

2019
ESG REPORT

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



中國水務
CHINA WATER

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REPORT OVERVIEW

詞彙

Glossary

“ $Al_2(SO_4)_3$ ”	硫酸鋁(Aluminium Sulfate)	“kW-h”	千瓦時(Kilowatt-hour)
“BOD”	生化需氧量(Biochemical Oxygen Demand)	“ m^3 ”	立方米(Cubic meter)
“ ClO_2 ”	二氧化氯(Chlorine Dioxide)	“MWh”	兆瓦時(Megawatt-hour)
“ CO_2 ”	二氧化碳(Carbon Dioxide)	“NaClO”	次氯酸鈉(Sodium Hypochlorite)
“COD”	化學需氧量(Chemical Oxygen Demand)	“NaOH”	氫氧化鈉(Sodium Hydroxide)
“GJ”	吉焦(Gigajoule)	“ NH_3 ”	氨氣(Ammonia)
“ H_2S ”	硫化氫(Hydrogen Sulfide)	“ NH_3-N ”	氨氮(Ammonia Nitrogen)
“km”	千米／公里(Kilometer)	“PAC”	聚合氯化鋁(Polyaluminium Chloride)
“ km^2 ”	平方千米／公里(Square kilometer)	“SS”	懸浮物(Suspended Solids)



以水為本 達善社會

Water-oriented, Kindness to Society


CORE VALUES

核心價值觀



管理層致辭

Management's Statement



At the core of civilization development is the balance between human and the nature, development and environment, and modernization and ecological conservation. The idea of “Lucid waters and lush mountains are invaluable assets”, which is a new eco-civilization concept proposed by the PRC government, ascertains the dialectical relationship between ecology and development and serves as a green manifesto directed at the international society, humankind and the future.

Rapid economic development and increasingly severe environmental pollution present two extreme pictures of the PRC in these days. Standing at the crossroad of development, China Water Affairs Group Limited (“China Water” or the “Group”), with a forward-looking vision, is determined to uphold the policy of the PRC government regarding environmental protection and ecological development, and never sacrifices the ecological environment in exchange for development at the moment.

Over the past year, China Water continued to act as the forerunner of environmental protection to adhere to the basic principle of sustainable development. With the united efforts of the Group, a balance between environmental protection and social welfare was maintained. Regarding the two principal businesses of urban water supply and sewage treatment, the Group has steadfastly implemented the “two integrations” strategy, namely urban water supply integration and water supply and drainage integration. By leveraging and expanding the current project portfolio, the Group achieved mutual support between water supply and environmental protection and the synergy effects derived therefrom.

Unlike traditional water companies, China Water has actively developed a new mindset to offer diverse services through utilising its own resources. Under the group-wide approach of breaking into the direct drinking water industry, the Group has provided tap water for direct drinking to communities, hospitals, schools, social welfare organisations, government authorities, etc. by working with outstanding equipment and materials suppliers, from which millions of people have been benefited.



As one of the largest integrated water affairs operators in the PRC, China Water's scope of business covers more than 60 cities across the country with a total designed daily water supply capacity of over 13 million m³, a relatively stupendous volume which in turn indicates that it has greater social responsibilities to shoulder. The Group has always firmly upheld its business vision of "Water-oriented, Kindness to Society" and closely followed the moral guidance of "As good as water" as its corporate culture to "think nicely, operate nicely and act nicely". By giving full play to its economies of scale and management strength as well as actively participating in various public welfare and charity activities for the benefit of the society, the Group has strived to develop a perfect, green and efficient service brand of "China water, Nourishing Thousands of Families with Love" in a hope that it would become the mover and shaker in the water industry to set exemplary service standards and fulfil the vision of human-water harmony.

Looking forward, the determination of China Water in respect of sustainable development seems much stronger than ever and has been embedded in every aspect of the Group's business. Before embarking on a new journey, the Group, who never forgets its initial aspiration, is well prepared to continuously enhance its responsibility awareness and innovations through real actions, take up the leadership role and adhere to the service-oriented approach. Carrying on the noble mission granted upon it by this era, the Group will more earnestly create value for customers, the government, shareholders and the society.

Duan Chuan Liang

Chairman of the Board

企業發展概況

Overview of Corporate Development

CORPORATE INFORMATION

China Water Affairs Group Limited is a company listed on the Main Board of the Hong Kong Stock Exchange (stock code: HK0855) and is a tradable stock under the Shenzhen-Hong Kong Stock Connect.

CORPORATE HEADQUARTER

The headquarter of the Group is located at Suite 6408, 64/F, Central Plaza, 18 Harbour Road, Wanchai, Hong Kong.

The management headquarter of the Group in Mainland China is located at 13-15/F, Building 20, Section 16, ABP, Fengtai District, Beijing.

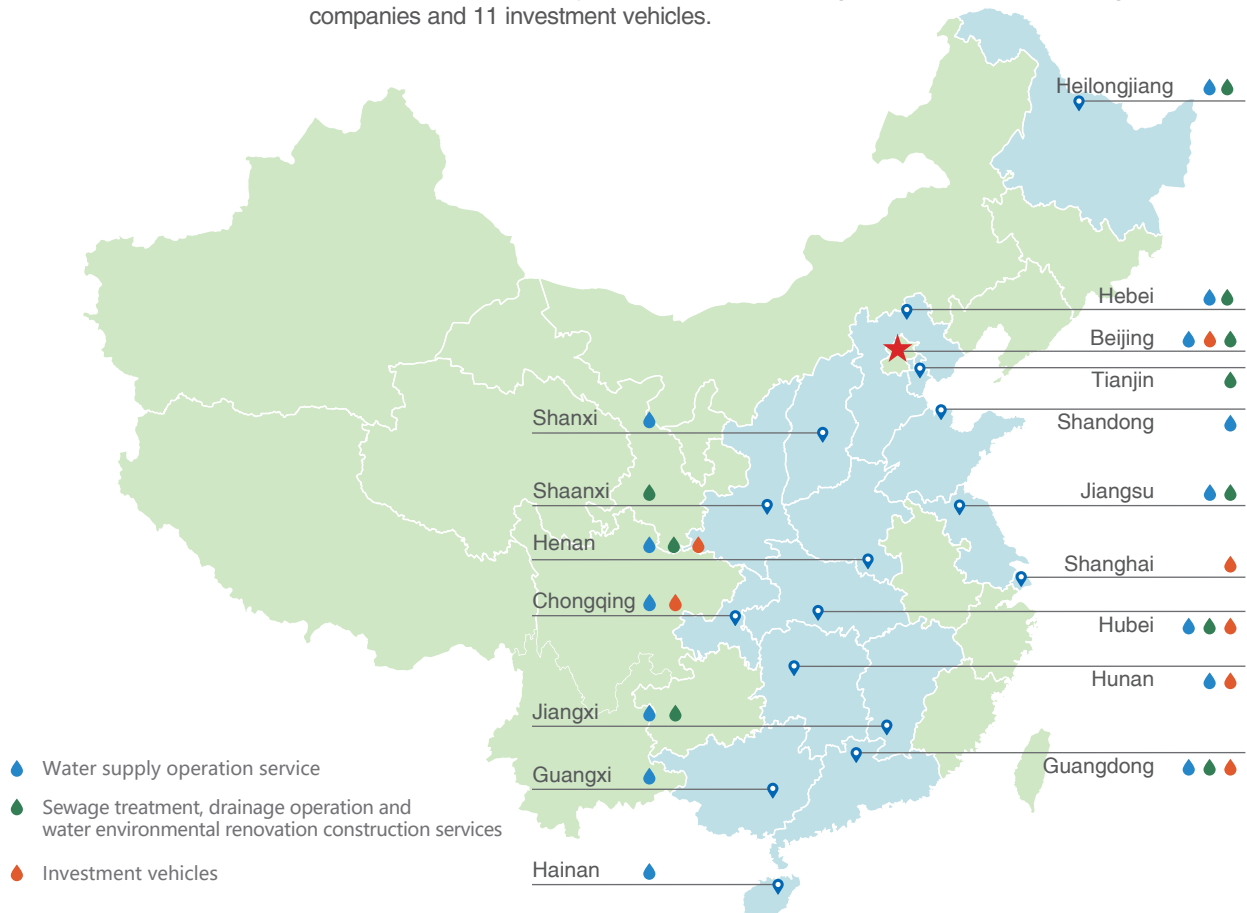
OUR PRODUCTS AND SERVICES

The Group is principally engaged in the investment, construction and operation of water projects in Mainland China. Its principal businesses include raw water and tap water supply, sewage treatment, comprehensive water environmental renovation, urban drainage operation and management, and water related construction projects.

MARKETS WE SERVE

China Water's principal businesses cover 13 provinces, 3 municipalities and over 60 counties, cities and districts.

