



中國水務  
CHINA WATER



# 中國水務集團有限公司 環境、社會及管治報告

CHINA WATER AFFAIRS GROUP LIMITED  
ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT



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# Glossary

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“Al <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub> ”	Aluminium Sulfate	硫酸鋁
“BOD”	Biochemical Oxygen Demand	生化需氧量
“ClO <sub>2</sub> ”	Chlorine Dioxide	二氧化氯
“CO <sub>2</sub> ”	Carbon Dioxide	二氧化碳
“COD”	Chemical Oxygen Demand	化學需氧量
“GJ”	Gigajoule	吉焦
“H <sub>2</sub> S”	Hydrogen Sulfide	硫化氫
“km”	Kilometer	千米 / 公里
“km <sup>2</sup> ”	Square kilometer	平方千米 / 平方公里



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“kW·h”	Kilowatt-hour	千瓦時
“m <sup>3</sup> ”	Cubic meter	立方米
“MWh”	Megawatt-hour	兆瓦時
“NaClO”	Sodium Hypochlorite	次氯酸鈉
“NaOH”	Sodium Hydroxide	氫氧化鈉
“NH <sub>3</sub> ”	Ammonia	氨氣
“NH <sub>3</sub> -N”	Ammonia Nitrogen	氨氮
“PAC”	Polyaluminium Chloride	聚合氯化鋁
“SS”	Suspended Solids	懸浮物

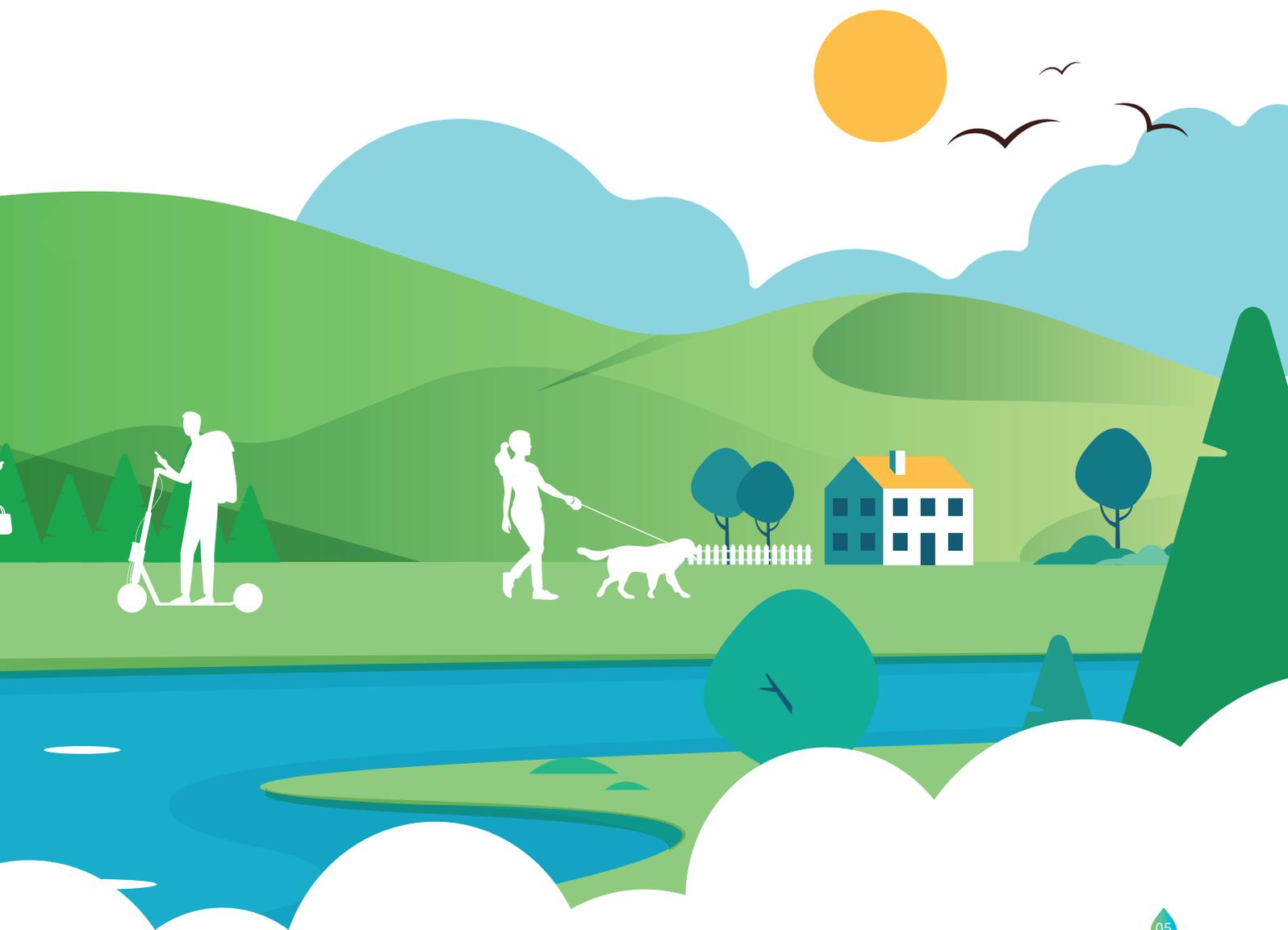


# Core Values



# 以水為本 達善社會

Water-oriented Kindness to Society



# STATEMENT OF THE BOARD

China Water Affairs Group Limited ("China Water" or the "Company", together with its subsidiaries and associates, the "Group") has adopted the core value of "Water-oriented, Kindness to Society" as its Environmental, Social and Governance ("ESG") management objective. We saw ESG works as an essential aspect of corporate management over the years and attached great importance to it. The Group established an ESG management system that meets management requirements and facilitates the collaborative development of China Water.

The Group has established a four-tier ESG governance structure consisting of the Board, the management, the functional departments and our subsidiaries, which can protect the interests of various stakeholders effectively. The Board is the chief ESG decision-making body and possesses decision-making power over the Group's ESG governance strategies, management objectives, information disclosure and major issues; the management is responsible for the supervision and execution of ESG governance issues and daily operations, and reports regularly to the Board; the functional departments, regarding various ESG issues, carry out directions from the management, formulate plans and supervise their implementation, and report regularly to the management; our subsidiaries, as the ultimate executing bodies of ESG governance, are equipped with professionals and the necessary resources to execute related works.

To achieve effective ESG governance results, the management of ESG issues had been a priority for this year. The Group held special meetings to assess the importance of ESG issues; discuss and identify ESG risks and material issues; monitor and review the progress of ESG works, by which the Group strived to align its ESG reporting with the four principles of materiality, quantitative, balance and consistency.

During the reporting period, the Board was fully informed of the status and progress of the Group's ESG governance. Material issues were considered and approved.

**Duan Chuan Liang**

Chairman of the Board and Executive Director





以水為本，  
治水為善，  
上善若水，  
自強不息

達善社會，  
至善不息，  
與人為善

# MANAGEMENT'S STATEMENT

Last year, the world experienced changes that were unseen in the past century. The global economic downturn, intensified market competition, the impact of Covid-19 and the increasing risk of climate change have all posed unprecedented challenges to every business.

Since its establishment, China Water has been charging forward against obstacles and difficulties with its core value of "Water-oriented, Kindness to Society" to provide high-quality products and services to its customers and society by continuously building an efficient modern water management model and devoting itself to a deeper exploration of the value of water. At the crossroads of development and change, China Water continues to focus on implementing its core strategies: urban-rural water supply integration, as well as supply-drainage integration. It also stepped up its efforts to develop pipeline direct drinking water to establish a twin-driver business portfolio of "water supply + direct drinking water", by which China Water will facilitate the improvement of the ecological environment and practice the cooperative development of society.

With the inclusion of the "Dual-carbon" target in the 14th Five-Year Plan and the outline of the 2035 Vision, China's green development begins to pick up steam. The Group has aligned itself with the national policy and kept up with the trend. By way of thorough research, planning, refinement and conclusion, the Group has formulated the Outline of the Implementation Plan for "Carbon Peaking and Carbon Neutrality" specifically for China Water. It lays out the path for achieving "zero-emission" and accelerating the transformation to a green and sustainable development approach, which can fulfil our corporate responsibility by contributing to the fight against climate change.

To meet the expectation of high standard and healthy drinking water from the people, China Water has promptly decided to make strategic adjustments and level up its business, under which pipeline direct drinking water has been elevated to core business. The convenience, affordability and environmental friendliness of pipeline direct drinking water are in line with the concept of green and low-carbon development. During the year, after successfully acquiring Nanjing Aquacup and Jiangsu Haideneng,

the leaders in the direct drinking water industry, the Group now possess strong research and development capabilities; equipment production capacity; and extensive customer resources, which lay down a solid foundation for a nationwide expansion of our pipeline direct drinking water business.

With the impact of Covid-19 still lingering in China, the Group, its staff, consumers and other stakeholders were all constantly facing new situations and challenges. Under the new norms, the Group has been more committed to the belief of "people-oriented" and has incorporated the philosophy and spirit of water into its corporate management and corporate culture. Internally, we consolidated the achievements of standardized management construction; increased investment in employee welfare; and established the "China Water Network College" to enhance team cohesion. Externally, we continuously improved product quality; extended the industrial chain of water-related services; and actively launched community welfare initiatives, with the aim of creating our "China Water, Nourishing Thousands of Families with Love" brand.

In gold panning, it takes thousands of shakes and swirls before all the unwanted sand are washed away to reveal the gold within. Likewise, after nearly two decades of refining, China Water will be more than prepared to embrace the changes of the times and act on opportunities. With a down-to-earth attitude and unwavering determination, we will carry forward the "Dual carbon" agenda; enhance our core competitiveness; fulfil our corporate social responsibility; and ultimately achieve our ambitious goal of high-standard, high-quality and sustainable development.

**Liu Yong**

✓ General Manager



# OVERVIEW OF CORPORATE DEVELOPMENT

## ABOUT CHINA WATER

China Water Affairs Group Limited is a company listed on the Main Board of The Stock Exchange of Hong Kong Limited (stock code: 00855.HK) and its shares are tradable under the Shenzhen-Hong Kong Stock Connect.

Since 2003, the Group has been committed to investing, constructing and operating water projects in mainland China, including raw water, tap water, direct drinking water, wastewater treatment, drainage operation, comprehensive water environmental renovation and water-related construction. The Group has grown into a professional and market-oriented international leader of integrated water operation across multiple regions, with its business covering 21 provinces, 3 municipalities and over 100 cities in the PRC. The Group is headquartered in Hong Kong, the PRC, with a national management headquarter in Beijing, our capital city.

## SCALE OF THE GROUP

As of 31 March 2022, the Group had 217 water plants, with a total designed daily water supply capacity of 15.36 million m<sup>3</sup>; 22 sewage treatment plants, with a total designed daily sewage treatment capacity of 1.32 million m<sup>3</sup>; total length of water pipelines under operation and maintenance of over 158,000 km; total length of drainage pipelines under entrusted operation of over 1,000 km; over 7.46 million users of the Group's water supply service (number of registered water metres), representing an increase of approximately 760,000 users as compared to last year, comprising approximately 6.96 million domestic users and approximately 500,000 commercial and industrial users. The Group had 2,379 direct-drinking water projects, with approximately 3 million users. The Group had a total of 11,018 employees, representing an increase of 1,053 employees as compared to last year.



## MAJOR OPERATING ACHIEVEMENTS

During the reporting period:

Total investment amount in acquisition of water projects

HK\$ **140** million

Total investment amount in new large-scale water construction and upgrade projects

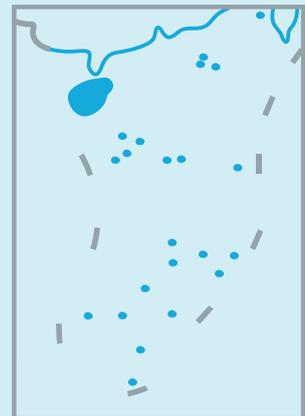
HK\$ **4.24** billion

Total financing amount

HK\$ **8.53** billion



<p><b>Water supply business</b> City water supply operation and construction</p> <ul style="list-style-type: none"> <li>– Connected users over 7.46 million</li> <li>– Potential reaching population over 30 million people</li> <li>– Water pipelines of over 158,000 km</li> </ul>	<p><b>Direct drinking water business</b> Direct drinking water operation and construction</p> <ul style="list-style-type: none"> <li>– Users of approximately 3 million</li> </ul>
	<p><b>Environmental protection business</b> Sewage treatment operation and construction (Including water environmental renovation construction projects)</p>
	<p><b>Drainage operation</b></p>

