce the impact on the society and environment in the event of material incidents.		✓			✓	✓	✓	✓	1.3.3 Response and Management of Major Incidents	37
Occupational safety and health	GRI 403	Effectively promote and implement health and safety policies to construct a workplace where laborers can contribute their hard work and achieve sustainable development of DCC.	✓				✓	✓	✓		1.3.2 Workplace and Process Safety 3.3.2 Healthy Workplace	25 92
Product quality and safety	GRI 416 GRI 417	We are committed to providing customers with satisfying products and services and grow along with customers and suppliers. We work hard and innovate to improve quality and ensure that all quality-related activities and product safety meet government regulations, product-related regulations, and customer demands.	✓			✓				✓	1.3.1 Chemical Management 1.2.2 Product Quality Management	23 17
Air emission management	GRI 305	DCC is committed to providing a good living environment for all citizens. Providing citizens with clean air and blue skies is the most powerful driving force for us to continue to improve air pollution.					✓		✓		2.3.2 Air Pollutant Emissions Management	65
Customer relationship management	GRI 418	DCC has always upheld the business philosophy of customers first. It is the goal of all employees to provide comprehensive customer services and increase customer satisfaction.		✓		✓					1.2.3 Customer Communications and Services	20
Supplier management	GRI 204 GRI 404	Suppliers are our strategic partners for improving products and services as well as important stakeholders for implementing corporate social responsibilities. DCC adopts and implements a sustainable supplier policy to effectively manage suppliers, grow with suppliers, and achieve the goal of sustainable development.		✓		✓					1.4 Sustainable Supply Chain Management	43

In order to pursue sustainable development, DCC has categorized stakeholders and established communication channels to effectively collect information from stakeholders, while clarifying stakeholders' needs and expectations as an important reference for the Board of Directors to formulate social responsibility policies and operations.

Stakeholder Engagement

We take stakeholders' needs and expectations very seriously and we use feedback from questionnaires issued by units to identify and analyze stakeholders' topics of concern. The communication channels/frequency in 2019 are shown in the table below

Stakeholder	Communication Channel	Communication Frequency in 2019
Customers	■ Phone, letter, fax, and webpage ■ Visits by customers and customers visiting ■ Exhibitions and trade fairs ■ Customer satisfaction survey ■ Customer's evaluation of factories ■ Establish customer grievance channels	■ Conducted one customer satisfaction survey ■ Participated in one large-scale exhibitions ■ Irregular telephone, email, fax and webpage communications ■ Irregular customer visits and technical services
Suppliers/ contractors	■ Phone, letter, fax, and webpage ■ Mutual visits with suppliers/contractors ■ Training and education for suppliers/ contractors ■ Supplier evaluation and audit	■ Irregular mutual visits with suppliers/contractors ■ DCC provides multiple training sessions to suppliers and contractors each year; it provided training sessions and tests to 7,098 people employed by contractors in 2019 ■ 2,079 suppliers were evaluated ■ 7 suppliers were audited on-site ■ There were a total of 159 qualified suppliers of main raw materials, a total of 75 qualified transportation suppliers, and a total of 512 qualified contractors, unscheduled communication was conducted via phone and email ■ Two transportation safety meetings each year
Community residents surrounding factories	■ All factories provide grievance telephone, mailbox, and security guard booths ■ Participate in/sponsor community activities ■ Environment/public facility adoption and maintenance ■ Invite residents to visit the factories ■ Provide scholarship sponsorship for local and nearby colleges	■ Irregularly visited community residents ■ Participated in and sponsored a total of 92 community activities ■ Actively sponsored local activities and public facility adoption and maintenance ■ Provided a total of 11 internship opportunities to local and surrounding university graduates and offered 1,737 students scholarships ■ Invited 30 community residents to visit factories
Shareholders/ Joint ventures	■ Board of Directors ■ Management meeting and monthly report	■ Four meetings of the Board of Directors were held a year ■ Management meetings were held monthly
Employees/ labor unions	■ Various work meetings (quality/ environment/safety/production, etc.) ■ Various employee benefit meetings ■ Internal meetings or seminars ■ Annual performance evaluation ■ Training Programs ■ Grievance mailbox, E-bulletin board, questionnaire surveys, and interviews	■ Work meetings (weekly/monthly/quarterly/annually) ■ Employee benefit meetings (quarterly) ■ Various irregular meetings ■ Irregular communications, including grievance mailbox, E-bulletin board, questionnaire surveys, interviews, etc. ■ Performance evaluation once a year and four regular evaluations each year
Governments/ Competent authorities	■ Coordinate with central and local competent authority operations, including relevant advocacy and briefing sessions, reviews, audits and meetings, etc. ■ Visits by government officials ■ Joint fire drills ■ Official correspondences	■ Declaration, reviews and factory on-site inspections ■ Official correspondences and telephone communications ■ Irregular visits by government officials ■ Occasional participation in meetings (review meetings/ discussion meetings/seminars/workshops/forums, etc.) multiple times a year
Trade Associations	■ Participate in meetings held by trade associations	■ Participated in meetings irregularly ■ Held important positions in seven public associations