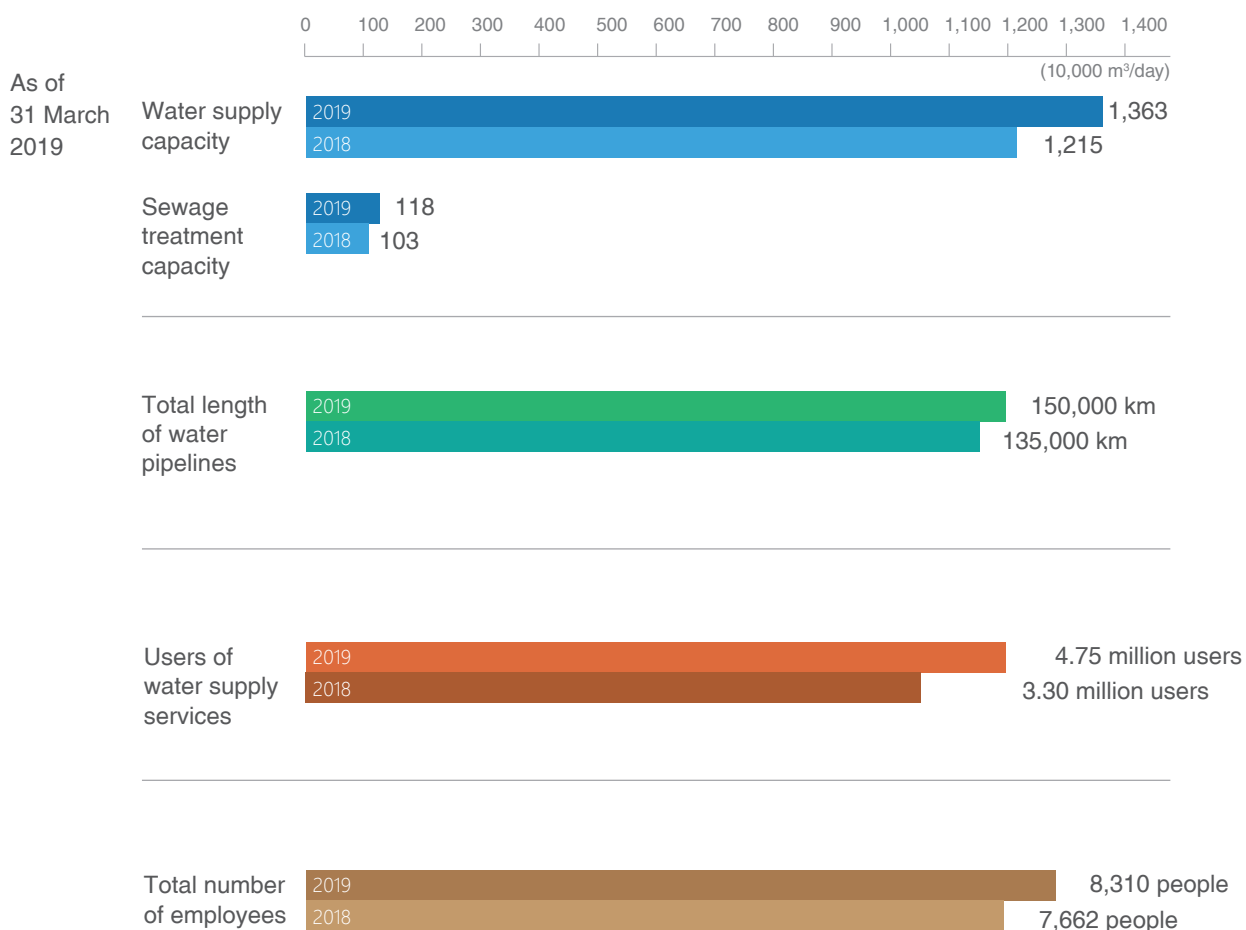
It owns 57 water supply companies, 22 sewage treatment and drainage operation companies and 11 investment vehicles.





SCALE OF THE GROUP

As of 31 March 2019, the Group had a total designed daily water supply capacity of 13.63 million m³, representing an increase of 1.48 million m³ as compared to last year; total designed daily sewage treatment capacity of 1.18 million m³, representing an increase of 0.15 million m³ as compared to last year; 147 water plants and 22 sewage treatment plants; total length of water pipelines under operation, maintenance and management of over 150,000 km, representing an increase of 15,000 km as compared to last year; length of drainage pipelines under entrusted operation of over 5,150 km; 4.75 million users of the Group's water supply service (number of registered water metres), representing an increase of 1.45 million users as compared to last year; comprising approximately 4.33 million domestic users and approximately 0.42 million commercial and industrial users. The Group had a total number of 8,310 employees, representing an increase of 648 employees as compared to last year.



企業發展概況

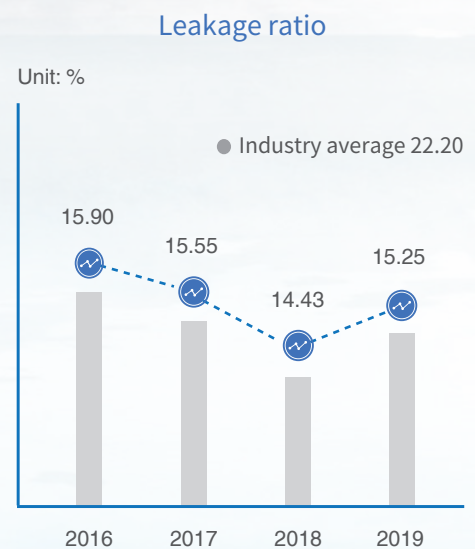
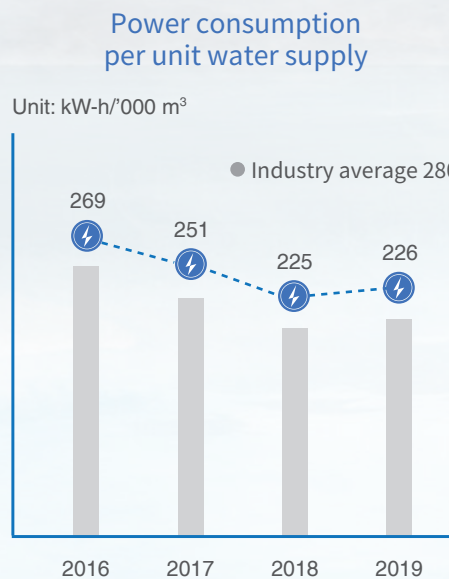
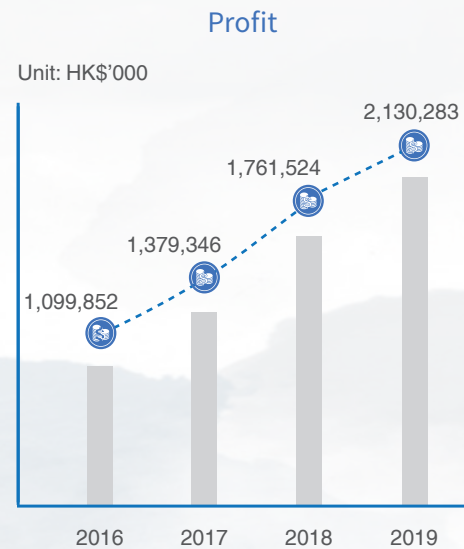
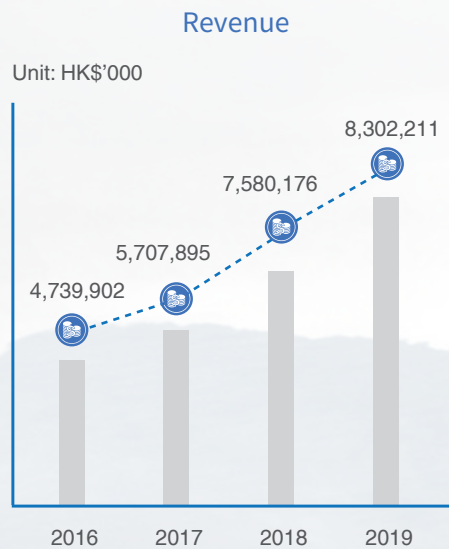
Overview of Corporate Development

CORPORATE GOVERNANCE ACHIEVEMENTS

During the reporting period, major achievements included:

- acquisition of water projects amounting to HK\$440 million;
- new large-scale water construction and upgrade projects amounting to HK\$2,620 million;
- completion of the Group's financing amounting to HK\$7,450 million.

MANAGEMENT INDICATORS



Source: The industry average is extracted from the latest Urban Water Supply Statistic Yearbook (2017) of China Urban Water Association

MAJOR AWARDS DURING THE REPORTING PERIOD

• WATER ENTERPRISES AWARDS 2018

China Water Affairs Group Limited was named “Enterprise with the Most Professional Operation and Services in the Water Industry 2018” (2018年度水業最具專業化運營服務企業);

Goldtact Shenzhen Environmental Holding Co. Ltd. (深圳金達環境控股有限公司) of the Group was named “Enterprise with the Most Professional Operation and Services in the Water Industry 2018” (2018年度水業最具專業化運營服務企業);

Shenzhen Datong Water Affairs Co., Ltd (深圳市大通水務有限公司) of the Group was named “Benchmark Enterprise Operating Municipal Water Services 2018” (2018年度市政水務運營服務標桿企業).