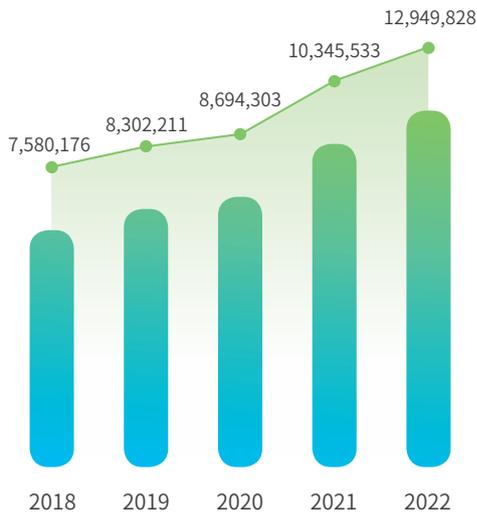


## Management indicators



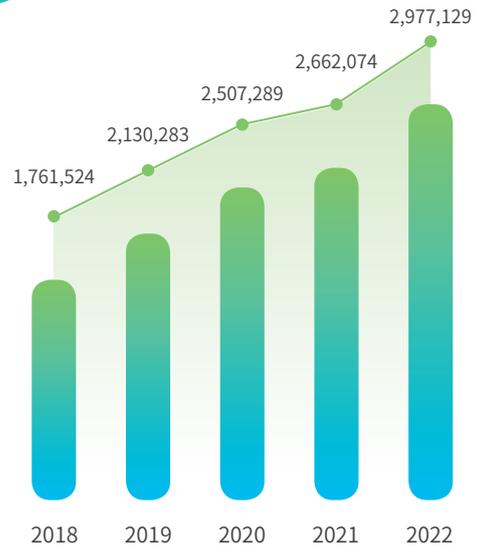
### Revenue

Unit: HK\$'000



### Profit

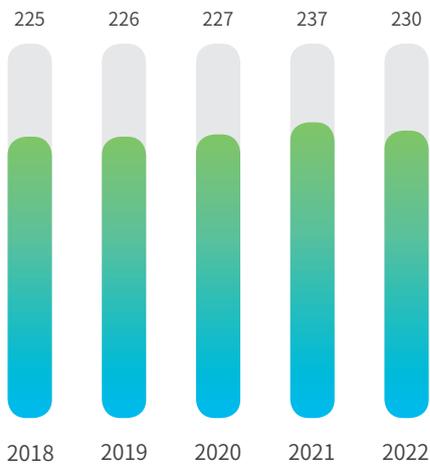
Unit: HK\$'000



### Power consumption per unit of water supply

Unit: kW-h/1,000 m<sup>3</sup>

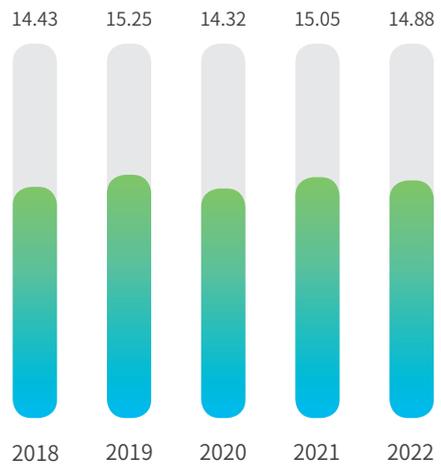
Industry average 300



### Leakage ratio

Unit: %

Industry average 23.22%



Source: The industry average is extracted from Urban Water Supply Statistic Yearbook (2019) of China Urban Water Association

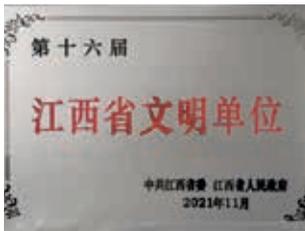


## HONOURS

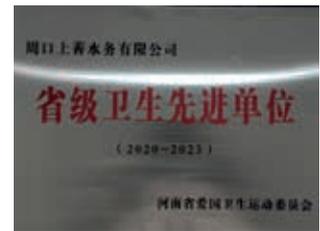


China Water was awarded "Best Infrastructure and Public Utilities Stock Company" at the 6th Golden Hong Kong Stocks Awards.

China Water was awarded the Evergreen Award 2021 – Sustainability Inclusion Award by "Caijing" Magazine.



Our subsidiary, Jiangxi Wannian Silver Dragon Co., Ltd. was named as "Civilized Unit" in Jiangxi.



Our subsidiary, Zhoukou Shangshan Water Affairs Co., Ltd. was named as "Advanced Unit of Sanitation" at the provincial level.



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China Water was awarded the "Water Resilience Award" by the Asian Development Bank.



Our subsidiary, Xinyu Water Affairs Co., Ltd. ranked first in Jiangxi in terms of "Water Usage Indicators" in the Competition for Optimization of Business Environment in Jiangxi.



Water plants operated by our subsidiaries named Shahu Water Plant of Gaoan Water Affairs Co., Ltd, Fancun Water Plant of Yuncheng Silver Dragon Water Affairs Co., Ltd and Qiuji Water Plant of Henan Luyi Silver Dragon Water Affairs Co., Ltd were rated as "Best Water Plant Practice in Rural Water Supply" by the Ministry of Water Resources of the PRC in 2021.



China Water was rated BBB in MSCI ESG Ratings

# STAKEHOLDER ENGAGEMENT

China Water insists on inclusiveness and win-win cooperation. It always maintains good relations and effective communication with its stakeholders and facilitates the improvement of corporate governance together. To fully understand the concerns of our stakeholders and listen to their demands and suggestions, the Group has established an open, transparent, comprehensive and efficient communication and engagement mechanism, with which stakeholders' engagement is incorporated into our management system and business processes under the principles of honesty, equality and mutual benefit. The Group's stakeholders mainly include our shareholders, investors, creditors, the government, our customers, consumers, employees, suppliers and the local communities.

The Group defines its stakeholders based on the following four principles:

## Responsibility:

Stakeholders associated with the Group in terms of policies, laws, regulations, contracts, financials and operation;

## Decision-making:

Stakeholders who have decision-making authority over the Group;

## Dependence:

Stakeholders who rely to a significant extent on the Group's operation and governance;

## Impact:

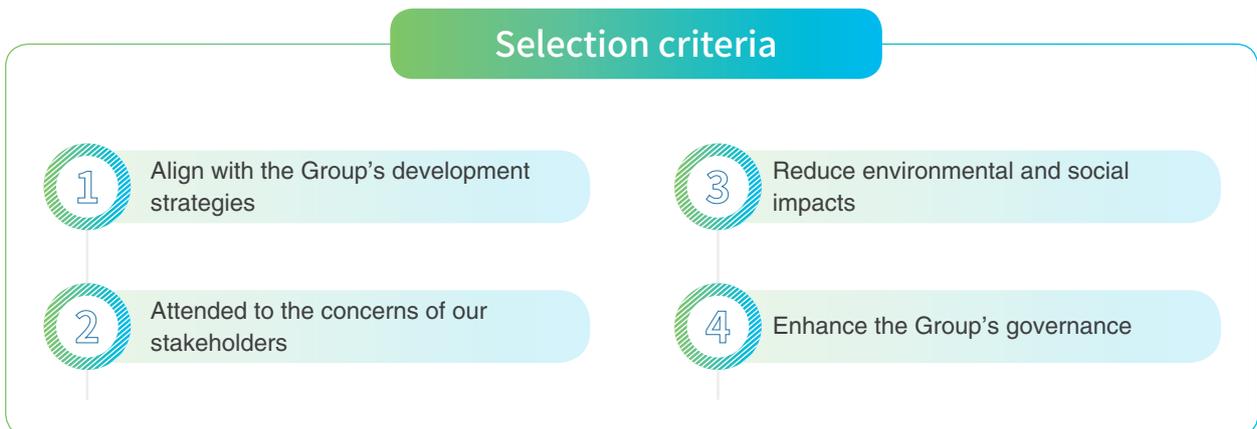
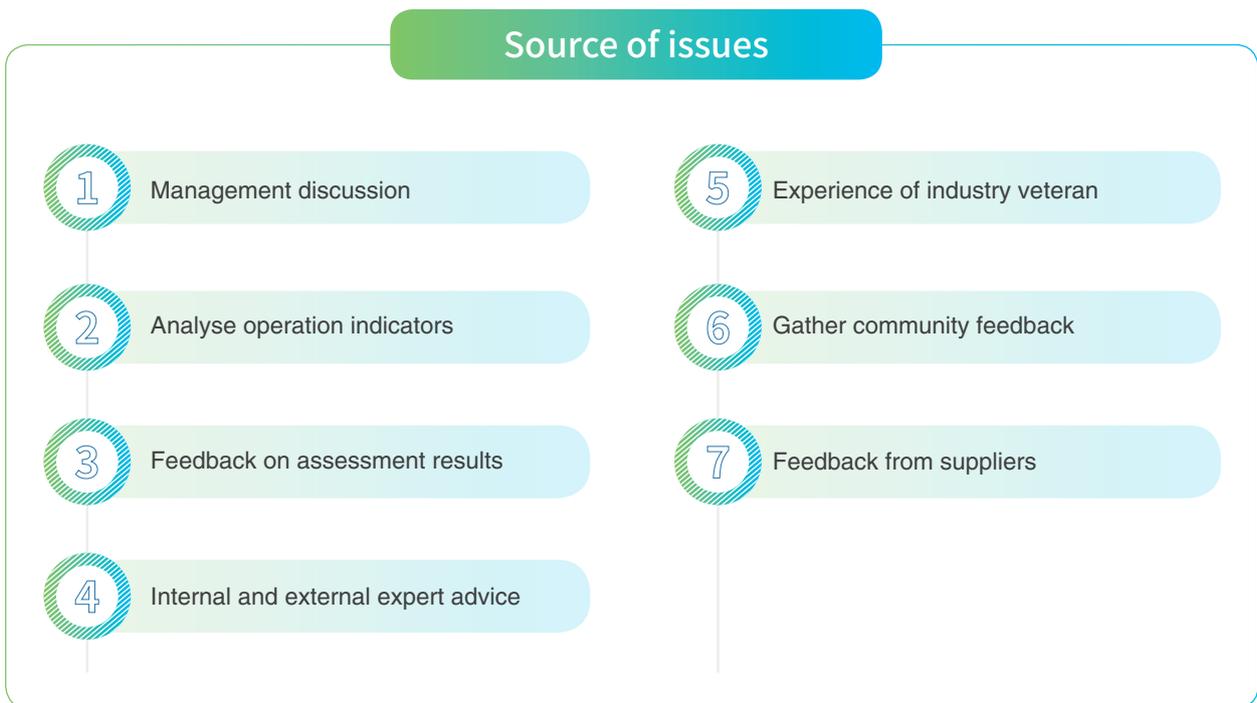
Stakeholders in the vicinity of the Group's business who are affected by our operation.

Stakeholders	Means of engagement and communication	Concerned Issues	Frequency or schedule
 <b>Shareholders, investors, creditors</b>	General meeting Results announcement meeting Annual/interim report Press release/announcement Roadshow Investor conference Site visit	Economic performance Organisational structure Governance measures Compliant operation	Regularly/as and when necessary Annually/biannually Annually/biannually Regularly/as and when necessary Regularly/as and when necessary As and when necessary As and when necessary
 <b>The government</b>	Correspondence Regulatory inspection Site visit Themed conference Seminar Progress report	Operational safety Product quality and service Supply chain management Emissions Energy-saving and consumption reduction Labour standards	As and when necessary Regularly/as and when necessary As and when necessary As and when necessary Regularly Regularly
 <b>Customers, consumers</b>	Customer satisfaction survey Community services Plant open day Hearing User seminar WeChat official account	Product quality and service Consumer rights protection	Annually Regularly Regularly As and when necessary Regularly/as and when necessary As and when necessary
 <b>Employees</b>	Business meeting Employee seminar Employee representative meeting Interview Team building Training Employee group activity China Water News (internal publication)	Remuneration and benefits Employment Development and training Work environment Health and safety Labour standards	Regularly Year-end/half-year Annually/biannually As and when necessary Regularly Regularly/as and when necessary Regularly Regularly
 <b>Suppliers</b>	Procurement tender Site visit Meeting Product briefing	Resources use Procurement behaviours Anti-corruption	As and when necessary As and when necessary As and when necessary As and when necessary
 <b>Local community</b>	Plant open day Community service Survey on environmental and social impact Public welfare and charity event	Community investment Charity and relief	Regularly Regularly/as and when necessary As and when necessary As and when necessary

# MATERIALITY ANALYSIS

With reference to the requirements of the “Environmental, Social and Governance Reporting Guidelines” of the Hong Kong Stock Exchange and the issues stated in the materiality list in the “G4 Sustainability Reporting Guidelines” issued by the Global Reporting Initiative (GRI) and taking into account the results of stakeholder engagement, China Water has identified, prioritized and verified issues of materiality. It also determined the level of disclosure and reporting boundaries according to the four reporting principles of materiality, quantitative, balance and consistency.

## Process of materiality analysis:





# IDENTIFICATION

By rationalizing our policies, setting out clear strategies, reviewing our business and determining our sustainable development goals, as well as considering our stakeholder engagement, the Group has identified 20 materiality issues and determined the scope and boundaries of their impact.

No.	Aspect	Materiality issues	Scope of impact					Boundary
			Internal	Investors and Creditors	Government	External Customers and Consumer	Suppliers	
1	Establish a rational, effective and legitimate management platform	Governance measures	●	●	●	○	●	●
2		Organisation structure	●	●	●	○	●	●
3		Economic performance	●	●	●	●	●	●
4		Compliant operation	●	●	●	●	●	●
5	Actively, comprehensively and sustainably promoting environmental improvement	Emissions	●	○	●	●	●	●
6		Energy saving and consumption reduction	●	○	●	●	●	●
7		Environmental protection	●	○	●	●	●	●
8		Resources use	●	●	●	●	●	●
9	Practice cooperative development of society with passion, kindness and aggressiveness	Employment	●	○	●	○	○	●
10		Remuneration and benefits	●	●	●	○	○	○
11		Development and training	●	●	●	○	○	○
12		Health and safety	●	●	●	○	○	●
13		Labour standards	●	●	●	○	○	○
14		Supply chain management	●	○	●	○	●	○
15		Procurement practices	●	●	●	○	●	○
16		Anti-corruption	●	○	●	○	○	○
17		Product quality and service	●	●	●	●	●	●
18		Customer confidentiality	●	○	●	●	○	○
19		Community investment	●	○	○	○	○	●
20		Charity and relief	●	○	○	○	○	●

Materiality aspects are applicable to China Water and its subsidiaries and associated companies <sup>(1) (2)</sup>

● represents materiality issues with larger impacts on stakeholders  
 ○ represents materiality issues with less impacts on stakeholders

(1) Kangda International Environmental Company Limited (“Kangda International”) (Stock code: 6136.HK) is not included in this report. For details of Kangda International’s ESG performance, please refer to Kangda International’s ESG Report 2021.