DCC establishes multiple communication channels to address different types of issues: For internal labor and human rights-related issues, employees may bring forth their opinions or appeals through labor-management conference platform and labor union organizations; and for residents nearby factories, smooth communication channels are made available; and for those who are most concerned about environmental issues, feedback information from different platforms is also actively provided; and as for whether the enterprise operations are in line with the principle of good faith, they are supervised by permanent internal audit and internal control units; DCC also has a smooth censure and reporting system, and investigates relevant incidents independently.

Aspect	Grievance Channel	Process	Results
Legal compliance	■ In the event that any department, factory or individual discovers illegal incidents, the Legal Department shall be notified for investigations. Illegal activities may be reported by way of telephone, fax, letters, or emails (CCPGLG@ccp.com.tw). (ccpgaudit@ccp.com.tw)	As for the illegal incidents reported, the Legal Department should conduct investigations or engage in joint investigations with the The Auditing Office and compile reports. The parties involved in illegal incidents shall be corrected and punished, and the recurrence of illegal incidents shall be prevented.	There was one complaint related to corruption in 2019. After investigation, there was no direct evidence to prove that the employee was corrupt, but the employee failed to abide by the factory's operating regulations, and was punished with a major demerit and transferred from the original unit.
Society and economy	■ DCC requires all departments to duly abide by laws and regulations. They are required to actively report illegal activities or notify the Legal Department to conduct investigations. Illegal activities may be reported by way of telephone, fax, letters, or emails (CCPGLG@ccp.com.tw).	Departments shall actively investigate violations in social or economic sectors along with the Auditing Office and formulate reports for filing. Departments shall review compliance issues for violations and response measures for preventing future violations.	There were no reports or complaints related to the social and economic aspects in 2019.

<table>
<tr><th>Aspect</th><th>Grievance Channel</th><th>Process</th><th>Results</th></tr>
<tr><td>Environment</td><td>■ Each factory's Environmental Health and Safety Department
■ Each factory's security guard booth
■ Each factory provides grievance telephone and mailbox</td><td>After grievance cases are received, relevant units at the factory are notified to handle, then report processing status and follow-up results to each company's management levels.</td><td>A total of three complaint cases were received from the public. The handling and responses are as follows
<table>
<tr><th>Factory</th><th>Number of Cases</th><th>Explanation</th></tr>
<tr><td>Kaohsiung Factory</td><td>1</td><td>■ A contractor filed a complaint that the factory's fire extinguishers expired and that the factory did not organize fire-fighting training for the contractor when it arrived at the factory. After an audit performed by the Fire Bureau, it informed the contractor that the fire extinguishers passed the inspection and the factory did organize evacuation training for the contractor.</td></tr>
<tr><td>Dafa Factory</td><td>2</td><td>■ The Environmental Inspection Division of the Environmental Protection Bureau conducted inspection of the Dafa Industrial Park after a complaint from the public that there was white fog in the industrial park. During the inspection, it was found that the steam was discharged normally from the cooling water tower at the Dafa Factory. The inspector determined the operation of the process was normal after investigation. In addition, because there was a camera installed facing outward at a higher position at the factory, the video of the camera was provided on the same day for the main cause of the white fog to the Environmental Protection Bureau for follow-up.
■ There were slight odors on the leeward side at the factory found by the industrial park monitoring center during inspection of the perimeter of the park. They notified the factory personnel to confirm with them. During the joint inspection, they did not smell the odors and notified the personnel in charge of processes of the factory to conduct independent inspections to conclude the cases.</td></tr>
</table></td></tr>
<tr><td>Corporate human rights and labor conditions</td><td>■ Once any department, factory or individual discovers any cases violating human rights and labor conditions, it shall be reported through labor-management platforms, labor union organizations, telephone, fax, letters, or email (achiang@ccp.com.tw).</td><td>When factory directors or the company's human resources department are notified of grievance cases, they shall actively investigate and process the cases. If the grievance cases are proven to be true, the violating parties shall be held accountable according to work rules and relevant laws and regulations. In the case of false accusations and frame-ups, the complainants shall be punished according to the work rules.</td><td>There were no reports or complaints related to corporate human rights and working conditions in 2019.</td></tr>
</table>