• THE MOST SOCIALLY RESPONSIBLE SERVICE-TYPE ENTERPRISES

Xinyu Water Affairs Group Co., Ltd. (新余水務集團有限公司) of the Group was named “The Most Socially Responsible Service-Type Enterprise in Jiangxi Water Industry 2017” (2017年度江西省水業行業最具社會責任服務企業).

▶ Certificate of Honour



The “Enterprise with the Most Professional Operation and Services” award received by China Water



The provincial award received by Xinyu Water

實質性分析

Materiality Analysis

The determination and analysis of materiality topics are conducted through three processes, namely, identification, prioritisation and verification.

IDENTIFICATION

Following the indicator related topics required to be disclosed by the Environmental, Social and Governance Reporting Guide in Appendix 27 to the Main Board Listing Rules of the Hong Kong Stock Exchange and by reference to the topics stated in the materiality list in G4 Sustainability Reporting Guidelines (“G4 Guidelines”) issued by Global Reporting Initiative (“GRI”), and taking into account the concerned topics highlighted in the course of stakeholder engagement, the Group has identified 20 materiality topics and determined the scope and boundary of their impacts.

No.	Theme	Materiality topics	Scope of impact						Boundary
			Internal	External					
				Creditors	Government authorities	Customers/consumers	Suppliers	Community	
1	Reasonably, effectively and legally construct management platform	Governance measures	○	○	○	□	○	○	Materiality aspects applicable to China Water and its subsidiaries and associated companies
2		Organisational 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		Use of resources	○	○	○	○	○		
9	Practice the 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 behaviours	○	□	○	□	○		
16		Anti-corruption	○	□	○	□	○		
17		Product quality	○	□	○	○	□		
18		Customer confidentiality	○	□	○	○	□		
19		Community investment	○	□	□	□	□		
20		Charity and relief	○	□	□	□	□		

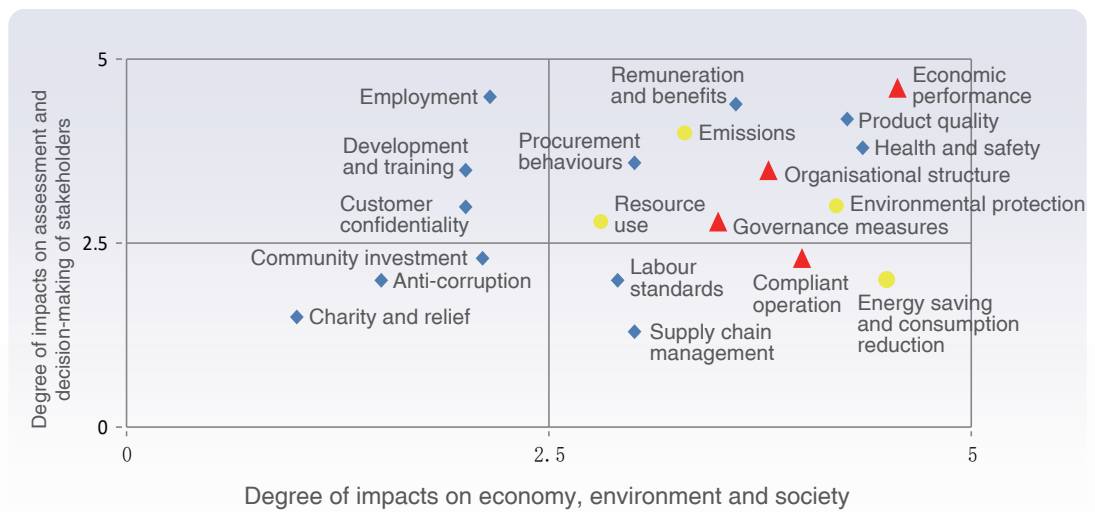
○ Refers to greater impacts of materiality topics on stakeholders □ Refers to less impacts of materiality topics on stakeholders



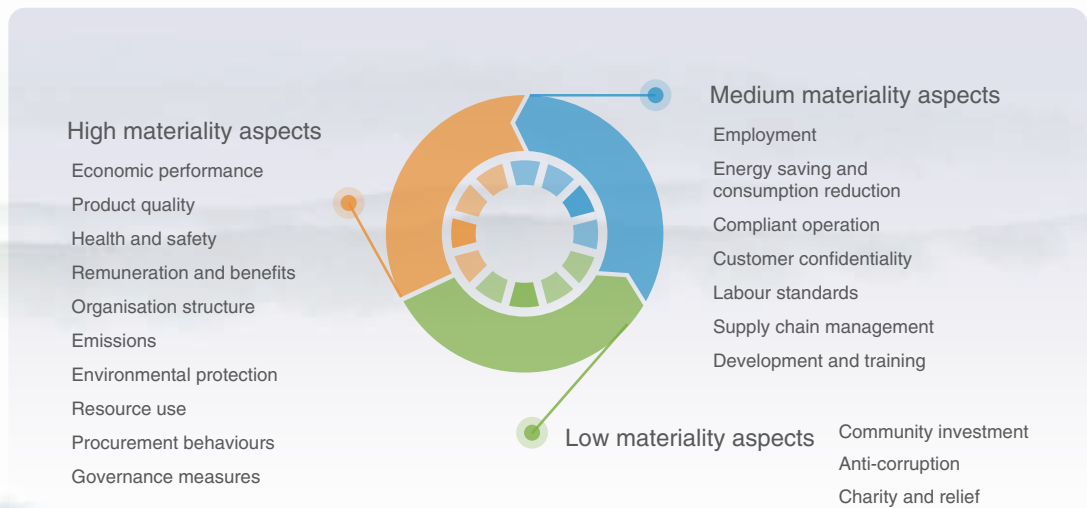
PRIORITISATION

The identified materiality topics are prioritised in terms of importance according to the degree of impacts on the economy, environment, society as well as the assessment and decision-making of stakeholders.

Order of Materiality Aspects



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



VERIFICATION

In respect of the identified materiality topics, the Group collects opinions from experts, users and stakeholders and carries out verification so as to reach consensus. Besides, the Group has formulated administrative measures regarding the indicators involved in the materiality topics to determine the means of collection and procedures of indicator information disclosure.

利益相關方參與

Stakeholder Engagement

As a public utility company, China Water Affairs Group Limited's business activities are closely related to stakeholders. In the course of operation and management, the Company has built a comprehensive communication channel with stakeholders which is open, transparent and efficient in order to respond and address the requests and concerns of stakeholders in a timely manner, and therefore a constructive and interactive mechanism between the parties is formed.

Stakeholders of the Group that may have material impacts in the course of operation and management mainly include: interested shareholders/investors/creditors, employees, suppliers, customers/consumers, as well as government authorities and local communities that have other relationship with the enterprise.

- Means of stakeholder engagement

Stakeholders	Means of engagement and communication	Topics concerned	Frequency of engagement
Shareholders/ investors/creditors	Annual report, interim report	Economic performance Supply chain management Organisational structure Governance measures	Year-end/half-year
	Investor communication meeting		As and when necessary
	Onsite visit		As and when necessary
	Press release, announcement		Regularly
	General meeting		Regularly/As and when necessary
Government authorities	Correspondence	Operational safety Product quality and service Compliant operation Emissions Energy saving and consumption reduction Labour standards	As and when necessary
	Onsite visit		Regularly
	Themed conference		As and when necessary
	Seminar		Regularly
	Progress report		Monthly, quarterly and annually
Suppliers	Open tender	Use of resources Procurement behaviours Anti-corruption	As and when necessary
	Onsite visit		As and when necessary
	Meeting		As and when necessary
	Training activity (Product briefing)		As and when necessary
Customers/ consumers	Customer satisfaction survey	Product quality and service Consumer rights protection	Regularly
	Community services		Regularly
	Factory open day		Regularly
	Hearing		As and when necessary
	User seminar		Year-end/half-year
	Company website/ WeChat official account		Regularly
Employees	Employee seminar	Remuneration and benefits Employment Development and training Work environment Health and safety Labour standards	Year-end/half-year
	Employee (representative) meeting		Year-end/half-year
	Face-to-face meeting		As and when necessary
	Employee group activity		Regularly
	Training activities(internal study)		Regularly
Local community	Factory open day	Community investment Charity and relief	Regularly
	Community services		Regularly
	Project environment and social survey		As and when necessary
	Public welfare and charity event		As and when necessary

構建管治平台

Construction Of Management Platform

CORPORATE GOVERNANCE

Always adhering to the business vision of “Water-oriented, Kindness to Society”, China Water Affairs Group Limited strives to maintain a high standard of corporate governance. In the course of business operations and mergers and acquisitions, the Group is in strict compliance with national laws and regulations as well as industry standards. By continuously implementing the sustainable development strategies, the Group boosts investor confidence and creates value for the society.

The Group’ governance policy has been in compliance with the guidelines set out in the Corporate Governance Code and Corporate Governance Report in Appendix 14 to the Rules Governing the Listing of Securities on The Hong Kong Stock Exchange. Through formulating rules and regulations, strengthening internal management, implementing risk prevention and control and disclosing information in a timely, comprehensive and open manner, the Group has established a management platform to facilitate value enhancement of the Company.