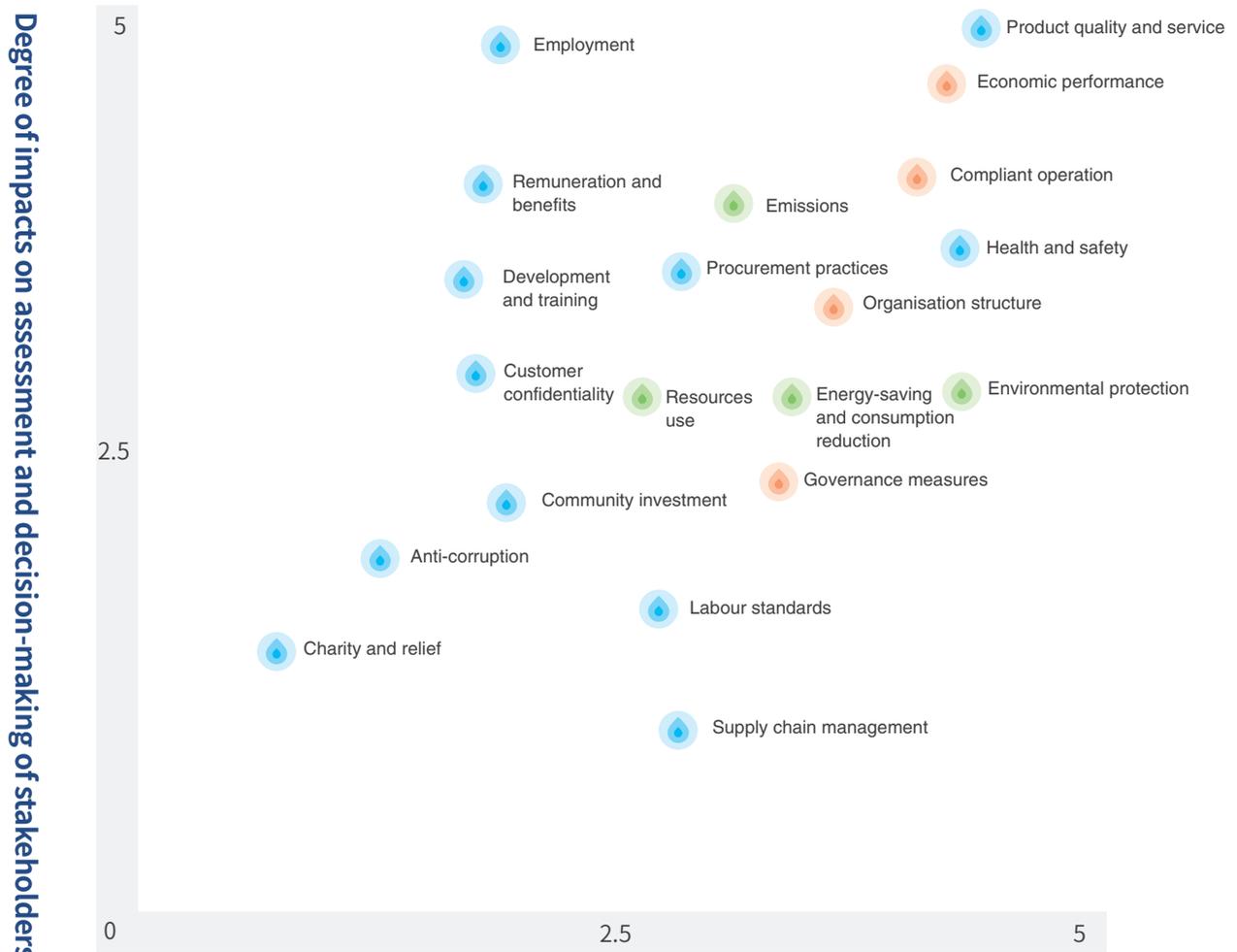
(2) The scope of this report mainly covers the Group’s subsidiaries and associates which are engaged in water supply and environmental protection business.



## PRIORITIZATION

The identified materiality issues are prioritized in terms of importance according to the degree of impact on the economy, environment, society as well as the assessment and decision-making of our stakeholders.

### Priority of materiality



### Degree of impacts on economy, environment and society

-  Sound operational management
-  Ongoing environmental optimisation
-  Social co-development



## VERIFICATION

In respect of the identified and prioritized materiality issues, the Group has collected opinions from experts, users and stakeholders and carried out verification in many ways. Meanwhile, the Group formulated administrative measures regarding the indicators involved in the materiality issues to determine the

methods and procedures of indicator collection so as to ensure the reasonableness, balance and completeness of the report.

## REPORTING PRINCIPLES

**Materiality:** As determined by the Board, the issues disclosed in the report have material impact on our investors and other stakeholders.

**Quantitative:** Key operating indicators are presented with historical data as comparisons. Notes to key environmental indicators cited referencing standards, calculation methods and parameters. Targets and explanations are provided for sustainability indicators for the assessment and verification of ESG governance performance.

**Balance:** The report presents the Group’s ESG performance in a fair and objective manner. All contents are supported by verification material to avoid inappropriately influencing a decision or judgment by the report reader.

**Consistency:** The preparation process and disclosure of information in the report remained consistent with the previous year.

# CONSTRUCTION OF MANAGEMENT PLATFORM

Sound corporate governance is essential to boost investor confidence as it helps to define decision-making procedures and management responsibilities and increase operational transparency. China Water has always been committed to maintaining high standards of corporate governance and strictly complying with national laws, regulations and industry standards in the course of its operation and management as well as its mergers and acquisitions. It has been steadfastly implementing its sustainable development strategy to provide sufficient protection to the interests of its shareholders and create values for society.

The Group's governance policy is in compliance with the relevant guidelines in the "Corporate Governance Code" and "Corporate Governance Report" as set out in Appendix 14 to the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited. We have built a legitimate, rational and efficient governance model by establishing a sound management structure with comprehensive rules and regulations, conducting regular audits, fully implementing risk prevention and control, and disclosing accurate corporate information in a timely manner.





## THE BOARD

As the highest decision-making body, the Board is responsible for formulating and authorising the Group's governance policies, providing leadership and supervising our management, reviewing the Group's business performance, and ensuring effective risk management and internal control. The Group's Board comprises 13 directors, including 5 executive directors, 3 non-executive directors and 5 independent non-executive directors.

The Board has set up three board committees, namely the Audit Committee, Nomination Committee and Remuneration Committee.

The Audit Committee is mainly responsible for reviewing the Company's accounting policies and monitoring the financial reporting procedures, monitoring the performance of the internal and external auditors, reviewing and verifying the effectiveness

of the Group's risk management and internal control measures, and ensuring compliance with applicable laws and regulations and regulatory requirements.

The Nomination Committee is responsible for identifying qualified candidates for the Board, nominating talented professionals and quality individuals to join the Group, safeguarding a strong and diverse Board, and making recommendations to the Board on matters relating to the appointment or reappointment of directors as necessary.

The Remuneration Committee is mainly responsible for making recommendations on the remuneration policies and systems for senior management of the Company, reviewing the Company's remuneration structure and formulating remuneration incentive plans to ensure that the remuneration level is in line with the Group's long-term interests and risk policies.



## RISK MANAGEMENT

The Board is fully responsible for maintaining a sound and effective internal control system for the Group, which include establishing a risk management framework, defining authorities, safeguarding corporate assets against unauthorized misappropriation or handling, ensuring proper maintenance of financial records for internal use or disclosure, and ensuring compliance with laws and industry regulations.

The Group has established a four-level risk management framework comprising the decision-making level (the Board), the executive level (management), the operation level (departments of different functions in the Group's headquarter) and the corporate level (person-in-charge of risk management of the Group's subsidiaries) to meet the requirement for continuous control of risks during our business development. Within the framework, the Board is responsible for implementing controls from the top,

while the business level, which includes our operation, finance, engineering, legal and human resources teams, utilize their expertise to help our management to discharge their internal control responsibilities. Meanwhile, the Audit Committee, assisted by our external auditors, is responsible for monitoring the practices of our management and the effectiveness of the internal controls in place.

During the reporting period, the Group's management held risk management meetings with our operation level and identified three types of significant risks, namely operational risk, compliance risk and financial risk. The audit department assessed our potential risks through surveys and interviews to further distinguish our risks and submitted the "Risk Management and Internal Control Report" to the Audit Committee.



## GOVERNANCE OF PROJECT COMPANIES

The Group abides by the "Administration Measures for the Concession Arrangements of Infrastructure and Public Utilities" in mergers and acquisitions of new projects. It actively cooperates with local governments to acquire project concession through public tenders or competitive negotiation, and establishes project companies at the same time. A board of directors, board of supervisors and operation and management team are formed within the project companies to

perform such duties and exercise such powers of a decision-making organ, supervision organ and management organ respectively in strict compliance with the Company Law of the People's Republic of China.

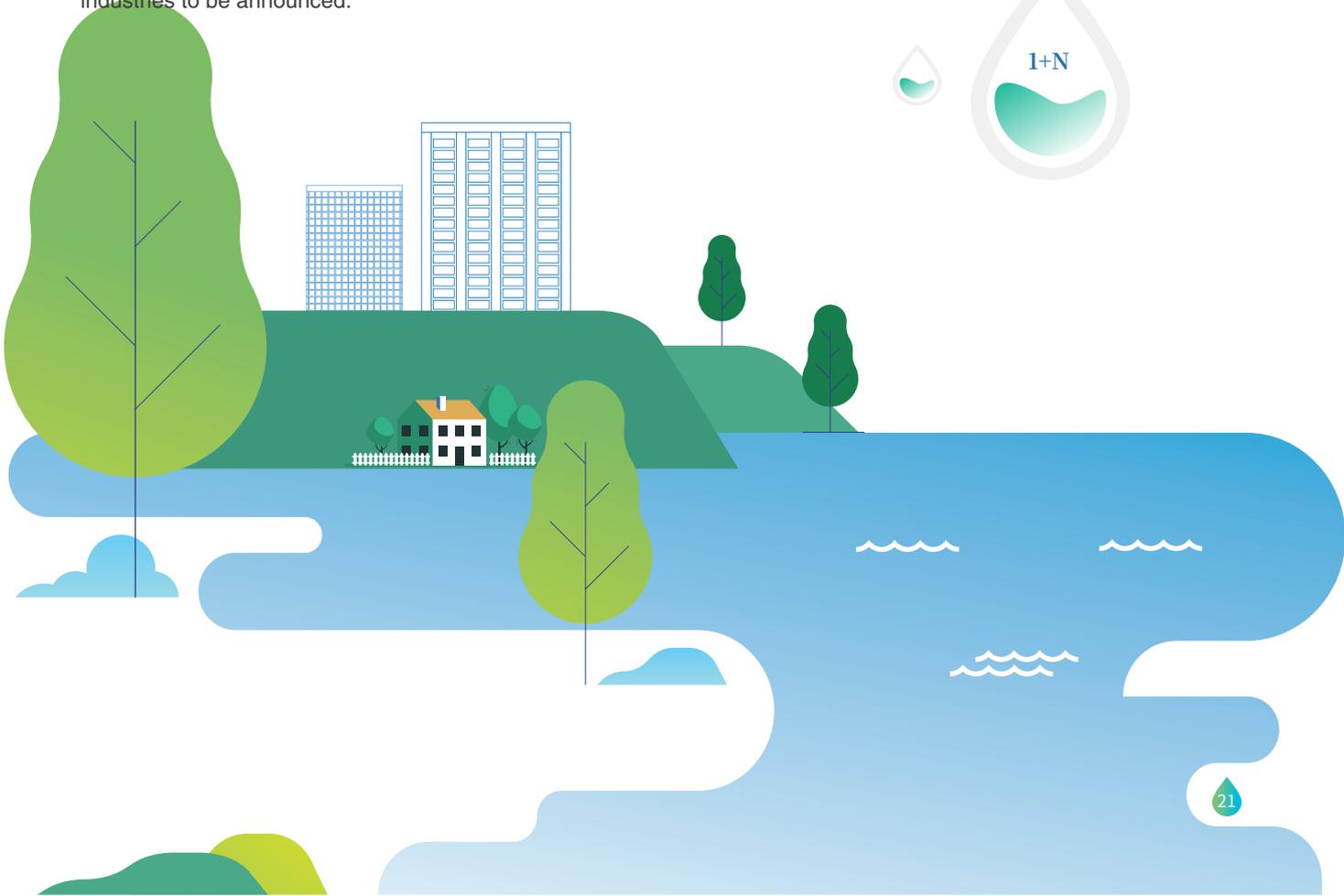
For details of the corporate governance, please refer to the relevant contents disclosed in the annual report of the Group.

# PROMOTING ENVIRONMENTAL IMPROVEMENT

The Intergovernmental Panel on Climate Change (IPCC) published its Sixth Assessment Report "Climate Change 2022: Mitigation of Climate Change" which claimed that average annual greenhouse gas emissions worldwide between 2010 to 2019 were at the highest level in human history. Although greenhouse gas emissions declined in 2020 as a result of the Covid-19 lockdown, they rebounded in 2021 to a level beyond that of 2019.

In response to global climate change, China has promulgated the "Outline of the 14th Five-Year Plan for National Economic and Social Development and Long-term Objectives for 2035 of the People's Republic of China" which proposes that China should strive to achieve carbon peaking by 2030 and carbon neutrality by 2060. China is now expediting its efforts in establishing a "1+N" system, in which "1" refers to the "Working Guidance for Carbon Peaking and Carbon Neutrality in Full and Faithful Implementation of the New Development Philosophy" proposed by the State Council in September 2021 as the top-level planning for "Dual-carbon" efforts, where "N" includes the "Action Plan for Peak Carbon Dioxide Emissions by 2030" and related policies and measures for key areas and industries to be announced.

As a large cross-regional listed company featuring both municipal utilities and environmental protection, China Water is fully aware of the long-term impact of climate change and the importance and urgency of promoting environmental improvement. Since publishing "Green Operation Proposal", the Group had once again worked together to draft the Outline of the Implementation Plan for "Carbon Peaking and Carbon Neutrality", which set out objectives, plot the path for implementation and propose methods and measures. It marked the Group's formal start to take its green operation and "dual-carbon" initiatives on a fast track. In the past year, the Group's pipeline direct drinking water business, being environmentally friendly and beneficial to the people, was promoted into one of our core businesses. Meanwhile, the Group continued to promote the urban-rural water supply integration, supply-drainage integration, energy conservation and consumption reduction, and the development of clean energy, resulting in steady growth in its core businesses of water supply and sewage treatment.