External Participation

DCC actively participates in trade associations, academic societies, social gatherings and other non-profit organizations to enhance industrial development and progress through various exchange and sharing activities. In order to exercise specific influence and enhance the value of industrial chain, the Company assigns managers, according to their expertise, to assume roles in relevant organizations and lead industry development or participate in academic research.

I. Signing of the "Responsible Care Global Charter"

Upholding the spirit of "Caring for the Society and Taking Self-Discipline as Our Own Responsibility", DCC signed the commitment and statement of Responsible Care Global Charter in 2000 and has continued to improve chemical manufacturing industry's management systems in the environment, health, and safety (EHS) aspects, in accordance with international standards, to jointly promote social co-prosperity and sustainable development of chemical industry in our country.

II. Participation in French EcoVadis Supplier Sustainability Ratings

EcoVadis is a third-party rating platform in France that promotes the sustainable development of the global supply chain. Its review method is constructed based on international CSR standards. We use a third-party platform to actively ensure the Group's fulfillment of corporate social responsibilities to achieve the goals of sustainable development.

DCC won the silver medal in 2019

- Total score is among the top 13% of the industry
- Ranked among the top 3% of the industry in the aspect of environment
- Ranked among the top 27% of the industry in the aspect of labor and human rights

III. Relevant Trade Unions and Associations

In 2019, DCC participated in a total of five industry associations, two R&D associations and academic societies, and six other associations. DCC also plays important roles in seven organizations and actively communicates with external entities to maximize benefits for sustainable development of the Company.

Industry Associations	Explanation
Taiwan Chemical Industry Association	CCPG Executive Board Vice Chairman Chen Shien-Chang serves as Vice Chairman Chief Consultant Lin Fu-Shen serves as Chairman
Chinese National Federation of Industries	Vice Chairman Huang Ho-Ching served as Alternate Director
Taiwan Synthetic Resin & Adhesives Industrial Association	Vice Chairman Huang Ho-Ching serves as deputy Honorary Chairman Chief Consultant Lin Fu-Shen serves as Director
Petrochemical Industry Association of Taiwan	Chief Consultant Lin, Fu-Shen serves as Chairman
Taiwan Responsible Care Association	Assistant Vice President Hsu, Ying-Chieh serves as Director

R&D Associations and Academic Societies	Explanation
Catalysis Society of Taiwan	CCPG Executive Board Chairman Lin Shu-Hong serves as Honorary Member Chief Consultant Lin Fu-Shen serves as Consultant
Taiwan Institute of Chemical Engineers	CCPG Executive Board Vice Chairman Chen Shien-Chang serves as Director (in his own name)

Other Associations	
Importers and Exporters Association of Taipei	Kaohsiung County Industrial Association
Taiwan Association for Hydrogen Energy	Yunlin Hsien Industrial Association
Dafa Industrial Park Association	Occupational Hygiene Association of Taiwan