THE BOARD

As the highest management unit of the Group, the Board shall guide and supervise the management and make decisions over major issues. The Board of the Group comprises 12 directors, including four executive directors, four non-executive directors and four independent non-executive directors.

The Board is mainly responsible for considering and approving corporate strategies, financial objectives and development directions as well as reviewing internal control, risk management, operating results and operational compliance. The Group regularly convenes Board meetings on which all directors are free to give opinions to the management and on other issues.

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.

GOVERNANCE OF PROJECT COMPANIES

The Group abides by the Administration Measures for the Concession Arrangements of Infrastructure and Public Utilities (基礎設施和公共事業特許經營管理辦法) during mergers and acquisitions of new projects. It actively cooperates with local governments to acquire concession for local water supply or sewage treatment projects through public tenders or competitive negotiation, and further establishes project companies for scientific operation and management. A board of directors, board of supervisors and operation and management team are formed under 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.

推進環境改善

Promoting Environmental Improvement

As one of the leading companies in the industry, China Water Affairs Group Limited deeply understands that environmental performance is the cornerstone of sustainable development of an enterprise. All along, the Group has been sparing no effort to promote environmental improvement and ensure environmental compliance while improving economic efficiency.

The two principal businesses of the Group are urban water supply and environmental protection including sewage treatment, comprehensive water environmental renovation, operation and maintenance of urban drainage pipelines, etc., which are environmentally friendly in nature. In the course of management, adverse environmental impacts caused by projects are mitigated through introduction of new technologies, use of new materials and strict implementation of environmental policies, which promotes a harmonious relationship between the projects and the environment.

ENVIRONMENTAL MANAGEMENT SYSTEM THROUGHOUT THE PROCESS

In order to regulate the environmental and social management of investment and construction projects, the Group has formulated the “Environmental and Social Management System” (the “ESMS”) (環境和社會管理規程) in 2011. It was subjected to multiple revises and the latest version was prepared in March 2018. 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 operation and 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 ultimate operation of a project is basically achieved.





WATER IMPROVEMENT FOR THE GOOD OF THE PEOPLE

Emphasis on urban water supply

Water is the foundation of people's livelihood. With continuous economic development and improvement of living standards, people are increasingly concerned about the quality of drinking water. The Group guarantees people's livelihood, boosts economic growth and serves the society by supplying quality and safe drinking water.

During the reporting period, the Group supplied a total of 1.231 billion m³ of purified tap water to 22 million people, securing their access to water for drinking and other purposes.

Water production plants



Liuji Water Plant of Wuhan Xinzhou District Changyuan Water Supply Co., Ltd.



Liuji Water Plant of Wuhan Xinzhou District Changyuan Water Supply Co., Ltd.



Water plant of Huizhou Daya Bay Yiyou Water Affairs Co., Ltd. in petrochemical district



Water plant of Huizhou Daya Bay Yiyou Water Affairs Co., Ltd. in petrochemical district

推進環境改善

Promoting Environmental Improvement

🌱 Reduction of impacts from sewage

Fresh water resources are extremely scarce in the PRC. If untreated domestic sewage and industrial wastewater are discharged into natural water bodies, it will not only lead to severe environmental pollution, but also a waste of water resources. Through continuous and effective sewage treatment, the Group largely reduces the environmental impacts of sewage discharge and promotes the recycling of water resources to protect public health.

In order to minimize the impacts of treated water on the environment, the Group has raised the standards imposed on its sewage treatment plants, and Class A standard of the Discharge Standard of Pollutants for Municipal Wastewater Treatment Plant (GB18918-2002) is applied to the treated water quality of most of the projects. All sewage treatment projects are equipped with a water monitoring system to record water quality data in a timely and reliable manner.

During the reporting period, the Group processed a total of 195 million m³ of sewage, reducing COD emissions by 37,181 tonnes, BOD by 20,238 tonnes, SS by 32,268 tonnes and NH₃-N by 4,540 tonnes.

📍 Sewage treatment plants



Sewage treatment plant of Fenyi Environmental Co. Ltd.




Sewage treatment plant of Baoji Chencang Goldtrust Water Co., Ltd.



Sewage treatment plant of Gaoan Xincheng Environmental Co., Ltd.



 Comprehensive water environmental renovation

*What makes the pool limpid like this?
It's the fresh water running from the source.*

As we all know, a beautiful city is always built alongside the water edge, which indicates the importance of urban water environment to people's lives that it does not only maintain the ecological balance of the city, but also serves as a reflection of the ethos and civilization advancement of such region.

As the pioneer of water value, the Group has effectively combined the modern water business model and the capital operation model to expand the water service industry chain, and actively participated in the comprehensive urban water environmental renovation to improve people's living environment and promote social harmony and stability.

► The comprehensive water environment improvement project of Maozhou River Basin (茅洲河流域), Shenzhen City

Maozhou River is the largest river in Shenzhen City, with a total length of 41.61 km and a drainage area of 398 km². The comprehensive water environment improvement project of Maozhou River Basin is broken down into two ecological water replenishment sub-projects and four drainage pumping station sub-projects, covering 11 tributaries in the upper and middle reaches of the main stream of Maozhou River. The total daily water replenishment volume is 400,000 m³. The improvement of Maozhou River has always been a major task of Shenzhen. A series of constructions have been carried out to eliminate the threat of floods, clean up river surface, dredge river bed sediments and improve water quality. After the improvement works, Maozhou River presents a fresh new look and the beautiful scene featuring limpid water and verdant river banks in the old days is once again shown to all.

► The comprehensive water environment improvement project of Maozhou River Basin, Shenzhen



推進環境改善

Promoting Environmental Improvement

WATER IMPROVEMENT FOR THE GOOD OF THE PEOPLE

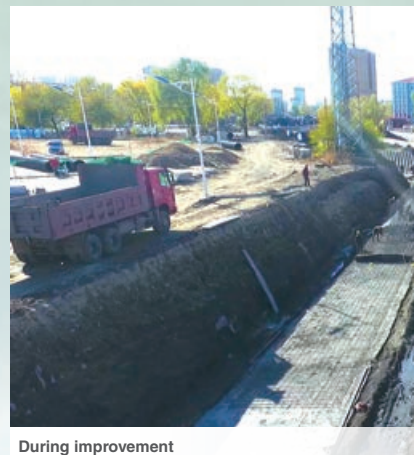
- ▶ The comprehensive water and riverbank improvement campaign “Two Rivers and Fourteen Nullahs” (兩河十四溝) in Hegang City (鶴崗市)

Located in the northeast of Heilongjiang Province, Hegang City lies in the “Golden Triangle” area enclosed by Heilongjiang, Songhua River and Xiaoxing’an Mountains. The first phase of the comprehensive water and riverbank improvement campaign “Two Rivers and Fourteen Nullahs” in Hegang City undertaken by the Group is part of the Xiaoxing’an Mountains-Sanjiang Plain (mountains, rivers, forests, farmlands, lakes, and (grasslands) ecological protection and restoration project. Based on the basic principles of ecological construction as supported by people-oriented plans and comprehensive policies, and with thorough consideration of the current water environment, the project is broken down into seven major sections, namely prevention of floods, sediment dredging, ecological restoration, interception of sewage, river water replenishment, riverside promenade and riverbank greening. 11 eco parks are built and the riverbank green area exceeds 190 hectares. The goals of clear waterway, limpid water, green riverbank and ravishing landscape are ultimately achieved.

▶ The water and riverbank campaign “Two Rivers and Fourteen Nullahs” in Hegang City



Before improvement



During improvement



Clear waterway, limpid water, green riverbank, ravishing landscape



After improvement



🌿 Beautification of rural areas

The field is girded with a stream of water green; Two high peaks towering in front exhale the blue.

Beautification of rural areas is a new development direction proposed by the Chinese government in this new era based on their historical context. An inevitable question now is how the rural community as a principal stakeholder perfectly connects to the external world. In active response to the national strategies, the Group is committed to in-depth exploration of water value. While anchoring itself to the urban water business, the Group has exerted great efforts to beautify rural areas and improve the living environment for residents there to narrow the disparities between urban and rural areas with a view to making its contributions counted in addressing the imbalance and insufficiency existing in urban and rural development.

▶ The rural domestic sewage treatment project in Yushui District, Xinyu City

Xinyu City is located in the west of central Jiangxi Province and is an important member of the city cluster in the middle reaches of the Yangtze River. The rural domestic sewage treatment project in Yushui District, Xinyu City covers 11 villages and towns, with 136 sewage treatment plants built and pipelines with a length of 36 km installed in 126 natural villages.

▶ The rural domestic sewage treatment project in Yushui District, Xinyu City



36 km

Sewage pipelines installed



136

Sewage treatment plants

推進環境改善

Promoting Environmental Improvement

WATER IMPROVEMENT FOR THE GOOD OF THE PEOPLE

▶ The domestic sewage treatment project in Huzhen Town, Boluo County

Boluo County is affiliated to Huizhou City, Guangdong Province. The domestic sewage treatment project in Huzhen Town, Boluo County is a key project of Huizhou Provincial Government and one of the key environmental protection construction projects of Boluo County, collecting sewage from Xiangshuixu Town and surrounding villages in Huzhen Town, Boluo County. The project applies the sequencing batch biofilm reactor and self-developed innovative advanced treatment process, realising daily sewage treatment volume of 2,500 m³ through sewage pipelines adding up to 5 km in length.