## “Dual-carbon” Action – Compilation of China Water’s Outline of the Implementation Plan for “Carbon Peaking and Carbon Neutrality”

At the 75th United Nations Conference, President Xi Jinping vowed that "China would scale up its nationally determined contributions by adopting more vigorous policies and measures, strive to peak carbon emissions before 2030, and achieve carbon neutrality before 2060". The 14th Five-Year Plan had opened a door to a new phase of ecological civilization construction, under such a backdrop, going green and low carbon will become an essential choice and a necessary path for businesses to achieve sustainable development. The Group has analyzed the situation and kept abreast of the times. By adhering to the business philosophy of "Water-oriented, Kindness to Society", we will actively follow the national policy and fulfil our corporate responsibility for environmental protection. We had

swiftly established a committee responsible for the drafting of the "Carbon Peaking and Carbon Neutral" implementation plan which was chaired by the Group's General Manager and supported by the heads of major departments and experts in relevant fields. Through in-depth research and analysis of carbon emission policies, advanced technology and management experiences of the industry were summarized to, with the due consideration of the Group's development strategies and actual situation, formulate practicable short-term and long-term objectives. By now, China Water's Outline of the Implementation Plan for "Carbon Peaking and Carbon Neutrality" is ready to provide guidance and to be worked with.

### China Water's overarching green development targets for 2022-2050:



- Achieve carbon emission peaking by 2030, in line with national targets.
- Achieve net-zero carbon emission by 2050, which means zero carbon emission at the corporate level.



### Five-dimensional implementation path



- Dimension 1** Increase the proportion of clean energy usage and improve energy efficiency management.
- Dimension 2** Promote the use of pipeline direct drinking water to achieve a green and low-carbon dual water supply.
- Dimension 3** Build green plants and implement green operation and management.
- Dimension 4** Optimize resource utilization and achieve energy balance in sewage treatment.
- Dimension 5** Enhance the promotion of and guidance for green office practices.





## Never Forget Our Original Intention – Direct Drinking Water Becomes Core Business

The original purpose of direct drinking water is to meet the people's demand for healthy and high-quality drinking water, as well as to achieve high-standard urban development. Normally, drinking water accounts for only 2%-5% of the total water consumption for residential needs. If urban water plants and water pipelines were transformed to provide direct drinking water, there would be undoubtedly a considerable level of resource wastage, environmental pollution and energy consumption. The extensive consumption of bottled and barrel water not only brings secondary pollution, but also creates heavy "white pollution" due to the poor degradability of plastic and the low recycling rate. Therefore, the Group believes that pipeline direct drinking water will become a trend and the best choice to achieve the ambitious goal of "carbon peaking and carbon neutrality".

The huge demand from users as well as the economical and environmental-friendly nature of pipeline drinking water are the rationales behind the Group's efforts to start vigorously developing pipeline direct drinking water and enhancing the strategic development positioning of pipeline direct drinking water. The Group has positioned its "pipeline drinking water business" as an equally important core business with its "water supply business" and sped up the nationwide deployment of its pipeline drinking water business. The Group defined its development strategies as "a combination of internal and external efforts to form a twin-driver model: while pursuing quality, tapping potential and increasing efficiency on the inside, increase supply for public welfare on the outside".

### Enhancing strengths for brand-building

We acquired Nanjing Aquacup Technology Co., Ltd, a leader in the direct drinking water industry



We acquired Jiangsu Haideneng Water Purification Technology Co., Ltd, a leader in the direct drinking water industry in Jiangsu



江蘇海德能淨水科技有限公司

Through mergers and acquisitions, as well as investment in research and development, the Group now owns three direct drinking water equipment R&D companies, which have strong technical R&D capabilities and a full array of direct drinking water equipment systems.

## Rapid growth across the country

During the reporting period, the Group established more than 90 direct drinking water subsidiaries, spreading across 18 provinces, one municipality and more than 100 cities and counties in China. The Group invested in more than 1,100 new direct drinking water projects, adding up to over 2,000 projects under operation, which serve a population of about 3 million.



### Case

- The Group has entered into a cooperation agreement with the Huaihua Water Investments Group Co. Ltd. in Hunan Province to invest in the construction of direct drinking water projects in the urban areas of Huaihua City and its suburban counties, with an initial investment of approximately RMB50 million and a designed coverage of a population of 600,000 in the urban areas. Previously, the Group had already established direct drinking water companies in Chenxi County and Xinhuang Dong Autonomous County of Huaihua City and completed and operated 23 direct drinking water projects.

## “Citywide direct drinking water supply” for the people

Relying on our extensive resources and management experience in the water industry, the Group has launched strategic cooperation with local governments and state-owned enterprises to step up its efforts in providing full coverage of direct drinking water in the entire city, achieving a "citywide direct drinking water supply" model such that residents of the city will become the most benefited. During the reporting period, the "citywide direct drinking water supply" model has covered 8 provinces, 1 municipality and 38 cities and counties.

### Case

The Group has invested RMB140 million in Ningxiang, Hunan and has completed and operated more than 130 direct drinking water projects, covering 45,000 households and a population of 80,000 in business units and schools. There were also 20 projects under construction and about 38,000 can soon enjoy a healthy lifestyle and the convenience brought by direct drinking water.



## Low carbon emission, environmentally-friendly and other merits



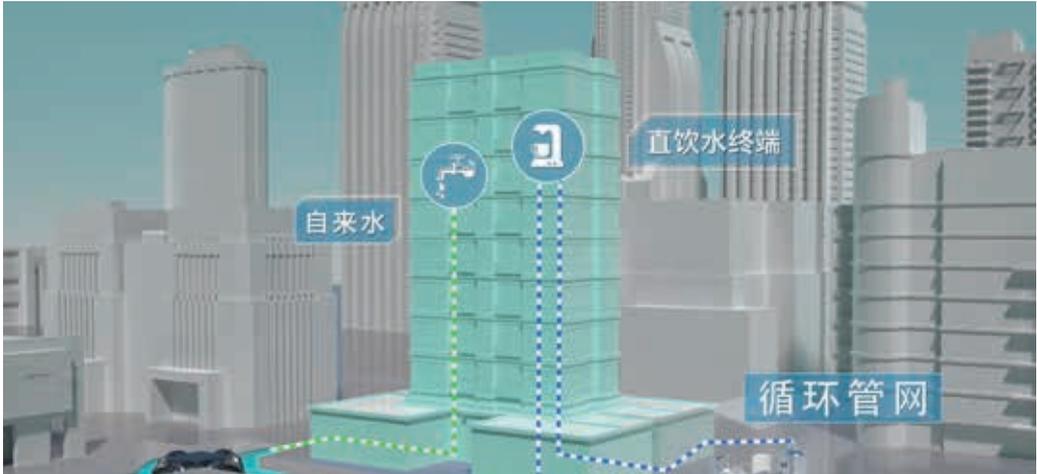
Advanced  
Technology

With high-end membrane treatment technology, depth migration, closed pipeline circulation disinfection technology and double circulation pipeline system, our professional team conduct real-time operation and maintenance, as well as regularly publish the results of water quality testing to provide 24-hour water supply and guarantee to an efficient service system.



  
**Economical and Practical**

Preserve existing water supply facilities and build a separate set of pipelines to avoid large-scale investment and construction such as upgrading water plants and citywide overhaul of pipelines. Meanwhile, industrial-grade high-end technical equipment and systematic production management are used to maintain high water quality standards and economical water tariffs.



  
**Water-Saving and Eco-friendly**

The raw water utilization rate is over 90%, a testimony to the national call to "preserve water resources and improve water utilization".



  
**Healthy and Convenient**

Fulfil the everyday demand for drinking, washing fruit and vegetable, cooking and other scenarios.





## Keep Up our Efforts – Issuing Green Bonds

Following the successful issuance of US\$200 million of fixed-rate senior unsecured green notes on 18 May 2021, the Group further issued an additional US\$150 million of senior notes on 19 January 2022, which were consolidated with the former to form a single tranche that matures on 18 May 2026 and bearing a coupon rate of 4.85%. The proceeds of the issue were used within the previously established green finance framework to ensure that they were used for eligible green projects, in particular water supply projects.

The Group’s efforts and achievements in ecological protection over the years have been widely recognized and hence been chosen by many international financial institutions, which apparently become solid foundation for the successful issuance of green bonds.

### Our green projects include:

#### Sustainable Water Resources and Sewage Management

The construction, modification or upgrading of facilities, infrastructure or systems relating to water supply and sewage treatment.

#### Renewable Energy

The construction of renewable energy production units, including solar and wind energy.

List of green projects associated with this issuance:

Name of Project	Type of Project	Location	Current Progress of the Project
Henan Province South-to-North Water Diversion Project-Zhoukou Water Supply Supporting Project and Huaiyang Water Supply Project	Water supply	Zhoukou City, Henan Province	In operation
Xinyu Urban and Rural Water Supply Integration	Water supply	Xinyu City, Jiangxi Province	In operation
Henan Luyi Silver Dragon Urban and Rural Water Supply Integration	Water supply	Luyi County, Henan Province	In operation
Reconstruction of Chengnan Water Plant in Yanshan County and Expansion Project of Water Distribution Pipeline Network	Water supply	Yanshan County, Jiangxi Province	In operation
New Construction and Reconstruction Project of Urban Water Supply Pipeline Network in Jian City, Jiangxi Province	Water supply	Jian City, Jiangxi Province	In operation

Note: According to the framework for green finance, all project types listed in this table fall under “Sustainable water resources and wastewater management”.



## Sharing the Same Source – Continuing to Promote Urban-rural Water Supply Integration

The purpose of urban-rural water supply integration is to eliminate the visible gap between rural and urban water supply. This disparity is not only seen in water supply infrastructure investment and supply methods, but also in water tariff, water supply quality and quantity, and operation and maintenance. Promoting urban-rural water supply integration will help balance the use of water resources in urban and rural areas, enhance drinking water safety in rural areas, significantly improve the productivity and living conditions in rural areas, and further facilitate the coordinated development of urban and rural areas.

In January 2022, the “14th Five-Year Plan for National Water Security Assurance” issued by the National Development and Reform Commission and the Ministry of Water Resources proposed that, if conditions permit, urban pipelines should be extended to rural areas and gradually achieve urban-rural water supply integration; if conditions are not yet fulfilled, coverage of water supply should be expanded on a large scale with

heavily populated rural towns or administrative villages as the center.

Guided by the mission to equalize urban and rural water supply infrastructure, the Group upholds the overarching idea of "resource integration, localization, professional operation and quality service". After taking into account the natural geographical conditions, socio-economic conditions and the current status of rural water supply in each region, the Group will adopt such methods as "pipeline extension, pipeline connection, upgrading, commissioned operation" to optimize the deployment of urban and rural water supply, improve the operation and management system and upgrade rural water supply services, so as to create an urban and rural water supply system that meets the requirements of social development and the new era.

During the reporting period, 200,000 households and 700,000 people were added to the users of our urban and rural water supply.

During the reporting period

**200,000** households were new household

Users of the Group

**700,000** were new rural water users

Xinyu, Jiangxi achieved remarkable results in urban-rural water supply integration



Xinyu urban-rural water supply integration project is a benchmark project of the Group that started in 2017. With a total investment of RMB900 million, two new water plants and 20 booster pumping stations were constructed to provide an additional water supply capacity of 80,000 m<sup>3</sup> per day. 650 km of water supply main pipelines and about 3,000 km of village household pipelines were laid to address the safe drinking water needs for a total of 21 towns, 1,360 villages and 360,000 people in Yushui District, High-tech District and Xiannihu District of Xinyu. The automation, materials and equipment, and construction quality standards of the project were all following the modern standard of urban water supply system construction. Since operation commenced, the water quality pass rate reached 100%.



Commissioned operation of rural water supply in Baofeng, Henan



On 4 August 2021, the People's Government of Baofeng County signed an agreement with Baofeng Silver Dragon Water Affairs Co., Ltd, a subsidiary of the Group, to entrust the operation and management of all the water supply stations and ancillary pipelines of the rural drinking water safety project in Baofeng to Baofeng Silver Dragon for a term of 30 years. Meanwhile, to address the water shortage in Shiqiao, Baofeng, the Company immediately commenced works to extend the water supply from the Company's third water plant to Shiqiao through our pipelines, addressing the needs of a population of approximately 44,000.





## Environmental Management System Throughout the Process

In order to regulate the environmental and social management of investment and construction projects, the Group formulated the “Environmental and Social Management System” (the “ESMS”) in 2011. It was subjected to multiple revisions and the latest version was prepared in September 2020. ESMS provides that the investment and construction projects under the Group and its subsidiaries shall comply with the system for the purposes of comprehensive identification and analysis of any potential environmental and social risks and formulation of remedial measures. Disclosure of information, discussion about concerned areas and supervision from relevant stakeholders shall be duly conducted throughout the implementation of the projects. Meanwhile, the Group has established a standardised management system which combines five key elements: water production, water supply, safety, service and branding. The Group inspects and supervises the compliance of its subsidiaries with the relevant standards on an irregular basis. An evaluation is conducted every year, whereby reward or punishment is made based on the marks given. Environmental management covering the whole process from initiation to the ultimate operation of a project is basically achieved.



## Strive for Better – Focus on Urban Water Supply

The Group is deeply committed to the urban water supply business. With an operation team of professionals, the Group accumulated extensive experience to provide safe and high-quality drinking water to thousands of households enabled by its excellent management model and a strong sense of responsibility and mission. The Group strives to protect people’s livelihood, energize the economy and serve our society.

Water resources per capita is relatively low in China. As a cross-regional water service provider with water supply as its core, the Group closely monitors water usage of its projects in order to avoid possible disputes over water access rights, rapid increase in operating costs and disruption of operations due to water shortage. The Group measures water stress of its projects, including those of possible acquisitions, with reference to the “Baseline Water Stress China” report published by the World Resources Institute, and formulates plans to cope with future operations. Baseline water stress is a measure of the ratio of total water withdrawal to available surface water in a given area and acts as an indicator of the risks and opportunities associated with water resources. A total of six of the Group’s water supply projects were found to be located in areas of high water stress, representing approximately 4% of the total in terms of water withdrawal. In addition, none of the Group’s projects have access rights disputes or is at high risk of operational disruption.