GRI Standards Indicator Reference Table

General Disclosures

GRI Standards		Disclosure Item	Chapter	Page number
		Organizational Profile		
GRI 102: General Disclosures	102-1	Name of organization	1.1 About DCC	6
	102-2	Activities, brands, products and services	1.1 About DCC 1.1.1 Main Products and Operating Locations	6 6
	102-3	Location of headquarters	1.1.1 Main Products and Operating Locations	6
	102-4	Location of operations		
	102-5	Ownership and legal form		
	102-6	Markets served	1.1.1 Main Products and Operating Locations	6
	102-7	Scale of the organization	1.1.1 Main Products and Operating Locations 1.1.2 Operating Performance	6 12
	102-8	Information on employees and other workers	3.1.2 Talent Composition	75
	102-9	Supply chain	1.4 Sustainable Supply Chain Management	43
	102-10	Significant changes to the organization and its supply chain	■ No material changes in 2019	
	102-11	Precautionary principle or approach	4.1.3 Risk Management 2.2.3 Climate Change Adaptation	116 59
	102-12	External initiatives	4.2 Stakeholder Communications and Feedback	123
	102-13	Membership of associations		
		Strategy		
	102-14	Statement from senior decision-maker	Message from the CEO	3
	102-15	Key impacts, risks, and opportunities	4.1.3 Risk Management	116
	102-16	Values, principles, standards, and norms of behavior	4.1.3 Risk Management	116
	102-17	Mechanisms for advice and concerns about ethics		
		Governance		
	102-18	Governance structure	4.1.2 Corporate Governance 4.1.1 Sustainable Management Strategy	115 106
	102-19	Delegating authority	4.1.1 Sustainable Management Strategy	106
	102-20	Executive-level responsibility for economic, environmental, and social topics		
	102-24	Nominating and selecting the highest governance body	4.1.2 Corporate Governance	115
		Stakeholder engagement		
	102-40	List of stakeholder groups	4.2 Stakeholder Communications and Feedback	123
	102-41	Collective bargaining agreements	3.3.1 Employee Benefits	86

GRI Standards	Disclosure Item		Chapter	Page number
GRI 102: General Disclosures	102-42	Identifying and selecting stakeholders	4.2 Stakeholder Communications and Feedback	123
	102-43	Approach to stakeholder engagement		
	102-44	Key topics and concerns raised		
	Reporting practice			
	102-45	Entities included in the consolidated financial statements	About this Report 1.1.1 Main Products and Operating Locations	2 6
	102-46	Defining report content and topic boundaries	4.2 Stakeholder Communications and Feedback	123
	102-47	List of material topics		
	102-48	Restatements of information	-	
	102-49	Changes in reporting	-	
	102-50	Reporting period	About this Report	2
	102-51	Date of most recent report		
	102-52	Reporting cycle		
	102-53	Contact point for questions regarding the report		
	102-54	Claims of reporting in accordance with the GRI Standards		
	102-55	GRI content index	GRI Standards Indicator Reference Table	131

Topic-Specific Standards

GRI 200: Economic Standards

Indicates material topics

GRI Standards	Disclosure Item		Chapter	Page number
Economic performance				
GRI 201: Economic performance	201-2	Financial implications and other risks and opportunities due to climate change	2.2.3 Climate Change Adaptation	59
	201-3	Defined benefit plan obligations and other retirement plans	3.3.1 Employee Benefits	86
Market presence				
GRI 202: Market presence	202-2	Proportion of senior management hired from the local community	3.1.2 Talent Composition	75
Procurement practices				
GRI 103: Management approach	103-1	Explanation of the material topic and its boundary	1.4 Sustainable Supply Chain Management	43
	103-2	The management approach and its components		
	103-3	Evaluation of the management approach		
GRI 204: Procurement practices	204-1	Proportion of spending on local suppliers		
Anti-corruption				
GRI 205: Anti-corruption	205-2	Communication and training about anti-corruption policies and procedures	4.1.3 Risk Management Appendix D	116 140
	205-3	Confirmed incidents of corruption and actions taken	4.2 Stakeholder Communications and Feedback	123