▶ The domestic sewage treatment project in Huzhen Town, Boluo County



2,500 m³/day
Sewage treatment volume



5 km
Length of sewage pipelines

Operation and maintenance of urban drainage pipelines

Spreading our pipelines to connect with the ecological environment

The Group has established professional companies for operation and maintenance of urban drainage pipelines, which are committed to providing excellent services of operation and management of rainwater pipelines and sewage pipelines to the government and the public. Through scientific, normative and standardized management, it has continuously enhanced the efficiency in operating rainwater pipelines and sewage pipelines and thus largely improved the quality of the regional water environment.

The drainage pipelines operated and managed by the Group exceed 5,150 km, mainly located in Pingshan District, Longhua District, Bao'an District and Dapeng New District of Shenzhen City, and Nanchong Municipality of Sichuan Province.

Onsite-operation



推進環境改善

Promoting Environmental Improvement

OUR GREEN APPROACH TOWARDS ENERGY SAVING AND EMISSION REDUCTION

Pollutant emission

The Group always believes that enterprises do not only contribute to the society by providing quality products and services, but also by exercising effective control over consumption and emission during production. As such, the Group attaches great importance to its impacts on the environment. Through giving full play to its economies of scale, management strength and talent pool, the Group takes advantage of technological upgrade and equipment modification to reduce the pollutant emission per unit product, and thereby meets the standards for pollutant emission and achieved emission reduction. During the reporting period, the Group was not involved in any major environmental pollution incidents.

The major pollutants emitted during production and operation of the Group are divided into two categories:

- The first category is the sludge produced during the water production process of the water supply enterprises, 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 is the waste gases, sludge and treated discharge produced in the operation of sewage treatment. Waste gases are CO₂, H₂S and NH₃ produced in the course of bioprocessing; sludge mainly includes silt, garbage and excess activated sludge; major pollutants in treated discharge are COD, SS and NH₃-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.

• Emission categories and emission statistics (A1.1)

Category	Emission	Pollutants	Total volume of emission during the reporting period (tonnes)	Total volume of emission in the last year (tonnes)	Emission method	Compliance with applicable laws and regulations
Water supply	Sludge	Naturally dissolved substances and water purifiers	152,266	131,102	Compliant emission	Environmental Protection Law of the People's Republic of China Environmental Impact Assessment Law of the People's Republic of China Water Pollution Prevention and Control Law of the People's Republic of China Atmospheric Pollution Prevention and Control Law of the People's Republic of China Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Waste Ambient Air Quality Standards for Surface Water Environmental Quality Standards for Underground Water Emission Standards for Odour Pollutants Pollutants Emission Standards of Urban Sewage Water Treatment Plant
Sewage treatment	Waste gases	H ₂ S	Below emission limited	Below emission limited	Compliant emission	
		NH ₃	Below emission limited	Below emission limited	Compliant emission	
	Treated discharge	COD	4,617	6,497	Compliant emission	
		SS	2,145	2,624	Compliant emission	
		NH ₃ -N	367	851	Compliant emission	
Sludge	Silt, garbage and excess activated sludge	63,921	90,610	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		



OUR GREEN APPROACH TOWARDS ENERGY SAVING AND EMISSION REDUCTION

• Hazardous wastes (A1.3/A1.6)

The hazardous wastes produced in the course of operation of the Group are mainly sludge produced in the industrial sewage treatment plants. During the reporting period, total sludge produced was 467 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 water plants and domestic sewage treatment plants. During the reporting period, total sludge produced was 216,187 tonnes. Treated sludge, which met with 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.

• Greenhouse gas emission (A1.2)

Greenhouse gas directly produced by the Group in the course of production and operation is very limited. Greenhouse gas is mainly produced from fuel used in production and office premises. Greenhouse gas indirectly produced is mainly caused by power consumption in the course of production. The direct and indirect greenhouse gas emissions are calculated in terms of CO₂ equivalent (unit: tonnes).

Category	Scope 1	Scope 2	Scope 3	Total volume
Water supply	1,405	257,783	N/A	259,188
Sewage	56	43,711	N/A	43,767
Total	1,461	301,494		302,955

The definition of Greenhouse Gas Indicator Scope is cited from United Nation’s Kyoto Protocol and The Greenhouse Gas Protocol — A Corporate Accounting and Reporting Standard of WRI and WBCSD.

Scope 1	Scope 2	Scope 3
<p>Direct greenhouse gas emissions which are derived from sources that are owned or controlled by the corporation (including those produced in the course of production process and those produced in fuel consumption).</p>	<p>Indirect greenhouse gas emissions which result from the electricity, heating, cooling and steam purchased from other entities for self-consumption (produced from purchased electricity).</p>	<p>Other indirect greenhouse gas emissions which are produced as a result of the activities of the entity but the emissions are not derived from sources owned or controlled by the corporation. The Group has not established any statistical method for scope 3.</p> <p>Emission factor and global warming potential (“GWP”) use United Nation’s Intergovernmental Panel on Climate Change (“IPCC”) data.</p>

推進環境改善

Promoting Environmental Improvement

OUR GREEN APPROACH TOWARDS ENERGY SAVING AND EMISSION REDUCTION

Energy saving and consumption reduction (A1.5)

The Group understands that its principal businesses are characterised by huge electricity consumption in the course of operation. Hence, it attaches great importance to energy management and practices green development. While continuously improving operation and management standards, the Group actively promotes better energy saving and consumption reduction practices by encouraging its subsidiaries to make use of idle space for photovoltaic power generation. It also strengthens promotion to pass on the message of energy saving to every employee by accentuating that energy saving habits should also be cultivated in daily life and at work.

During the reporting period, energy consumption percentage for the water supply business accounted for 16.38% of the cost of production, which was lower than 19.09% of last year. Energy consumption percentage for the sewage treatment business accounted for 22.27% of the cost of production, which was lower than 32.14% of last year.

- All of the energy used by the Group is indirect energy (A2.1)

Category	Power consumption (MWh)	Unit power consumption (kW-h/'000 m ³)	Fuel consumption (tonnes)
Water supply	328,386	226	465
Sewage treatment	55,683	286	18
Total	384,069	N/A	483

Total energy consumption (power consumption and fuel consumption) is equivalent to 1,382,923 GJ.

**OUR GREEN
APPROACH
TOWARDS
ENERGY
SAVING AND
EMISSION
REDUCTION**

► **Consultation with experts to solve problems**

The subsidiaries of the Group are unevenly distributed, resulting in the differences in their process selection, plant equipment conditions, water taking conditions, water transmission and distribution scope, technical strength and energy management levels. In order to improve work efficiency and ensure that energy saving and consumption reduction measures are more reasonable and target-oriented, the Group recruits a group of experts with rich experience in energy management and establishes working teams specialised in reducing leakage ratio as well as energy saving and consumption reduction to provide assistance to subsidiaries by means of on-site guidance. Upon sufficient investigation, research and verification, the working teams tailor-make an energy saving and consumption reduction remedial plan for each subsidiary and supervise their respective implementation.

► **Assistance in energy saving and consumption reduction**



Leaders of the Group are arranging energy saving and consumption reduction works



The working teams are conducting training on energy saving and consumption reduction for a subsidiary



The working teams are guiding emergency repair of broken pipelines onsite

推進環境改善

Promoting Environmental Improvement

OUR GREEN APPROACH TOWARDS ENERGY SAVING AND EMISSION REDUCTION

During the reporting period, the leakage ratio of the Group was 15.25%, lower than the average leakage ratio of 22.20% of the industry (data sourced from the latest Urban Water Supply Statistic Yearbook (2017) of China Urban Water Association). The average power consumption per unit water supply of the Group was 226 kW-h/000 m³, lower than the average power consumption per unit water supply of 280 kW-h/000 m³ of the industry (A2.3).

- ▶ To light up a green future with the use of clean energy

The Group carries out photovoltaic power construction works in subsidiaries with idle space and sunlight intensity condition to encourage the use of clean energy and reduce its dependency on traditional energy. Solar energy equipment has already been installed in dozens of water plants and sewage treatment plants in Hebei, Henan, Hubei, Hunan, Jiangxi and Guangdong. During the reporting period, the Group produced clean energy of 36,486MWh, accounting for approximately 10% of the total power consumption. As of 31 March 2019, the total installed capacity of the Group's photovoltaic construction works reached 40MW. It is expected that the clean energy to be provided upon full load operation will account for more than 12% of the total power consumption.





OUR GREEN APPROACH TOWARDS ENERGY SAVING AND EMISSION REDUCTION

▶ Never forget the origin, may water nourish all

As a water utility company, the Group does not have any issue in sourcing water that is fit for purpose, but is an unwaveringly promoter and practitioner of water conservation and efficiency (A2.4). During the reporting period, the Group's total water intake and water supply were 1,499.43 million tonnes and 1,452.46 million tonnes respectively. Total water use amounted to 46.97 million tonnes, and the percentage of unit water use was 3.13% (A2.2).