During the reporting period,  
supply of purified water

**1.634** billion m<sup>3</sup>

Ensuring access to water for  
drinking and other need for

**30** million people



## Drain Away Impure – The Reduction of Environmental Impact of Wastewater

Wastewater collection and treatment and resource utilization are the core components of urban environmental infrastructure, and an important foothold in fighting the hard battle against pollution. The Group continuously processes its wastewater effectively to minimize its environmental impact. Meanwhile, the Group has upgraded its standards and modified its wastewater treatment plants to ensure that the effluent quality is in compliance with the grade 1-A standard of the “Discharge Standard of Pollutants for Municipal Wastewater Treatment Plant” (GB18918-2002), and all wastewater treatment projects are equipped with effluent monitoring systems to enable recording of effluent quality data in a timely and reliable manner.

During the reporting period

Total processed sewage

**219** million m<sup>3</sup>

COD emissions reduced by

**52,854** tonnes

BOD emissions reduced by

**25,707** tonnes

Discharge of SS reduced by

**47,724** tonnes

NH<sub>3</sub>-N emissions reduced by

**5,732** tonnes

Calculation of emission reduction: difference between pre-treatment and post-treatment average concentration of pollutant \* total volume of sewage treated





## The Commencement of Urban and Rural Drainage Operations

Improving the living environment in urban and rural areas and building beautiful and liveable villages are important initiatives to promote integration in urban and rural areas, promote the harmonious resonance between towns and villages, and implement the concept of ecological civilization. The Group focuses on the issues relating to the urban and rural ecological environment, and vigorously commences drainage operations to protect our clear waters and green mountains.

### Urban and rural drainage integration PPP Project in Ninxiang, Hunan



Ningxiang urban-rural drainage integration PPP project, with a total investment of RMB2.17 billion, comprised 20 sub-projects in urban areas and 96 sub-projects in rural areas. Up to now, under the coordination of Ningxiang Construction Bureau and the Project Command Unit, construction under 37 sub-projects have been commenced, including 5 in urban areas and 32 in rural areas, with 12 completed. The project is characterized by its extensiveness and complexity of construction conditions, but with the efficient coordination between the Company and the relevant government authorities, progress was steadily made.



### Domestic wastewater treatment facilities bundled PPP project in Luhe, Guangdong



Domestic wastewater treatment facilities bundled PPP project in Luhe, with a total investment of RMB160 million, covers the urban area, towns and rural areas, addressing the needs of approximately 120,000 residents. The Group is responsible for the construction, operation and maintenance of five town-level sewage treatment plants and ancillary pipelines, the construction of sewage treatment facilities in 267 natural villages, and the operation and maintenance of domestic sewage treatment facilities in 20 natural villages. Up to now, the five town-level sewage treatment plants have been substantially completed and the construction of 137 small sewage treatment stations in rural areas has commenced, of which 82 have already started operation.





## Energy-saving and Emission Reduction

Improving the standards of energy efficiency management and the proportion of clean energy used is our main way to implement the Outline of the Implementation Plan for "Carbon Peaking and Carbon Neutrality". The Group has strictly complied with the Law of the People's Republic of China on Energy Conservation, the Environmental Protection Law of the People's Republic of China and other laws and regulations. Over the years, the Group has incorporated energy consumption indicators into the performance assessment system of its subsidiaries, strengthened the introduction of energy consumption management technologies and technological research, and relied on internal and external experts and third-party professionals to gradually establish and improve energy consumption analysis and assessment methods.

### Emissions

The major pollutants emitted during the production and operation of the Group are divided into two categories: The first category represents the sludge produced during the water production process at the filtered water plant, the key components of which are the dissolved substances in the natural body of water and the water purifiers added during the purification process. The second category represents the waste gases, sludge and treated discharge produced during sewage treatment at the sewage plant. Waste gases are CO<sub>2</sub>, H<sub>2</sub>S and NH<sub>3</sub> produced in the course of bioprocessing; sludge mainly includes silt, garbage and excess activated sludge; major pollutants in treated discharge are COD, SS and NH<sub>3</sub>-N.

The Group has in place a comprehensive set of management processes and operational procedures for general emissions that have smaller impacts on the environment under its operation and management standards, covering identification, discharge, disposal and regulation of emissions to ensure compliant emission. Hazardous emissions produced by industrial sewage treatment plants are dealt with by qualified professional companies. During the reporting period, the Group was not aware of any environmental pollution of material nature.

#### Emission categories and emission data (A1.1)

Category	Emission		Total volume of emissions during the reporting period (tonnes)	Total volume of emissions in the last year (tonnes)	Emission method	Compliance with applicable laws and regulations
Water supply	Sludge	Naturally dissolved substances and water purifiers	199,067	180,296	Compliant emission	"Environmental Protection Law of the People's Republic of China"
Sewage treatment	Air emission	H <sub>2</sub> S	Below emission limit	Below emission limit	Compliant emission	"Environmental Impact Assessment Law of the People's Republic of China"
		NH <sub>3</sub>	Below emission limit	Below emission limit	Compliant emission	"Water Pollution Prevention and Control Law of the People's Republic of China"
	Treated discharge	COD	4,051	3,928	Compliant emission	"Atmospheric Pollution Prevention and Control Law of the People's Republic of China"
		SS	1,673	1,519	Compliant emission	"Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Waste"
		NH <sub>3</sub>	193	200	Compliant emission	"Ambient Air Quality Standards" "Environmental Quality Standards for Surface Water"
Sludge	Compliant emission Silt, garbage and excess activated sludge	91,597	73,704	Sludge from domestic sewage treatment plants is used for reclamation and electricity generation after dehydration and desiccation; and sludge from industrial sewage treatment plants is dealt with by qualified professional companies after dehydration and desiccation	"Environmental Quality Standards for Underground Water Emission" "Standards for Odour Pollutants" "Pollutants Emission Standards of Urban Sewage Water Treatment Plant"	

Calculation of emission: average post-treatment concentration of pollutant \* total volume of sewage treated

## Greenhouse gas (“GHG”) emission (A1.2)

GHG directly produced by the Group in the course of production and operation is very limited. It is mainly produced from fuel used in production and office premises; while the indirect generation of GHG is mainly attributed to power consumption in the course of production. The direct and indirect GHG emissions are calculated in CO<sub>2</sub> equivalent (unit: tonnes).

Category	Scope 1	Scope 2	Scope 3	Total amount
Water supply business	1,380	256,251	N/A	257,631
Sewage treatment business	32	41,887	N/A	41,919
Total	1,412	298,138		299,550

\* The definition of GHG Indicator Scope is cited from United Nations’ Kyoto Protocol and The Greenhouse Gas Protocol – A Corporate Accounting and Reporting Standard of WRI and WBCSD.

Scope 1: Direct GHG emissions from sources owned or controlled by an entity. The Group aims to reduce its Scope 1 carbon emissions per million tonnes of water treated by an average of 1.5% per annum over the next five years.

Scope 2: Indirect GHG emissions are those generated from the use of purchased energy in the course of business by units owned or controlled by an entity.

Scope 3: Other indirect GHG emissions are those generated from units owned or controlled by other parties within the course of business of an entity.

GHG emissions for the year were calculated in accordance with the “Notice on Key Work Related to the Reporting and Management of Enterprises’ Greenhouse Gas Emissions in 2022” and its Annex II “Corporate Greenhouse Gas Emission Accounting Methods and Reporting Guidelines for Power Generation Facilities (2022 Revision)” issued by the Ministry of Ecology and Environment of the People’s Republic of China.

### • Hazardous wastes (A1.3/A1.6)

The hazardous wastes produced in the course of operation of the Group are mainly sludge produced in our industrial sewage treatment plants. During the reporting period, the total sludge produced was amounted to 5,270 tonnes, all of which were properly dealt with by qualified professional companies.

### • Non-hazardous wastes (A1.4/A1.6)

The non-hazardous wastes produced in the course of operation of the Group are mainly sludge produced in filtered water plants and domestic sewage treatment plants. During the reporting period, the total sludge produced was amounted to 285,394 tonnes. Treated sludge, which met the emission standards, was dealt with by the local environmental hygiene departments after dehydration and desiccation. Major processing methods include reclamation, compost or combustion for electricity generation.

• Energy-saving modifications (A1.5/A2.3)

We conducted surveys and analyses of our subsidiaries' water plants and pumping stations to continuously identify areas for energy saving in the Group. During the reporting period, the Group organized relevant departments and joined hands with third-party professionals to formulate a targeted renovation plan for energy saving and consumption reduction of pumping stations, which was implemented in phases to ensure effectiveness. Renovation works for a total of 34 pumps in 13 pumping stations were completed and achieved an energy-saving rate of 12% to 37%, an average energy-saving rate of 23% and an annual electricity saving of 3.288 million kW·h.

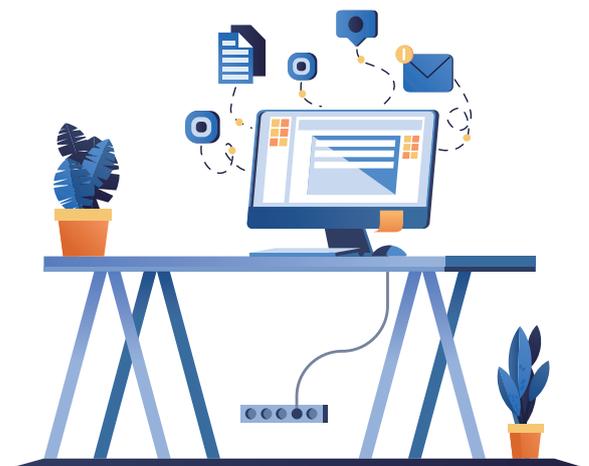


• Green Office (A1.5/A2.3)

We treasure every tick of energy, every piece of paper, every drop of water and every litre of oil. By establishing the concept of a green office, creating a green office atmosphere and developing green office habits, green office has become an essential part of our corporate culture and a shared belief among our employees.

Notable measures:

- Adopting “paperless office” and workflow through the use of OA system;
- Increasing the number of open offices and improving the utilization of natural light;
- Gradually introducing energy-saving and sound-controlled lights and applying solar-powered lighting in the factory;
- Developing an air-conditioning management system and setting its temperatures in line with national energy-saving requirements;
- Using reusable office supplies and recycling waste such as batteries;
- Conducting video conferences and reducing travel arrangements;
- Purchasing new energy vehicles to gradually replace fuel-powered vehicles.



## Resources use

All energy used by the Group was indirect energy (A2.1/A2.3)

Category	Electricity consumption (MWh)	Power consumption per unit (kW·h/1,000 m <sup>3</sup> )	Fuel consumption (tonnes)
Water supply business	441,052	230	440
Sewage treatment business	72,096	328	10
Total	513,148	N/A	450

A total of 1,847,577 GJ of electricity and fuel were consumed.

The energy consumption data is calculated according to the “National Standardized General Principles for Calculation of Comprehensive Energy Consumption: GB/T2589-2020”.

During the reporting period, energy consumption in the water supply business accounted for 14.12% of production costs, which was lower than 16.36% in the previous year; energy consumption in the sewage treatment business accounted for 22.75% of production costs, which was higher than 19.02% in the previous year. The average electricity consumption per unit of water supply was 230kW·h/1,000 m<sup>3</sup>, which was lower than the industry average of 300kW·h/1,000 m<sup>3</sup>.

In accordance with the green development targets set out in China Water’s Outline of the Implementation Plan for “Carbon Peaking and Carbon Neutrality”, the Group’s average electricity consumption per unit of water supply will be reduced to 213 kW·h/1,000 m<sup>3</sup> by 2035; and the energy self-sufficiency rate of sewage treatment plants will reach over 60%.

### Dedicated works to reduce leakage ratio

The leakage ratio is an important indicator which reflects the overall management effectiveness of water business. Reducing the leakage ratio can both preserve high-quality water resources and regain them. In May 2021, the Group organized “targeted” supportive efforts with four companies that have extensive experience in leakage ratio management as the primarily responsible helpers and joined by a team of experts deployed by the head office. The team assisted other water supply companies in the same region to reduce leakage ratio by a series of measures which mainly included: on-site investigation and assessment to analyse the sources of leakage; tailor-made pipeline optimization plans to implement grid-based management of leakage ratio; dispatching professional leak detection teams to explain leak detection methods and experience in person; and conducting comprehensive surveys and organizing relevant training. After several months of work, notable results were achieved, with the leakage ratio of the assisted companies generally reduced by more than 10 percentage points.

During the reporting period, the average leakage ratio of the Group’s water supply business was 14.88%, which was lower than the industry average of 23.22%.

In accordance with the green development targets set out in China Water’s Outline of the Implementation Plan for “Carbon Peaking and Carbon Neutrality”, the Group will achieve a leakage ratio of less than 10% for prefecture-level urban water supply companies and less than 12% for county-level urban water supply companies by 2035.



Developing clean energy

The Group conducted site inspections of all water and sewage treatment plants, office premises and other vacant land of its subsidiaries. Upholding an “build-when-ever-possible” principle, the Group drafted 24 plans for the construction of distributed photovoltaic power stations which will commence simultaneously. Meanwhile, we are closely monitoring clean energy technology and the market, actively exploring the use of clean energy such as wind power and hydropower, and adopting biomass energy for power generation in accordance with local conditions. With multiple measures adopted, the Group is accelerating the generating and use of clean energy.

Case

The Group constructed photovoltaic power generation units in its fourth water plant in Xinyu, Jiangxi and the ancillary water plant in Zhoukou, Henan under a south-to-north water transfer project. With a total investment of more than RMB13 million, the project maximized the use of the open space, roofs, structures and other spaces of the water plants. The photovoltaic power plants have installed capacity of 1.7 MW and 1 MW and their annual power generation can reach 2.8 million kW·h, which is equivalent to a reduction of 1,627 tonnes of CO<sub>2</sub> emissions.