GRI 300: Environment Standards

Indicates material topics

GRI Standards	Disclosure Item		Chapter	Page number
Energy				
GRI 302: Energy	302-1	Energy consumption within the organization	2.2.1 Energy Conservation and Carbon Reduction Action Appendix B	54 137
	302-4	Reduction of energy consumption		
	302-5	Reductions in energy requirements of products and services		
Water				
GRI 303: Water and effluents	303-1	Total water withdrawal by source	2.3.1 Water Management Appendix B	62 137
	303-2	Water sources significantly affected by withdrawal of water		
	303-3	Water recycled and reused		
Emissions				
GRI 103: Management approach	103-1	Explanation of the material topic and its boundary	2.3.3 Air Pollutant Emissions Management	67
	103-2	The management approach and its components		
	103-3	Evaluation of the management approach		
GRI 305: Emissions	305-1	Direct (Scope 1) GHG emissions	2.2.2 Greenhouse Gas (GHG) Emissions Management Appendix B	58 137
	305-2	Energy indirect (Scope 2) GHG emissions		
	305-5	Reduction of GHG emissions	2.2.1 Energy Conservation and Carbon Reduction Action	54
	305-7	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	2.3.3 Air Pollutant Emissions Management	67
Effluents and waste				
GRI 306: Effluents and waste	306-1	Water discharge by quality and destination	2.3.2 Wastewater Management Appendix B	65 137
	306-2	Waste by type and disposal method	2.3.4 Waste Management Appendix B	70 137
Environmental compliance				
GRI 307: Environmental compliance	307-1	Non-compliance with environmental laws and regulations	2.1 Environmental Protection Strategy	52

GRI 400: Social Standards

Indicates material topics

GRI Standards	Disclosure Item		Chapter	Page number
Employment				
GRI 401: Employment	401-1	New employee hires and employee turnover	3.1.2 Talent Composition	75
	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	3.3.1 Employee Benefits	86
	401-3	Parental leave		
Labor/management relations				
GRI 402: Labor-management relations	402-1	Minimum notice periods regarding operational changes	3.3.1 Employee Benefits	86

GRI Standards		Disclosure Item	Chapter	Page number
Occupational health and safety ⊛				
GRI 103: Management approach	103-1	Explanation of the material topic and its boundary	1.3.2 Workplace and Process Safety	25
	103-2	The management approach and its components		
	103-3	Evaluation of the management approach		
GRI 403: Occupational health and safety	403-1	Workers representation in formal joint management–worker health and safety committees	1.3.2 Workplace and Process Safety Appendix A	25 136
	403-2	Hazard identification, risk assessment, and communication on occupational health and safety		
	403-3	Occupational health services		
Training and education				
GRI 404: Training and education	404-1	Average hours of training per year per employee	3.2 Talent Cultivation and Development	80
	404-2	Programs for upgrading employee skills and transition assistance programs		
	404-3	Percentage of employees receiving regular performance and career development reviews		
Diversity and equal opportunity				
GRI 405: Diversity and Equal Opportunity	405-1	Diversity of governance bodies and employees	3.1.2 Talent Composition	75
Non-discrimination				
GRI 406: Non-discrimination	406-1	Incidents of discrimination and corrective actions taken	4.2 Stakeholder Communications 3.1.2 Talent Composition	123 75
Child labor				
GRI 408: Child labor	408-1	Operations and suppliers at significant risk for incidents of child labor	3.1.1 Human Resource Policy	74
Forced or compulsory labor				
GRI 409: Forced or compulsory labor	409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	3.1.1 Human Resource Policy	74
Human rights assessment				
GRI 412: Human rights assessment	412-2	Employee training on human rights policies or procedures	3.1.1 Human Resource Policy	74
Supplier social assessment				
GRI 414: Supplier social assessment	414-2	Negative social impacts in the supply chain and actions taken	1.4.1 Procurement Ethics	44
Customer health and safety				
GRI 416: Customer health and safety	416-1	Assessment of the health and safety impacts of product and service categories	1.3.1 Chemical Management	23