▶ Promotion of water conservation and protection of water sources



推進環境改善

Promoting Environmental Improvement

OUR GREEN APPROACH TOWARDS ENERGY SAVING AND EMISSION REDUCTION

Environment and natural resources

Water projects have considerable impacts on the environment and natural resources. The impacts mainly refer to the small amount of wastewater, waste gases, waste residues and noise produced in the course of construction, which are limited and generally temporary. When making an investment decision, the Group will fully consider the environmental impact factors of the project and engage qualified third parties to carry out feasibility studies and assessment of environmental impacts. Construction management requirements will be strictly followed during the construction process of the project and practical and effective measures will be taken to avoid or mitigate the impacts (A3.1).

All construction projects of the Group do not fall under the category of construction projects that may have a material impact on the environment under the Catalogue for the Classified Administration of Environmental Protection for Construction Projects (建設項目環境保護分類管理名錄) issued by the State Council. The natural resources consumed by the Group are renewable industrial products, which are mainly the water purifiers and disinfectants added in the course of water production and sewage treatment.

Category	Name	Dosage (t)	Unit average dosage (kg/km ³)
Water purifier	PAC	12,771	10.4
	Al ₂ (SO ₄) ₃	71	3.4
	NaOH	944	6.5
Disinfectant	Liquid chlorine	2,645	2.6
	ClO ₂	762	2.1
	NaClO	1,100	3.2



踐行社會協同發展

Practice The Cooperative Development Of Society

Fulfilling social responsibilities and promoting social progress are the premises of corporate development and the embodiment of corporate value.

Since its inception, China Water Affairs Group Limited has been adhering to the core value of “Water-oriented, Kindness to Society” and committed to developing itself into the best service-based corporation that never stops pursuing advancement. As the Group always bears in mind harmonious progression of the society, the principles of supporting economic growth, serving the society and citizens and fulfilling social responsibilities are embedded in every part of its operation and management, which bolsters the ongoing development and perfection of the corporate management system and social responsibility system. The Group strives to achieve corporate development and social development simultaneously through its own growth and charitable contributions to the society and its efforts are highly recognized by all sectors of the society.

- The economic values created by the Group and wealth allocated to stakeholders during the reporting period

Stakeholders	Indicator	2019 (HK\$'000)	
Investors/creditors	Revenue	8,302,211	Economic value created by the Group
Suppliers (products and services)	Cost	4,838,372	
Employees	Remuneration and benefit expenses	861,275	
Creditors	Finance cost	319,185	Economic value allocated by the Group
Shareholders	Dividend allocation	450,492	
Government	Income tax	641,776	
Community	Donations	932	
Investors/shareholders	Total equity	12,902,470	Economic value retained by the Group

踐行社會協同發展

Practice The Cooperative Development Of Society

EMPLOYMENT

Employees The Group safeguards the interest of employees by strictly following the requirements under the Labour Law of the People’s Republic of China. It has entered into the Labour Contract with 8,310 employees, achieving a 100% signing rate.

Remuneration and benefits The remuneration system of the Group accords with the principle of “work more; get more”. Employees’ remunerations are generally determined based on individual performance and comprise stocks, share options, annual salary, position compensation and performance-based allocation. The income of employees is closely linked with the Group’s economic benefits, which serves as an incentive to employees.

The Group provides a comprehensive range of benefits for its employees, including the payment of five insurances and one fund (五險一金) in accordance with the law. The Group ensures a safe, clean and comfortable working environment equipped with a full range of work safety supplies, provision of transport, communication, holiday and relief allowances, and a paid leave system under which paid leaves are granted for national statutory holidays.

Anti-discrimination The Group follows a diversification and anti-discrimination principle to treat all employees fairly and recruit employees regardless of gender, race, pregnancy and religion.

The Group’s employee structure by gender and age (B1.1)





- Employee distribution by position

Rank	Gender	Number of people	Percentage (%)
Senior management	Male	436	87
	Female	68	13
Mid-level management personnel	Male	702	69
	Female	314	31
Technicians and operation workers	Male	2,975	54
	Female	2,571	46
Others	Male	672	54
	Female	572	46

- Male/female employee proportion, proportion of local employees and annual employee turnover rate (B1.2)

Indicator	As at 31 March 2019
Total number of employees	8310
Male (%)	4,785 (58%)
Female (%)	3,525 (42%)
Proportion of local employees	88%
Annual employee turnover	2.15%

踐行社會協同發展

Practice The Cooperative Development Of Society

Care for employees

The Group not only offers competitive remuneration package and fringe benefits to its employees, but also provides necessary assistance to employees with distress due to special circumstances. On every holiday or anniversary, management personnel at all levels will pay visits to employees who stay loyal to their positions and provide sincere care and greetings to them. In addition, the Group encourages employees to actively contribute to the society by participating in activities such as voluntary blood donation, voluntary tree planting and community construction as well as fostering an optimistic and healthy attitude towards work and life.

► Care for employees



Quality enhancement activities on the International Women's Day



Employee birthday party




Donations



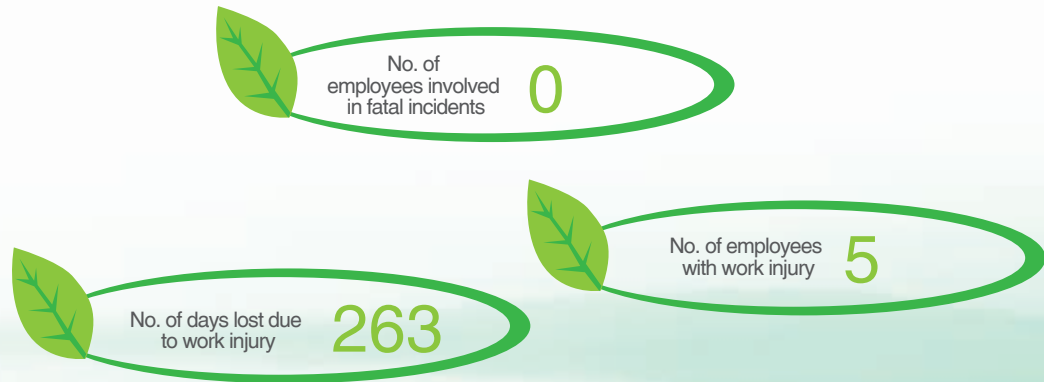
Extending regards to employees with difficulties



 Health and safety (B2.3)

Employees' health and safety are the important backbone for provision of excellent services and the prerequisite for sustainable development of an enterprise. Always adhering to the direction of "safety first and prevention", the Group is committed to minimising the potential safety and health risks in the workplace and creating a compliant working environment for employees which is equipped with a full range of work safety supplies. The Group has established an accountability system for production safety and entered into the accountability letter for production safety target with each level within the corporation which confirms the person-in-charge for safety management, coupled with regular risk inspections. Safety systems and rules are continuously optimised during routine production. Specific plans are put in place to conduct relevant trainings and tests on employees in different positions to ensure that they are familiarised with the management requirements and operational procedures with an aim to minimising occurrence of incidents.

- During the reporting period, the Group was not involved in any major safety-related incidents (B2.1/B2.2)



踐行社會協同發展

Practice The Cooperative Development Of Society

Training and development

Training is like a catalyst for a company's metabolism and growth. The Group attaches great importance to training and development works. It improves employees' professional skills, professionalism and recognition of the company through organising various types of training and learning activities and enhances the team's centripetal force and cohesiveness. In this way, the market competitiveness of the Group is fundamentally strengthened to keep abreast of the development of the times.

Trainings are divided into headquarter-level trainings and subsidiary-level trainings.

Headquarter-level trainings are coordinated by the human resources department of the Group for participation by all functional departments. The targets are usually staff at the headquarters and management personnel and technicians of subsidiaries. The training covers the Group's development strategy, core business operations, corporate governance, investment decisions, and industry trend analysis. The headquarter-level trainings can make use of the scale advantage of the Group to cultivate a well-structured talent team with first-class quality and innovation.

Subsidiary-level trainings are more target-oriented and practical, including employee induction trainings, various on-the-job trainings, skill competitions, field visits, rehearsals, and inter-subsidiary learning exchange programmes. The management standards formulated by the Group set clear requirements for trainings. Subsidiaries need to report the training plan, content and effects to the headquarters to prevent the training from becoming a mere formality.

The Group has in place a flexible employment mechanism and creates an extensive development platform for employees. Management personnel and technicians are selected via open recruitment and internal promotion where those who are competent are recruited, which enhances employees' recognition of and loyalty to the Group. Employees are able to grow together with the Group and realise their personal value.