During the reporting period, the Group provided 60,737 MWh of clean energy, accounting for approximately 12% of total electricity consumption. The total installed capacity of photovoltaic power generation units reached 72 MW, providing approximately 16% of total electricity consumption under full-load operation.

The Group provided clean energy of

**60,737** MWh

Accounting for approximately

**12** % of total power consumption

Total installed capacity of photovoltaic units reached

**72** MW



### Water Conservation and Water Source Protection (A2.4)

Although the total amount of water resources in China is among the highest in the world, water resources per capita represents only a quarter of the world average, and are characterized by uneven geographical distribution and a large disparity between the north and the south. As a cross-regional integrated water services operator, the Group understands the scarcity and importance of water resources, and is therefore an advocate and practitioner of water conservation and efficiency.

According to the Code for Design of Outdoor Water Supply Engineering (GB50013-2006), around 5% to 10% of the designed capacity of water plants is adopted for its own use. Under the premise of ensuring water quality safety, the Group has been able to maintain the self-use rate under 3% through process optimization or renovation, setting up reasonable back flush parameters for the filter tank and mud discharge parameters for the sedimentation tank, and the addition of back flush water reflux process for aged water plants.

In addition, the Group is actively exploring the feasibility of reusing the water from the sewage treatment plant

and providing the reclaimed water to the municipal sanitation department for city greening, street flushing and landscape watering to effectively relieve the pressure on urban water in water-scarce areas. The project has been implemented in Luyi, Henan.

The Group also organizes water conservation and water-saving campaigns on certain days in the year, such as World Water Day (22 March), Earth Day (22 April) and World Environment Day (5 June), to raise public awareness of water conservation.

During the reporting period, the Group withdrew a total of 1,981.66 million tonnes of water, supplied a total of 1,919.58 million tonnes of water and consumed a total of 62.08 million tonnes of water, representing a water consumption per unit of 3.13% (A2.2).

In accordance with the green development target set out in China Water's Outline of the Implementation Plan for "Carbon Peaking and Carbon Neutrality", the Group's water consumption per unit of water plants will reach less than 2% by 2035.

Total water withdrawal by the Group

**1,981.66** million tonnes

Total water supply

**1,919.58** million tonnes

Total water consumption

**62.08** million tonnes

Unit consumption rate

**3.13** %

By 2035, water consumption per unit of water plants will reach less than

**2** %



## Environment and Natural Resources (A3.1)

The construction and operation of water projects have certain impacts on the environment and natural resources. During the preliminary stage, it involves the selection of water sources, and the development of land being chosen as a factory site. During the construction stage, the environmental impact mainly comes from the wastewater, waste gases, waste residues and noise generated during the construction, which are generally temporary in nature and can be eliminated upon the completion of construction. During the operation stage, our projects mainly involve water resources extraction and ecological environment restoration. During the reporting period, none of the Group's projects fell into any category of potentially significant impact on the environment under the "Catalogue for the Classified Administration of Environmental Protection for Construction Projects (2021 Edition)" published by the Ministry of Ecology and Environment of the PRC.

### Environmental impact assessment

The Group strictly follows the requirements of the "Environmental Protection Law of the People's Republic of China" and the "Environmental Impact Assessment Law of the People's Republic of China" to conduct environmental impact assessments for new, renovated or expanded planning or construction projects and to engage qualified third-parties to compile environmental impact assessment reports. Being aware of the time lag between the preparation of the environmental impact assessment report and the actual construction of the project, and that the local ecology may change during that period, the Group will organize a team of experts to conduct an internal assessment to discuss and adjust the design and construction plan again before the commencement to ensure that the construction will not cause significant impact on the environment.



### Green construction practices

The Group has formulated the "China Water's Construction Management System" in accordance with the "Construction Law of the People's Republic of China", the "Regulation on the Quality Management of Construction" and other laws and regulations. By taking into full consideration the ecological and environmental impacts and the use of resources and energy during the construction process, it sets out the transition from traditional construction to green construction based on the fundamental principle of "low carbon and green". Green construction not only refers to site closure, noise reduction, dust suppression and clean transportation, but also includes site disturbance reduction; construction schedule based on weather; water, electricity and material saving; adoption of green technology and reduction of landfill waste. While ensuring basic quality and safety requirements, our construction activities are scientifically managed under technical guidance to maximize resource conservation and reduce the negative impact on the environment, thus saving energy, land, water, and material and protecting the environment.

## Compliant use of natural resources

The Group strictly complied with the water withdrawal license system as stipulated in the “Water Law of the People’s Republic of China” and applied for water withdrawal licenses in accordance with the relevant procedures. During the reporting period, all of the Group’s water plants obtained valid water withdrawal rights.



Other natural resources consumed in the course of the Group’s project operation are renewable industrial products, which were mainly the water purifiers and disinfectants added in the course of tap water production and sewage treatment.

Category	Type	Consumption (tonnes)	Unit average consumption (kg/1,000 m <sup>3</sup> )
Water purifier	PAC	18,467	11.2
	Al <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub>	399	4.2
	NaOH	1,100	3.5
Disinfectant	Liquid chlorine	2,021	1.7
	ClO <sub>2</sub>	1,274	3.3
	NaClO	2,612	5.5

In accordance with the green development target set out in China Water’s Outline of the Implementation Plan for “Carbon Peaking and Carbon Neutrality”, the Group will reduce the consumption of chemicals per unit of water supply by at least 10% as compared to 2021 by 2035.

## Ecological restoration and biodiversity conservation

All of the Group’s construction and operation projects have undergone thorough research and environmental impact assessments. There were no cases of occupying or damaging ecological reserves, rare wildlife reserves or natural heritage sites. However, the Group still attaches great importance to the protection and restoration of the ecological environment and continuously monitors changes in the local ecologies through water source inspections, pipeline inspections and water quality sampling and testing, in order to take immediate improvement if needed. Meanwhile, we work with stakeholders in formulating ecological policies and action plans to fulfil our corporate environmental responsibilities and work together for the greater good of ecological civilization.



Restoration of roadside greenery upon completion of pipeline construction by Baofeng Silver Dragon Water Affairs Co., Ltd



Wuhan Xinzhou District Changyuan Water Supply Co., Ltd. carrying out rooftop greening on a water storage premise

### Ecological restoration by Jingzhou Water Affairs Group Co., Ltd.

Case

Jingzhou, Hubei is one of the first 24 cities in China to be named a renowned historical and cultural city by the State Council. It is also a garden city popular among tourists with ports on the Yangtze River which makes it an important transportation hub. The city has a natural wetland of 712,000 hectares and a forest of 4.83 million mu. Being named a National Civilized Unit for six consecutive years, Jingzhou Water Affairs Co., Ltd. has always cared about the local ecological environment and biodiversity. In April 2021, Jingzhou Water Affairs joined hands with the Jingzhou Municipal Enterprise Committee and the State-owned Assets Supervision and Administration Commission to launch the “Build a Charming Jing River” campaign and conduct ecological inspection and protection along the Yangtze River. In August of the same year, officials



of the Jingzhou Municipal Government and the management of Jingzhou Water Affairs visited our water plants and inspected the ecological environment in the surrounding areas. They jointly formulated an action plan for ecological improvement, making ecological protection a key task of the Company.



## We Must Act Now – Tackling Climate Change

In response to the severe challenges posed by global climate change, China has set an ambitious target to achieve “carbon peaking by 2030 and carbon neutrality by 2060”. With a high sense of responsibility, the Group is deeply aware that it cannot disengage from this climate war, as the impact of climate change has already affected every aspect of human activity.

### Climate Governance

In 2021, the Group closely adhered to the national policy and prepare the Outline of the Implementation Plan for “Carbon Peaking and Carbon Neutrality”. Meanwhile, with reference to the guidelines from the Task Force on Climate-Related Financial Disclosures (TCFD) and the impact of the national energy transformation trend on the water industry being fully considered, the Group conducted comprehensive climate risk identification and assessment to form a list of risks and measures to combat them, by which the climate issues were incorporated into our ESG governance system.

### Climate Risk Management (A4.1)

Business type	Risk category	Risk description	Countermeasures
Strategic deployment	Policy risk	Driven by China’s climate action and the goal of “carbon peaking and carbon neutrality”, the government will obviously introduce relevant laws and regulations, such as the “the Administration of Carbon Emission Trading (Trial)”, the “Guiding Opinions on Promoting Climate Change Financing and Investing” and the “Notice on Further Deepening the Market-Based Reform of On-Grid Electricity Prices for Coal-fired Power Generation”. The Group may face more stringent energy consumption targets and emission standards.	We will closely monitor national policies, adjust our strategies and specific operational measures in a timely manner. We will also accelerate the promotion of environmentally-friendly industries, such as photovoltaic power generation and pipeline direct drinking water.
Operation Management	Water source and water quality risks	Extreme weather triggered by climate change, such as sustained high temperature, may cause water levels in rivers, lakes, reservoirs and other water sources to drop, making water sourcing difficult. It can also lead to algae blooms which may cause eutrophication of water bodies, increasing the challenge of follow-up treatment.	Strengthen communication and liaison with local water authorities to keep abreast of water source conditions; conduct water source water testing in strict accordance with the “Surface Water Environmental Quality Standard” (GB3838-2002), and develop contingency plans for water source pollution; actively promote the construction of a second water source in areas where conditions permit to form a multi-water supply model and improve water supply safety and security.
	Water restriction risks	Natural disasters such as floods and mudslides caused by heavy and continuous precipitation may submerge water plants and pumping stations or destroy raw water pipelines, resulting in disruption of water supply; thunderstorms may induce damage to water supply equipment.	Strengthen the protection of water plants, pumping stations and other water supply facilities, have flood prevention measures in place; strengthen cooperation with local emergency authorities, activate contingency plans to guarantee residents’ water supply when such water supply is disrupted; conduct thorough research for site selection when building new water plants, construct those plants in locations that are less susceptible to natural disasters.
	Water Supply Risks	Freezing weather in winter may cause underground water supply networks to be more prone to burst damage, or induce freeze damage to household pipelines and water meters, resulting in loss of water supply assets and waste of water resources.	Strengthen water supply pipeline inspection and adopt GIS system to ensure timely maintenance; have anti-freeze measures for household pipeline and water meters in place; insure against the loss of water supply assets.

Business type	Risk category	Risk description	Countermeasures
Construction	Construction risk	A higher frequency of natural disasters due to climate change; high temperature, freezing, rain and snow, fog, wind and smog will significantly affect construction safety.	Enhance safety management of construction sites and cease operation when necessary.
	Progress risk	Extreme weather will force construction projects to halt and may cause delays.	Formulate a reasonable schedule, collect local meteorological data in past years before preparing the progress plan, fully evaluate the climate risk, coordinate the construction according to the seasonal weather, and prepare the construction plan under abnormal weather.
Human resources	Health risk	The business nature of the Group requires a considerable number of employees to work outdoors as meter readers, pipeline inspection staff, construction staff and others, while every employee also has to commute to work, which make them prone to extreme weather and natural disasters.	Enhance employee care, create a suitable working environment and operating conditions, arrange flexible work schedules, and suspend outdoor operations in case of bad weather.
Investment and acquisition	Project risks	Some projects are based in areas that are more susceptible to the negative effects of climate change and the acquisition of those may incur higher operational and management costs.	We will optimize our efforts to conduct site visits and due diligence to reasonably assess the climate risks of the projects.

## Identifying climate opportunities

Challenges and opportunities come side by side. The promulgation of a series of policies following China’s “carbon peaking and carbon neutrality” targets has created opportunities for the Group’s strategic transformation and business growth. With the continuous development of green technologies, the gradual improvement of the carbon trading market and the popularity of smart water services, China Water is positioning itself for great success.



# PRACTICE THE COOPERATIVE DEVELOPMENT OF SOCIETY

Looking back on the past year, China Water had always actively fulfilled its corporate social responsibility, insisted on giving back to the society through practical efforts, and hence achieved growth in both economic and social benefits. Upholding the core value of “Water-oriented, Kindness to Society”, we strive to become a water supplier with warmth, affection and pursuit.

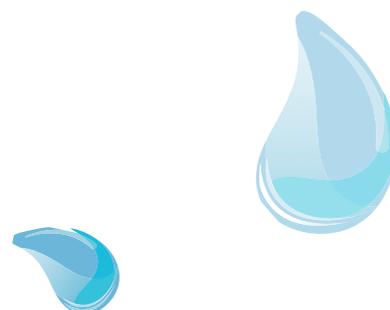
Facing the outbreak of Covid-19 pandemic, China Water has been at the forefront of safeguarding people’s livelihoods and overcame numerous challenges to achieve “zero infection” for the second consecutive year, with all these efforts we managed to weather the pandemic. The Group’s self-developed mobile app, Fingertip Water, has brought users closer to the Group with its comprehensive functions and sound experience. Equipped with such features, it plays a key role in ensuring water services, maintaining social stability and promoting the stable development of the local economy.

Water embodies the virtues of justice, courage, resilience and cleanliness, just as China Water expects and demands from its employees. The Group insists on the “people-oriented” employment philosophy and attaches great importance to occupational health and safety. We spare no effort to create a decent working environment and development opportunities for employees, a variety of diverse team-building activities are provided. We are also devoted to developing the “China Water Network College”, in which our employees can grow with the sense of identity and belonging to the Group through continuous self-improvement.

As always, the Group has been mindful of the community and has continued to expand and extend the scope of its corporate social responsibility. Incorporate the service brand “China Water, Nourishing Thousands of Families with Love” into our social efforts, we organised charity activities such as “Water Plant Open Days” and “Service in Community” to establish a positive corporate image in the community and strive to be the “forerunner to the value of water”.