GRI Standards		Disclosure Item	Chapter	Page number
Marketing and labeling				
GRI 417: Marketing and labeling	417-1	Requirements for product and service information and labeling	1.2.2 Product Quality Management	17
Customer privacy ⊛				
GRI 103: Management approach	103-1	Explanation of the material topic and its boundary	1.2.3 Customer Communication and Services	20
	103-2	The management approach and its components		
	103-3	Evaluation of the management approach		
GRI 418: Customer privacy	418-1	Substantiated complaints regarding concerning breaches of customer privacy and losses of customer data		
Socioeconomic compliance				
GRI 419: Socioeconomic compliance	419-1	Non-compliance with laws and regulations in the social and economic area	4.2 Stakeholder Communications and Feedback	123

CCPG Specific Topics

⊛ Indicates material topics

Topics		Disclosure Item	Chapter	Page number
Product quality ⊛				
GRI 103: Management approach	103-1	Explanation of the material topic and its boundary	1.2.2 Product Quality Management	17
	103-2	The management approach and its components		
	103-3	Evaluation of the management approach		
Response and management of major incidents ⊛				
GRI 103: Management approach	103-1	Explanation of the material topic and its boundary	1.3.3 Response and Management of Major Incidents	37
	103-2	The management approach and its components		
	103-3	Evaluation of the management approach		

Appendix A

Statistics on Various Indicators of Occupational Injuries in 2019-by Factory

Factory	Total occupational injury incidents (number of cases)		Traffic accidents (number of cases)		Injury rate (IR)		Absentee Rate (AR)		Lost day rate (LDR)		Deaths	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Taipei Office	0	0	0	0	0.00	0.00	0.25%	0.30%	0.00	0.00	0	0
Changpin Factory	0	0	0	0	0.00	0.00	2.71%	0.00%	0.00	0.00	0	0
Mailiao Factory	4	0	0	0	1.39	0.00	0.74%	0.27%	47.32	0.00	0	0
Dafa Factory	2	0	1	0	0.92	0.00	0.13%	0.00%	9.82	0.00	0	0
Kaohsiung Factory	2	0	2	0	1.77	0.00	0.37%	0.63%	31.81	0.00	0	0
DCCJS	1	0	0	0	0.36	0.00	0.39%	1.20%	0.00	0.00	0	0
CCDPJ	2	0	0	0	1.74	0.00	0.06%	0.00%	11.50	0.00	0	0
CCDSG	5	0	0	0	3.02	0.00	1.09%	0.61%	3.62	0.00	0	0
DCCM	1	0	0	0	1.28	0.00	0.39%	0.05%	17.46	0.00	0	0

Note 1: There were no occurrences of occupational diseases in 2018. The occupational disease rate (ODR) is therefore 0.
Note 2: GRI Injury Rate (IR) = number of occupational injury incidents / (working hours + overtime hours)×200,000*
Note 3: GRI Absentee Rate (AR) = (number of occupational injury leave hours + number of sick leave hours) / (working hours + overtime hours)×100%
Note 4: GRI Lost Day Rate (LDR) = number of lost days / (working hours + overtime hours)×200,000*
*: Refers to the percentage of for every 100 employees calculated based on 40 work hours each week and 50 weeks each year

Statistics on DCC's contractor training hours in 2019-by factory

Factory	Training hours			Number of instances at the end of the year			Average hours		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Changpin Factory	1,251	45	1,296	1,251	45	1,296	1.00	1.00	1.00
Mailiao Factory	1,396	98	1,494	1,396	98	1,494	1.00	1.00	1.00
Dafa Factory	462	19	481	924	38	962	0.50	0.50	0.50
Kaohsiung Factory	932	35	967	932	35	967	1.00	1.00	1.00
DCCJS	415	72	487	195	58	253	2.13	1.24	1.92
CCDPJ	1,061	56	1,117	1,061	56	1,117	1.00	1.00	1.00
CCSG	356	N/A	356	356	N/A	356	1.00	N/A	1.00
DCCM	652	1	653	652	1	653	1.00	1.00	1.00
Total	6,525	326	6,851	6,767	331	7,098	0.96	0.98	0.97

Note 1: The CCDSG's and CCSG's contractor training was held together; therefore, the data was calculated together, and there were no female contractors.
Note 2: DCC's Changpin Factory held the contractor training together with CCPC' Changpin Factory; therefore, the data was calculated together.