A backup cadre training of China Water Affairs Group Limited

▶ Trainings



An office system know-how training conducted by the Group to subsidiaries



An induction training for new employees of Fenyi Yinlong Water Affairs Co., Ltd. (分宜县龙水有限公司)



A fire safety training of Chongqing City Yongchuan District Qiadi Water Affairs Co., Ltd. (重庆市永川区德立水务有限公司)

- Trainings for employees (B3.1/B3.2)

Rank	Gender	Average training hours	Percentage of personnel trained (%)
Mid-level to senior management personnel	Male	60	98%
	Female	60	98%
Lower management personnel	Male	50	90%
	Female	52	92%
Technicians and operation workers	Male	66	93%
	Female	56	98%

踐行社會協同發展

Practice The Cooperative Development Of Society

Labour standards

The Group follows the relevant provisions in the Labour Law and the Labour Contract Law and complies with the relevant rules of the International Labour Standards (“ILS”) to safeguard the labour interest.

The Group does not allow any form of forced labour and respects the right of workers to choose their profession freely. Labour contracts are signed with workers on an equal and voluntary basis. The Group does not require any employees to provide any collateral as a condition of 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 original identification document is verified to prevent any use of child labour (B4.1).

China Water respects workers’ right to rest. Work hours do not exceed the national standards, i.e. no more than 40 hours per week. Regulations for overtime work of employee is put in place. Any overtime work should be unanimously agreed with employees and compensated. No physical assault, mental oppression or verbal abuse to employees is allowed. The Group does not discriminate employees at work because of their age, gender, race and religion.

Activities for employees



An outward bound activity for employees organised by Heyuan Water Group Development Co., Ltd.



A hiking activity for employees organised by Jingzhou Water Affairs Group Co., Ltd.



A labour union activity of Yuncheng Hongyi Water Affairs Co., Ltd.



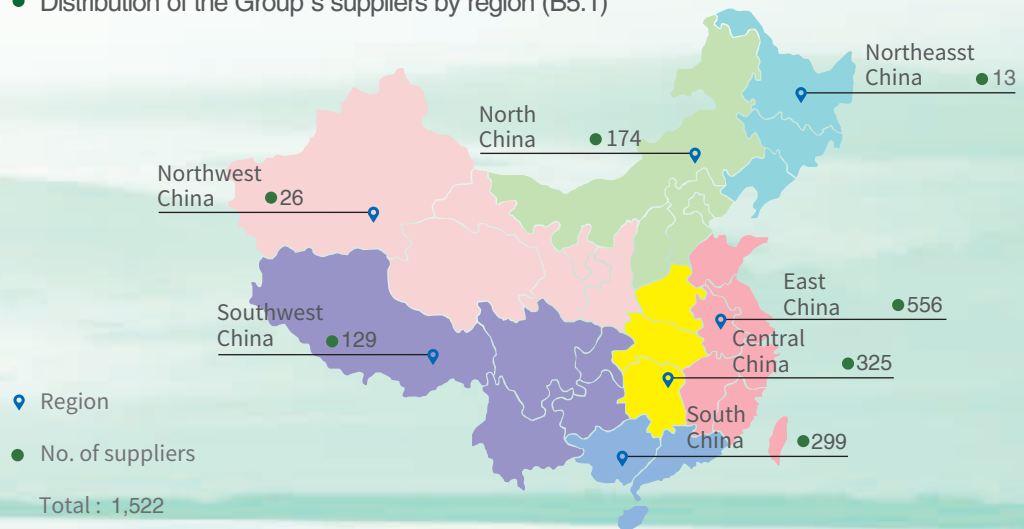
Each subsidiary of the Group has established a labour union as required. Employees may form or join a union of their own volition. Representatives of a union may negotiate with the respective company in respect of matters relating to the interest of employees such as employment, wages and benefits, training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

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

SUPPLY CHAIN MANAGEMENT

The Group regards suppliers as its important business partners and has established a close relationship with them. For the purpose of supply chain management, a supplier preliminary review system and a tender system for bulk materials are implemented to ensure product and service quality. The Group has established an electronic tender procurement platform for carrying out open tender, invited tender, tender renewal and tender request based on different procurement sizes and procurement features, which ensures the fairness and openness of the tender process. The Group has prepared a supplier catalogue for bulk materials for preliminary approval of the qualifications of suppliers. Criteria for approval include not only the scale, capability and quality of products and services of suppliers, but also whether or not suppliers have in place well-established policies in respect of environmental protection and social risk management. The supplier catalogue will be updated every year based on the cooperation status and suppliers' environmental and social performance. The Group seeks to work closely with like-minded suppliers who also place great emphasis on monitoring financial risks and social risks (B5.2).

• Distribution of the Group's suppliers by region (B5.1)



Note: The data above indicates the number of suppliers that have entered into a supply contract with the Group and its subsidiaries during the reporting period, excluding suppliers which made occasional purchases.

踐行社會協同發展

Practice The Cooperative Development Of Society

PRODUCT RESPONSIBILITY

As a public utility company whose principal businesses are inextricably related to the public and the environment, the Group considers product quality as its heart and the foundation of sustainable development. The Group implements product quality management in strict accordance with the relevant PRC laws and regulations and industry standards. The quality of tap water produced by its water supply companies must meet the Standards for Drinking Water Quality (GB5749-2006), whereas the discharge produced by its sewage treatment companies must meet the Standard of Pollutants for Municipal Sewage Treatment Plant (GB18918-2002).

Water plant open days

The subsidiaries of the Group regularly hold water plant open day activities. People from all walks of life are invited to visit the water plants to learn about the production process. The subsidiaries, being subject to all-round supervision by the society, will be open to reasonable suggestions, review product quality management measures, and at the same time convey the knowledge about tap water to the public.





Standardised management

The Group operates its water plants under a standardised management model and continuously refines its product quality control system. The Operation and Management Standards for Water Production issued by the Group specify the internal control procedures for each section of water processing and stipulate detailed management requirements on techniques, equipment, safety and site environment. On the other hand, it has formulated the Technical Specifications for Standardization of Laboratory to enhance management of laboratories. Hierarchical management is implemented for laboratories to comprehensively improve the reliability of water quality test. Currently, the Group has two full quality test laboratories covering 106 items and 8 quality test laboratories covering over 42 items. The Group conducts self-testing or third party-testing in strict accordance with the national water quality testing standards to ensure the water quality is up to standard (B6.4).

Laboratories



Full quality test laboratories covering 106 items

2



Quality test laboratories covering over 42 items

8



The water quality testing centre of Jingzhou Water Affairs Group Co., Ltd.

With regard to product quality control, the Group does not only meet current needs, but also takes into account long-terms development. It endeavours to optimise the water purification process to enhance water quality, water volume and water supply pressure guarantee rate by investing in construction of new water plants or renovation of old water plants. During the reporting period, no recall of products due to product quality, safety and health reasons was identified by the Group (B6.1).

踐行社會協同發展

Practice The Cooperative Development Of Society

🌱 Building a service brand of “China Water, Nourishing Thousands of Families with Love”

As one of the industry-leading companies, the Group always pursues the value of “satisfaction of customers, employees, the government and shareholders” and builds itself into the best service-based corporation. In order to keep providing better products and services to the society, the Group has engaged Allpku Management Consulting Group, a renowned management consulting firm, to jointly build a service brand of “China Water, Nourishing Thousands of Families with Love”.

The service brand of “China Water, Nourishing Thousands of Families with Love” is positioned as a flagship brand that embraces goodness, green and efficiency and serves as a beacon of the water industry in the pursuit of better service quality. Through a series of brand building works, such as staff mobilisation, preparation of implementation manuals, trainings and promotions, modification of the enterprise VIS/SIS (visual identity system and space identity system), and featured activities, a unified service concept is shaped up within the Group. United service image, united service rendering, united service system, standards and procedures are all available, which therefore enhances the awareness and satisfaction of the public, the government and related parties regarding the Group. A China Water-style service culture is fostered.

In the process of building the service brand, the subsidiaries speed up integration and optimization of resources and constantly improve the “one-stop” service content and external service commitment system. They comprehensively streamline all service-related working processes and rules for customer consultation, business conduction, complaint acceptance, maintenance and repair and gain trust and support of the public by virtue of its service concept of “Think good, Act right” (B6.2).

▶ Customer service centre

United service concept United service image United service rendering United service system, standards and procedures

Customer service centre of Jianghe Gangwu Water Affairs (Changzhou) Co., Ltd.

Customer service centre of Yuncheng Silver Dragon Water Affairs Co., Ltd.

China Water, Nourishing Thousands of Families with Love

Building the service brand of “China Water, Nourishing Thousands of Families with Love” is not only a current development need of the Group, but also its commitment to upgrading service quality, returning to the society and fulfilling its mission and responsibilities as an industry forerunner, which reflects China Water’s relentless pursuit of outstanding service quality.

► Building of the service brand



A training seminar for building the service brand of “China Water, Nourishing Thousands of Families with Love”



A service brand building activity held by Yuncheng Silver Dragon Water Affairs Co., Ltd.



A mobilisation seminar for service brand building of Yichun Silver Dragon Water Affairs Co., Ltd.



A service brand training organised by Xinyu Water Affairs Group Co., Ltd.