During the reporting period, the economic value created by the Group and the wealth distributed to stakeholders:

Stakeholders	Indicator	(HK\$'000)	
Investors/creditors	Revenue	12,949,828	Economic value created by the Group
Suppliers (products and services)	Cost	7,987,628	
Employees	Remuneration and benefit expenses	1,271,136	
Creditors	Finance cost	468,076	Economic value allocated by the Group
Shareholders	Dividend allocation	554,990	
Government	Income tax	939,093	
Investors/shareholders	Total equity	20,482,744	Economic value retained by the Group



## Combating the pandemic

In the past year, the doldrums of the Covid-19 pandemic have not yet dissipated. The Group has strictly abided by the prevention policies of our government, under which we maintained production and operation in an orderly manner, strengthened safety and protection measures, conducted emergency drills on pandemic prevention, made flexible arrangements for meetings and business trips, and provided support to pandemic prevention workers. During the reporting period, no infected case of Covid-19 was reported within the Group.

### Various information technology platforms to ensure smooth production and operation

- Daily operation - Collaboration office system
- Plant operation – SCADA system
- Pipe network operation – GIS System
- Business acceptance – Water supply service marketing system
- Customer payment – Fingertip Water App and various online payment channels

### Strengthen safety and protection measures to safeguard the health of employees and others

- Regular disinfection of office areas
- Temperature scanning and measuring for staff access
- Adequate pandemic prevention supplies provided
- Emergency drills conducted on pandemic prevention



## Fingertip Water Service App

Fingertip Water is a mobile app developed by the Group that encompasses the characteristics of China Water, integrating a variety of water services functions and carrying the service brand concept of “Nourishing Thousands of Families with Love”, with an aim to enhance the dimension of services, enrich the user experience and strengthen community connection. The Fingertip Water App is designed with the concept of “services at your fingertip without needing to leave home”, with convenience as the fundamental starting point, and consists of six sections, being payment enquiry, business application, customer service hotline, water services headlines, water services vision and life at the fingertip, in which users can rely on their mobile phone to conveniently check water usage, pay water bills, conduct applications, know the water quality, receive notifications and obtain news, and enjoy timely, comprehensive and continuous access to the Group’s quality services.

To protect intellectual property rights, the Fingertip Water App has been awarded a nationally recognised computer software copyright registration certificate and the Zhongguancun High-Tech Enterprise Certificate (B6.3). In order to protect the security of user information, users of the App are required to sign the “Fingertip Water User Agreement” during registration, which includes the “Fingertip Water User Privacy Policy” which specifies how user’s information is collected, used, stored, updated, deleted and protected (B6.5).

As at 31 March 2022, the Fingertip Water App was available in 50 cities with over

**2,000,000** households users

### Advantages of our Fingertip Water App

#### For business

- A unified online service channel which facilitates operational management;
- Accurate statistics to support business development and service improvement;
- Convenient notification tool in place to deliver substantial information in a timely manner;
- Stable payment and deposit system which secures corporate cash flow.

#### For individual user

- Streamline operational learning costs with its simple interface;
- Convenient payment enquiry function which provides a clear overview of household water usage;
- Comprehensive business application with real-time progress tracking to improve user experience;
- Accurate notification tool which allows users to prepare in advance for water disruption and maintenance;
- A wide range of value-added services to provide users with more choices and benefits.



## Employment

Talent is the mainstay and the key factor of production in the Group. The Group established a set of human resources management systems to meet the strategic development needs of the Company, guided by the corporate culture of “Superior Goodness Resembleth Water”, based on a scientific and standardised management system and supported by a professional and diligent management team.

### Employees

The Group safeguards the interest of employees by strictly following the requirements under the Labour Law of the People’s Republic of China and other relevant laws and regulations. It has entered into the Labour Contract and employment contracts with 11,018 employees.

### Remuneration and benefits

The Group implements a position-based remuneration system and follows the principle of “salary based on position and distribution according to labour”. The remuneration level of employees is linked to the operating efficiency of the Company, job position and work performance, which fully reflects the personal value of employees.

The Group established a comprehensive benefits system, under which contributions to a variety of social insurances and housing provident funds are made in full and on time for its employees in strict accordance with the relevant national regulations. In addition to the fully implemented paid leave system, the Group also provides various allowances for transportation, communication, festivals, working meal subsidies and others.

### Anti-discrimination

The Group upholds the concept of “openness, inclusion, motivation and win-win” for talents, and strictly abides by the anti-discrimination principle in employment to treat all employees equally, regardless of gender, ethnicity, marriage and pregnancy and religion.

Employee structure by gender and age (B1.1)

Age group	Gender ratio		Male employee		Female employee	
	Number	Ratio (%)	Number	Ratio (%)	Number	Ratio (%)
Below 25	310	2.8	253	2.3		
26 to 30	1,096	9.9	838	7.6		
31 to 40	2,500	22.7	1,955	17.7		
41 to 50	1,801	16.3	1,347	12.3		
Above 50	810	7.4	108	1.0		
Total	6,517	59.1	4,501	40.9		

Employee distribution by position (B1.1)

Employment Type	Gender ratio		Female employee	
	Male employee	Female employee	Number	Ratio (%)
Senior management	614	80.5	149	19.5
Mid-level management	936	68.3	435	31.7
Technicians and operation workers	4,101	56.2	3,199	43.8
Others	866	54.7	718	45.3

Note: Among 11,018 employees, less than 0.5% were based in foreign region or China’s Hong Kong, Macau or Taiwan; 4.1% were temporary staff.

Proportion of local employees and annual employee turnover rate (B1.2)



Note: Turnover rate for the year was less than 0.05% for overseas employees and employees in China’s Hong Kong, Macau and Taiwan; 2.09% for males and 1.8% for females; and 2.09% for employees aged 40 or under and 1.77% for employees aged over 40.

Care for employees

Care for employees is a direct manifestation of the Group’s “people-oriented” core philosophy. The Group provides competitive remuneration and benefits packages for its employees, regular employee seminars are held to fully understand the working and living conditions and practical needs of employees and to solve their concerns. During festivals or in the summer and winter, leaders and executives at all levels visit the frontline to send care and greetings to employees at work. Team activities such as outings, hikes, visits and sports games are organised from time to time throughout the year to strengthen the cohesion of the Group. We provide comprehensive guidance to new employees to help them adapt to work and integrate into the Group as soon as possible. Additional subsidies and holidays are provided to employees who are subject to frequent business trips. We arrange annual medical check-ups and pay attention to the health of employees. In case of any employee or family member suffering from severe illness, executives of the Company would visit the patient in person with solatium provided to solve their urgent needs.



## Health and Safety (B2.3)

Always adhering to the safe production concept of “safety first and prevention”, the Group strictly abides by the “Law of the People’s Republic of China on Safety Production” and other relevant laws and regulations and promotes organic integration of safety and management work. Under the prevailing principle of “one post, two responsibilities”, we take up safety management tasks in our daily operation. We are committed to the safety management system of “universal safety responsibility management”, “major risk classification and control” and “continuous improvement and rehearsal of emergency plans”. The Group strives to minimise the potential safety and health risks in the workplace and create a compliant working environment for employees. The Group has in place safe production regulation standards that provide the appointment of a safety officer and enters into the accountability letter for safety targets with each level within the corporation, coupled with regular risk inspections. Operating procedures and operation guidelines are continuously optimised during routine production. Specific plans are put in place to conduct safety training sessions and tests on employees to ensure that they are familiarised with the management requirements and operating procedures. During the reporting period, no case of material safety liability incident occurred within the Group (B2.1/B2.2).

Indicators	2020	2021	2022
No. of employees involved in fatal incidents	0	0	0
No. of employees involved in work injury	0	2	2
Ratio of employees involved in work injury (%)	0	0.020	0.018
No. of days lost due to work injury	0	111	108



## Training and Development

A workforce that keeps pace with the times is fundamental to the sustainable development of the Company. The Group provides a variety of learning and upgrading platforms for our employees, maximises their enthusiasm, digs deep and develops their potential, and continuously improves their working ability and professionalism. With all these efforts we can safeguard and reserve talents for the operation and development of the Group in terms of quantity, quality and structure, and hence secure competitiveness in human resources.



### China Water Network College

The “China Water Network College” is an internal online training platform developed by the Group in the past two years, providing internal and external course resources of “high-quality, full-coverage, multi-form” for all employees, which has played a great role in enhancing their professionalism and occupational accomplishments. The Network College has in place four domains for different learning targets, namely new employee training, job training, career advancement and leadership training. Through efforts such as industry exchanges, cooperation with renowned enterprises and internal development, we provide a rich variety of training courses. 59 courses have been developed with a total of 3,323 hours, from senior management to new employees, all assigned with corresponding learning tasks. The human resources department can keep track of employees’ learning progress in real-time. Incentives are provided for outstanding internal lecturers and course developers.



### Organise lateral on-job training for technical management personnel

With an aim to expand the vision of our employees, strengthen their commitment and undertaking, improve the overall quality and build a team of complex talents, the Group organised a cross-regional, cross-company and cross-position on-job exchange training session for 58 technical management personnel, involving several positions in operation management, engineering construction, water quality testing, customer service, administration and personnel. The on-job training session provided a unique opportunity for employees to grow and develop in different environments, which served as an excellent platform for a group of capable and motivated employees to develop their skills. For those who perform well during the training period, the Group will provide more room for development, which can also reserve the Group with a quality management team.

### Training for employees (B3.1/B3.2)

Employment Type	Gender	Average training hours (hrs)	Percentage of employees trained (%)
Senior management	Male	94	100%
	Female	73	100%
Mid-level management	Male	98	100%
	Female	91	100%
General staff	Male	63	100%
	Female	77	100%

## Labour Standards

The Group strictly complies with the Labour Law of the People's Republic of China, the Labour Contract Law of the People's Republic of China, the Social Insurance Law of the People's Republic of China and other relevant laws and regulations. In addition, with reference to the relevant rules of the International Labour Standards ("ILS"), we formulated and implemented an employment system that complies with the national and local regulations, so as to safeguard the rights and interests of our employees in earnest.

The Group respects the right of workers to choose their profession freely. Labour contracts are entered into on an equal and voluntary basis, and any form of forced labour is prohibited. The Group does not require employees to provide any collateral for employment. Employees are entitled to resign from work freely in accordance with the law.

As child labour (aged below 16) is strictly prohibited by the Group, rigorous screening is performed during recruitment. Employment is subject to approval by the local public security bureau and the bureau for labour and employment after the identification document is verified (B4.1).

The Group stipulated the working hours not exceeding the national standards, i.e. no more than 40 hours per week. Regulations for overtime work of employees are put in place. Any overtime work should be unanimously agreed upon with employees and compensated. No physical assault, mental oppression or verbal abuse of employees is allowed. The Group does not discriminate against employees at work because of their age, gender, race and religion.

Each subsidiary of the Group has established a labour union as required. Employees may join a union of their own volition. Representatives of a union may negotiate with the respective company in respect of matters relating to their interests such as employment, wages and benefits, training and development, etc.

Human resources department and audit department have been established under the headquarters and in each subsidiary of the Group to regularly review, rectify and deal with violations of labour standards. During the reporting period, no violation of labour standards was identified (B4.2).



## Supply Chain Management

The Group extends its core value of “Water-oriented, Kindness to Society” to the aspect of supply chain and carries out supply chain management in strict accordance with the Government Procurement Law of the People’s Republic of China, the Law of the People’s Republic of China on Bid Invitation and Bidding, the Contract Law of the People’s Republic of China and other laws and regulations.

In order to ensure product quality, reduce procurement costs and enhance risk control, the Group implements centralised and strategic procurement models as a major measure. Our professional procurement department, after the analysis of each subsidiary’s requirement, formulates standards and consolidates the Group’s resources to conduct centralised tendering for procurement. Continuous multi-circle evaluation of suppliers would be conducted to identify strategic buyers, in cooperation with which progress would be made towards the procurement objectives of the unified brand, specifications, quality and pricing (B5.2).

The Group closely monitors the sustainability performance of its suppliers and incorporates ESG

rating criteria into the supplier inspection, admission, management and evaluation process. The Group has formulated the “Measures for the Administration of Procurement of Construction, Goods and Services (for Trial Implementation)” and the “Guiding Opinions on Centralised and Strategic Procurement in China Water”. We identify suppliers’ ESG risks through measures such as regular product sampling, collecting feedback from subsidiaries, arranging for professional personnel to conduct investigation and evaluation, and reports to the management on significant risks (B5.3).

The Group makes reference to the ESG disclosures of suppliers during the inspection stage, focusing on aspects such as environmental issues, product responsibility and occupational health and safety as evaluation standards. We encourage our suppliers to implement energy-saving measures, extend the application of clean energy, select green materials and ensure awareness of their carbon emissions, with a view to creating a sustainable supply chain and mutual benefits with suppliers who share the same environmental and social concerns (B5.4).

### Distribution of suppliers (B5.1)



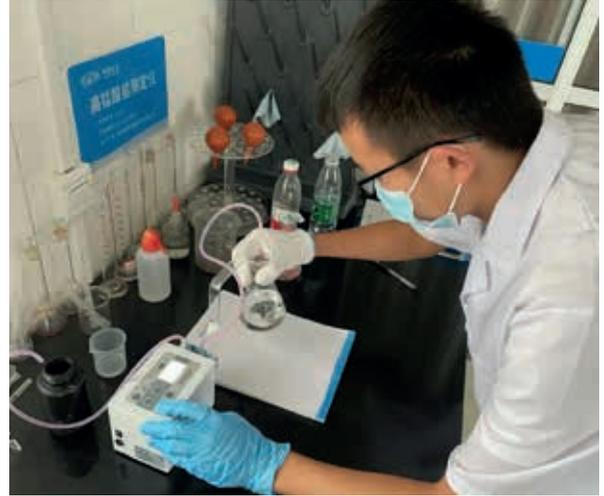
Note: The figures in this report changed significantly from the previous period due to the adjustment of the indicator standard and methodology (certain inactive suppliers were excluded).

## Product Responsibility

As a public utility company with water supply and wastewater treatment as its principal business, the Group shoulders the prime responsibility of safeguarding people's livelihood and improving the environment. We consider product quality as its heart and implement product quality management in strict accordance with national laws and regulations, industry codes and internal control standards.