Appendix B

Environmental Violation Cases and Fine Statistics in 2019-by Factory

Unit: NT$10 thousand

Item	Mailiao Factory		Dafa Factory		Kaohsiung Factory		DCCJS	
	Number of Cases	Amount	Number of Cases	Amount	Number of Cases	Amount	Number of Cases	Amount
Air pollution	1	10	1	10	1	10	-	-
Waste pollution	-	-	-	-	-	-	2	54.7

Note 1: The incidents disclosed here were mainly deficiency cases over NT$100,000 per case.
Note 2: The remaining pollutants not listed in the table represented no violations in the year.
Note 3: Taipei Office, CCDPJ, CCDSG, and DCCM had no violations with a fine over NT$100,000 per case during the year.

2019 Energy Use Statistics-by Factory

Unit: Gigajoules (GJ)

Item	Mailiao Factory	Dafa Factory	Kaohsiung Factory	DCCJS	CCDPJ	CCDSG	DCCM
Externally purchased electrical power	1,129,361	898,810	293,351	386,099	17,041	416,354	39,466
Diesel	802	1,218	1,407	751	271	491	30,697
Natural Gas	N/A	656,894	309,992	191,085	354,442	N/A	112,998
Heavy oil/fuel oil	276,625	N/A	N/A	N/A	N/A	N/A	N/A
Coal	N/A	N/A	N/A	1,139,438	N/A	N/A	N/A
Externally purchased steam	3,932,930	4,333,734	206,647	700,105	N/A	1,555,956	N/A
Steam sold to external parties	9,378	N/A	N/A	N/A	N/A	49,577	N/A

Note: There was no electricity sold to external parties.

Greenhouse Gas Emissions in 2019-by Factory

Unit: kt-CO_2e

GHG Type	Mailiao Factory	Dafa Factory	Kaohsiung Factory	DCCJS	CCDPJ	CCDSG	DCCM
Direct GHG emissions (Scope 1)	146	94	29	112	22	45	3
Indirect GHG emissions (Scope 2)	670	490	66	168	335	184	6
Total volume of emissions	817	584	96	280	357	229	9

Note 1: GHG emissions in Scope 1 included carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and hydrofluorocarbons (HFCs). No other gases were emitted.
Note 2: GHG emissions in Scope 2 included carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). No other gases were emitted.
Note 3: The inventory of greenhouse gases at each factory includes the inventory of Scope 1 and Scope 2 statistics which are reported to the Environmental Protection Administration and greenhouse gases under Scope 3 are not inventoried.
Note 4: For overseas factory data, the factories in China only inspected CO_2 emissions.

Water Resources Statistics in 2019-by Factory

Unit: Ton

Item	Mailiao Factory	Dafa Factory	Kaohsiung Factory	DCCJS	CCDPJ	CCDSG	DCCM
Running water consumption	N/A	2,203,490	544654	794,472	559,822	1,260,575	98,078
River water consumption	3,021,310	N.A.	N/A	N/A	N/A	N/A	N/A
Externally purchased pure water	317,863	385,607	N/A	N/A	90,110	54,752	N/A
Externally purchased steam condensate	N/A	392,602	N/A	261,277	N/A	N/A	N/A
Total water intake	3,339,173	2,981,699	544,654	1,055,749	649,932	1,315,327	98,078

Note: DCC did not use reservoir water, well water, groundwater, or pure water purchased from external parties.

2019 Water Recycling Statistics-by Factory

Item	Unit	Mailiao Factory	Dafa Factory	Kaohsiung Factory	DCCJS	CCDPJ	CCDSG	DCCM
Total volume of recycled and reused water	Ton	1,674,173	2,684,384	218,643	3,056,890	149,119	5,845,492	22,282
Total volume of recycled and reused water as a ratio of total water intake	%	50%	90%	40%	290%	23%	444%	23%

2019 Wastewater Statistics-by Factory

Unit: Ton

Item	Mailiao Factory	Dafa Factory	Kaohsiung Factory	DCCJS	CCDPJ	CCDSG	DCCM
Total amount of wastewater discharged outside the factory	N/A	823,626	145,334	200,519	229,330	167,857	11,200

Note: Wastewater that meets the effluent standards—Dafa Factory, Kaohsiung Factory, and various overseas factories discharged wastewater to the sewage treatment plant in their industrial zones; Mailiao Factory discharged it to the Taiwan Strait.