踐行社會協同發展

Practice The Cooperative Development Of Society

ANTI-CORRUPTION

The Group is on no account engaged in bribery, blackmail, fraud and money-laundering. It has a 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. The Group has established various sound systems for finance, investment, operations and audit to regulate group and individual behaviours. Anti-corruption education is provided to all staff including the management for nurturing self-discipline. The Group has established an audit committee and an internal audit department to systematically carry out comprehensive inspections for violations and set up a public whistleblowing hotline, enabling both internal and external inspections of the Group (B7.2).

During the reporting period, no litigation relating to corruption was identified by the Group (B7.1).

LOVE OUR SOCIETY, BUILD OUR FUTURE

As a socially responsible enterprise, the Group always upholds the business philosophy of “Water-oriented, Kindness to Society”. Under the service brand of “China Water, Nourishing Thousands of Families with Love”, the Group endeavours to learn about and respond to the needs of the community. As such, it takes real actions to return to the society by actively participating in public welfare and charitable activities and fulfils its corporate social responsibility by supporting community construction and development.

Facilitating urban and rural water supply integration

The issue of rural drinking water is always one of the highly concerned livelihood topics of every local government. As compared with urban water supply, rural water supply has the characteristics of extensive area, unevenly distributed users, longer pipelines, less water usage and greater investment, and has higher requirements on construction, operation and management as continuity of water supply and water quality pass rate are hard to be maintained. Yet, the Group stands up to such challenges. Leveraging its urban water supply platform, the Group has, to the full extent, commenced the integration of urban and rural water supply by virtue of its management competency, technological advantages and capital strength so as to benefit more rural users with convenient access to clean tap water through various means such as upgrade of rural water supply facilities, extension of urban pipeline network as well as entrusted management of operations.



The urban and rural water supply integration project in Xinyu City is close to completion

The Group entered into a concession agreement with Xinyu municipal government in July 2017 with a total investment of RMB1.3 billion. The construction is divided into two zones and eight water supply areas with a total daily water supply volume of 440,000 m³. 37 villages and towns and 320,000 rural households will be benefited from the project. It is expected that the construction will be fully completed in June 2019.

The urban and rural water supply integration project in Gao'an City is officially commenced

In order to address the rural water supply problem in Gao'an City, Gao'an municipal Party committee and municipal government intend to push forward a rural tap water construction project, the capital of which is raised from a combination of enterprise investment and government subsidy under a public-private cooperation. Gao'an Water Company Limited entrusts China Water Affairs Group Limited to conduct financing. It is expected that the goals of "urban and rural water supply integration as well as urban-like rural water supply" will be basically achieved in around five years starting from 2018.

The urban and rural water supply integration project in Ye County, Henan Province

In order to ensure that rural residents are able to enjoy basic utility services and narrow the gap between urban and rural development, the Water Resources Bureau of Ye County entrusts Yexian Guoyuan Water Affairs Co., Ltd., a subsidiary of the Group, to manage 18 village and town safe drinking water construction projects within the region. An urban and rural direct-to-home water supply safety system featuring same water network, same price and same quality will be established to benefit 730,000 rural population.

During the reporting period, China Water supplied water to 123 new villages and towns, with 590,000 new households and new population of 2,070,000 using water in villages and towns.



踐行社會協同發展

Practice The Cooperative Development Of Society

EXPANSION OF DUAL WATER SUPPLY BUSINESS

In response to people's pursuit of a better life in the new era, and in order to lead the trend of healthy lifestyle and promote the upgrade of the traditional water supply industry, the Group is enthusiastic to expand the dual water supply business in the places where it provides water supply service. By now, the Group has already established direct drinking water service companies in over 30 cities and invested in over 150 pipeline direct drinking water projects.

Capitalising on the favourable market reputation, strong financial strength, rich water management experience and comprehensive after-sale services, the Group provides users with convenient access to high quality and economical direct drinking water through the use of state-of-the-art international processing technologies and standardised management system. The pressing need of people regarding domestic drinking water which changes from safe water to healthy and quality water is met.

The Group has engaged in strategic cooperation in multiple areas to provide technological support for the direct drinking water business. In February 2019, it established Jiangxi Yinli Direct Drinking Equipment Co. Ltd. (江西銀麗直飲水設備有限公司) as a joint venture company together with ORIX Corporation and Toray Industries, Inc for self-development of the core technologies of direct drinking water and creating a top-ranking direct drinking water brand.

Direct drinking water



Direct drinking water companies established

30 /city



Number of pipeline direct drinking water projects invested in

150⁺





Co-develop with the community

Corporate growth and community development are complementary. The Group is deeply aware of the importance of contributing back to the community. It always pays attention and listens to the demands of the community and encourages engagement by employees. Understanding that the community is facing various difficulties, the Group seeks to develop a corporate culture of mutual support and unity.

The Group is firmly committed to supporting community infrastructure development, education and welfare affairs and environmental improvement. Local people and enterprises are given priority during employment and selection of suppliers. Subsidiaries of the Group regularly organise people-centred facilitation activities to provide services to the community, solve water supply and water usage problems, and promote tap water knowledge. People in need are provided with the necessary assistance. In response to the central government's call for precise poverty alleviation, the Group carries out various types of charitable activities as well as providing free water or water tariff discount to households receiving subsistence allowance. Care is shown to the community through visits to elderly care centres, orphanages and other social welfare institutions as well as donations and consolation activities. The Group sends love and warmth to thousands of families with its sincerity as good as water (B8.1/B8.2).

Community services



2019聯交所《環境、社會及管治報告》內容索引

Stock Exchange's ESG Reporting Guide Index

		“ Comply or explain ” Provisions	Recommended Disclosures	Pages
A. Environmental				
Aspect A1: Emissions	General disclosure			20
	A1.1	The types of emissions and respective emissions data		20
	A1.2	Greenhouse gas emissions in total		21
	A1.3	Total hazardous waste produced		21
	A1.4	Total non-hazardous waste produced		21
	A1.5	Description of measures to mitigate emissions and results achieved		22
	A1.6	Description of how hazardous and non-hazardous wastes are handled, reduction initiatives and results		21
Aspect A2: Use of Resources	General disclosure			22
	A2.1	Direct and/or indirect energy consumption by type		22
	A2.2	Water consumption in total and intensity		25
	A2.3	Description of energy use efficiency initiatives and results achieved		24
	A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency initiatives and results achieved		25
	A2.5	Total packaging material used for finished products		Note 1
Aspect A3: Environment and Natural Resources	General disclosure			26
	A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them		26

B. Social Employment and Labour Practices

		“ Comply or explain ” Provisions	Recommended Disclosures	Pages
Aspect B1: Employment	General disclosure			28
	B1.1	Total workforce by gender, employment type, age group and geographical region	■	28
	B1.2	Employee turnover rate by gender, age group and geographical region	■	29
Aspect B2: Health and Safety	General disclosure			31
	B2.1	Number and rate of work-related fatalities	■	31
	B2.2	Lost days due to work injury	■	31
B2.3	Description of occupational health and safety measures adopted, how they are implemented and monitored	■	31	
Aspect B3: Development and Training	General disclosure			32
	B3.1	The percentage of employees trained by gender and employee category (senior management, mid-level management)	■	33
	B3.2	The average training hours completed per employee by gender and employee category	■	33
Aspect B4: Labour Standards	General disclosure			34
	B4.1	Avoid child and forced labour	■	34
	B4.2	Description of steps taken to eliminate such practices when discovered	■	35

Note 1: Not meaningful



			“ Comply or explain ” Provisions	Recommended Disclosures	Pages
Operating Practices					
Aspect B5:	General disclosure				35
Supply Chain Management	B5.1	Number of suppliers by geographical region	■		35
	B5.2	Description of practices relation to enaging suppliers, number of suppliers where the practices are being implemented, how they are implemented and monitored	■		35
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General disclosure					
Aspect B6: Product Responsibility	B6.1	Percentage of products subject to recalls for safety and health reasons	■		36
	B6.2	Number of products and service related complaints received and how they are dealt with	■		37
	B6.3	Description of practices relating to observing and protecting intellectual property rights	■		38
	B6.4	Description of quality assurance process and recall procedures	■		Note 2
	B6.5	Description of consumer data protection and privacy policies, how they are implemented and monitored	■		37
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General disclosure					
Aspect B7: Anti-corruption	B7.1	Number of concluded legal cases regarding corrupt practices brought against the Company or its employees during the reporting period	■		40
	B7.2	Description of preventive measures and whistleblowing procedures, how they are implemented and monitored	■		40
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General disclosure					
Aspect B8: Community	B8.1	Focus areas of contribution	■		43
	B8.2	Resources contributed to the focus area (money and time)	■		43

Note 2: The relevant statistical process has not been established

報告概況

Report Overview

This report sets out the comprehensive and systematic review and overview of China Water Affairs Group Limited in the environment, social and governance aspects for the year 2019.

Reporting period: 1 April 2018 to 31 March 2019

Format of report: Prepared in accordance with the ESG Reporting Guide of Appendix 27 to the Main Board Listing Rules of the Hong Kong Stock Exchange and the Sustainability Reporting Guidelines (“G4 Guidelines”) issued by Global Reporting Initiative.

Publication: The report is prepared in both Chinese language and English language, which is published on the Group’s website (<http://www.chinawatergroup.com>).

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

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