The quality of tap water provided by the Group's water supply subsidiaries is in line with the Standards for Drinking Water Quality (GB5749-2022), while the standard for water supply services provided was prescribed under the Customer Service for Public of Urban Water Supply (GB/T32063-2015); the discharge generated by its sewage treatment subsidiaries meets the Standard of Pollutants for Municipal Sewage Treatment Plant (GB18918-2002); and the pipeline direct drinking water supplied by its direct drinking water subsidiaries meets the Standards for Clean Drinking Water Quality (CJ94-2005).

During the reporting period, the Group did not record any product recall due to product quality, safety and health reasons (B6.1).



## Standardised Management System

The Group established a standardised management system with the "China Water's Operation Management Standards" as its key component, which covers management systems, operating procedures, operational guidelines and record forms. The system also includes three assessment standards, namely the "Water Production Operation Management Standards", "Water Supply Operation Management Standards" and "Safety Production Management Standards", generally covering all aspects of water supply operation management. Over the past year, the Group continued to promote and provide training on the above standards and included standardised management in the annual assessment as a key subject to ensure smooth implementation in both production and operation.



## Three-tier water quality testing system

The Group established a three-tier water quality testing system in accordance with the China Water Operation Management Standards and the China Water Laboratory Technical Standards, namely group-level central laboratory testing and plant-level laboratory testing and team testing, with a view to ensuring strict control of product quality at all stages. The Group sets up working groups to carry out water quality inspections from time to time and supervised its subsidiaries, so as to continuously strengthen the construction and management of the respective laboratories, improve the deployment of staff and equipment and facilities, and expand their testing capacity to develop laboratories of high standard. At present, the Group has 2 laboratories which provide a full range of 106 types of tests; and 9 laboratories which provide more than 42 types of tests. We conduct internal or commissioned tests in strict accordance with the “Standard Examination Methods for Drinking Water” (GB/T5750-2006) (B6.4).



### Gongan County Silver Dragon Water Company Limited received water safety inspection by CDC

 Case

In March 2022, the Center for Disease Control and Prevention of Gonggan County conducted a water quality and safety inspection of the direct water supply area of the Gonggan County Silver Dragon Water Company Limited. The CDC sampled the water quality at 3 outsourcing water monitoring points of the company’s water plants, 10 pipeline network monitoring points in the urban area and 3 rural drinking water monitoring points. On-site tests were conducted on key indicators of the water samples, such as turbidity, colour and chlorine dioxide content, and the results were within national standards.

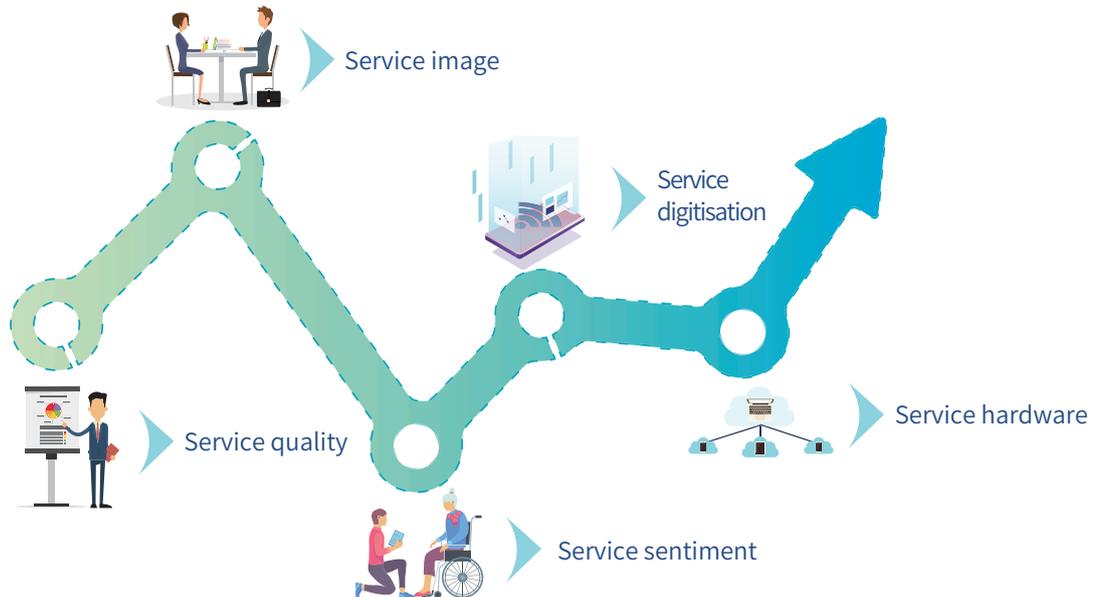


In the first quarter of 2022, Gonggan County Silver Dragon Water Company Limited received 3 inspections from water quality testing centers at the municipal level or above and 1 inspection from the CDC of the Country, with a pass rate of 100% for all 4 inspections.

## “China Water, Nourishing Thousands of Families with Love”

The Group continued to build up its “China Water, Nourishing Thousands of Families with Love” brand and issued the “Implementation Plan of China Water’s Brand Building for 2021-2022” during the year, focusing on promoting production and operation, enhancing corporate image and improving service quality. The project aims to expand the influence of the brand and achieve mutual development of both corporate and society through five service works for brand building.

Five service works for brand building:



### Upgrading customer service center

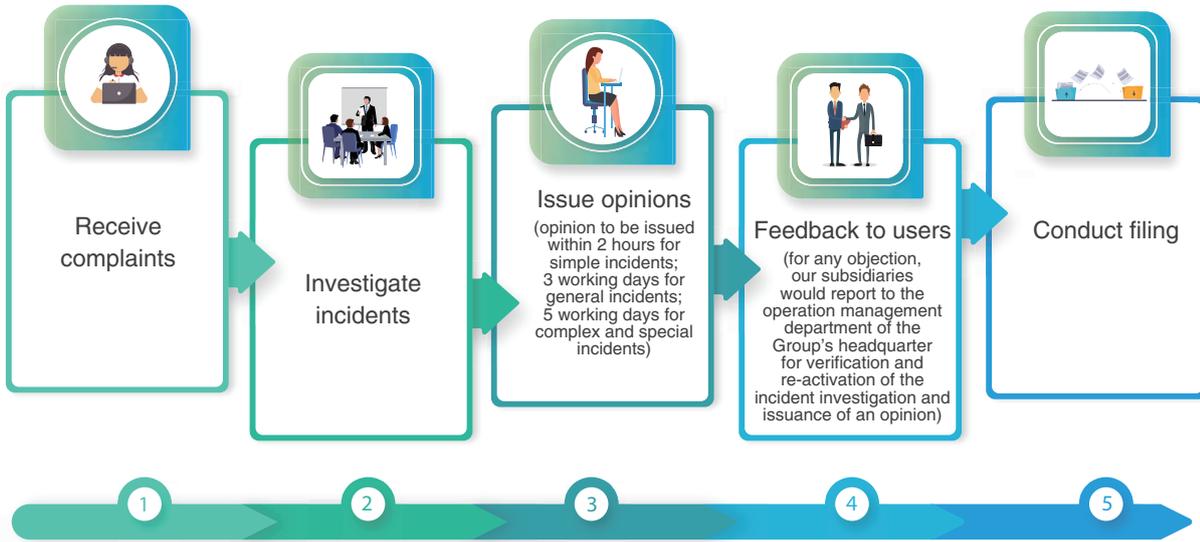
As a podium for direct communication with customers, the Group attaches great importance to the function building of customer service centers of its subsidiaries and has strictly followed the “Visual Identification System Manual of China Water” and “Spatial Image Identification System Manual of China Water” to ensure the satisfaction of the needs regarding water supply services and provision of sound customer experience.

The customer service center implemented external service commitment systems, under which the business process is disclosed, and the business content, related costs and processing time are clearly stated. The “one-stop service” has been continuously optimised to facilitate users with less need to leave home and concern. The customer service center has set up a 24-hour service hotline and established a comprehensive feedback mechanism for complaints, providing timely responses and proper solutions to any requests from users. During the reporting period, the Group received a total of 3,579 complaints from users, with a 100% satisfaction rate of complaint resolution (B6.2).



### Complaint Handling Process (B6.2)

User complaints: telephone complaints (call the 24-hour service hotline provided by our subsidiaries), letter complaints (obtain the company address by calling the service hotline or via Fingertip Water App), on-site complaints (obtain the address of our customer service center by calling the service hotline or via Fingertip Water App), complaints via Fingertip Water App (one-click dialing to complain after logging in)



### Customer Satisfaction Survey

The Group maintains the view that customer satisfaction is the most convincing indicator of the “China Water, Nourishing Thousands of Families with Love” brand, and attaches great importance to customer experience and feelings. The Company has established its “customer-centric” business strategy and conducted regular customer satisfaction surveys, and solicit customers’ opinions through a variety of communication channels such as on-site interviews, questionnaires, telephone callbacks, suggestion boxes and seminars. During the reporting period, our subsidiaries conducted one quarterly customer satisfaction survey on average and visited industrial and commercial customers from time to time.



## Organise water plant open days

The Group's subsidiaries organise water plant open days from time to time to invite the public, including primary and secondary school students, to visit the production works, testing process and distribution facilities of tap water. The visits allow the public to observe the "ins and outs" of tap water at close range, and hence popularise the knowledge of water consumption and enhance the awareness of water conservation, while placing the processes under the supervision of the whole community.



## Brand Story Contest

The Group organised a brand story contest with the theme of "New Pattern, New Motivation, New Advantage" and sent outstanding entries to participate in the national contest. Being inspired by the touching brand stories and role models, our staff continuously presents products and services of higher quality to the society, with all these influences the spirit of "China Water, Nourishing Thousands of Families with Love" brand could be consolidated, inherited, and promoted.



## Anti-corruption

The Group attaches utmost importance to building a corruption-free culture and strictly complies with the Criminal Law of the People's Republic of China, the Anti-Unfair Competition Law of the People's Republic of China and the Company Law of the People's Republic of China, and other relevant laws and regulations. By continuously refining our finance, construction, procurement, investment and audit systems to regulate group and individual behaviours, we built a strong moral and disciplinary defence for our staff. The Group upholds zero-tolerance policy towards abuse of power of duties and position for personal gain which damages the interest of customers, suppliers and other third parties. During the reporting period, no litigation relating to corruption was identified by the Group (B7.1).

The Group has formulated the "Regulations on the Management of Clean Practices of China Water Affairs Group Limited" and established the audit committee

and audit department to organise anti-corruption inspections in a comprehensive and systematic manner. With reference to the Supervision Law of the People's Republic of China and the "Rules on the Handling of Reports and Complaints by Discipline Inspection and Supervision Agencies", the Group handles all reports in accordance with the applicable laws and regulations, strictly implements confidentiality measures, strives to protect the legitimate rights and interests of whistleblowers, and deals with the leakage of information about whistleblowers or reports in a serious manner (B7.2).

During the reporting period, the Group conducted anti-corruption training for all directors, supervisors, chief financial officers and other management personnel through executive meetings and monthly working meetings, with each person receiving 6 hours of training. Anti-corruption courses were also arranged at the China Water Network College and training presentations were given to all staff (B7.3).



## Community Contribution

Community is a fertile ground for corporates to take root. As a public utility company which principally engages in urban and rural water supply, pipeline direct drinking water and sewage treatment businesses, the Group has built up an inseparable connection with the community since its establishment. In building up the “China Water, Nourishing Thousands of Families with Love” brand, the Group responds to the needs of the community, supports its development and dedicates itself to community services, so as to uphold and put into practice our commitment to social responsibility.

The Group and its subsidiaries have always insisted on carrying out activities such as “Service in Community” and “Service in Rural Area”, charity donation, voluntary blood donation, nursing home visits, veteran visits and caring for left-behind children. Being a water enterprise with “warmth”, we also provide free water supply, maintenance or discounted water price to special and underprivileged groups, with a view to manifest the true side and power of love and care in this world (B8.1/B8.2).



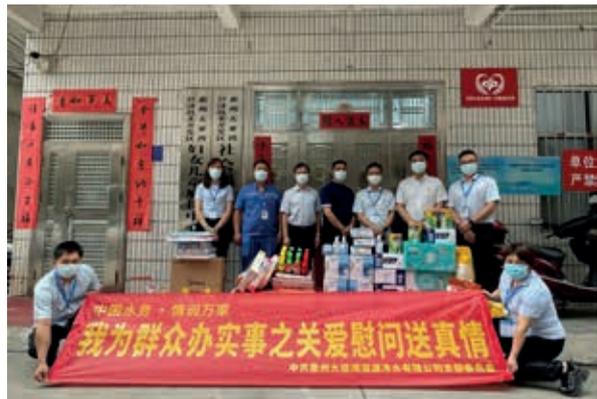
Chongqing Yongchuan District Qiaoli Water Co., Ltd donated RMB100,000 to the Charity Project of Psychological Care and Assistance for Children in Distress and was awarded the title of “Caring Enterprise” by Chongqing City and Yongchuan District Charity Association.



Yuncheng Silver Dragon Water Co., Ltd. arranged for its staff to participate in voluntary blood donation.



Jingzhou Water Affairs Group Co., Ltd. and Huizhou Daya Bay Yiyuan Water Purification Co., Ltd. sent care packages to local community service centers and social welfare organisations during the hot summer.



Our water supply subsidiaries set up “care stations” in their customer service centers, which provide free spots for cleansing workers, taxi drivers, couriers, urban volunteers and other outdoor workers to rest and refresh, shelter from rain and winter with water and food and other caring services provided.



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Note 1: Not meaningful

# REPORT OVERVIEW

This report sets out a systematic review and overview on China Water Affairs Group Limited's implementation of its corporate governance initiatives and performance of its environment and social obligations.

## Reporting period:

1 April 2021 to 31 March 2022.

## Basis of preparation:

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## Publication:

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<http://www.chinawatergroup.com>

We sincerely invite feedbacks and recommendations from various parties (readers) regarding the report and the environment, social and governance initiatives of China Water. Please contact us via the following means:

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