Air Pollutant Emissions in 2019-by Factory

Unit: Ton

Item	Mailiao Factory	Dafa Factory	Kaohsiung Factory	DCCJS	CCDPJ	CCDSG	DCCM
Nitrogen oxides (NOx)	44	37	7	43	63	1	0
Sulfur oxides (SOx)	1	5	3	40	1	0	0
Volatile organic compounds (VOCs)	58	56	38	176	7	0	0
Suspended particles (PM)	1	2	7	0	2	1	0

2019 Waste Statistics-by Factory

Unit: Ton

Item	Mailiao Factory	Dafa Factory	Kaohsiung Factory	DCCJS	CCDPJ	CCDSG	DCCM
Total industrial waste	650	927	458	440	0	182	23
Total recycled industrial waste	109	371	133	440	0	3	9
Total incinerated industrial waste	360	132	261	0	0	179	0
Total buried industrial waste	154	412	60	0	0	0	14
Total industrial waste processed through other methods	27	13	4	0	0	0	0
Total hazardous waste	4	0	0	12,197	351	694	242
Total recycled hazardous waste	0	0	0	9,057	125	154	57
Total incinerated hazardous waste	4	0	0	117	90	510	0
Total buried hazardous waste	0	0	0	1	136	30	185
Total other hazardous waste processed through other methods	0	0	0	3,021	0	0	0
Total waste output	654	927	458	12,637	351	876	265
Waste recycling rate (%)	17%	40%	29%	75%	36%	18%	25%

Note 1: Other industrial waste treatment methods: thermal treatment, solidification treatment, physical treatment, chemical treatment, etc.
Note 2: Total other hazardous waste processed through other methods: thermal treatment and high-temperature wet air oxidation

Appendix C

Percentage of Employees Trained in Human Rights Education and Training in 2019-by Factory

Category	Taipei Office	Changpin Factory	Mailiao Factory	Dafa Factory	Kaohsiung Factory	DCCJS	CCDPJ	CCDSG	DCCM
Management roles	100%	100%	100%	100%	100%	100%	100%	100%	100%
Non-management roles	93.3%	100%	98.7%	98.4%	99.0%	100%	100%	100%	96.3%

Special Physical Examination Items from 2017-2019

Special physical examination items/year	2017	2018	2019
Dimethyl formamide operations	N/A	2	2
Formaldehyde operations	N/A	2	2
Dust operations	20	19	19
Ionizing radiation operations	5	7	11
Operations in noisy environments	388	430	406
N-hexane operations	N/A	N/A	1
Chromic acid operations	N/A	1	8

Continued on next page

Continued from previous page

Special physical examination items/year	2017	2018	2019
Benzene operations	125	219	136
Nickel operations	25	25	29
Chromium operations	1	N/A	N/A
Methanol operations	N/A	5	N/A
Carbon monoxide operations	N/A	9	N/A
Vinyl chloride operations	65	55	8
Sulfuric acid operations	N/A	40	48
Sodium hydroxide operations	N/A	41	48
Hydrogen peroxide operations	N/A	25	31
Allyl alcohol operations	N/A	14	18
Hydrochloric acid operations	N/A	11	15
Total	629	905	782

Appendix D

Percentage of Employees Completing Compliance and Anti-Corruption Education and Training in 2019-By Factory

Category	Taipei Office	Changpin Factory	Mailiao Factory	Dafa Factory	Kaohsiung Factory	DCCJS	CCDPJ	CCDSG	DCCM
Management roles	100%	100%	100%	100%	100%	100%	100%	100%	100%
Non-management roles	93.3%	100%	98.7%	98.4%	99.0%	100%	100%	100%	96.3%

DCC Dairen Chemical Corporation